EMERGING ADULT FINANCIAL CAPABILITY

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A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

Human Development and Family Studies—Doctor of Philosophy

2015

ABSTRACT

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The preponderance of studies investigating youth financial literacy has revealed that the majority of students are failing to demonstrate adequate knowledge of the consequences of debt and the importance of investing (Eitel & Martin, 2009; Garth, 2009). They are disproportionately failing within these key areas, where lack of knowledge will affect future success, health, and well-being (Avard, English, Manton, & Walker, 2005; Chen & Volpe, 1998). This study was a multiple manuscript, mixed method examination of emerging adult college students' financial capability (knowledge, attitudes, behavior) in the areas of credit/debt (C/D) and savings/investing (S/I) and the influence of parental socialization on the students' knowledge, attitudes, and behavior. This research was guided by life course and emerging adult theories.

Students from a large Midwestern university formed the sample for both quantitative and qualitative portions of the study. The completed quantitative measure was the 156 question Emerging Adult Financial Capability Survey (EAFCS) (Jorgensen, 2013). The survey was administrated across six semesters in a pre-and post-test design to students enrolled in a personal financial course. A total of 855 completed pre-and post-test sets were used for analysis. Structural equation modeling (SEM)—latent change, mediation, and structural regression models—were used to analyze the 12 proposed research questions and hypotheses across both manuscripts. Previous to running the full models, the data were cleaned and organized, then exploratory factor analysis (EFA), item response

theory (IRT), confirmatory factor analysis (CFA), and tests of measurement invariance were run. Following the quantitative data collection and analysis, two qualitative focus groups were assembled to provide depth, rich description, and triangulation to the study as a whole. The sessions were held on campus and lasted approximately two hours. Each group had seven or eight student participants. In each group session introductions were made, informed consent and rules were reviewed, and a short demographic survey was completed, prior to the semi-structured discussion. Notes and observations were recorded, and transcripts were coded using an opening-coding scheme.

Major findings from the quantitative analysis include: (a) behavior change over time was limited, aspects of behavior changed at different rates, in different relationships, and by different predictors; (b) change in one area (knowledge, attitudes, and behavior) often related to change in another area; (c) students with high time one scores on C/D and S/I attitudes and behavior had little change overtime; (d) financial attitudes were a significant mediator of S/I knowledge and behavior, much more than C/D knowledge and behavior, (e) explicit parental financial socialization was a greater predictor of knowledge, attitudes, and behavior than implicit socialization, and (f) parental financial experiences had a negative relationship (significant and non-significant) with all financial capability variables except C/D behavior related to holdings and usage.

The qualitative results supported and elaborated on the quantitative findings. Overarching themes from both focus group sessions include: (a) the positive nature of saving; (b) the negative nature of credit; (c) developmental appropriateness of financial teaching and learning, (d) the need for change in collegiate education, and (e) the influence of early education and experience through financial socialization.

This work is dedicated to my loving, supportive, and amazing family.

ACKNOWLEDGEMENTS

I first want to thank God for His mercy, grace, and loving tenderness. I have a debt of gratitude to my family who has given unending support and love for me throughout this journey. To the one, two punch that is my mom and dad. Mom, thank you for always believing in me and teaching me the sky was limit. Thank you for being my greatest cheerleader and a support that not only helped verbally but also physically, mentally, emotionally, and spiritually. Dad, thank you for being an example of the greatest student, someone who truly has a lust for learning. Thank you for the constant lessons, for the tender patience, and for teaching me to have fun when it was all over—you truly taught me to work hard, to play hard, and to ring out the sponge. Thanks to my sister, you are an inspiration to me. Thank you for being there for me with love, laughter, wisdom, and wine. To your beautiful family, they always put a smile on my face. Joseph, the greatest amount of thanks is due to you! You are my best thing and the reason I could survive this! Thank you for your love, kindness, patience, and all of the ridiculous fun! I couldn't have done this without you. Thanks must be given also to my grandma and extended family. It takes a village and you all are the best.

I would also like to express my gratitude and appreciation to my committee and advisor. Dr. Ames, thank you for the endless help and guidance, I have learned so much from you. You have been a wonderful mentor who has taught me so much both personally and professionally—thank you. Drs. Carolan, Onaga, and Zhang thank you for your support and input. This process was valuable and enjoyable because of this amazing committee.

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CHAPTER ONE: INTRODUCTION

Statement of Problem

The recent economic issues that have plagued the country have strong implications for financial education, literacy, and capability for individuals across the life course (J. J. Xiao, Serido, & Shim, 2012). The reach of the Great Recession was vast, and its influence extended to individuals and families of all races, ages, and socioeconomic backgrounds. Of all of the American recessionary periods that have followed the Great Depression, the recent Great Recession (2006-2009) produced a staggering combination of unemployment in record length, breadth, and duration, loss of financial stability, and inflated rates of home foreclosure (Pew Research Center, 2010). The Pew Research Center (2010) summarized the effects of the Great Recession as the "downsizing of Americans' expectations" (Pew Research Center, 2010). Research has revealed several groups were disproportionately affected by the recent crisis. For example, mature workers have dealt with prolonged durations of unemployment, while emerging adults throughout the recession had the highest level of unemployment (Bureau of Labor Statistics (BLS), 2014; Rix, 2013). During the Great Depression youth also experienced disproportionate levels of unemployment, higher than any other segment of the economy (Mirel & Angus, 1985). This same phenomenon was seen during World War II; emerging adults had greater levels of unemployment especially when compared to middle-aged adults (Ayres, 2013). Throughout the Great Depression, youth unemployment was as high as 40%, affecting four million young people 16-24 years of age. This devastation, often referred to as the “youth problem” or “youth crisis,” had lasting financial and employment effects on this cohort (Mirel & Angus, 1985).

This recent crisis also took a toll on emerging adult students attempting to launch from college and enter the workforce (Ellis, 2014; Stein et al., 2013). Emerging adults post recession have on average little saved as an emergency fund, or as a basis for retirement, and continue to rely on loans and their parents or families for financial support (Ayres, 2013). A survey sponsored by(Charles Schwab, 2011) found that 93% of emerging adults' families had been affected by the Great Recession, with 38% stating the effects were severe and forced a change in financial behavior and mindset. The relationship between this particular period of the life course and heightened times of economic stress created the impetus for this study.

Research has shown that financial literacy, defined as knowing basic financial components and managing finances effectively, is essential to successful adult life (Shim, Barber, Card, Xiao, & Serido, 2010). Further, college students are not "making the grade" with their level of financial ability (Eitel & Martin, 2009; Garth, 2009). This financial illiteracy has been referred to as a present day epidemic (Garth, 2009). (Gelman, 2010) argued that this epidemic of illiteracy could be considered one cause of the recent financial crisis. Young people lack adequate financial knowledge, struggle to apply future financial planning to their lives (e.g., savings, investing, retirement planning), and fail to fully understand the consequences of their financial decisions (e.g., poor credit or money management, high debt levels) (Avard et al., 2005; Borden et al., 2008; H. Chen & Volpe, 1998). Careless financial behaviors such as excessive spending, mounting debt levels, and failure to keep to a budget have been associated with personal and financial stress and strain (Chan, Chan, & Chau, 2012). When individuals do not properly manage their finances, Chen and Volpe proclaimed, it is a failure of society and an issue that society has to bear. (Cull & Whitton, 2011) further suggested that financial literacy is a social welfare issue. “In the last decade, the need for financial education has become a policy issue, in the context of widening community access to increasingly complex financial products and services, rising levels of household debt..." (p. 99).

With the rising cost of education and the increasing use of credit by college students, financial aptitude and college-level financial education is being vigorously researched (Angela C. Lyons, 2004). Financial education may work as a protective factor, helping young people responsibly manage their financial lives (Borden et al., 2008). To this end, as (Chan et al., 2012) pointed out, there are many questions that must be investigated. These include factors that influence financial literacy, the effectiveness of financial education, the relationship between students financial knowledge, attitudes, and behavior, and why some emerging adults have higher levels of understanding and greater success than others. Multiple entities, from banks to schools to policymakers, have a vested interest in creating and offering financial education (Bartholomae, Fox, & Lee, 2005). Further, the fight to eradicate financial illiteracy is one that requires a coordinated effort on behalf of family units, formal education, researchers, political entities, investment/financial bodies, and social nonprofit agencies. Financial education must be collaborative in the sense that no one person, organization, business, or educational outlet can provide comprehensive coverage (Goodman, 2012). An approach featuring all vested parties is a necessary way forward.

Financial Education

The aim of formal education should be to, "better prepare new students for non-academic challenges." Among these "challenges" are preparing for the financial world—

becoming a good money manager, handling a budget, and investing (Chan et al., 2012). Every academic discipline should provide all students basic knowledge to help them enter the adult world, and financial education should be an integral part of that goal (Eitel & Martin, 2009). The life course and ecological implications of financial education have led many researchers to conclude that educators, university campuses, and their associated officials have a moral imperative to work toward education that transcends topical areas, facts, and figures. The obligation is toward creating actualized, equipped citizens. Cull and Whitton (2011) placed this imperative in a financial context:

> With the large number of students progressing through universities at a time that for many students also involves making their first substantial financial decisions, universities are well positioned to provide personal finance to students...universities play a citizenship role in developing students to become effective participants in society and the economy (p. 110).

Financial education programs, whether general education, targeted programs, or home ownership programs, have for too long been created, promoted, and offered as silos, isolated from one another (Bartholomae et al., 2005). Overcoming financial illiteracy must come from multiple sources in unison: educators, policy makers, financial professionals-all those who have influence, power, and the tools to increase financial knowledge and create change (Barry, 2013). "It is a disservice to students to train them well to be good accountants or school teachers that can earn a living to support themselves or their families, but leave the students ignorant as to the basics of investing, insurance, and home mortgages" (Hanna, Hill, & Perdue, 2010, pp. 35-36).

One universal, standardized definition does not exist for financial literacy or financial education. However, a multitude of definitions have been created and used throughout the research literature (Cull & Whitton, 2011). Bartholomae, Fox, and Lee (2005) described financial literacy in the following way, "Financial literacy denotes one's understanding and knowledge of financial concepts and is crucial to effective consumer financial decision making" (p. 195). Financial literacy should include understanding and functioning at both a higher order level (e.g., buying a home and obtaining a mortgage, setting up a pension or retirement fund) and within day-to-day operations (e.g., household budgeting, handling credit and interest rates) (Krizek & Ing, 2012). The Organization for Economic Co-operation and Development (OECD) defined financial literacy as "a combination of awareness, knowledge, skill, attitude and behavior necessary to make sound financial decisions and ultimately achieve individual financial well being" (Atkinson & Messy, 2012). They also suggested that there are three key components to financial literacy—financial knowledge, attitudes, and behavior. Specifically, financial literacy should cover aspects of budgeting, responsibly handing credit, setting goals (short, intermediate, and long-term), investing, and navigating financial products and markets (Chan et al., 2012; H. Chen & Volpe, 1998; Hanna et al., 2010).

Financial education is a broad concept that assumes many forms and structures (Bartholomae et al., 2005). Most institutions of higher learning do not promote financial education to the majority of students (H. Chen & Volpe, 1998). However, studies have found formal education to be potent, "…financial education programs have been identified as a key to improving financial knowledge and promoting personal financial responsibility" (Borden et al., 2008). Within financial education many foundational concepts must be presented, for example: budgeting, saving, investing, credit usages and terms, principles and rules of borrowing—culminating in the practice of healthy money management (Chan et al., 2012). Bartholomae et al. (2005) described educational efforts as fitting into three distinct categories: (a) financial education programs covering a broad spectrum of topics—budgeting, savings, investing, and credit and debt management; (b) targeted financial education—saving for retirement, creating a college savings plan, saving for long-term goals; and (c) home ownership—pre and post purchase and foreclosure counseling (Bartholomae et al., 2005). Throughout this study, financial literacy will be used to refer to the possession of personal financial knowledge and concepts, while financial education will represent the systemic instruction of a more macro financial level.

Debt: Consumer Credit and Student Loans

After graduating from university many young adults are saddled with debt—both consumer and student loan. This level of debt comes at a time when emerging adults face high financial responsibility and low financial flexibility. Emerging adult college students take on high levels of student loan debt with the expectation that the education they received will further their career and afford them better opportunities and higher paying jobs. This assumption is based upon the "typical" trajectory of assuming financial responsibility (e.g., mortgage debt, high consumer debt) and then obtaining financial freedom (e.g., higher savings, higher salary, paying down debt). However, this typical age-graded trajectory is contingent on level of education or training, level of financial literacy, and the strength of the economy (Dilworth, Chenoweth, & Engelbrecht, 2000; Supiano, 2014).

A salient problem recent graduates face is the health of the economy. During the span of 2005-2013 student loan debt increased on average by 35%, while job market availability and earnings fell (Izzo, 2014). In 2012, over two thirds of students earning a bachelor's degree borrowed money from governmental, private, or parent loans to fund their studies (A. Martin & Lehren, 2012). Despite this, as (Ellis, 2013) pointed out, the alternative to a college education is no more promising. According to Eitel and Martin (2009), "A college education acts as a conduit to higher social and economic class as well as lifetime financial stability" (p. 616). Current college students estimated future earnings are significantly higher than the level of income reported by non-students. This was true even after controlling for non-students with a previously earned college degree (Taylor & Overbey, 1999). In 2012, individuals without a college degree had an unemployment rate more than double that of individuals who graduated with their degree (Ellis, 2013). The cost of education must be weighted with the opportunity created by completion of a colligate degree.

Financial Knowledge, Attitudes, and Behavior

Financial knowledge is only part of learning and promoting financial literacy, "...for financial literacy training to work, it must also tackle students' attitude and behaviors" (Supiano, 2014, p. 1). Numerous studies have investigated the acquisition and influence of financial knowledge, attitudes, and behavior on an individual's personal financial life. Studies have found a reciprocal relationship among these aspects of financial literacy. Dilworth et al. (2000) described the multidimensional nature of financial knowledge, attitudes, and behavior, "...complex psychological factors impact individual conceptualizations of money and thereby may impact actual monetary expenditures" (p.

33). Individuals' attitudes toward their finances directly affects their spending, borrowing, and investing behavior (Chan et al., 2012). Further, the results presented in Chen and Volpe (1998), suggested that the higher the level of financial knowledge, the greater the influence on financial attitudes and decisions. Shim et al. (2009) revealed that financial knowledge influenced financial attitudes, and they in turn influenced financial behaviors. Their study found that financial knowledge can both directly and indirectly influence financial behavior. Monticone (2010) corroborated the fact that higher levels of financial knowledge led to greater financial planning and preparation and thus a healthier financial life. For Borden et al. (2008), financial knowledge on its own was not a predictor of either risky or effective financial behaviors. This may have been due to the potential mediating effects of financial attitudes, or in response to the seminar length and format employed. Potentially, the seminar model was too short or lacked adequate opportunity for concept application.

Collins and O'Rourke (2010) stated, "...while knowledge gains are promising, the ultimate goal of financial education is behavior change" (p. 488). The authors found that of the bankruptcy education programs they analyzed, three induced positive behavior change and growth of financial knowledge post counseling. In addition, each of the programs that focused on pre-purchase homeownership education reported growth and improvement post counseling. They concluded, "the literature holds promise for financial education and counseling as a strategy for consumers in a variety of financial contexts" (p. 492). Further, they stated of their success:

> It may be that financial education and counseling services are optimized when they meet each client's unique needs over time, rather than when they are delivered in a standardized format for a predetermined duration (p. 494).

Financial stress and strain and its effects on marriage and family relationships have been well documented in the research literature (e.g., Conger et al., 1990; Dakin & Wampler, 2008; Kinnunen & Feldt, 2004). Financial stress and strain often resonate from either a situation out of an individual’s control (e.g., economic downturn, un-or underemployment) or an internal decision or lack of knowledge on a particular topic (e.g., financial mistake, irresponsible financial behavior) (Taylor & Overbey, 1999). Financial stress and financial well-being represent two ends of a continuum, and levels of financial capability and experience affect the occurrence and intensity of both. In an investigation of Asian students’ financial well-being, Chan et al. (2012) found that students who reported high levels of financial confidence and control also demonstrated positive money management practices. Shim et al. (2009) found that financial knowledge, attitudes, and behaviors were all related to their participants’ personal level of well-being, which in turn affected life satisfaction. Domonell (2011) remarked, "A good way to get people thinking about financial literacy is to have them realize it's part of their wellbeing" (p. 54). Gutter and Copur (2011) found a relationship between student financial well-being and financial behaviors when controlling for demographic characteristics. Gudmunson & Danes (2011) surmised that financial behavior is a better predictor of objective well-being, and in contrast financial knowledge, attitudes, and capability are better predictors of subjective well-being. Financial well-being is a concept with both objective and subjective connotations. For some, financial well-being can be determined by level of income, savings, and positive financial ratios, and for others financial well-being can be understood through measures of financial satisfaction and adequacy (Gudmunson & Danes, 2011).

One of the hypotheses set forth by Xiao et al. (2009) was that a behavior in one domain, financial behavior, can predict satisfaction in a related domain, financial satisfaction. This in-turn can affect overall life satisfaction. In this study there was a clear link between financial behaviors, financial satisfaction, academic performance, and academic satisfaction. All of these factors contributed to life satisfaction in the college student population. Students who adopted positive financial behaviors had increased levels of financial satisfaction. In turn, positive financial behaviors positively affected academic performance and finally academic satisfaction. The results revealed that domain behavior leads to domain satisfaction, and domain satisfaction contributes satisfaction in other domains, and ultimately life satisfaction.

Assessing Financial Literacy

The preponderance of studies investigating the college experience (e.g., financial literacy, degree completion, career success) use quantitative survey measures with large-scale samples (Ouimet, Bunnage, Carini, Kuh, & Kennedy, 2004). Gudmunson & Danes (2011) reviewed popular journal publications for studies that combined a family focus with research on financial literacy. The authors found several well-known journals routinely presenting this content (e.g., *Family and Consumer Sciences, Journal of Family and Economic Issues,* and *The Journal of Consumer Affairs*). In 100 studies, over a 40-year span, college students were the most popular sample. The average sample size approached 1,000 (999-mean, 342-median), the vast majority of which were defined as cross sectional (86%), and only eight percent were based on qualitative methods.

There is no universally accepted measure for assessing college students' financial knowledge and capability (Eitel & Martin, 2009). However, several popular measures have been commonly used or adapted. Examples of these are: the Jump$tart Survey(s), National Endowment for Financial Education (NEFE) Evaluation Toolbox, the US Treasury Department's MyMoney.gov and Money Habits Quiz, and the National Financial Capability Study (e.g., Eitel & Martin, 2009; Jorgensen, 2013; McCann, 2010). Ouimet et al. (2004) stated that smaller local surveys often borrow and adapt questions from national surveys. McCann (2010) did this in her study of financial literacy in the New Jersey school system. She took sets of questions from other credible surveys (e.g., Jump$tart 2006 Survey, NEFE Toolbox) and created a twenty-question measure. Responses were evaluated and given one point for being correct and a zero if incorrect. Avard et al. (2005) followed a similar course of action. They produced, based on popular measures and expert opinion, a twenty-question assessment. Here, correct answers garnered five points, for a total of 100. Seyedian & Yi (2011) adapted and administered the Jump$tart Coalition's demographic and financial characteristic measure. The authors used dummy variables (e.g., ethnicity, employment history, credit card use) and multiple regression analysis to identify covariates influencing their pre-and post-test scores.

Gelman (2010) proposed several criticisms of the Jump$tart survey. His critiques included: (a) the length of the measure—in his view, 31 questions is too short; (b) breadth of the measure—it includes everything from investments to credit; and (c) the quality of the questions—questions are open to being skipped or having participants guess. In fact, the author went on to say the questions included on the Jump$tart quiz are "a mix of obvious questions, trivia, and weird things that look like trick questions, along with some items that actually might be useful" (p. 2). Regarding the construction and aim of the Jump$tart survey, Gelman (2010) stated there were many questions that could have multiple correct answers and that the survey really assessed test taking ability rather than financial literacy.

Financial knowledge (objective fact) is often assessed using closed-ended questions with correct answers combined additively. The scores may be put in rank order, organized into groups (e.g., percentage correct greater or less than the median), or evaluated in light of independent variables (IV) (Avard et al., 2005; Chen & Volpe, 1998; McCann, 2010). However, difficulties arise when financial knowledge is the primary dependent variable (DV). On its own, it fails to acknowledge the varied nature of financial literacy. The concept of financial capability moves beyond a purely cognitive understanding. It is a composite of social factors, personal characteristics, socialization, and the influence these factors have on financial knowledge. The term financial capability transpired because of the need to recognize additional factors influencing financial knowledge, attitudes, and behavior (Gudmunson & Danes, 2011; Peng et al., 2007).

At a basic level, all emerging adults need to understand financial cause and effect, opportunity costs, compound interest, the relationship between risk and return, and the concept of limited resources (Avard et al., 2005). What is desired is a measure that attempts a comprehensive approach, and includes various facets of financial ability (knowledge, attitudes, behavior—capability). Topics covered may include: objective knowledge, habitual action, subjective perception, future orientation, and demographic data (Jorgensen, 2013). In their investigation of college students' personal financial lives, Chen & Volpe (1998) used a global measure of financial literacy that included students' subjective opinions concerning monetary use. This was accompanied by questions of financial knowledge, attitudes and decisions, and demographics. Others have broken their measure into domains such as *attitudes* (e.g., "Is it important for you to spend less than you earn?"), *knowledge* (e.g., "What happens to bond prices when interest rates go up?"), and *behavior* (e.g., "How much do you have in savings or investments, excluding retirement savings?"). These categories are then further associated with various financial competencies such as savings and retirement planning, debt and credit, insurance, general money management, budgeting, and investing (Jorgensen, 2013).

Measure construction must be done in such a way that quality, clarity, reliability, and validity are well established. Survey measures attempting to gauge levels of financial literacy need to consider the answer choices presented. Hill and Perdue (2008) stated that most assessments of financial literacy use a multi-choice answer format that includes incorrect distractors and one correct answer choice. The authors point to psychometric theory, which states that multiple incorrect distractors increase the complexity and reliability of any multi-choice question. However, these incorrect distractors only boost reliability when they are well thought out and not easily ruled-out. Random choice will render some correct answers. In fact, the authors cited the SAT and GMAT and how they are scored, a process that corrects for a randomly guessed answer choice. The authors stated that when there is a question structure of five possible answer choices the average score by participants who randomly guess would be 20%. This presents a methodological concern, as unknowing participants with random guessing could raise the overall average score. They suggested adding an "I don't know" answer choice, which would provide participants an "out," an opportunity to admit their lack of knowledge instead of guessing

(Hill & Perdue, 2008). Other studies have revealed that after piloting their measure an answer choice such as, "I don't know" or "not applicable" was added. This created greater ease and speed for the participants working through the measure. It also cut down on issues of missing data (Avard et al., 2005; Krizek & Ing, 2012). Hill and Perdue (2008) stated that the "I don't know" answer choice is as valid as the correct and incorrect answer choices, as it adds greater sophistication during analysis. With this answer choice, researchers can determine a *true* overall score and correct for random guessing.

Survey measures are commonly presented online. Numerous choices exist for this, from services with free options such as *Survey Monkey* to more sophisticated paid services such as *Qualtrics* (Jorgensen, 2013; McCann, 2010). When working with college students, web-based surveys tend to be the efficacious choice (e.g., Chan, Chan, & Chau, 2012; Gutter & Copur, 2011; Shim, Xiao, Barber, & Lyons, 2009). However, overall return rates may be lower with online measures unless incentive is built-in. Incentives could range from drawing for prizes (e.g., gift cards), to small tokens (e.g., food, nominal payments), or course credit. McCann (2010), built her assessments into the schedule of work in both her control and treatment classrooms. Gutter and Copur (2011) conducted a nationwide assessment of financial knowledge and well-being through web surveying and email recruitment. While the study successfully amassed 15,797 completed surveys, the authors noted that online surveys typically have lower *overall* response rates. The surveys returned were out of 172,412 invitations (10% response rate).

Assembling focus groups during either the piloting or post survey distribution provides researchers opportunities to add to their study's richness. Contributions from this process include: (a) checking survey clarity and validity; (b) verifying participant interpretation, meaning making; (c) expanding upon and including detailed explanations; (d) examining and addressing gaps in the measure; and (e) providing feedback on important topics, topics presenting difficulty, and delivery methods (Colucci, 2007; Ouimet et al., 2004; Ritchie & Lewis, 2003). This process could take the form of a structured review (e.g., researcher lead review of survey categories) or having the group complete the survey and then discuss their results and immediate reactions (Ouimet et al., 2004). The Securities and Exchange Commission (2012) held a total of 12 focus groups to inform the creation of their online survey. The overall project was in response to the Dodd-Frank reform and intended to assess investors' literacy. The addition of focus groups, "cognitive interviews," and expert advice, enhanced the quality of this national assessment of college students (Securities and Exchange Commission, 2012, p. 237). Piloting with expert feedback also was done by Harrelson (2011), who allowed the measure to be scrutinized for clarity and intent.

While it is not the dominant methodological choice, qualitative approaches have been used to assess financial education and literacy levels. Many of the examples include the use of semi-structured interviews, case studies, participant observation, and focus groups (Colucci, 2007; Matthews, 2005; Starks & Trinidad, 2007). Harrelson (2011) conducted a case study analysis with four participants, each representing a unique case. The aim of the study was evaluation of financial curriculum in a particular public high school. The author defended his choice of methodologies saying, "Qualitative data were needed in order to provide as complete an understanding as possible for this inquiry" (p. 78). Four students (out of 50 surveyed) were interviewed four times, each over a series of months. Sprow (2010) also conducted an evaluative, case study analysis. The study was comprised of classroom observation, interviews with learners and educators, and content analysis. The choice of qualitative methods in these studies was purposeful. The authors stated that they wanted to hear the participants' voices, to see their perspectives, and to delve deeper into their stories (Harrelson, 2011; Sprow, 2010).

While there are a myriad of choices, financial literacy is often assessed through quantitative survey measures. Quantitative methodology provides researchers with data representing distributions, statistical relationships, relationships between variables, probability of occurrence, and information surrounding cause and effect. The addition of qualitative methods provides greater depth, detail, and richness to understanding the survey measure results. When quantitative methods are combined with qualitative, these methods are more than the sum of their parts (Babbie, 2008; Gilgun & Abrams, 2002; Matthews, 2005).

Focus groups. The use of focus groups in academic settings has increased in popularity in the last two decades. Focus groups may work particularly well with younger age groups, as they play on the idea of group interaction. In the group setting, individuals are able to corporately discuss important issues (Colucci, 2007). The composition of the group has important implications for group dynamics. It is important to have diversity in the group, which will help to stimulate an active discussion. However, a degree of homogeneity is also important. Sameness tends to make participants feel comfortable and at ease. For example, in the university setting, the sample should reflect classroom and university demographics (heterogeneity), and be made up of individuals who are in or have taken the same course (homogeneity) (Umana-Taylor & Bamaca, 2004).

Ritchie & Lewis (2003) recommend using smaller focus group sizes with college students. A balance must be struck within the group. The researcher must grapple with encouraging group confidence and participation and staving off intimidation and vacancy. Other factors especially salient with emerging adult samples are high levels of attrition and group sizes that are too large, resulting in the bystander effect (not engaging due to the belief others will) (Creswell & Clark, 2007; Daly, 2007). In order to meet the desired group size, Umana-Taylor & Bamaca (2004) suggested over-recruiting. They reported over-recruiting by as much as 100%. However, their general recommendation was a recruitment level that exceeds the desired outcome by 50%.

Research utilizing focus groups should welcome the addition of technology. Survey measures hosted and conducted online and focus groups held through *Skype* or other online meeting forums could increase participation and application to younger demographics. Recruitment, especially of emerging adults, is another area where technology can assist. Drafting participants through electronic advertisements, email, and social media are examples (Umana-Taylor & Bamaca, 2004). Both online survey measures and focus groups offer a large reach (e.g., number of participants and richness of data) within a cost effective framework (Babbie, 2008; Umana-Taylor & Bamaca, 2004).

Mixed methodology. The exploration of human development across the life course is strengthened by the use of mixed method research (Kok, 2007). Mixed methodology is a way in which social science research can be maximized, drawing on the requisite strengths of both quantitative and qualitative approaches (Ambert, Adler, Adler, & Detzner, 1995; Umana-Taylor & Bamaca, 2004). According to Ambert et al., "Qualitative work should vividly color in the meanings, motivations, and details of what quantitative research can convey…in broader aggregates" (p. 885). The research approach, whether quantitative or qualitative, plays a vital role in the goals and outcomes of a study (Bartunek & Myeong-Gu Seo, 2002). Eitel and Martin (2009) stated, "Combining the two methodologies creates a layer of richness that communicates depth as well as provides triangulation across several different data sources" (p. 620).

Mixed methodology can be used to effectively assess a base of knowledge and then probe further into the meaning behind answers given. Creswell & Clark (2007) spoke of the purpose of a mixed method design, "…the use of quantitative and qualitative approaches in combination provides a better understanding of research problems than either approach alone" (p. 5). Levels of financial aptitude can be measured and compared (baseline and change), then focus groups convened to ask the how and why questions. An effective inquiry into emerging adults' financial literacy could use the structure of a quasi-experimental study (control and treatment groups, pre-and post-tests) paired with the depth of qualitative focus groups. This would effectively create an explanatory, dual phase, mixed method design. This design includes the collection of quantitative data followed by qualitative. In this two-step process, using both methods in sequence helps facilitate the following: (a) the quantitative data informs the qualitative questions asked, (b) the quantitative data is buttressed by the qualitative, and (c) triangulation is achieved (multiple sources of data and levels of analysis) (Creswell & Clark, 2007; Daly, 2007; McKinne, 2008).

Within research methodology, the aim is for the academic community to embrace both quantitative and qualitative methods as equally important. There are distinguishing strengths, similarities, and marked differences with both quantitative and qualitative approaches. Reaching the goal of "methodological pluralism" (embracing quantitative and qualitative methods) must take place not only in the scientific community, but also at the level of funding and publishing (Gilgun & Abrams, 2002, p. 49). To this end, increased training in mixed method design must be given to young researchers (undergraduate and graduate students), journal reviewers, and program officers. Without the proper training, the goal of these methods used in concert with one another will not be achieved (Gilgun & Abrams, 2002). The fusion of these methodological traditions, and application to the study of emerging adults' financial literacy can contribute to the existing literature.

Summary of the Statement of Problem

Emerging adults have struggled throughout the Great Recession. High levels of unemployment and financial stress and strain combined with limited financial knowledge and resources to create vulnerability within this population. Financial education can function as a protective factor, increasing awareness, providing financial knowledge, and allowing emerging adults the ability to hone their financial skills. This increases the chances that the individual can thrive in the financial world. However, financial education and research efforts, in order to be effective, must recognize the multiple facets of financial capability and focus on knowledge, attitudes, and behavior and their reciprocal nature. For researchers, mixed methodology provides the ability to investigate this timely issue, providing breadth and depth of detail. This study used a mixed method approach, assessing financial capability through a quantitative financial aptitude measure and qualitative focus groups.

Theoretical Framework

A variety of disciplines have contributed to the investigation of the passage from childhood dependence to adult responsibility. This research has examined an array of questions. What is maturity? How do we categorize adult status? When does adolescence end and adulthood begin? A predominant view is that there is a distinct life course stage between adolescence and adulthood. This stage is referred to as emerging adulthood (EA). During this transitional period, young people are readied for the next stage—becoming an adult (Arnett, 1994, 1998, 2000a, 2001). Throughout this paper, emerging adulthood will be referred to as EA.

Life Course Theory

Life course theory is a holistic, multidimensional, and integrative approach (Aldous, 1990; Billari, 2009). It is considered cross disciplinary and applies an interdisciplinary lens to the study of individuals and families (Settersten, 2002). Life course primarily focuses on individuals within context (White & Klein, 2008). The theory contains multiple suppositions and key concepts related to human development and behavior. These include: (a) individuals are social beings, in relationship with others around them as well as their environment; (b) individuals are actors with linked lives; there is an interdependence between individuals; (c) age is a marker of life status; (d) historical context is considered influential; and (e) the temporal realm is an important factor, the timing of personal and historical events is acknowledged (Aldous, 1990; Elder, 1995).

Focus on the timing of events and timing in context is shared by other family theories (e.g., ecological theory) and theories of development (e.g., emerging adult theory). These theories address individual and relational change over time. Their theoretical presumptions are shaped by social, cultural, interactional, behavioral, and biological realities (Elder, 1995). However, there are marked differences in how issues are framed. Within the ecological framework, the organism, its characteristics, and interactions with its environment are central. In the life course perspective the process by which the environment affects the organism is the main focus (Elder, 1995). Life course theory forces researchers to consider multiple influences (e.g., historical events, interpersonal experiences, demographic and institutional changes, and role transitions) and their cumulative effect on an individual (Aldous, 1990).

Emerging Adult Theory

Developmental theory notably changed in 1904 when G. Stanley Hall set forth the theory of adolescence as a distinct developmental period marked by "storm and stress" (Hall, 1904). This represented a major theoretical adaptation that influenced the scientific community, the working world (child labor laws), and education and politics (Carmen, 2009). However, this period no longer represents a time "to enter and settle into long-term adult roles" (Arnett, 2000b, p. 268). The emerging adult perspective is predicated on the fact that some young people delay adult role transitions, and experience extended periods of exploration (e.g., Arnett & Taber, 1994; Arnett, 2000a, 2001; Nelson & Barry, 2005).

The study of the transition to adulthood has a long history in the disciplines of anthropology, sociology, psychology, and human development (Arnett, 1994, 1998; Carmen, 2009). Arnett unveiled emerging adult theory in his publication "*Emerging Adulthood: A Theory of Development from the Late Teens through the Twenties*." The stage of EA is classified by several elements: (a) *process*—there is no distinct event or induction into adulthood, (b) *exploration*—there is experimentation with various adult roles (e.g., intimate partnerships), and (c) *preparation*—adult responsibility is practiced and gradually assumed (Arnett, 1994, 1998; Carman, 2009).

A vital aspect of emerging adult theory is its elemental sensitivity to demographic and social change. The cultural importance of marriage and parenthood has diminished over the years. As a consequence, these transitions have been postponed until later in the life course (Arnett, 1998). The median age at first marriage has steadily risen since 1970. The baby boomer generation's median age for onset of marriage was 23 for men and 21 for women. In 2011, the median age of onset was five to six years later (men-29, women-26) (Henig, 2010; US Census, 2011). The average age of women having their first child also has risen. In the time from 1970-2006 the average age went from 21 to 25 years (Martin et al., 2012). Marriage and divorce rates over an eleven-year period (2000-2011) have seen consistent decline (CDC, n.d.). These trends demonstrate a noticeable forestalling of adulthood roles. Further, there is less pressure on emerging adults to assume adult roles. Options such as premarital sex, cohabitation, fertility treatments, increased opportunity for women in the workforce, and extended education facilitate a later transition to adulthood (Henig, 2010).

These demographic changes are profoundly influenced by culture, both at a micro level (family culture) and a macro level (culture of the country of origin). Thus, not all cultures or groups within cultures proceed the same way. Exceptions must be acknowledged. One example of an influential cultural marker is the necessity for extended education. In the industrialized world, higher levels of education are necessary to remain competitive in a global job market, to fulfill the need for workers who are trained in multiple skill areas including technology, and to overcome diminishing trade, factory, and entry level jobs (Cohen et al., 2003; Facio & Micocci, 2003). In the US, of the 3.2 million people ages 16-24 in 2012, 2.1 million (66.2%) were enrolled in higher education (BLS, 2013). While this leaves a significant proportion of young people opting out or unable to attend university, this high proportion of youth enrolling and extending their time through graduate and professional training naturally postpones entry into roles such as marriage and parenthood (Arnett, 1994; Facio & Micocci, 2003; White & Klein, 2008).

Moving from EA to adulthood is not fluid, linear, or uniform. It is a process that unfolds over time (Arnett, 1998). Arnett (1997) defined EA as the stage following adolescence, *roughly* the years spanning from 18 to 25. Eighteen years of age is considered to be a good marker for the beginning of EA. At this "age marker" young people experience increased freedom, often moving away from parents and attending college (Aldous, 1990). In addition, various legal freedoms are granted at this time. The end of the emerging adult years are less defined and more a matter of subjective perception. However, the late twenties are typically when individuals define themselves as adults (Arnett, 1994, 1998; Carman, 2009; Rindfuss, 1991).

Numerous studies prior to Arnett's suite of studies examined the transition to adulthood from multiple angles. However, many failed to ask how emerging adults felt, what they believed to be important components to the transition, and how they would define their position in the life course (Arnett & Galambos, 2003). Arnett (1994) found college students were unclear about their role. The overwhelming majority believed they held *some* adult characteristics, but did not definitively believe they had *fully* gained adult status. When asked, "Do you think you have reached adulthood?" 27% stated "yes," 10% said "no," and the vast majority (63%) chose "in some respects yes, and in some respects no" (Arnett, p. 216). The most convincing argument for emerging adult theory, according to Nelson (2003), is the ambivalence displayed by the majority of emerging adults when asked if they had reached adult status.

Multiple studies in diverse contexts have replicated Arnett's (1994) original framework. These studies found some consistency and some cultural divergence. Cultures abroad (Israel, Argentina) as well as minority cultures in the US (Mormons, African Americans, Latinos, Asian Americans) were examined (Arnett, 2003; Facio & Micocci, 2003; Mayseless & Scharf, 2003; Nelson, 2003). It is important to note that Arnett's original measure was created and piloted based on a white, middle-class sample. Applying this *exact* measure to diverse cultures may not properly gauge the idiosyncrasies of that particular context (Arnett & Galambos, 2003). As a result, in each of the above studies, Arnett's original measure was modified to the culture in question. Each case represented a unique combination of cultures that were urbanized and industrialized, but also prized moral character and family obligation. In all but three contexts, when asked about their adult status, emerging adults responded in a way that was similar to the white American samples. The majority felt in between adolescence and adult status (Arnett, 2003; Facio & Micocci, 2003; Mayseless & Scharf, 2003; Nelson, 2003). The dissenting cases were found in the Argentinean, African American, and Latino samples. The Argentineans surveyed were older (25-27 years of age), which resulted in more participants reporting they had already reached adult status. This group was further advanced in the life course, with higher percentages having a college education, working full-time, and being married (Facio & Micocci, 2003). The other groups, in line with previous research, had lower socioeconomic status (SES) and earlier onset of adult roles (Arnett, 2003).

Ranking items on the Independence subscale as high priority was consistent among all studies in majority and minority cultures (Arnett, 2003; Facio & Micocci, 2003; Greene et al., 1992; Mayseless & Scharf, 2003; Nelson, 2003). Items in this category revolved around individualism, specifically personal responsibility, emotional and moral convictions, equality in relationships, and financial freedom and mobility (Arnett, 2001). The top three factors referenced by emerging adults as vital to the transition to adulthood were: (a) accepting responsibility for themselves, (b) making their own decisions, and (c) being financially independent (Arnett, 1994, 1997, 1998, 2001). Arnett (2003) concluded, "There appears to be a consensus among emerging adults across ethnic groups that becoming independent from parents and learning to stand alone as a self sufficient person is an immutable requirement for adult status" (p. 70).

Despite some proven cultural overlap, the emerging adult stage was not proposed as a universal concept (Arnett, 2000a). As Elder (1995) stated, "Contrary to the age grading of cultures, people of the same age do not march in concert across major events of the life course…they vary in pace and sequencing, and this variation has…consequences for individuals and society" (p. 110). This extended period of development is not typically seen in highly structured, traditional, or developing countries (Arnett, 1995, 2000a). Further, although EA tends to happen in industrialized cultures it is not universal. Minority cultures within the US may not have the occasion to live out an extended period of EA. Opportunity plays a vital role in the experience (Arnett, 2000a). Family SES can be a determining factor in the timing of the transition to adulthood. Facio and Micocci (2003) found, within their sample of Argentinian emerging adults, those from working class families were more likely than individuals from middle or upper class families to declare that they had reached adulthood. Bucx, van Wel, & Knijn (2012) argued that life course transitions are tied to resource levels and availability. Historically, minority groups in the US such as African Americans, Latinos, and residents of rural areas have earlier transitions into adult roles (e.g., parenthood, leaving home, working full-time), while individuals from higher SES backgrounds delay adulthood transitions, often due to extended education (Cohen et al., 2003). Beyond SES, factors such as religion, mandatory work, and military service have altered the transition to adulthood (Arnett & Jensen, 2002; Mayseless & Scharf, 2003; Nelson, 2003).

It is important to reiterate that not *all* young people have the freedom to experience some or all of this proposed transition. Many choose not to participate in this extended period of exploration and preparation, while others have no choice at all. For those with limited resources, lack of access may change their life course trajectory. Arnett and Taber (1994) proclaimed economic status and level of available resources contributed to this extended period of development. This theory does not apply to all individuals within the same age range there are numerous constraints—financial, familial, occupational, physical location, or beliefs (Arnett, 2000a). The notion that EA is not universal is not unique. There are multiple examples of developmental concepts that apply to some but not to all. Hall's (1904) notion of adolescent "storm and stress" is an example of a concept without universal application. There are individual and cultural adaptations to this theory as well as emerging adult theory (Arnett, 1999). Arnett (2000a), in a summative statement remarked, "Like adolescence, emerging adulthood is a period of the life course that is *culturally constructed, not universal and immutable* [emphasis added]" (p. 470).

Study Rationale

This study used a mixed method design and multi-manuscript presentation. The quantitative analysis used structural equation modeling (SEM) to examine emerging adult college students' financial capability, the relationship between financial knowledge, attitudes, and behavior (manuscript one), and the influence of parental socialization on their financial capability (manuscript two). Qualitative focus groups were assembled as a compliment to the quantitative analysis. The focus groups were used to provide triangulation and garner further information on: (a) emerging adults' C/D capability (knowledge, attitudes, behavior); (b) emerging adults' S/I capability (knowledge, attitudes, behaviors); and (c) the role of parental socialization practices and financial experiences. Throughout this study, the focus was on two important paradigms: (a) spending and debt accumulation though consumer credit and student loans, and (b) saving for the future through savings and investment holdings. These concepts were grouped and referred to as credit/debt (C/D) and savings/investing (S/I).

Financial capability has been referenced in previous literature and is used here to refer to a composite, the sum of one's financial ability—knowledge, attitudes, and behavior. Included on the quantitative assessment were questions of financial knowledge, attitudes, behavior, and socialization practices, which provided a comprehensive financial picture for this study. In addition, questions of financial beliefs, current financial practices, experiences with finance and financial education, and the role and beliefs of parents were present. The questions used in the focus groups examined the above topics and were created based on information taken from, and in response to, the survey measure. This was in an effort to provide triangulation—helping to corroborate, confirm, and validate the quantitative results of the research questions (Marshall & Rossman, 2011; Richards, 2009). To achieve triangulation, a study needs to be designed with multiple methods addressing the same research questions, "multiple sources of data or 'views', with the aim of bringing many perspectives to bear on the question" (Richards, 2009, p. 20).

This study and both manuscripts were guided by the following objectives: (a) to contribute knowledge and understanding to the issues of emerging adult C/D and S/I capability; (b) to better understand the relationship between C/D knowledge, attitudes, and behavior and S/I knowledge, attitudes, and behavior; and (c) to characterize the role parental financial socialization practices, and financial experience play in emerging adults' C/D and S/I capability.

This research, and both manuscripts, aimed to contribute to the vast body of work already completed by analyzing two timely aspects of emerging adult college students' financial lives in concert: C/D and S/I. High debt dependence and low knowledge of credit, saving, and investing are relevant issues plaguing emerging adult college students. These salient topics (C/D and S/I) represent the focal point for this study. Manuscript one had as its main focus the examination of C/D and S/I knowledge, attitudes, and behavior. The relationship between knowledge, attitudes, and behavior in each subject area was the primary focus. For manuscript two, the influence of the emerging adults' parent(s) was key. This influence, defined as financial socialization practices and financial experiences and their effect on C/D and S/I knowledge, attitudes, and behavior was examined. It is important to note, this study purposively focused on emerging adult (18-30) college students. It is acknowledged that this is a limited and privileged population.

Manuscript One: Background

The literature grounding this study revealed three significant themes: (a) in an effort to fund their continued studies, emerging adult college students and their families have assumed high levels of debt through both consumer credit and student loans; (b) knowledge, attitudes, and behavior about credit and debt management are two areas in which students struggle; and (c) students fail to understand and apply saving and investing lessons (e.g., Avard et al., 2005; Borden et al., 2008; Chan et al., 2012; Curto, Lusardi, & Mitchell, 2010). This information points to the need for further research focused on financial literacy, especially the areas of C/D and S/I. Manuscript one examined these topics and their effect on each other through knowledge, attitudes, and behavior.

Manuscript Two: Background

Theory on financial knowledge has moved away from a purely cognitive perspective, to one that includes multiple factors. Knowledge alone is not enough to influence behavior change. Taking financial action requires multiple inputs, one of them being family financial socialization (Gudmunson & Danes, 2011). Familial influence, specifically parental influence, through financial socialization practices and experiences and their effect on C/D and S/I capability provide a holistic view of financial literacy. As Gudmunson and Danes (2011) stated,

> Inclusion of family financial socialization processes in future personal finance research will address the 'whole person,' not just a person's work and consumer life with an emphasis on financial outcomes devoid of the socialization processes that are essential in obtaining those outcomes (p. 663).

Jorgensen and Savla (2010) found that participants reporting a high level of explicit parental financial teaching had positive financial attitudes and behaviors, but surprisingly lower levels of financial knowledge. The authors also found that overall parents influenced young adults' financial attitudes and had an indirect effect on behavior through attitudes.

Based on the saliency of family financial socialization and its effect on emerging adults' capability as money managers, manuscript two examined parental influence, that is, how C/D and S/I are taught and received in the home. Overall, the goal was to better understand emerging adults' capability in debt management and savings and investing practices, and the effect of parental socialization in these areas.

Methodology

The purpose of this study was to investigate key areas of emerging adults' financial literacy (manuscript one) and parental influence on financial capability (manuscript two). Broadly, this study examined the influence of financial education and parental financial experience and socialization practices on financial capability, in the areas of credit/debt (C/D) and savings/investing (S/I).

College students attending a large, research oriented Midwestern university comprised the population of interest. This study used a mixed method design. As previously stated, the combination of quantitative and qualitative methods maximizes power, boosts richness and depth, and increases the strength of both methods (Ambert et al., 1995; Eitel & Martin, 2009; Umana-Taylor & Bamaca, 2004). Survey data, through an online measure, were collected from a representative group of undergraduate students. This measure assessed two time points across multiple semesters. Complementing this, two qualitative focus group sessions were held to examine survey results and determine student perceptions of C/D and S/I capability and parental influence.

This study is presented in a multiple manuscript format. The first manuscript uses data from the Emerging Adult Financial Capability Survey (EAFCS), pre-and post-tests, from face-to-face and online offerings of a personal finance course (see Appendix A for complete survey measure). Questions surrounding emerging adults' C/D and S/I knowledge, attitudes, and behavior were reviewed, highlighted, and removed from the EAFCS to form subscales. The aim of the first manuscript was to assess the relationship between C/D and S/I knowledge, attitudes, and behavior. Focus groups were guided by the quantitative results and provided further detail and triangulation (Creswell & Clark, 2007; Daly, 2007).

The second manuscript addressed parental influence specifically, financial experience (e.g., employment status, housing status) and financial socialization practices. The level, form, and effectiveness of parental socialization on emerging adult C/D and S/I capability also were assessed both quantitatively and qualitatively. Quantitative data were taken from the EAFCS. Responses to questions surrounding parental financial socialization practices and parental financial experiences and their influence on emerging adult financial capability were used in the analysis. Focus groups were held post quantitative analysis to gain further detail, elicit diverse perspectives, and provide greater depth and insight into the results.

Conceptual and Operational Definitions

<u>Financial Literacy</u>

Conceptual definition: "The possession of knowledge and understanding of financial matters. Financial literacy is mainly used in connection with personal finance matters. Financial literacy often entails the knowledge of properly making decisions pertaining to certain personal finance areas like real estate, insurance, investing, saving (especially for college), tax planning, and retirement" (Investopedia, n.d.).

<u>Financial Literacy</u>

Operational definition: Financial literacy is the ability of one to participate effectively within the financial world, which includes possessing a requisite level of financial knowledge and skills—interpreting and understanding financial issues, forming independent opinions, and interacting within the financial community (Bartholomae et al., 2005; Danes & Haberman, 2007; Krizek & Ing, 2012). Financial literacy in this study was used in reference to financial knowledge or understanding. This study examined aspects of emerging adult financial literacy through the EAFCS as well as parental influences on literacy levels.

Illiteracy

Conceptual definition: "The state of being illiterate; lack of any or enough education"("Dictionary.com," n.d.-g) .

Financial Illiteracy

Operational definition: Lack of basic financial knowledge; the inability to function in and contribute to the financial world (Anthes, 2004; Garth, 2009; Supiano, 2014). A lack of adequate financial knowledge in the areas of C/D and S/I is acknowledged as a primary motivation for this study and its research questions.

Knowledge

Conceptual definition: "Acquaintance with facts, truths, or principles, as from study or investigation" (Dictionary.com, n.d.-h).

Financial Knowledge

Operational definition: Financial knowledge refers to a general, factual understanding of objective financial concepts (e.g., how stocks are bought and sold, how bonds are priced) and the recall of those concepts (Gudmunson & Danes, 2011; Peng et al., 2007). Financial knowledge was broken down into two specific categories: C/D and S/I. Knowledge within these areas was examined through the EAFCS. There were 29 total questions taken from the measure that assessed both C/D (14) and S/I (15) knowledge.

Attitudes

Conceptual definition: "Manner, disposition, feeling, position, etc. with regard to a person or thing; tendency or orientation, especially of the mind" (Dictionary.com, n.d.-a).

Financial Attitudes

Operational definition: Financial attitudes include both the subjective perception of one's financial standing and the attitudes and emotions that one associates with money and its uses (Borden et al., 2008; Dilworth et al., 2000). Credit/debt and savings/investing attitudes were assessed using the 5 total questions (C/D-3, S/I-2) each with multiple sub categories pulled from the EAFCS.

Behavior

Conceptual definition: "Manner of behaving or acting" (Dictionary.com, n.d.-b).

Financial Behavior

Operational definition: Financial behavior is the product of, or carrying out of, financial knowledge and attitudes (e.g., working within a budget, managing credit wisely) (Gudmunson & Danes, 2011; Peng et al., 2007). From the EAFCS, 17 questions with multiple subcategories assessed C/D financial behavior (10) and S/I behavior (7).

Capability

Conceptual definition: "The quality of being capable; capacity; ability" (Dictionary.com, n.d.-c).

Financial Capability

Operational definition: Financial capability is a composite of social factors, personality, knowledge, skills, and ability. Financial capability affects and interacts with financial knowledge and attitudes and determines future behavior. Thus, it can be thought of as the sum of financial knowledge, attitudes, and behavior (Gudmunson & Danes, 2011; Peng et al., 2007). Throughout this study, financial capability was operationalized as a combination of C/D and S/I knowledge, attitudes, and behavior. Financial capability was assessed through the examination of the financial knowledge, attitudes, and behavior subscales in concert with one another.

Education

Conceptual definition: "The act or process of imparting or acquiring general knowledge, developing the powers of reasoning and judgment, and generally of preparing oneself or others intellectually for mature life"(Dictionary.com, n.d.-e).

Financial Education

Operational definition: The dissemination of general financial lessons. Financial education can take place in both formal and informal settings, face-to-face or online (Collins & O'Rourke, 2010). The influence of financial education within the specific areas of C/D and S/I was acknowledged and tested through a pre-and post-test administration of the EAFCS. The survey was distributed in a general elective personal finance course within the first and last units of study.

Experiences

Conceptual definition: A particular instance of personally encountering or undergoing something (Experiences, n.d.-f).

Parental Financial Experiences

Operational definition: Parental financial experiences were defined as instances of financial stress and strain. There were 4 total questions taken from the measure that assessed both parental financial experiences.

Socialization

Conceptual definition: "A continuing process whereby an individual acquires a personal identity and learns the norms, values, behaviors, and social skills appropriate to his or her social position" (Dictionary.com, n.d.-i).

Parental Financial Socialization

Operational definition: The transmission, formal or informal (e.g., observation), of financial knowledge, attitudes, and behavior. Providing a foundation of financial practices through multiple sources of socialization including parents, peers, culture, and media (Cho, Gutter, Kim, & Mauldin, 2012; Gudmunson & Danes, 2011; Serido, Shim, Mishra, & Tang, 2010). Students were asked to provide self-reported data on their parents' financial experience (e.g., employment status, debt levels, housing status) and socialization practices (e.g., explicit and implicit financial teaching). There were six questions taken from the EAFCS assessing parental influence through experience and socialization practices.

Demographics

Conceptual definition: "The statistical data of a population, especially those showing average age, income, education, etc." (Dictionary.com, n.d.-d)

Financial Demographics

Operational definition: Financial and demographic attributes (e.g., employment status, income, debt levels) that can influence financial socialization and create levels of access to financial capability, experience, and opportunity (Carman, 2009; Xiao et al., 2009). The EAFCS included 16 questions regarding personal demographics (13) as well as parental demographics (3) and financial experiences (4).

Sample

Participant inclusion criteria for the quantitative survey measure were: (a) 18-30 years of age, (b) a student at the participating university, and (c) enrolled in the participating personal finance course. Emerging adults who did not attend this specific university or emerging adults who did not fall within the age range of 18-30 years of age were excluded from participation. The majority of studies on student financial stress and strain, financial knowledge and capability, and credit card and student loan debt have recruited and focused on predominately white samples (Grable & Joo, 2006; Murphy, 2005). The participants in the present study represented a diverse group of gender, race, ethnicity, educational majors, and class rank. The goal was a sample representative of the institutions' broader population.

The inclusion criteria for the focus groups followed the same criteria as the survey described above with the addition of students who had previously completed the personal finance course: (a) 18-30 years of age, (b) enrolled at the participating university, and (c) are taking or have taken the corresponding personal finance course.

Sample characteristics. The sample for this study, those that took the EAFCS and those that participated in the focus groups, were drawn from a Midwestern University. As of Fall 2014, this campus had a total school population just over 50,000 students, with 38,786 enrolled as undergraduates and slightly over 11,000 as graduate or professional students. As of 2014, the student population was comprised of 51.5% females, and 48.5% males. Well over three quarters (80.6%) of the student body, undergraduate and graduate-professional, were 24 years of age or younger. Approximately 17.3% of the students identified themselves as being a person of color. Three quarters of the population resided in state, and 15.3% were classified as international students. As of spring 2015, 6.4% of those identifying themselves as a person of color were Black or African American, while less then one percent identified themselves as American Indian/Alaskan Native (.3%), 4.5% were Asian, 3.8% reported Hispanic ethnicity, less than one percent were Hawaiian (.1%), and 2.4% traced their heritage to two or more races (MSU Facts, 2014; MSU Office of the Registrar, 2015).

In terms of course delivery methods, face-to-face and on-campus courses, were predominant. However, online credits and enrollment over a nine-year period (2005-2014) increased by 486% and 469% respectively. From Fall 2013 to Fall 2014, online credit hours increased by 13.2%, from around 30,000 to over 34,000. Over that same period of time (Fall 2013 – Fall 2014) total enrollment in online courses increased by 14.3% (MSU Office of the Registrar, 2014).

Emerging Adult Financial Capability Survey Protocol

Completing the survey measure, both pre-and post-tests, functioned as a course assignment. However, students were informed of the following policies: (a) for students who did not meet the inclusion criteria or who did not wish to participate, an equivalent alternative assignment was provided; and (b) failure to complete *both* the pre-and post-tests would necessitate completing the alternative assignment to receive course credit. This information would be provided in both the informed consent (see Appendix B) and course syllabus for each section—face-to-face (see Appendix C) and online offerings (see Appendix D). The following is a sample of the informed consent language,

> Students participating in (course title) at (university name) may complete this survey instead of the (assignment name). If you choose not to complete the study,

you can complete the (alternative assignment name), which is a different and equivalent assignment.

The informed consent document provided a written description of the study, the purpose of the study, study procedures, inclusion criteria, the potential risks and benefits associated with the study, the participants' rights, and the contact information of the campus researchers. Consent was provided electronically and preceded the survey measure. The informed consent document functioned as the first page of the online survey. All participants were asked to read the document in full and if they agreed provide consent. Previous to clicking on the "accept" or "decline" buttons, participants read a summative statement reminding them of their rights and affirming their eligibility. Students then clicked on either, "I have read and understood this consent form and am willing to participate in this study," or chose to decline participation and clicked on, "I have read and understood this consent form and do NOT want to participate in this study." If students declined to participate, they would see the following message: "Thank you for your consideration. Credit for study completion will NOT be given. In order to find an alternate way to receive credit for this assignment please contact your professor." After the successful completion of the EAFCS, students would see the following message: "Thank you for participation in the Financial Capability Survey! Your participation will be sent to your professor so you can receive credit."

Participation in the study was completely voluntary. Participants were informed that they could discontinue the study at any time and/or refuse to answer any question(s). A third party, institutional review board (IRB) approved and un-related to the course and assigning of student grades, recorded student participation and provided assignment credit.

Responses were kept confidential. No data were used or released with any identification attached. All survey data were stored electronically in secure, password-protected locations. Only the IRB approved researchers, research advisors, and review board itself had access to the raw survey data.

Focus Group Protocol

Prior to the focus group sessions commencing, informed consent documents were distributed and thoroughly reviewed and discussed with participants (see Appendix K). Participants signed consent documents verifying they were 18 years of age or above, read and reviewed all study conditions, and that they agreed to voluntary participation. Participants were required to sign and return a copy of the consent form and retain a copy for their personal records. Focus group sessions were digitally recorded. Participants acknowledged and provided additional signed consent for the session to be recorded (see consent form). A short survey assessing participant demographics and personal finance course history was distributed, and participants were asked to complete this previous to starting (see Appendix L).

At the beginning of each session introductions were made and informed consent was signed. Participants were asked to introduce themselves and reminded that all identifying information would be kept confidential. Further, focus group guidelines were presented: (a) active participation by everyone was encouraged; (b) basic courtesy was expected when talking or listening to all; (c) an environment of respect was required—each participant should feel comfortable to express thoughts, feelings, or ideas; (d) any thoughts, feelings, or ideas were encouraged and welcomed; and (e) participants were reminded to take turns speaking and listening. Following introductions, establishing questions were used at the beginning of each session. These questions were posed and discussed as a way to gain baseline information and establish a comfortable atmosphere for further discussion. These questions asked participants to classify their level of C/D and S/I capability, the primary influence on their financial capability, and the lessons learned and effectiveness of parental financial socialization.

The focus group sessions were held in a neutral campus location, scheduled after regular school hours, and lasted approximately two hours. During the sessions refreshments were provided, and for their full participation throughout the two-hour session, participants were eligible to receive a gift card.

An audit trail was kept throughout this study detailing each action taken for both the quantitative and qualitative procedures for manuscript one and two (see Appendix P). An audit trail according to Daly (2007) is a log of all of the decisions made on a project. This log serves as a tool of credibility, providing transparency in the study procedures. Lincoln and Guba (1985) promoted the audit trail as a monitoring tool, purposely tracking decisions and ensuring trustworthiness.

Analysis

This study, manuscript one and two, took the form of an exploratory, mixed method analysis with a two-phase data collection. Creswell and Clark (2007) described this research design as distinct phases of data collection—first quantitative and second qualitative. This design allowed for both the *breadth* of data to be revealed through the quantitative measure and *depth* of information through the qualitative inquiry. A distinct advantage of a mixed method design is that weaknesses in both methodological approaches can be offset and improved upon (Starks & Trinidad, 2007). The use of quantitative methods provides an objective measure upon which further qualitative analysis can elaborate. Here, as seen in the work of McKinne (2008), the quantitative measure, once issued, formed the basis of the qualitative inquiry.

Frequency and descriptive statistics from the demographic data provided by each participant were analyzed and reported to provide a detailed profile of the sample. Included in the analysis were questions of age, race, gender, academic standing (e.g., freshman, sophomore), college major, funding for education, highest level of education desired, parental/household income, and level of parental education.

For each scale within the quantitative analysis (e.g., C/D knowledge, S/I knowledge, family financial socialization, and family financial experiences) exploratory factor analysis (EFA), confirmatory factor analysis (CFA) and various structural equation models (SEM) were tested. For all SEM testing *Mplus* 7 version 1.31 was used (Muthen & Muthen, 1998-2012). Exploratory factor analysis represents the first step in factor analysis. This reveals the underlying structure or model—variable relationships and the number and presence of latent factors. Within CFA a model is specified, tested, and the relationships between the proposed latent factors and observed variables are verified (Institute for Digital Research and Education UCLA, 2015). Confirmatory factor analysis and other SEM models allow hypotheses to be constructed and tested with all parameters specified. Within SEM, frequently used modeling methods include: path analysis, confirmatory factor analysis, structural regression analysis, and latent change analysis (Raykov & Marcoulides, 2006). This study used a combination of exploratory analysis, confirmatory analysis, latent change, mediation, and regression models.

Measurement fit for the models was primarily assessed using the comparative fit index (CFI), the Tucker Lewis index (TLI), the root mean square error of approximation (RMSEA), and the RMSEA 90% confidence interval. These fit indices provided descriptive fit statistics and a more accurate understanding of fit with larger sample sizes. Research has revealed the chi-square test of model fit is sensitive to large samples, with the proclivity to produce statistically significant results. This is an issue as during tests of model fit the null hypothesis states that the data fit the overall model, thus with a significant chi square the null is rejected. (Chen, Sousa, & West, 2005; Institute for Digital Research and Education UCLA, 2015). The CFI and TLI fit indices range from 0-1 with values closer to one representing better model fit. Hu and Bentler (1999) recommend for acceptable model fit, that RMSEA values as well as the upper bound of the RMSEA 90% confidence interval be below .06.

Coding of the qualitative data followed Creswell's (2007) theory of the data analysis spiral. After data collection, data are organized and readied for analysis. Then the manuscript is read and thoroughly reviewed. During this process, the researcher is immersed in the story and description provided. As the researcher performs this first step in the analysis process, notes, observations, and memos are recorded. Next, data are coded with quotes and significant statements highlighted. Themed categories are identified, aggregated, and further reviewed. The final step is presentation of the findings. Themes are presented in narrative form as well as in tables and figures. The goal is for easy interpretation. This coding process is iterative, with each step building on the previous and providing constant review. Richards (2009) summarized, "The goal is to learn from the data, to keep revisiting data extracts until you see and understand patterns and explanations." (p. 94).

Experience and Underlying Biases

The concept of reflexivity asks researchers to declare their positionality, advantages, and disadvantages as they correlate with their age, sex, ethnicity, level of education, and access to resources (Ambert et al., 1995). The idea behind explicitly stating previous experiences and biases is that values, positions, and prejudice cannot be effectively controlled. Thus, the purpose of reflexive writing is to "consciously acknowledge" these factors (Ortlipp, 2008, p. 695). This means regularly expressing evolving thoughts and feelings as the study proceeds. This process asks the researcher to think thoughtfully about her biases, experiences, worldview, ideas and choices (Jolly, 2001; Ortlipp, 2008).

Jolly (2001) stated that keeping a reflexive journal not only helps to consistently bracket innate biases, but it also encourages trustworthiness and helps to avoid crises. It is a valuable habit for all researchers to, as the author puts it, "get out of yourself" (Jolly, 2001, para. 1). Further, reflexivity can help shed light on the actual ups and downs of research (Ortlipp, 2008). Ambert et al. (1995) observed that studies do not follow a linear trajectory; studies do not unfold in an organized fashion. It is important no matter what format, to continually document and describe in detail the events, the actions taken, and the next steps. Reflexive writing provides an additional audit trail, keeping a log of what is done in the research process (Bazeley, 2009). Daly (2007) spoke of the importance of reflexive statements proclaiming,

> …self-positioning must be monitored throughout the research process, it is especially important to articulate this standpoint at the proposal stage. It provides a transparency of the researcher's values and interests that contributes to the overall integrity of the research effort (p. 183).

In accordance with Daly (2007), previous experience and underlying biases were stated prior to the start of the study. Further, a reflexive journal was kept throughout the research process (see Appendix P for audit trail).

Reflexive statement. I must start with some background information. I am a young, white, middle-class woman born to a suburban household the members of which had attained high levels of education. Both of my parents demonstrated a wholesome work ethic. Value was placed on learning, and the power of an education was endorsed. This upbringing informed my choice of schools, career aspirations, fields of study, and the way I look at that subject matter—human development, financial education, and higher education as a whole.

My previous academic experience has included working with emerging adults and teaching personal finance in both face-to-face and online settings. These experiences have formed the basis of my interest in this topic. In addition, I have been a student in higher education for several years. During this time, I have worked in the following areas: teaching personal finance, conducting family financial and family work related research, and being an academic advisor for emerging adult college students. The research projects in which I have participated have focused on work and family issues, the effects of unemployment across the life course, and financial education across the life course. These professional experiences intersect with personal beliefs about higher education, financial education and literacy, and my work with emerging adults. It has created in me a desire to research and learn more about this topic.

Much of the bias I am required to acknowledge stem from my experience with higher education and the teaching of personal finance. Education was promoted in my home growing up, and access to it was unrestricted. Personally, I have been privileged to attend the universities of my choice for my undergraduate and professional training, and in many ways I have grown and matured on a college campus. Emerging adult theory and its key suppositions interest me in large part because I had the opportunity to live this extended period of development. My collegiate experiences have created a strong support of *all* that higher education can provide as well as a bias for the importance of this time and training. My interest in and bias for financial education and its research also has been cultivated over my tenure. This interest area has opened doors of opportunity, allowing me the ability to teach, present, research, and advance in my field. Overall, time with this subject matter has convinced me of the gap that exists in education concerning financial literacy, and the salience of this subject for young adults. My support of financial literacy and my opinion of its necessary place at the university level is a bias I bring to this research.

Format of the Manuscripts

This multiple manuscript study focused on emerging adults' financial capability in the areas of C/D and S/I. This cross section of financial topics is salient as emerging adults are leaving higher education with substantial amounts of debt through student loans. Compounding this, previous research has revealed a lack knowledge of and behavior around savings and investing (e.g., Avard et al., 2005; Borden et al., 2008; Chen & Volpe, 1998; Cull & Whitton, 2011).

The first manuscript entitled, "Emerging Adult Financial Capability: An Analysis of Credit/Debt and Savings/Investing Capability" focused solely on financial capability (knowledge, attitudes, and behavior) in the areas of C/D and S/I. These variables and their interactions were tested in the models described above (figures 1, 2, 3, 4, 5, and 6) and discussed during the focus group sessions.

The second manuscript entitled, "Parental Influence: Socialization Practices and Emerging Adult Credit/Debt and Savings/Investing Capability" examined the influence of parental financial experience and socialization practices on emerging adult financial capability. The research questions, variables, and relationships associated with manuscript two were tested in the aforementioned models (figures 7, 8, 9, 10, 11, and 12). Focus group participants supplied their reactions to the results, insights on the topic, and personal experience.

An Overview of the Following Chapters

This study was a mixed method, multiple manuscript examination of emerging adult financial capability. Pertinent aspects of the study are covered in each of the following chapters. A comprehensive review of literature is presented in chapter two. Manuscript one is outlined Chapter three. Within this chapter, supporting research, the theoretical framework, research questions and hypotheses, and methods and analysis are introduced. Manuscript one is based on life course and emerging adult theory and this proposed extended period of development. Two critical financial areas, credit/debt and savings/investing, were investigated. Results and implications are discussed. Chapter four described manuscript two, an investigation of parental influence on credit/debt and savings/investing capability. The role parents play as agents of financial socialization was quantitatively and qualitatively examined. Previous literature, research questions and hypotheses, procedures, analysis, and results are described. Chapter five provided an integrated conclusion of the overall study. Implications, limitations, and directions for future research were included.

CHAPTER TWO: LITERATURE REVIEW

Financial health and well-being and financial literacy are not a priority in a burgeoning economy. However, when an economic crisis hits, the importance of financial literacy and responsible money management is clear (Dilworth, Chenoweth, & Engelbrecht, 2000; Taylor & Overbey, 1999). The recent financial crisis, the worst since the Great Depression, reinforces the saliency of financial literacy. An important question to ask is what was the educational response? How has higher education responded to the financial crisis? (Hayes, 2012). The lessons we have learned from this crisis must be remembered, behavior must change, and the errors of the past must not be repeated.

In this fast-paced, global, and ever-changing economy there are a multitude of new or expanded financial vehicles, with increasing complexity in form and function. This array of choices and their related implications may cause fear, anxiety, and errors in judgment. Not only have financial products grown more sophisticated, but the accompanying growth in information technology has presented new delivery and maintenance options, moving the financial industry to a global level (Gelman, 2010; Greenspan, 2003; Krizek & Ing, 2012). "As market forces continue to expand the range of financial services, consumers will have more choice and flexibility in how they manage their financial matters, and they will demand education on use of the new technologies to make informed decisions" (Greenspan, 2003, p. 70). There have been significant manifold changes to retirement savings plans, health insurance coverage, life insurance options, and the tax codes. Greenspan (2003) noted that these rapid and complex changes would only continue, leaving further behind the financial illiterate if action is not taken to provide financial literacy to *all*. Simply put, "It's your money. You need to understand it" (Kuehn, 2012, p.

21). Emerging adulthood is a fertile developmental period to absorb financial lessons (Serido et al., 2010). During this period the knowledge gained, experience banked, lessons learned, and habits formed exert a lifelong influence. The effects of good and bad financial decisions extend throughout the life course. "...ill informed financial decisions in the early part of their lives can potentially have disastrous consequences which may affect them later in life" (Cull & Whitton, 2011, p. 100).

Financial Education: Credit/Debt and Savings/Investing

There are marked benefits to early education—knowledge is produced and then later practiced. As Miller and Obenauer (2013) stated,

> If personal finance education can be made a consistent focus of our schools, then our adults will be more educated on the subject, more inclined to practice good money management, have less financial stress and worry, and ultimately lead healthier lives (p. 1).

However, very few states require personal financial education at either the high school or college level (Peng et al., 2007). Curriculum and the courses required for a high school degree are set by each individual state. Thus, financial education at the high school level varies vastly. Requirements span from mandatory coursework, to financial influence within pre-existing courses, to no required form of financial education (Barry, 2013).

Financial education is not a systemic concern for the education system. Kezar (2010) strongly stated, "…the seeming indifference of many other college leaders to financial education is out of touch with the attitudes of both the public and policy makers" (p. 2). Typically, universities do not have finance courses required for degree programs outside of the fields of business and economics. Personal finance courses are typically counted as general electives (Eitel & Martin, 2009; Xiao et al., 2012). The Jump$tart survey that assessed college students revealed, "This year's survey underscores that while we must continue teaching personal finance to high school students, reinforcing and repeating financial literacy efforts at the college level yields positive results" (Jump$tart, 2008, para. 10). The 2008 Jump$tart high school financial literacy scores were much lower than in 2006. However, the results from the college student sample reveled that emerging adults scored higher than their high school counterparts. The first time the Jump$tart survey assessed college students was in 2008. Previous to this, Jump$tart evaluated high school students and their financial literacy every two years. Scores among college student participants increased with the student's age and rank in school. College freshmen had an average score of 59% while seniors scored six percentage points higher (69%) (Hoffman, 2008; Mandell, 2008).

Monticone (2010) found on average 47% of participants answered at least one question on her financial literacy assessment correctly, while 18.9% could not answer a question correctly, and only 8.9% answered all six questions correctly. On a 27 question quiz assessing financial knowledge (e.g., savings, investing, borrowing, insurance), Jorgensen and Savla (2010) found an overall mean of 57.6%. The two lowest subsection scores appeared in general financial knowledge and investing (p. 470). Avard et al. (2005) assessed freshman college students' level of financial knowledge. The scores on their survey ranged from 0% correct (six students) to 80% correct, which was achieved by only one student. Nearly all students failed the measure, with around 92% scoring below 60%, with an average score of 34.8%. Overall, a severe lack of knowledge surrounding retirement and all aspects of the "three-legged stool" of retirement planning (e.g., social security, personal plans-IRAs, and work plans-401k, 403b) was revealed. Chan et al. (2012), had students score poorly on items related to investing, credit terms and conditions, and borrowing (e.g., cash advances, loans). For Chen and Volpe (1998), the overall mean score for their sample was 52.87%, with savings, borrowing, and investing garnering the lowest correct response rate. These results were replicated in Avard et al. (2005). More than 40% of students remarked that they did not know the answer to several questions directly related to the topics of investing and retirement savings. Examples of these problematic questions included: (a) the difference between money market funds and savings accounts, (b) the difference between mutual funds and stocks, (c) the difference between a Roth IRA and a traditional IRA, (d) the definition of a bond, and (e) the definition of a blue chip stock. Murphy (2005) concluded, "The mean financial literacy scores paint a picture of students who are not exposed or have not internalized key information critical to maintaining their financial well-being as college students" (p. 484).

Monticone (2010) pointed to investment knowledge (e.g., understanding the interrelationship between risk and return) as a contributing factor to creating a diversified portfolio for retirement. Presently, retirement planning is the responsibility of each individual. Defined benefit plans (employer sponsored) have given way to defined contribution plans (employee driven). Retirement is one of the most important and long-term aspects of financial literacy. Often individuals young and old put off this part of their financial lives. However, with many countries, including the US, moving to defined contribution plans, this subtle change has important implications for all individuals, especially emerging adults entering the labor force. Youth today need education focused on investing, preparing them to leave college and successfully participant in saving and investing for their future (Kuehn, 2012; Monticone, 2010).

On their 40 question assessment of basic financial management, Hanna, Hill, and Perdue (2010) saw participants score on average 40%. This average was similar to other studies that reported ranges of 40% to 53% (e.g., Chen & Volpe, 1998; Eitel & Martin, 2009; Jump$tart, 2008). The students struggled with questions of taxation and did better on questions related to credit and debt. This result may be due to the depth of experience students had with these financial concepts. Hill and Perdue (2008) reached the same conclusion, across the financial topics surveyed, credit and debt management had the highest level of correct answers and the lowest level of incorrect. Conversely, questions of income taxation had the lowest correct percentage. In this study, nearly every student reported having a checking and savings account and holding a debit card, while 80% reported having credit established in their name, and only a quarter had an established investment account.

Eitel and Martin (2009) assessed first-generation female college students' financial literacy, applying standard testing conventions the majority of participants failed. In this study, unlike Chen and Volpe (2002) and previous Jump$tart results, low assessment scores did not inspire, motivate, or even convince participants to further their financial education. "Many students felt that financial woes and a miraculous onset of financial knowledge would occur when they received *the graduation cure*" (Eitel & Martin, 2009, p. 624).

Learning and content dissemination. Supporters of active learning point to the constructivist view that states students must actively engage with learning and participate through discussion, activities, group work, or problem solving. The goal is to engage students with content (Covill, 2011). Chen & Volpe (1998) proclaimed, "...students score higher on issues with which they are familiar" (p. 114). Hilgert, Hogarth, and Beverly (2003) found that participants in their survey pointed to personal experience as the greatest form of education and most potent source of financial knowledge. Individuals who had experience with savings, investing, and owning and managing debt (e.g., mortgages or credit) showed higher levels of financial knowledge. Keys to active learning are application and participation from the students. Seyedian & Yi (2011) stated, "students significantly improved learning by actively participating in and committing more effort to the class" (p. 188). However, Seyedian and Yi (2011) revealed confounding results regarding experience. Having or using a credit card did not increase students post-test scores. In fact, credit card usage as a factor resulted in significantly lower scores. Having a savings account, on the other hand, was positive for pre-test scores. Finally, using a checkbook, properly documenting expenses, and having the experience of bouncing a check increased pre-test scores.

Making financial education relevant is important to future financial success. Klein and Mandell (2007) pointed to the power of motivation both in the learning process and in the decision to retain financial education as part of the curriculum. Motivation is a powerful determinate of financial knowledge and achievement. When individuals understand the value of education or training, motivation is increased, which leads to successful outcomes. The authors concluded by saying, "This article suggests that students retain little of what they learn in personal finance and money management classes because they do not perceive that it is relevant to their lives" (p. 108). The majority of financial education taught in high school and university settings does not adequately detail the relevance and application to young lives, and often does not take age and stage into consideration. Lack of applicability has been cited as a reason for emerging adults failing to understand issues of investing, and retirement (Klein & Mandell, 2007).

Overall, research on active versus lecture style teaching and learning has been mixed. The level of effectiveness of either style is highly dependent on the level of teacher experience. Proponents of active learning believe that active approaches make students responsible for their own learning. Yet, Covill (2011) found that college students had diverging opinions. Students believed that lecture methods encouraged personal learning and responsibility. In addition, a Sallie Mae (2009) study disclosed that students preferred face-to-face courses to other methods of dissemination. Leeds, Stull, & Westbrook (1998) revealed that teaching techniques did not have a significant influence on how students evaluated their classes. The students' perceived level of learning was the most significant variable affecting student evaluations. "Students...rewarded instructors when they felt they learned a great deal" (Leeds et al., p. 77). However, Covill (2011) stated that student observations and beliefs about teaching style constituted only one of many factors that influenced performance.

Many advocate for financial education that is constructed around developmental stages, understanding, and relevance. This form of financial education is referred to as "just-in time" financial management. This technique is explained as presenting financial lessons "that are of immediate importance to students" (Mandell, 2006, p. 7A). Domonell (2011) reported that Oklahoma State University has used a web-based version of *Cash Course* (National Endowment for Financial Education developed customizable financial module). The site was promoted during new student orientation as a repository of financial information that could be consumed at each student's own pace. Creators stated that the site was set up similar to *Facebook* or *LinkedIn*. Content was presented in real time, age, and developmental increments similar to "just-in time" education.

One complaint raised by "just-in time" education is that the measures used to assess financial literacy are often not developmentally appropriate. Mandell (2006) stated, for example, the Jump$tart survey when taken by high school seniors lacks developmental fit for this age and stage. The author estimated that only 11 of the 31 questions posed on the survey reflect the financial realities present in the lives of high school students. He felt that the relevant questions fell into the following categories: (a) credit cards and credit debt, (b) financial institutions, (c) investments, (d) automobile insurance, (e) employment, and (f) financing higher education. This study took the 11 most relevant Jump$tart questions, and with the addition of "just-in time" instruction, were able to improve the overall scores on 4 of the 11 questions. Mandell (2006) concluded that financial education is not working in our schools: " For personal financial literacy, unfortunately, all we know at this point is that we're not educating high–school students correctly yet…" (p. 9A).

"No one can *decisively* figure out whether financial education matters or not [emphasis added]" (Lyons, 2013). The effectiveness of financial education must be studied. Researchers must analyze several issues related to quality. When investigating dissemination techniques and overall learning, one must control for factors such as teaching style, learning style, and the overall environment (Covill, 2011; Lyons, 2013). There are a variety of questions to examine. Is class size a determinate of teaching and learning goals? How do the characteristics of the student attendees affect teaching and learning? At the macro level, how do institutional learning goals and the size of the institution affect the classroom? Are the techniques used in the classroom determined and/or supported by the administrators of the university? Do financial literacy courses offered at the collegiate level create responsible money managers? How should financial education be packaged and disseminated?

At-risk behavior and demographic characteristics. Many factors influence an individual's level of financial capability. Curto et al. (2010) stated:

> …some groups of respondents were substantially more likely to be financially knowledgeable than others...a college-educated male whose parents had stocks and retirement savings was about 45 percentage points more likely to know about risk diversification than a female with less than a high school education whose parents were not wealthy (p. 374).

Typical demographic characteristics and risk profiles include: (a) females, (b) minority students, (c) youth and older adults, (d) married individuals, (e) renters, (f) individuals considered financially independent, (g) individuals receiving financial aid, and (h) persons holding $1,000 or more in consumer debt (Lyons, 2004; Monticone, 2010; Seyedian & Yi, 2011). Age was an interesting and influential demographic factor. Age correlated with financial literacy levels, as lower levels of literacy were seen in both the younger and elder years, while middle age was the height of financial knowledge and experience (Monticone, 2010). Interestingly, Lyons (2004) found undergraduate seniors and graduate students were associated with risky tendencies. This may be due to an increased reliance on debt as they moved further in their education.

Age, race, and gender are demographic characteristics that have been thoroughly researched related to levels of financial literacy. However, Hill and Perdue (2008) revealed contradictory findings for both gender and race. For example, some studies have found that race correlated with level of financial literacy, while others did not find a significant difference. In their study, males and females scored nearly the same across all financial topics. A difference only appeared in the average number of correct and incorrect answers, with males having slightly higher correct rates. Further, within the area of investing, males scored higher than females (Hill and Perdue, 2008).

Age is an important factor correlated with financial behavior, management, and literacy. In their study, Dilworth et al. (2000) discovered age was related to expectations. Older adults believed, that their financial lives would improve, stay the same, or worsen. However, younger adults felt across the board that their financial lives would improve. Dilworth et al. (2000) also found young people have a very different subjective perception of their current financial priorities compared to their older counterparts. Their study found that overall the emerging adult students had a short-term focus. The student participants rated "extras," wants, and luxuries higher than the older adult cohort, referred to savings in general terms with no mention of plans for starting an emergency fund or beginning to save for retirement, and rarely mentioned paying down debt as a priority (Dilworth et al., 2000).

Curto et al. (2010) revealed a large gender gap in financial knowledge. There was an 11%-12% discrepancy between men and women and their correct answers to the questions of inflation and investment risk diversification. The authors concluded, "Consequently, there is now fairly robust evidence confirming that many women do not do well in financial calculations and do not have a firm grasp of inflation and risk diversification" (p. 367). Monticone (2010) confirmed these gendered results; women universally underperformed on an assessment of financial knowledge. Curto et al. (2010) discovered a racial gap. White participants were more likely to answer the inflation and risk diversification questions correctly when compared to their black or Hispanic counterparts. Murphy (2005) drew her sample from a predominately black university. Her study found that regardless of the environment or minority or majority status, black students scored lower than their non-black colleagues. Complicating this, the majority of studies examining financial literacy have failed to provide representative samples. Many included minorities only in small numbers.

Shim et al. (2009) found gender and class standing appeared to affect subjective financial knowledge and positive financial attitudes. In their study, females also reported high levels of depression linked to financial issues. Gender differences in financial literacy also were highlighted in a study conducted by Chen and Volpe (2002). The authors found that women scored lower than men on factual and number-oriented questions, while men out scored women on the majority of questions asked (22/36). Men scored higher in the following categories: (a) general knowledge, (b) savings and borrowing, (c) insurance, and (d) investments. However, it is important to note, that in the investing section of the measure both genders under-preformed; it was the lowest scored section for both males and females. The implications are arguably more serious for females who lack financial capability and investing acumen. Historically, women have shared more responsibility in the home, raising children, and running the household. These choices forced women to start their full-time career later than men, resulting in earning less than men overall, and moving in and out of the workforce more often. Compounding these historical, familial, and employment constraints is the fact that women typically live longer than men. Thus, there is an onus on women to understand and responsibly manage their financial lives (Chen & Volpe, 2002).

Kezar (2010) focused on the plight of low-income students and the power of financial education. She stated that previous research on the barriers to higher education focused on financial aid, the cost of higher education, preparation for academic success, and familial and academic socialization. The factor that was overlooked, according to the author, is the power of financial education as a protective factor. Low-income students have a distinct disadvantage. Often these students do not receive financial education in high school or within their homes. When thinking about and applying to college there are complex financial realities to confront. For example, many low and middle-income students and their parents do not know how to navigate the complex system of financial aid (Kezar, 2010). Grable and Joo (2006) revealed startling levels of credit debt stress and strain among African American students. Graduation rates among minority students, especially African American students, is a perennial issue for university officials, and according to the authors, financial constraints, high levels of debt (consumer and student loan), and low levels of financial literacy are issues on par with graduation success. In their conclusion, they call for increased awareness and additional resources aimed toward financial health and retention of minority students.

All emerging adult college students face a steep transition to college life. Young men and women are "plunged into an academic environment with exposure to a new and different set of peers, access to financial aid, student loans, credit cards, and income from employment without the knowledge and skills required to manage and succeed" (Eitel & Martin, 2009, p. 616). This transition is intensified for first-generation students and students with very little familial support (mental, emotional, or financial). First generation students often lack training and exposure to academic, financial, and resource assistance. Thus, financial stress can be difficult to conquer and may persist throughout their academic career. Often for these students, support has been disproportionately placed on academic success at the expense of financial understanding, awareness, and readiness (Eitel & Martin, 2009).

In a study focusing predominately on gender effects, Chen and Volpe (2002) found other influential variables affecting financial literacy including one's choice of a major, class ranking, work experience, and age. Conversely, the variables of race, nationality, and level of annual income did not significantly affect financial literacy. Major choice had a strong and significant effect; business majors of both genders scored higher than non-majors (Chen & Volpe, 2002; Murphy, 2005; Peng, Bartholomae, Fox, & Cravener, 2007). Hanna, Hill, and Perdue (2010) concurred noting that college and department assignment were influential to overall financial literacy. In their study, business students had the highest level of financial literacy, and education students had the lowest. For Chen and Volpe (2002) overall, the effect of being a business major was stronger for female participants than males. Further, students with higher class standing had positive financial attitudes, but higher levels of debt. Similarly, advanced levels of work experience and older age were factors that correlated with higher levels of financial knowledge.

Students' independence status, receiving need-based assistance (e.g., grants, federal financial aid, work study), and consumer debt greater than $1,000 were all characteristics associated with financial risk. "The bottom line is that these findings indicate a need for financial education programs that specifically target financially at-risk groups such as low-to-middle income students, women, and minorities to ensure that they are not at a financial disadvantage" (Lyons, 2004, p. 74). Lyons (2004) profiled financial risk behaviors of young adults. In her model, at-risk students were operationally defined as: (a) carrying a balance of $1,000 or more, (b) being delinquent on a credit payment lasting at least two months, (c) reaching their credit limit, and (d) making credit payments sporadically. These criteria measured a variety of risk type behaviors—the amount and severity of debt, payment flexibility, and overall quality of money management and creditworthiness. Of the 44% of students who reported engaging in at least one risk behavior, not paying bills in full was the most common. For the 33% reporting two risk behaviors, not paying debt in full, and holding a balance in excess of 1,000 dollars were the most common.

The emerging adult population is not uniform; there are multiple factors that affect financial literacy levels. Further, in financial education and assessment there is a large degree of variance among subject area (e.g., credit, budgeting, investing, taxes), learning styles, format, and baseline knowledge and experience. Thus, financial education must be robust; it cannot proceed with the same curriculum and tactics. Nevertheless, programs are run through a standard template that is not designed to reach a diverse audience. Curto et al. (2010) called for diversity among programs and courses, "...one-size fits all programs are unlikely to be effective. Instead, programs should be targeted to women, minorities such as blacks and Hispanics, and those with low educational attainment" (p. 377).

Recommendations for Financial Education

While there has been a positive association with personal financial education and increased levels of financial knowledge and improved behaviors, there is still a need for more wide-spread educational offerings (Borden et al., 2008). Many researchers have suggested that financial education courses should be required for *all* university students. Supiano (2014) recommended mandatory financial education, and stated "training be offered not just once but at various key points over the course of people's lives" (p. 2). Further, he stated, "new students might focus on student loans and budgeting, while graduating seniors might learn about keeping a budget on their salaries and how home mortgages and retirement savings plans work" (p. 2). In this way, the author promoted a developmentally planned and executed financial curriculum. According to Lyons (2004), college students who are defined as at-risk are a particular group in need of financial attention. This approach, making personal finance a requirement, would by default net these students—students that may not take a personal finance course or know that such a course was offered. Thus, a required financial education component would function as a mechanism for early detection, enabling early intervention for at-risk students (Chan et al., 2012). As Borden et al. (2008) declared, "Financial experts and researchers have called for regular financial education courses on campus" (p. 37). Without a strong and consistent effort for financial education that is required, standardized, and delivered with quality, future generations will continue to struggle and be at a disadvantage within this changing economy (Barry, 2013).

Grable and Joo (2006) analyzed data taken from several short-term workshops and financial counseling sessions and suggested that certain topics in financial education be integrated into freshman orientation. This would manifest itself as a short meeting or seminar incorporated into summer campus tours and class selection or welcome week proceedings. Sessions could be held both on and off campus and led by various professional and student-led organizations. Integrating small-scale workshops or counseling sessions into freshman orientation would provide students the opportunity to become oriented to campus life, academic procedures and requirements, and new monetary realities. Parents could attend sessions that would help them to know the financial challenges their children face. This also would be an appropriate time for parents to learn about the financial resources available on campus (Miller & Obenauer, 2013).

Similarly, Taylor and Overbey (1999) suggested having a university sponsored week focused on financial education and awareness. During this time, multiple disciplines and offices on campus could participate. Collaboration across campus is key as Miller and Obenauer (2013) stated, “Financial literacy is something that crosses a lot of departments on campus" (p. 1). Further, at this time, students would have the opportunity for financial counseling, hands-on training, personal financial check-ups, and real-life financial simulations. This could provide more "face-time" for students with financial issues (Taylor & Overbey, 1999). For additional one-on-one counseling, students who are majors in the fields of business, finance, and economics could provide peer-to-peer mentoring to those without experience or individuals with specific financial questions (Miller & Obenauer, 2013). Kezar (2010) suggested establishing a task force comprised of: (a) professors in the fields of business, economics, and personal finance; (b) financial loan officers; (c) academic advisors; and (d) campus credit union officers. This group could plan events and meetings, as well as financial curricula.

Borden et al. (2008) found that short-term financial seminars were both appealing and effective for students who had higher initial levels of financial knowledge. The workshops covered financial issues such as credit management, debt levels and management, achieving affordable housing, creating savings, and saving for goals. After completing the short financial seminars, students reported that they intended to change their use of credit. The students stated that they wanted to be better money managers, especially in the areas of credit and savings. The authors alleged, "...that a change in students' intentions to engage in more effective financial behaviors and less risky financial behaviors is indeed an indicator of program effectiveness in enhancing participants' future financial behaviors" (p. 35).

Avard et al. (2005) advocated that financial education should be treated in a fashion that is similar to math education. Within this model, incoming students would take a financial literacy placement test. Based on their score, they would be placed in an appropriate level course. Students in need of additional help would have access to an online remedial course not considered for graduation credit. This online module would function as a tool that would equip students to successfully continue their financial education. In an effort to help students assuming large levels of debt during their education, Cull and Whitton (2011) suggested requiring students who receive federal aid to take a personal finance course. The authors stated this approach is one way to improve financial literacy, decrease student loan default rates, and equip students to better handle their debt.

Learning and applying financial concepts takes time. Thus, a series of linked financial courses would help promote in-depth, long-term learning. This also would allow for extended time to be taken on each topic, providing a learning gradient. Further, this approach would avoid overloading one course with too many topics and broad coverage (Xiao et al., 2012). Peng et al. (2007) stated, "It is reasonable to expect that as college students take on higher levels of personal financial responsibility, their interest in personal finances heightens and learning takes place" (p. 280). Seyedian & Yi (2011) found that higher-level financial courses contained students with higher overall average scores on both pre-and post-tests of financial literacy. Here, the prerequisite course(s) worked as a springboard to the gradually increasing complexity of topics offered in the next course.

Currently, the financial picture of the average emerging adult college student is one of mounting personal and educational debt, and a lack of knowledge to help them move from debt dependency to financial independence. Education must fill in this apparent gap, and financial education must be promoted on college campuses, inside and outside of the classroom. The responsibility for this is on: (a) families, policy makers, and the community to advocate; (b) college administrators to mandate; (c) professors, advisors and aid counselors to disseminate; and (d) students to apply and appreciate.

Student Loans

Financial stress, rising tuition costs, and an ever-increasing dependence on student loans represent concerns for college administrators, professors, students, and their families. This has created the motivation for research on financial education (Chan et al., 2012). American students owe nearly 1.2 trillion dollars in student loan debt, a figure that has surpassed both credit card and personal debt totals (Friedman, 2014; Martin & Lehren, 2012). "Record unemployment levels mixed with an unprecedented amount of student loan debt could be a recipe for disaster for recent college graduates if they don't know how to manage their money" (Domonell, 2011, p. 51).

Following the Great Recession, national and state spending for higher education hit a 25-year low, compromising state universities and their conviction to create access for all students. While attendance at state universities has grown, funding to these universities has continued to be cut, forcing the universities to compensate by raising tuition. Donald E. Heller, dean of the College of Education at Michigan State University, stated that government officials know higher education is a unique sector that has the ability to make money through fund raising. With this knowledge, cuts were made and funds were raised through raising tuition (as cited in Martin & Lehren, 2012). Constant tuition increases have priced many lower and middle class prospective students out of the educational marketplace. An Ohio state representative said, "It's hard to say it's affordable when students leave with that much debt" (as cited in Martin & Lehren, 2012, p. 6).

According to Miller and Obenauer (2013), the Department of Education will sanction institutions with unacceptable default rates. "Nearly 1,200 schools have lost student loan program eligibility because of their default rates" (p. 1). The excess of borrowing and risk of falling into default began in large part with for-profit colleges. In 2012, 11% of the college student population attended a for-profit school; however, this student body was responsible for a quarter of all student loans (Martin & Lehren, 2012; Rossi, 2014).

Student loans were the only form of debt that increased over the course of the Great Recession. Several economists have likened the level of student loan debt and default to the recent mortgage crisis. While there are parallels between the current status of student loans and the recent mortgage crisis, economists state the effect of a student loan collapse would not be as large as the mortgage crisis. Currently, in the US, total student loan debt has the second largest overall debt balance. It is greater than credit and personal-consumer loans but still second to mortgage debt. Further, student loan debt is primarily issued through the federal government, thus the ripple effect would not extend to the banking sector (Friedman, 2014; Martin & Lehren, 2012).

According to Cull and Whitten (2011) educating students on their choice of major, the amount of aid they will need, re-payment plans, and general management of their student loan debt is the responsibility of the university. One of the unintended consequences of student loans is that it has turned choice of major and degree type into a high stakes gamble. Students must make the "right" choice when it comes to choosing an area of study, it must pay off, and their future earnings must match or exceed their current debt levels (Kuehn, 2012). Throughout their education students must be taught basic financial lessons—management of debt, functioning within a budget, tempering wants, and setting and attaining goals. This education represents a right for the student and a responsibility of the institution (Dilworth et al., 2000).

Martin and Lehren (2012) stated, "As prices soar, a college degree statistically remains a good lifetime investment" (p. 1). Student loans are a necessary evil for many emerging adults, increasing access to education for many who would otherwise be denied. There are multiple aspects of student loans that are positive: (a) allowing access to education, (b) allowing full-time attendance in school, (c) cutting down on the need for external employment, and (d) providing immediate financial freedom and opportunity to focus on education (Eitel & Martin, 2009). For Eitel and Martin's (2009) first-generation sample, these students relied on loans to cover the cost of tuition and education related expenses as well as basic living needs such as housing, food, and personal hygiene materials. The participants in this study remarked that without aid, these needs and their associated expenses would go unmet (Eitel & Martin, 2009). However, handling debt from student loans post graduation becomes an impending reality. Knowledge on what loans and loan amounts to choose, management of interest and payments, and navigating repayment is key. Research, education, and policy must focus on the multiple facets of this issue in order to better serve students and families. As Brown, Haughwount, Lee, Mabutas, and van der Klaaw (2012) stated, "Given that student loans are an indispensable tool for educational advancement, this form of debt will remain a critical policy focus for generations to come"(para. 14).

Consumer debt. Curto et al. (2010) concluded, "The financial situation of today's youth is characterized increasingly by high levels of debt" (p. 359). USA Today and the National Endowment for Financial Education (NEFE) conducted a survey with adults in the age range of 22-29. The results revealed that 30% of young people felt frequently worried about their finances, 29% said debt was the reason for not continuing their education, and 22% took a job to help handle their level of debt. This survey also revealed that more than half of the emerging adult participants did not have retirement savings in place, nor a plan for future retirement savings. In addition, around 40% did not have a standard savings account (USA Today & National Endowment for Financial Education, 2006).

Dilworth et al. (2000) compared the monetary goals of emerging adult college students to those of their parents. The study revealed that less than half of youth (36 emerging adult students out of 75) recognized paying down debt as a goal. The sample as a whole (emerging adult and mature adult) failed to rank debt payments as high as other needs and wants. This result raises concern. Financial professionals purport that paying down debt is a form of savings. Alleviating debt is the first step toward moving up the financial planning pyramid (savings, retirement, investing for goals) (Garman & Forgue, 2012).

Financial education must include lessons on the most effective forms of managing and clearing debt. The salience of financial education aimed at debt management is clear:

- Research has revealed that emerging adults lack a requisite level of financial knowledge to manage their amassing debt, daily expenses, and future goals.
- Student loan debt is a burden affecting multiple parties: emerging adult students, parents and families, universities and their governing bodies, and state and federal government.
- Unchecked, student loan debt could create a ceiling of financial growth for emerging adults and the economy as a whole (e.g., limiting first-time home buyers) (Brown et al., 2012; Izzo, 2014; Miller & Obenauer, 2013).

Parental Financial Socialization

Parental financial discussions with their emerging adult children, especially during the transition to college, provide a financial training ground (Serido et al., 2010). Cho et al. (2012) reported that participants in their study were split as to whether they discussed financial matters with their parents. Forty-two percent stated they did not talk to their parents about financial discussions, while over half stated they did have ongoing financial discussions, and less than one percent stated they gained financial information from an educational course. Chen and Volpe (2002) found that more male participants than females believed that college finance courses would help improve their financial literacy. Women rated parental socialization higher than males; however, considering their low performance, the authors stated, "It seems to suggest that parents are not knowledgeable or that the informal teaching and learning process between parents and children is ineffective" (p. 306).

Danes (1994) assessed parents' perception of the appropriate age and stage to financially socialize their children. In this study, parents stated that the teen and emerging adult years represented an appropriate time for their children to learn about family insurance coverage, have their own checking account, be responsible for their own credit, and have and manage personal loans. These years (15-20) were when the majority of parents believed their young adults should be involved in family finances and further begin to be involved with their own personal finances.

Emerging adult children who saw their parents as financial role models fell in line with their parents' financial expectations, acted out positive financial behaviors, and proclaimed a higher level of financial confidence (Shim et al., 2010). Curto et al. (2011) found that parents' personal involvement in the financial world (e.g., holding stocks) was a salient factor, increasing the percentage of correct answers their student(s) scored on a measure of financial literacy. Emerging adult children had a better grasp on risk diversification as a result of their parents being involved in the stock market. Households with higher wealth and asset levels, according to Monticone (2010), tended to have higher levels of financial knowledge and prioritize financial literacy. However, it should be noted that this effect was small. Murphy (2005) spoke of parents' personal education level as the most significant factor affecting financial literacy. Students with highly educated parents overall scored higher on the financial literacy measure.

Serido et al. (2010) found that parental financial expectations and a high level of parent-child communication influenced the use of future-oriented coping behaviors. Preventive financial coping is defined as behaviors that attempt to handle issues of financial uncertainty such as budgeting and constraining spending per the budget. On the other hand, proactive financial coping is defined as behaviors aimed at attaining financial goals such as saving and investing. Serido (2010) stated, "...our findings provide support that financial interactions between parents and college-aged children may facilitate the development of children's financial coping behaviors" (p. 460).

Krizek and Ing (2012) studied the financial literacy levels of emerging adult college students and examined the frequency and quality of knowledge dissemination on the part of the emerging adult to their friends and family. Over half of the study participants stated that they have been approached and asked by friends and family for help and advice related to financial issues. A large majority of participants (62.5%) believed that they had suitable knowledge of financial, economic, and consumer matters. A similar proportion believed they would be able to provide advice to those seeking financial help.

Summary of Literature Review

College is a time for emerging adults to experience freedom and try on multiple roles. Many emerging adults, during this developmental period, take responsibility for their finances for the first time in their lives (Borden et al., 2008). During this time, students tend to acquire large amounts of debt (student loan, consumer) when they make little to no income. The results of previous research present a strong case for further investigation into emerging adults and their financial capability. Emerging adults do not have an adequate level of financial capability (e.g., Beutler et al., 2008; Dilworth et al., 2000). "College students may be considered a high-risk group when it comes to economic stability, and thus well-being, given their propensity to borrow to fund their college education" (Gutter & Copur, 2011, p. 700). Education is key to imparting financial knowledge and influencing financial capability. Chan et al. (2012) stated, "Financial education programs should provide students with both perceived knowledge and perceived control to develop and practice healthy financial management" (p. 129). The goal of financial education is positive growth in financial knowledge, attitudes, and behaviors, ultimately creating successful, capable money managers. In addition, replete through the research literature is the influence of parents as agents of financial socialization. Financial education starts and is supported by emerging adult parents. Financial lessons are disseminated both formally and informally, intentionally and unintentionally. Shim et al. (2010) found when parents intentionally taught financial lessons the outcome was greater than that of formal schooling.

CHAPTER THREE: MANUSCRIPT ONE

EMERGING ADULT FINANCIAL CAPABILITY: AN ANALYSIS OF CREDIT/DEBT AND SAVINGS/INVESTING CAPABILITY

Review of Literature

Studies spanning multiple continents stemming from business, economics, psychology, and human development have utilized multiple theories (e.g., life course, consumer and financial socialization, social learning) and both quantitative and qualitative methods to study emerging adults' financial literacy (Cho, Gutter, Kim, & Mauldin, 2012; Gudmunson & Danes, 2011; Gutter, Garrison, & Copur, 2010; Gutter et al., 2010; Lyons, 2004; Shim et al., 2010). The importance and scope of this research stems from the fact that finance has an "interwoven nature" with multiple aspects of life, including the timing and quality of emerging adults' growth and role transitions (Shim et al., 2009, p. 722). Dilworth, Chenoweth, & Engelbrecht, (2000) defined money as having a "daily significance" in life. However, they went on to state that financial literacy is not a priority on the majority of college campuses (p. 33). "Their [emerging adult college students] future economic picture could be a maze of conflict, debt delinquencies, and unpaid bills unless efforts to educate and counsel students about money matters are increased" (Taylor & Overbey, 1999, p. 40).

The period of emerging adulthood (EA) is a viable period within the life course when individuals are primed for receiving financial information. These lessons, when available, have the potential to influence emerging adults profoundly as they make the transition from financial dependence to independence. Additional research in this area is needed. Researchers need to know more about the level of financial education available to young people, its effect, and what is needed for future growth.

Financial Education

Studies that have examined high school and college students' level of financial literacy have revealed that students at both levels are finishing their education with very little knowledge and critical thinking of the proper handling of their financial lives (Chen & Volpe, 1998). The majority of financial literacy researchers would award failing grades to emerging adults. On average studies have found participants only answered half of the financial literacy questions correctly (Hill & Perdue, 2008). Undergraduate students confessed, in a study conducted by Sallie Mae (2009), to needing greater access to financial education. The 2013 Consumer Financial Literacy Survey found that almost half of those surveyed rated their level of personal financial knowledge as a C, D, or F on a traditional grading scale (Barry, 2013).

Financial education is successful when life course age, stage, and transitions are taken into account. Emerging adult students at the beginning of their educational journey may not be interested in or able to comprehend complex issues of macro economics, investing, and taxation (Barry, 2013). Age and stage play an important role in emerging adults absorbing and applying financial concepts. For example, Peng et al. (2007), revealed college courses had a greater influence on investment knowledge when compared to high school courses. Education beyond an undergraduate degree also was positively related to investment knowledge. Furthermore, early participation with financial concepts such as holding a bank account or investments before attending college were associated with higher investment knowledge.

Understanding the quality and fidelity of financial education, best practices for content dissemination, and the specific financial needs of emerging adult college students will ultimately help to create better financial education programs and money managers.

Consumer and Student Loan Debt

Debt is a real, constant, and foreboding presence in the lives of many emerging adult college students. The increasing necessity of education and associated cost of education have forced emerging adult students and their families to assume high levels of debt with the *hope* of future profit. The desire for education has become somewhat of a cultural norm; one must attend college for the experience, history and tradition, and as a ticket to a better future. This cultural pressure is compounded by declining state funding and rising tuition, creating a reliance on student loans that for many economists could represent the next economic bubble to burst (Rossi, 2014).

In 2003, the Federal Reserve Chairman stated, "Certainly young adults have access to credit at a much earlier age than their parents did. Accordingly, they need a more comprehensive understanding of credit than was afforded to the previous generation..." (as cited in Cull & Whitton, 2011, p. 101). Due to substantial debt levels among emerging adult college students, Xiao et al. (2009) revealed that income and wealth are not appropriate measures of financial satisfaction for college students. Their levels of income and wealth vary immensely and are typically an aggregate of part-time work, parent or family support, and credit or loans. The authors stated that debt is probably a better measure to use with college students.

Lyons (2004) asserted "…that the rising costs of obtaining a college education may be playing a key role in the rise of credit usage on college campuses" (p. 73). This high reliance on credit and increasing levels of debt have been compounded by the recent decline in the economy, loss of work in families, and decreased income (Gudmunson & Danes, 2011; Shim et al., 2009). Many individuals and families have debt loads that exceed the recommended 15% threshold due to outstanding student loans, carrying high levels of consumer debt, and having a car payment (Taylor & Overbey, 1999). In addition, financial illiteracy has been seen to correlate with high levels of consumer and student loan debt (Cull & Whitton, 2011). "…most college graduates are emerging from their ivory towers with debt loads (student loans, auto loans, and credit card debt) substantially greater than their starting salaries" (as cited in Avard et al., 2005, p. 322).

Financial Knowledge, Attitudes, and Behavior

Several studies have found that increased financial knowledge can positively affect financial behaviors (Shim et al. 2009, 2010). However, others have found knowledge is not enough to encourage total behavior change. In this chain of influence financial attitudes are the missing link. Jorgensen and Savla (2010) found financial attitudes mediated the relationship between knowledge and behaviors. In a comprehensive investigation of financial education Xiao et al. (2012) found both high school and college students reported a higher level of subjective knowledge (attitudes—assessment of their financial understanding) after taking a personal finance course at their respective levels. However, the courses in this study did not increase the students' objective knowledge (knowledge—level of actual understanding). Knowledge, attitudes, and behavior did not influence one another, and they must for meaningful change. Financial capability is an individual's ability to function successfully in the financial world, including understanding financial facts, valuing positive financial practices, and enacting a financial plan. On their own, financial knowledge, attitudes, and behaviors do not change overall capability (e.g., Gudmunson & Danes, 2011; Jorgensen & Savla, 2010). Thus, improving *financial capability* should be the goal of financial education.

Theoretical Framework

Emerging adults are at a critical point in the life course when financial matters are under their control and many large financial decisions are on the horizon (Cull & Whitton, 2011; Xiao, Tang, & Shim, 2009). The use of life course and emerging adult theories within the study of college student financial capability highlights this period as: (a) a developmental transition, (b) a transition toward financial independence and increased responsibility, (c) prime for learning through financial education, and (d) related to levels of resources and opportunity. Collegiate financial education and application of positive financial habits (knowledge, attitudes, and behavior) during this developmental time have lasting implications. Further, students are developmentally ready and posed to absorb financial concepts that have direct connection to their lives.

Life course stages have elements that are culturally dictated and defined as normative. However, the life course also is sensitive to historical changes, economic crises, and levels of societal resources (Carman, 2009). Individuals and their families are embedded in social, cultural, and economic contexts, thus changes in these areas can affect their life course trajectory (Elder, 1995; Kok, 2007). In fact, Aldous (1990) stated that demographic changes have altered the age and stage of many common roles and transitions, adding divorce, re-marriage, step and blended families, and single-parent families, and postponing marriage and childbearing. This parallels Kok's (2007) supposition that the study of family demographics historically has been too narrow, focusing on classical versions of "normal" family functioning and life cycle transitions. The life course perspective has changed over time as the family has changed. The focus has moved from predictable, timed change, to consistent change and interplay between the individual and the environment (Settersten, 2002).

Life course theory and recent changes to the timing and nature of adulthood provide the spark for emerging adult theory (Arnett, 1994, 1997, 1998, 2000a, 2001). Emerging adult theory represents a necessary shift in thinking, as changes in the industrialized world have created a new developmental landscape for some young people in the contexts of politics, the economy, technology, and demography (e.g., onset of marriage and parenthood, time spent in education) (Arnett, 2000a; Carmen, 2009). Alterations to roles and changes to the timing of transitions correlate with historical periods. The economic prosperity of the 1920's saw a rise in rates of divorce followed by a cessation during the years of the Great Depression. The birthrate "boomed" after World War II only to decline in the following decades (Aldous, 1990). In this framework, EA is a distinct life stage brought about by demographic, social, and cultural changes. These changes created the opportunity in *some* cultural contexts for an extended period of growth, development, and exploration that bridges the gap between adolescence and adulthood (Arnett, 1994).

Research Questions and Hypotheses

Emerging adults have a great deal of variance between their levels of knowledge and their success as money managers (Shim et al., 2009). The preponderance of studies investigating youth financial literacy reveals that the majority of students are failing. In addition, they are disproportionately failing related to debt and investing, key areas in which a lack of knowledge will affect future success, health, and well-being. Previous research has shown that when individuals do not receive the proper level of financial education, their financial management and decision-making can be mishandled and lead to negative outcomes (e.g., Chen & Volpe, 1998; Cull & Whitton, 2011). Further, decisions made during this critical transition (emerging adulthood) have long-term effects on the life course (Beutler, 2012; Elder, 1995; Greene, Wheatley, & Aldava, 1992). However, studies have shown obtaining personal financial education and training increased positive financial behaviors and overall levels of knowledge, improved well-being, and decreased stress and strain (e.g., Peng, Bartholomae, Fox, & Cravener, 2007; Stein et al., 2013).

High debt levels are a weighty issue and growing concern across college campuses, especially when combined with low levels of general financial knowledge (e.g., budgeting, managing debt, understanding loan repayment plans) and the failure to save or invest for the future (Miller & Obenauer, 2013). Ayres (2013) noted that emerging adults today are less financially established than prior generations. They have less saved, and less overall accumulated wealth. Dilworth, Chenoweth, and Engelbrecht (2000) proclaimed "...the seeds of debt acquisition are sown early" (p. 35). Further, multiple studies have found that on financial assessments the topics of saving, borrowing, and investing routinely receive the lowest correct response rates among participants (e.g., Avard et al., 2005; Chan et al., 2012; Chen & Volpe, 1998). The Securities and Exchange Commission (SEC) released an extensive report aimed at assessing investing literacy. The commission found that most individuals "lack financial literacy" and further have a "weak grasp of elementary financial concepts" (as cited in Goodman, 2012, para. 2). Individuals across the life course are unprepared to build and maintain healthy financial lives. Many lack the ability to create a secure financial future because they lack investing knowledge and skills.

This manuscript examines student debt levels (consumer credit and student loan) and their knowledge, attitudes, and behavior juxtaposed with savings and investing knowledge, attitudes, and behavior. These topics en masse have important implications for emerging adults and their financial futures. To study this, a mixed method, sequential phase design was used. Quantitative analysis preceded and informed the qualitative questioning.

Based on the theoretical framework, previous literature, and the proposed models (see figures 1, 2, 3, 4, 5, and 6) the quantitative research questions and hypotheses are as follows (see Appendix E for a complete and parallel list of research questions, hypotheses, and measures):

Credit/Debt

> RQ1a: Will emerging adults' level of credit/debt knowledge, at time one (T1) and the change score (change over time), relate to a change in credit/debt behavior (change score)?
>
> > H1a: Credit/debt knowledge at time one (T1) and the change score (change over time) will relate to a change in credit/debt behavior (change score).

RQ1b: Will emerging adults' level of credit/debt attitudes, at time one (T1) and the change score (change over time), relate to a change in credit/debt behavior (change score)?

H1b: Credit/debt attitudes at time one (T1) and the change score (change over time) will relate to a change in credit/debt behavior (change score).

RQ1c: Will credit/debt attitudes mediate the relationship between credit/debt knowledge and credit/debt behavior at time one (T1) and the change scores (change over time)?

H1c: Credit/debt attitudes will mediate the relationship between credit/debt knowledge and credit/debt behavior both at time one (T1) and with the change scores (change over time).

Savings/Investing

RQ2a: Will emerging adults' level of savings/investing knowledge, at time one (T1) and the change score (change over time), relate to a change in savings/investing behavior (change score)?

H2a: Savings/investing knowledge at time one (T1) and the change score (change over time) will relate to a change in savings/investing behavior (change score).

RQ2b: Will emerging adults' level of savings/investing attitudes, at time one (T1) and the change score (change over time), relate to a change in savings/investing behavior (change score)?

H2b: Savings/investing attitudes at time one and the change score (change over time) will relate to a change in savings/investing behavior (change score).

RQ2c: Will savings/investing attitudes mediate the relationship between savings/investing knowledge and savings/investing behavior at time one (T1) and the change scores (change over time)?

H2c: Savings/investing attitudes will mediate the relationship between savings/investing knowledge and savings/investing behavior both at time one (T1) and with the change scores (change over time).

Models

The proposed models, for manuscript one, picture the study's variables and the hypothesized relationships between the variables (see figures 1, 2, 3, 4, 5, and 6 for manuscript one models). These hypothesized relationships are based on the study's theoretical framework and preceding literature. A relationship between financial knowledge, attitudes, and behavior is assumed based on the reciprocal influence between them (Shim et al., 2009; Supiano, 2014). Financial knowledge and financial attitudes are hypothesized as affecting financial behavior (Hy 1a, 1b, 2a, and 2b).

Emerging adults prize financial independence; however, they lack an appropriate level of financial knowledge to fully achieve independence (Arnett, 1994; Chen & Volpe, 1998; Dilworth et al., 2000; Shim et al., 2009). Without a baseline level of knowledge, there cannot be meaningful behavior change (Avard et al., 2005; Monticone, 2010; Murphy, 2005). However, some studies have failed to find a direct link between financial knowledge and behavior, indicating the importance and influence of financial attitudes (Borden et al., 2008). Previous research revealed financial attitudes are related to the execution of financial behaviors, habits, and practices (Chen & Volpe, 1998; Xiao, Noring, & Anderson, 1995). Additionally, several studies have found that financial attitudes mediated the effects of financial behaviors (Chen & Volpe, 1998; Jorgensen & Savla, 2010). Handcock, Jorgensen, and Melvin (2013) stated, "...complex relationships exist between financial knowledge and financial behaviors among college students, and future research may wish to include financial attitudes as a mediating factor" (p. 377). Thus, in this study financial attitudes are hypothesized as mediating the relationship between knowledge and behavior (Hy 1c and 2c).

Latent change score models were proposed to assess the difference in the pre-and post-test scores of C/D and S/I knowledge, attitudes, and behavior, and assess the relationship between knowledge and behavior, and attitudes and behavior (Hy 1a, 1b, 2a, and 2b). These models helped to control for baseline knowledge and capture change over time. In addition, mediation models tested the direct and indirect influence of financial attitudes on financial behavior (Hy 1c and 2c).

Methodology

Sample: Emerging Adult Financial Capability Survey

There was no *formal* recruitment process for this study. Participants were drawn from a personal finance course offered at the host university. Students were given the option of completing the survey (pre and post) as an assignment (Assignment A) or electing to complete an alternative assignment (Assignment B). If a student chose not to participate in the survey, there was no penalty assessed. Opting not to complete the survey (pre and post) simply resulted in the necessity to complete the equivalent alternative assignment.

The personal finance course at a minimum covered the basics of financial literacy: (a) building a financial foundation—analyzing and organizing financial records, savings, credit, bankruptcy, and economic indicators; (b) investing for the future—stocks, bonds, mutual funds, exchange traded funds (ETF), retirement planning, and working with investment professionals; and (c) understanding finance in context—money and interpersonal relationships, family financial planning, housing, insurance, estate planning, taxes, college savings, and students loans. The overarching learning objectives of the course included: (a) teaching students to identify their strengths and weaknesses as managers of money, (b) introducing students to the characteristics of various financial instruments and their use in a financial plan, and (c) helping students apply their new knowledge of financial instruments to individual and family situations across the life cycle (see Appendices C and D for course syllabi).

Sample: Focus Groups

The goal for recruitment was to enlist 5-8 participants, with the hope of creating a homogeneous group (experience with the personal finance course), to maximize group participation. The ideal composition for focus groups is a mixture of diverse views and opinions, but shared, common experience (Daly, 2007; Marshall & Rossman, 2011). This sample size is in line with Marshall and Rossman (2011) who stated a focus group should have no less than four participants and no more than twelve. Ambert et al. (1995) stated that within qualitative research there is no standard rule for sample size. The qualitative sample size should match the study's purpose, research questions, and availability of subjects. Participants were over recruited due to high levels of attrition often seen in the emerging adult population (Colucci, 2007; Creswell & Clark, 2007; Daly, 2007).

Participants responded to repeated announcements, preceding the group sessions, in the personal finance course (see Appendix O). In addition, Umana-Taylor and Bamaca (2004) stated that drafting participants, especially emerging adults, through electronic media is a successful recruitment technique, thus several email requests also were sent to potential participants (see Appendix N).

Procedures

A dual phase, cross sectional data collection process was implemented in the following ways: (a) a self-report survey measure of financial capability was distributed to emerging adult college students taking an introductory, elective personal finance course; and (b) two focus groups were assembled and asked to discuss questions related to their general impressions of financial capability, their personal financial capability, and the quantitative survey measure results.

Emerging Adult Financial Capability Survey Protocol

The Emerging Adult Financial Capability Survey (EAFCS) was administered across several semesters to students with a variety of declared majors, at various points in their class standing. In collaboration with a team of researchers from a Southern Atlantic university, and with the use of *Qualtrics*, an online survey application, the quantitative survey measure was provided to emerging adult college students. For this study, students were enrolled in a personal finance course offered Fall, Spring, and Summer (a and b sessions) semesters from May 2013 through August 2014. This course was taught in both face-to-face and online formats. After receiving official permission from the university's institutional review, protection, and integrity board, the EAFCS was distributed. During the fall and spring semesters the survey was taken by students in a face-to-face offering of the course. Approximately 300-350 students were enrolled in these sections. Each summer two online and accelerated versions of the same personal finance course were offered. These sessions spanned roughly from May 12th – June 26th and July 1st – August 15th respectively (summer a and summer b). Each section in the summer netted 100-150 students on average.

Emerging adult financial capability measure. The EAFCS is a 156-question assessment. On average, the measure takes approximately 60-90 minutes to complete. A research team from a Southern-Atlantic university and their department of Child Development and Family Relations created and piloted the EAFCS. The measure was designed to assess emerging adult college students' levels of financial knowledge, attitudes, and behavior, culminating in an overall understanding of their level of financial capability. Questions on this measure covered the following material: (a) financial knowledge, attitudes, and behavior; (b) financial socialization; (c) influences on financial literacy; (d) financial experiences; (e) salient personal relationships and their links to finance; and (f) demographics.

Focus Group Protocol

Two group sessions were held. The two separate sessions allowed for a mixture of individuals to participate and provide diverse perceptions, responses, and opinions (Marshall & Rossman, 2011). Holding two separate sessions was important as Marshall and Rossman (2011) stated, "...focus group interviews may be conducted several times with different individuals so that the researcher can identify trends in the perceptions and opinions expressed" (p. 150).

Recruitment for the focus groups began several weeks previous to the scheduled sessions. Emails were sent to past personal finance students, and a recurring announcement was provided to current students. Students were informed of the two session dates and times and asked to indicate their availability. Announcements also included information on the requirements and benefits of participation. Student participates received three reminder emails prior to their designated session.

Each session included three focused sections: general impressions, results, and educational influences. First, participants were asked to reflect on their *impressions* of financial capability and their own C/D and S/I capability. The second section focused on discussion of select survey *results* and study hypotheses. Questions of financial capability posed to focus group participants were influenced by the results of the quantitative analysis. This section represented the majority of the session. The third section covered perceptions of financial *education* both from formal schooling and parental socialization. Questions of financial education form, frequency, quality, and source were posed.

During the focus groups, drafted questions provided a loose structure for discussion and prompts were provided when needed to stimulate discussion. Matthews (2005) stated that creating an interview protocol requires drafting questions that are beyond "yes" and "no" answers. The objective is to garner participant stories, not allow one-word answers, or force specific participant remarks. The purpose of the drafted questions was to encourage and facilitate vibrant expression from participants (Marshall & Rossman, 2011). Fixed, standardized questions were not necessary. The goal was unadulterated opinions and expressions provided without coercion (Richards, 2009) (see Appendix M for complete focus group protocol).

Trustworthiness. The concept of trustworthiness is representative of a qualitative study's reliability, credibility, and objectivity (Bloomberg & Volpe, 2008). Marshall and Rossman (2011) stated, "…the writer needs to address certain key issues and considerations to demonstrate that the study, as designed, is well thought out, responds to criteria or canons for good research practice…and is likely to be implemented with an ethical mindfulness" (p. 39). To ensure trustworthiness in this study several important steps were taken. Prior to data collection a thorough review of literature and theory was conducted to inform the research questions and undergird analysis and interpretation. In addition, up front, the researcher's previous experience and biases were presented in a reflexive statement. A reflexive journal also was kept throughout the study. The focus group component of this mixed method analysis provided triangulation. After completing the quantitative data collection and analysis, qualitative focus groups provide further insight, personal meaning, and a deepened understanding of emerging adult financial capability. Thus, multiple sources of data were collected through the quantitative survey measure and two separate focus group sessions. Finally, throughout both phases of the study (quantitative and qualitative) an audit trail was kept to provide a detailed explanation of each step taken from participant recruitment to data analysis (Bloomberg & Volpe, 2008; Marshall & Rossman, 2011) (see Appendix P for audit trail).

Analysis Plan

Quantitative Data

After thorough review of the EAFCS survey measure, questions related to, and deemed to fit within the categories of C/D and S/I, were selected by the researcher. The questions were then grouped into subcategories within C/D and S/I, and each subcategory was named. This system helped organize and focus the survey data used for analysis. For example, under C/D financial knowledge are the following subcategories: credit basics, interest rates, credit score, credit report, credit laws, loan basics, and student loans. Under S/I financial knowledge are the following subcategories: savings basics, savings interest rates, inflation, investing risk, and retirement (see Appendices F - J for survey questions and categories). The goal was to have an *n*=1,000, representing a set of completed pre-and post-test assessments.

Under financial knowledge C/D and S/I there were a total of 29 questions (e.g., "The difference between a debit card and a credit card is__________."). Questions were re-coded with a one given for a correct answer and a zero for an incorrect answer (see Appendix F). Financial attitudes, C/D and S/I, were represented by five questions and having multiple subcategories (e.g., "Please identify each of the following as 'good practice' or 'not good practice':") (see Appendix G). Three of the five questions had subcategories that were reverse coded so that higher scores reflected positive financial practice. There were 17 questions under financial behavior (C/D, S/I) (e.g., "How many credit cards do you have including store credit cards?"). Of these questions, three were reverse coded (see Appendix H). Finally, there were 13 questions related to participant demographic profile (e.g., "What is your academic standing?") (see Appendix J).

Model construction. Based on Yang and Green (2011), reliability for each question subscale was determined through structural equation modeling. The authors stated that coefficient alpha (α) assumes equal factor loadings and does not include measurement error. The authors concluded, "We argue that a modeling approach to assessing reliability will be more informative than simply computing coefficient alpha…it requires a series of judgments by researchers, the result is a more interpretable coefficient and its underlying assumptions better understood…(p. 389)"

The financial capability survey was available through *Qualtrics*, an online survey-based data collection system that allows researchers to create, post, analyze, and manage survey data. All study data were exported from *Qualtrics* (Qualtrics, 2015) to *Excel* (version 14) (Microsoft., 2011), merged, organized, and re-coded in *SPSS* (version 21) (IBM Corp., 2012) and finally sent to *Mplus* (version 7) for data analysis (Muthen & Muthen, 1998). Initially, in *Excel*, data were separated and organized by semester and pre-and post-test status. Unique numerical IDs were assigned to each participant, and cases were matched. The numerical IDs captured information that represented the semester completed (fall, spring, summer a, summer b), the school year, and a three digit participant code. Data from six semesters were analyzed. In *SPSS* the variables were re-named and grouped into subscales. Measurement levels were defined and items were re-coded to reflect, where applicable, a four-point scale (0-3). All changes were documented in the question subscales (see Appendices F – J).

The current and hypothesized coding schemes for one question (Q101-credit/debt behavior) were tested through unidimensional item response theory (IRT). The hypothesized coding scheme, based on previous literature and knowledge of the topic, represented a logical flow from negative C/D behavior (e.g., I occasionally make less than the minimum payment-0) to positive behavior (e.g., I always pay off the total balance each month-5). IRT revealed that the newly coded answer choices were highly discriminate. Thus, the proposed coding scheme was retained (IRT results available upon request). Missing data were coded (999), assessed, and accounted for based on amount of data missing and apparent reason for missing data.

Factor analysis. Exploratory factor analysis (EFA) was performed on each subscale. EFA determines model structure by testing the number of latent variables needed to create acceptable fit, within the most parsimonious model, while explaining the relationships with indicator variables (Muthen & Muthen, 1998-2012). Following EFA, confirmatory factor analysis (CFA), a measurement model, was used to further test the fit of the previously selected model and examine the relationships between latent variables and the observed indicators in greater detail. Model fit determines how well a proposed model fits with the data, and provides a standard for assessing whether to reject or retain a particular model. Fit was considered acceptable when Root Mean Square Error of Approximation (RMSEA) was less than .06 and the Comparative Fit Index (CFI) and Tucker Lewis Index (TLI) were both at or above .95 (Hu & Bentler, 1999).

Measurement invariance. All levels of measurement invariance were tested in a stepwise fashion. Measurement invariance examines if the measures on the pre-and post-tests have identical structures and if the same concepts are being tested. This process is key for any meaningful comparison to be drawn between groups or across time. Through ordered, hierarchical tests of model fit, latent factors and indicators, factor loadings, and intercepts are compared to be equal (Chen, Sousa, & West, 2005). This study tested configural, weak, and strong invariance (see table 4 for measurement invariance results). If strong invariance was not achieved, partial invariance was tested. Studies have used the relaxed partial invariance model as an alternative when strong invariance fails to be retained (Byrne, Shavelson, & Muthen, 1989; Chen et al., 2005).

Invariance procedures and level of acceptance for fit was guided by previous research (Chen et al., 2005; Schmitt & Kulijanin, 2008; Schoot, Lugtig, & Hox, 2012). Chi-square difference tests are typically used to compare model fit across tests of measurement invariance. However, chi-square results are affected by non-normality and large sample sizes such that many researchers suggest other goodness-of-fit indices (Chen et al., 2005; Widaman, Ferrer, & Conger, 2010).

Model testing. Several models of the purposed variables and their relationship with one another were created. These models were tested using *Mplus* and structural equation modeling (SEM). SEM allows researchers to test theories or interactions between multiple variables, explicitly takes into account measurement error, and provides an avenue for testing latent variables. Within SEM, direct, indirect, and mediation effects can be tested (Raykov & Marcoulides, 2006). Regarding the uses of SEM, Raykov and Marcoulides (2006) stated, "…SEM can be used to quantify and test plausibility of hypothetical assertions about potential interrelationships among constructs as well as their relationships to measure assessing them" (p. 1).

The latent change models (Hy 1a, 1b, 2a, and 2b) were created following the pattern established by McArdle (2009). Drawing from the models created during measurement invariance, latent change variables were created, and relationships both directional and non-directional were tested. Latent change models create a new latent variable, the change score, which captures the overall change from time one to time two. After the models were tested the output was reviewed for warning messages. In addition, parameters, variances, model fit, and findings were reviewed (McArdle, 2009).

Mediation models examine the relationship between an independent variable (X) and a dependent variable (Y) through the influence of a separate intervening variable (M). This mediating influence can be represented by multiple variables. Assumption of mediation should be grounded in theory and backed by previous literature (Preacher & Hayes, 2008). This study hypothesized, based on previous studies, that financial attitudes in both C/D and S/I would function as a mediating presence (Chen & Volpe, 1998; Gudmunson & Danes, 2011; Handcock et al., 2013; Jorgensen & Savla, 2010). Mediation models (Hy 1c and 2c) were created and tested in an ordered fashion. First, a baseline model with only latent factors was tested. Then time one cross-lags were added, followed by the addition of difference scores and cross lags. Finally, the full model was tested, and an adjusted model with the non-significant pathways removed was tested. This process provided checks of the significant pathways and the level and possible improvement of fit across all models (see table 5 for fit across all tested models). The fourth, full model was deemed to have acceptable fit. Any improvement of fit within the RMSEA, CFI, TLI, or Chi Square was non-significant.

After fit was tested and confirmed the model was re-estimated with a bootstrap of 1,000. Bootstrapping is the recommend procedure when testing mediation, especially when using structural equation modeling (Preacher & Hayes, 2008; Shrout & Bolger, 2002). This procedure is a nonparametric repeated sampling technique that provides an empirical sample distribution and confidence intervals. The confidence intervals determine if a mediation pathway that is significantly greater than zero is possible. In addition, this method provides more information than the standard p-value, and has greater sensitivity to the Type I error, especially when compared to other popular tests such as the Sobel test (Preacher & Hayes, 2008; Shrout & Bolger, 2002).

Qualitative Data

The follow-up focus group sessions were designed to supplement the quantitative survey measure, providing greater depth and clarity to the survey data as well as triangulation to the overall study. Triangulation is one method that helps ensure quality and justifies the overall use of qualitative methods in conjunction with quantitative analysis (Creswell & Miller, 2000;Colucci, 2007; Ouimet et al., 2004; Ritchie & Lewis, 2003).

Student participants commented on, reacted to, and added their insight to questions related to the quantitative results and the overall theme of C/D and S/I capability. During the focus group sessions observational notes were taken, and after each session these preliminary notes were reviewed. This process, as seen in Ouimet et al. (2004), provided a review of the session and allowed the researcher to become oriented to the overall aim and major themes of the session. In addition, both focus group sessions were digitally recorded and later transcribed verbatim. Participant numbers and pseudonyms were assigned during transcription (see Appendix R for participant numbers and pseudonyms). The coding process followed an ordered sequence, similar to what is presented in Creswell (2007): (a) on three separate instances transcripts were read, reviewed, and notes were taken; (b) transcripts, notes, highlighted statements, and quotes were reviewed and open coded; (c) transcripts and initial codes were organized, and combined when appropriate; (d) a codebook was created with categories, subcategories, and their descriptions; and (e) a table was created displaying coded passages (significant statements and quotes) under each category and subcategory (see Appendix Q for focus group codebook).

Results

Sample Frequency Distributions: EAFCS

Over 1,000 cases across six semesters were recorded in *Qualtrics*. Cases that were submitted in error with nothing completed or less than half of the measure completed were eliminated. The eliminated cases were identified through IP addresses and the date and time stamps as submission errors from users that re-submitted a completed survey. This process yielded complete test sets with minimum random errors, for the purpose of comparison. This resulted in a total sample for the quantitative survey analysis of 855 completed pre-and post-test sets, and a response rate of 85.5%. Each participant was given a numerical identifier after the data were exported. Identifying information (IP addresses, time and date stamps, participant names, and email address) was used to find and organize the participants' pre-and post-test submissions. Once organization was completed, this information was removed.

The majority of this sample fell within the age range of 18-22 (95%). This was in keeping with the study's inclusion criteria, which stipulated participants be no more than 30 years of age. Within the sample there was a slightly larger representation of males (55.7%) than females, and the majority identified as being white/Caucasian (69.8%). Eight percent of the sample identified as black/African American, while just fewer than 8% of participants in total represented the categories of Hispanic, Asian, and American Indian. The remaining 126 participants (14.8%) selected "other." The overwhelming majority of participants reported being raised in the US (84.4%).

Class standing revealed a somewhat equal distribution of sophomores (29.9%) and juniors (20.9%), while seniors were in the majority (40.1%) and freshman in the minority

(9%). One student (.1%) reported his/her status as a graduate student. The students were asked to identify their academic major from the following list: accounting, finance, education, engineering, psychology, sociology, human development and family studies, or "other." The majority chose "other" (43.9%). As previously stated, aside from the business college, this course is not required. In fact, 86% of students took the personal finance course as an elective.

When asked about the financing of their education, participants reported parents or other family as the primary source (47.7%). A category labeled as "self," referring to loans, scholarships, grants, or other financial aid, came in second with 23.2% of students. As participants looked into the future, they were split as to the highest level of education they believed they would achieve. The majority wanted to continue their current education or pursue further training—bachelor's degree (41.6%), master's degree (44.5%), doctoral or professional (12.3%). When asked the expected level of income they would make after completing school, 42% of students selected $50,000-74,999, with the next largest category being $40,000-49,999 (25.7%) (see table 14 for all demographic questions and results).

Sample Frequency Distributions: Focus Groups

The two focus group sessions had a total of 14 participants, seven in each session. For the total sample there were seven male and seven female participants. The age of the majority of participants was between 18-22 years (85.7%), the remaining two participants (14.3%) fell within the range of 23-26 years. Half of the participants classified themselves as white or Caucasian, while the other 50% classified themselves in the following ways: black or African American (14.3%), Hispanic American (7.1%), Asian American (14.3%), and other (14.3%). The two participants that selected "other" identified as Asian.

The overwhelming majority of participants were seniors (71.4%) followed by sophomores (21.4%), and freshman (7.1%). Major choice varied, with the largest concentration (28.6%) in the fields of accounting and finance, followed by communication (14.3%). Beyond these areas of study, each participant reported a different major ranging from engineering to media and information. Students were split as to the degree of collegiate training they desired: 35.7% indicated a bachelor's degree, while 42.9% denoted a master's degree was their end goal.

Nearly half of the sample reported they are currently enrolled in the personal finance course (38.5%). Participants who were not currently enrolled completed the course within the last scholastic year and a half (Summer 2014 - Fall 2015). Similar to the frequency of course offerings (face-to-face vs. online), within this span of time the majority of students had the course in face-to-face sections (69.2%), while 30.8% took it online (see table 15 for all demographic questions and results).

Quantitative Study Results: EAFCS

The focus of this study was the relationship between knowledge, attitudes, and behavior in the areas of C/D and S/I. The research questions and associated hypotheses were designed to progress from the relationship of knowledge and behavior, to attitudes and behavior, and finally the mediation model with attitudes as an intermediate between knowledge and behavior.

Figures of each tested model were created displaying all tested pathways, and significant results (estimate and standard error). Tables were created to display model fit, tests of measurement invariance, and all results—significant and non-significant (estimates, standard error, p-value). Confidence intervals (95%) for the mediation models also were provided. For each model, within the figures and tables, both unstandardized and standardized results were displayed. Standardized results allow for comparison of model effects within the same model and with the same dependent variable.

Research Question 1a: Credit/Debt

RQ1a: Will emerging adults' level of credit/debt knowledge, at time one (T1) and the change score (change over time), relate to a change in credit/debt behavior (change score)?

H1a: Credit/debt knowledge at time one (T1) and the change score (change over time) will relate to a change in credit/debt behavior (change score).

The first research question and hypothesis addressed the relationship between C/D knowledge and change in behavior: Would knowledge gained between time one and time two lead to change in behavior? To test this assertion a latent change score model was tested (McArdle, 2009) using *Mplus* 7 version 1.31 (Muthen & Muthen, 1998-2012). Hypothesis 1a was partially supported.

EFA, CFA, and model fit. For all models including hypothesis 1a following the tests of EFA, confirmatory factor analysis and measurement invariance were performed. This was a stepwise process: (a) EFA for all subscales (C/D and S/I knowledge, attitudes, behavior) at time one and time two was run to determine factor structure; (b) CFA was run on all subscales at time one and time two to establish fit; (c) measurement invariance was run to establish equivalence between time one and time two; and (d) latent change and mediation models (time one and time two combined) and the relationships between knowledge, attitudes, and behavior were tested. During CFA necessary adaptations were made to increase model fit. To this end, modification indices (MI) were used to evaluate change in fit when parameters were relaxed (Muthen & Muthen, 1998-2012). Only model fit for the final latent change models and mediation models are reported. For EFA and CFA model fit, refer to table 2.

Exploratory factor analysis revealed a one-factor model for C/D knowledge and a two-factor model for financial behavior. C/D knowledge factor one was related to a theme of credit card and loan uses and tracking (e.g., "Which of the following cannot legally access your credit report?"). The indicators loading on C/D behavior factor one surrounded C/D holdings (e.g., "How many credit cards do you have?") and negative credit practices (e.g., "In the past 12 months have you… Maxed out the limit on one or more credit card"). Behavior factor two related to C/D payments and research of terms (e.g., "I compare offers before applying for a loan") (see table 3 for factor themes). Throughout this section factors will be referred to by their content area (knowledge, attitudes, and behavior) and related factor themes. Adequate model fit for the latent change model testing hypothesis 1a was achieved (*CFI=* .976, *TLI=* .975, *RMSEA=* .032, *RMSEA 90% CI=* .028, .036). Hu and Bentler (1999) stated that RMSEA should be below .06 and the TLI and CFI cutoff near .95 (see table 1 for model fit indices).

Measurement invariance. Tests of measurement invariance were preformed on all subscales (CD K, CD A, CD B, SI K, SI A, SI B). This process tests the equivalency of a measure, ensuring that concepts are being tested and interpreted the same across groups and across time (Chen et al., 2005; Schmitt & Kulijanin, 2008; Schoot et al., 2012). The order of operations used in this study for measurement invariance with categorical data included: (a) configural invariance—fitting a model with minimal constraints, testing equality with the configuration of pathways across groups; (b) weak invariance—constraining factor loadings across group, testing the equality of measurement units; and

(c) strong invariance—constraining thresholds and remaining intercepts, testing the equality of the mean structure across groups (Hortensius, 2012; Widaman et al., 2010). If strong invariance failed to be retained partial invariance, relaxing thresholds, was tested and if retained formed the baseline model. According to Chen, Sousa, and West (2005) the more advanced tests of invariance (strict) represent "very stringent ideal standards that are very difficult to fulfill" (p. 475).

Due to documented issues between likelihood tests and large-scale sample sizes this study used the CFI difference score to assess fit across the tests of invariance (Bentler, 1990; McDonald & Marsh, 1990; Widaman et al., 2010). According to Cheung and Rensvold (2002), "a difference of larger than 0.01 in the CFI would indicate a meaningful change in model fit for testing measurement invariance" (p. 582). Thus, a CFI less than the 0.01 level, revealed that the model in question and the compared model were identical. The larger the CFI difference between models the more dissimilar the models.

Both the C/D knowledge (*CFI*= .978, *RMSEA*= .037, *CFI difference*= .008) and C/D behavior subscales (*CFI*= .977, *RMSEA*= .05, *CFI difference*= .008) reached strong invariance. The strong invariance model achieved formed the baseline model from which further SEM analysis was preformed (see table 4 for measurement invariance results).

CDK-uses and tracking and CDB-holdings and negative practices, CDB-payments and research. Credit/debt knowledge-uses and tracking (T1) was not significantly related to change in behavior-holdings and negative practices (b= 0.002, SE= 0.022, β= 0.040, p= 0.928), or change in behavior-payments and research (b= 0.009, SE= 0.019 β= 0.026, p= 0.625). Credit/debt behavior-holdings and negative practices (T1) was significantly and negatively related to change in that behavior (b= -0.116, SE= 0.021, β= -0.281, p< .001).

Behavior-payments and research also had a significant and negative relationship with that factor's change score (*b*= -0.128, *SE*= 0.020, *β*= -0.429, *p*< .001). These results reveal a higher score in C/D behavior-holdings and negative practices (T1) and C/D behavior-payments and research (T1) related to less change in overall behavior.

A higher score in knowledge (T1) was significantly related to a higher score for behavior-payments and research (T1) (*b*= 0.181, *SE*= 0.020, *β*= 0.520, *p*< .001). However, a higher score for knowledge (T1) was negatively related to behavior-holdings and negative practices (T1) (*b*= -0.071, *SE*= 0.029 *β*= -0.121, *p*= .015). As knowledge changed over time behavior-payments and research changed (*b*= 0.047, *SE*= 0.017, *β*= 0.201, *p*= .006). This relationship was not significant with change in behavior-holdings and negative practices (*b*= 0.008, *SE*= 0.019, *β*= 0.040, *p*= 0.687) (see figure 1 and 1a for full model).

Research Question 1b: Credit/Debt

RQ1b: Will emerging adults' level of credit/debt attitudes, at time one (T1) and the change score (change over time), relate to a change in credit/debt behavior (change score)?

H1b: Credit/debt attitudes at time one (T1) and the change score (change over time) will relate to a change in credit/debt behavior (change score).

A latent change score model was utilized to examine hypothesis 1b and the relationship between C/D attitudes and behavior. The supposition being tested was that financial attitudes (T1) and overall change in attitudes would affect change in financial behavior. Hypothesis 1b was partially supported.

EFA, CFA, and model fit. Exploratory factor analysis revealed that the data for C/D attitudes fit a three-factor model, while the data for C/D behavior fit a two-factor model. Each attitude factor related to different aspects of subjective financial knowledge.

Subjective financial knowledge is defined as an individual's assessment of his or her financial understanding, ability, and beliefs (Xiao et al., 2009). For factor one, the theme of subjective financial knowledge linked to negative financial practices (e.g., "Please identify each of the following as 'Good Practice' or 'Not Good Practice'…Exceeding credit limits"). Factor two was connected to estimates of positive financial practices (e.g., "Please identify each of the following as 'Good Practice' or 'Not Good Practice'…Making payments on time"). Attitudes factor three represented avoidant responses (e.g., "The cost of using credit is too high"). In each instance participants provided their agreement with statements in these categories (positive, negative, avoidant). Financial attitude questions asked participants if C/D actions were a "good practice" or "not a good practice," asked participants to rate C/D statements from strongly agree to strongly disagree, and asked participants to rate their understanding of C/D topics (excellent – poor). As stated above, C/D behavior factor one and two represented: (a) holdings and negative practices, and (b) payments and research, respectively. Model fit was tested and evaluated through several fit indices. Results revealed acceptable fit for the overall model (*CFI*= .947, *TLI*= .943, *RMSEA*= .044, *RMSEA 90% CI*= .041, .047).

Measurement invariance. Stepwise tests of measurement invariance were preformed for both C/D attitudes and behavior. Models in this process ranged from least to most restrictive (configural–strong). The strong invariance model could not be retained for C/D attitudes. However, this model did reach partial invariance (*CFI*= .947, *RMSEA*= .063, *CFI difference*= .005). Muthen and Muthen (1998-2012) stated, "When full measurement invariance does not hold, partial measurement invariance can be considered. This involves relaxing some equality constraints on the measurement parameters" (partial measurement invariance, para. 1). The strong invariance model was retained for C/D behavior.

CDA change scores and CDB-holdings and negative practices. Behavior-holdings and negative practices (T1) significantly and negatively predicted change in attitudes-positive practices ($b = -0.143$, $SE = 0.028$, $\beta = -0.274$, $p < .001$), and change in attitudes-avoidant responses ($b = -0.153$, $SE = 0.039$, $\beta = -0.192$, $p < .001$). Thus, high initial scores for behavior-holdings and negative practices (T1) related to low overall change in positive practice and avoidant response attitudes. However, the relationship between the attitude change score-negative practices and behavior-holdings and negative practices (T1) was non-significant ($b = -0.058$, $SE = 0.061$, $\beta = -0.069$, $p = 0.345$).

CDA-positive practices and CDB-payments and research change score. Attitudes-positive payments (T1) significantly and negatively predicted change in behavior-payments and research ($b = -0.251$, $SE = 0.076$, $\beta = -0.203$, $p = .001$). This result indicated that a higher attitudes-positive practices score predicted less change in behavior-payments and research.

CDA change scores and CDB change scores. Significant relationships were present between the change scores. Change in behavior-holdings and negative practices significantly related to change in attitudes-positive practices ($b = 0.030$, $SE = 0.014$, $\beta = 0.120$, $p = .030$) and change in attitudes-avoidant responses ($b = 0.046$, $SE = 0.020$, $\beta = 0.127$, $p = .021$). Change in behavior-payments and research significantly related to change attitudes-positive practices ($b = 0.093$, $SE = 0.015$, $\beta = 0.342$, $p < .001$) and change in attitudes-avoidant responses ($b = 0.057$, $SE = 0.024$, $\beta = 0.127$, $p = .019$).

CDA-negative practices, CDA-positive practices, CDA-avoidant responses and CDB-holdings and negative practices, CDB-payments and research. Between factors, C/D attitudes and C/D behavior, there were several significant pathways. C/D attitudes-negative practices had a significant negative relationship with behavior-holdings and negative practices (T1) (b= -0.126, SE= 0.052, β= -0.146, p= .015). Behavior-holdings and negative practices (T1) significantly and positively related to attitudes-positive practices (T1) (b= 0.190, SE= 0.023, β= -0.402, p< .001), and attitudes-avoidant responses (T1) (b= 0.284, SE= 0.034, β= 0.342, p< .001). Behavior-payments and research significantly related to attitudes-negative practices (b= 0.188, SE= 0.040, β= -0.362, p< .001), attitudes-positive practices (b= 0.110, SE= 0.017, β= -0.384, p< .001), and attitudes-avoidant responses (b= 0.115, SE= 0.026, β= -0.230, p< .001) (see figure 3 and 3a for full model).

Research Question 1c: Credit/Debt

RQ1c: Will credit/debt attitudes mediate the relationship between credit/debt knowledge and credit/debt behavior at time one (T1) and change score (change over time)?

H1c: Credit/debt attitudes will mediate the relationship between credit/debt knowledge and credit/debt behavior both at time one (T1) and with the change score (change over time).

Hypothesis 1c assessed financial knowledge, attitudes, and behavior together, and asserted that attitudes would mediate the relationship between C/D knowledge and behavior. Within the mediation model there were several significant, direct relationships between factors. The indirect effects and role of attitudes as a mediator was the focus of this research question and hypothesis and is the central to this write-up (see table 10 for mediation model indirect and direct effects). Hypothesis 1c was partially supported.

EFA, CFA, and model fit. Exploratory factor analysis on all three models revealed: credit/debt knowledge had one factor (credit uses and tracking), attitudes had three (subjective financial knowledge—negative, positive, and avoidant practices), and behavior had two factors (holdings, payments and research). Each possible direct and indirect effect between factors and change scores was tested.

Prior to testing the final model, several nested models were tested in an effort to achieve acceptable fit within the most parsimonious model: (a) baseline model with just latent factors; (b) time one cross-lags; (c) difference score cross-lags; (d) full model with latent factors, time one, and difference cross-lags; and (e) adjusted model without non-significant pathways. These tests allowed model fit to be evaluated, and helped to determine necessary pathways to include in the final model (see table 5 for mediation model fit results). The full model was chosen as the final model and used to test the direct and indirect effects of C/D knowledge, attitudes, and behavior. This model provided information on all possible effects. Change in fit across all tested models was nominal and non-significant. The full model was deemed sufficient (*CFI*= .934, *TLI*= .931, *RMSEA*= .038, *RMSEA 90% CI*= .036, .040).

Tests of indirect effects. Standardized results for the mediation model are presented below. The standardized figures represent the amount of change in units of standard deviation the dependent variable (DV) will change based on standard deviation change in the predictor (IV). In addition, these figures allow for direct comparisons to be made. Researchers have long debated the merits of traditional tests of effect size and proposed using standardized figures in their place (Muthen & Muthen, 1998-2012; Wen & Fan, 2015). Wen and Fan (2015) stated,

> The indirect effect *ab*, when in standardized form, is already on a standardized scale that is directly interpretable…Because the standardized form of the mediation effect *ab* is already interpretable, and it could be used for synthesis across studies it appears that there is no fundamental motivation for developing another scale-free index to represent *ab*, because *ab* in standardized form is already scale free (pp. 199-200).

Based on Wen and Fan (2015) total indirect effects (sum of direct and indirect effects), direct effects, and indirect effects are presented (see table 10 for all direct and indirect results). All but one of the total indirect effects (sum of direct and indirect) for this model was non-significant. The only significant total indirect effect was from C/D knowledge-uses and tracking to C/D behavior-payments and research (β= 0.170, *SE*= 0.059, *p*= .004). It is important to note, these total or sum effects are estimations. In fact, Preacher and Hayes (2008) stated, "We do not suggest that a significant total indirect effect is a prerequisite for investing specific indirect effects. It is entirely possible to find specific indirect effects to be significant in the presence of a non-significant total indirect effect" (p. 882).

The results of the C/D mediation model revealed two significant indirect effects across all factors and change scores. From C/D knowledge-uses and tracking (T1) to behavior-holdings and negative practices (T1), attitudes-avoidant responses (T1) significantly mediated this relationship (β= 0.103, *SE*= 0.037, *p*= .006, *95% CI*= .041, .164). The relationship between financial knowledge-uses and tracking (T1) and behavior-holdings and negative practices (T1) through attitudes-negative practices (T1) (β= -0.067, *SE*= 0.061, *p*= 0.273, *95% CI*= -.167, .033) and attitudes-positive practices (T1) were non-significant (β= 0.056, *SE*= 0.034, *p*= 0.101, *95% CI*= .000, .111).

From knowledge-uses and tracking to behavior-payments and research (T1), attitudes-positive practices (T1) significantly mediated the relationship (β= 0.056, *SE*= 0.027, *p*= .035, *95% CI*= .012, .100). This was the only significant indirect effect from knowledge-uses and tracking to behavior-payments and research (T1). The relationship between knowledge-uses and tracking (T1) to behavior-payments and research through attitudes-negative practices (T1) (β= 0.086, *SE*= 0.056, *p*= 0.126, *95% CI*= -.006, .178) and attitudes-avoidant responses (T1) were non-significant (β= 0.028, *SE*= 0.017, *p*= 0.108, *95% CI*= -.001, .056).

All pathways between change in knowledge-uses and tracking and change in behavior-holdings and negative practices and behavior-payments and research were non-significant. (see figure 5 and 5a for full model).

Research Question 2a: Savings/Investing

RQ2a: Will emerging adults' level of savings/investing knowledge, at time one (T1) and the change score (change over time), relate to a change in savings/investing behavior (change score)?

H2a: Savings/investing knowledge at time one (T1) and the change score (change over time) will relate to a change in savings/investing behavior (change score).

A latent change model was run to determine the relationship between S/I knowledge (T1) and change in knowledge over time, and overall change in S/I behavior. Hypothesis 2a was partially supported.

EFA, CFA, and model fit. Exploratory factor analysis revealed both S/I knowledge and behavior had one associated factor. Knowledge factor one represented savings and investing accounts and return on accounts (e.g., "A high-risk, and high return investment strategy would be most suitable for?"). The savings/investing behavior factor was associated with budgeting and record keeping (e.g., "Please indicate the frequency with which you engage in the following activities…I maintain adequate financial records"). Fit for hypothesis 1a was achieved with satisfactory results (*CFI*= .971, *TLI*= .971, *RMSEA*= .042, *RMSEA 90% CI*= .038, .046).

Measurement invariance. Tests of measurement invariance revealed partial invariance for the two subscales, S/I knowledge (*CFI*= .986, *RMSEA*= .032, *CFI difference*= .004) and S/I behavior (*CFI*= .962, *RMSEA*= .063, *CFI difference*= .009). This level of invariance was accepted based on Chen, Sousa, and West (2005) and Byrne et al. (1989).

SIK-accounts and return and SIB-budgeting and record keeping. Only three total pathways were significant in this model. S/I behavior-budgeting and record keeping (T1) was negatively and significantly related to the behavior change score (b= -0.139, SE= 0.091, β= -0.359, p< .001). Knowledge-accounts (T1) and behavior-budgeting and record keeping (T1) were positively and significantly related (b= 0.091, SE= 0.022, β= 0.235, p< .001). Finally, change in knowledge-accounts significantly related to change in behavior-budgeting and record keeping (b= 0.060, SE= 0.020, β= 0.230, p= .002) (see figure 2 and 2a for full model).

Research Question 2b: Savings/Investing

RQ2b: Will emerging adults' level of savings/investing attitudes, at time one (T1) and the change score (change over time), relate to a change in savings/investing behavior (change score)?

H2b: Savings/investing attitudes at time one (T1) and the change score (change over time) will relate to a change in savings/investing behavior (change score).

This hypothesis examined the relationship between financial attitudes and behavior in the realm of savings and investing. The research question was posed, does S/I attitudes effect S/I behavior directly or through change over time? Hypothesis 2b was partially supported.

EFA, CFA, and model fit. Exploratory factor analysis reveled the data for S/I attitudes fit a three-factor model. Similar to C/D attitudes, each of the S/I factors surrounded aspects of subjective financial knowledge. The first factor was linked to the understanding of investments and budgeting (e.g., "Rate your understanding…Saving for retirement"). Factor two assessed the participants' level of subjective knowledge related to positive practices in savings/investing (e.g., "Saving money regularly is important"). The last factor related to negative savings/investing practices (e.g., "Keeping records of financial matters is too time consuming to worry about"). For each factor, participants provided their agreement with statements in these categories (investments and budgeting, positive practices, and negative practices). Savings/investing financial attitude questions asked participants to rate S/I statements from strongly agree to strongly disagree, and asked participants to rate their understanding of C/D topics (excellent – poor). Behavior, as outlined above, covered issues of budgeting and record keeping. Model fit was right at the cutoff proposed by Hu and Bentler (1999) for incremental fit indices such as the CFI and TLI (*CFI*= .951, *TLI*= .949, *RMSEA*= .049, *RMSEA 90% CI*= .047, .052).

Measurement invariance. Partial measurement invariance for S/I financial attitudes was retained (*CFI*= .939, *RMSEA*= .038, *CFI difference*= .008). Savings/investing behavior also reached partial invariance (*CFI*= .962, *RMSEA*= .063, *CFI difference*= .009).

SIA-investments and budgeting, SIA-positive practices, SIA-negative practices and SIB-budgeting and record keeping. The relationship between all three attitudes factors and behavior were positive and significant. Behavior-budgeting and record keeping (T1) significantly related to attitudes-investments and budgeting (T1) (b= 0.205, SE= 0.021, β= 0.459, p< .001), as well as attitudes-positive practices (T1) (b= 0.195, SE= 0.024, β= 0.357, p< .001), and attitudes-negative practices (T1) (b= 0.156, SE= 0.022, β= 0.291, p< .001).

SIA change scores and SIB change score. The relationship between the change scores revealed two significant relationships. Less change in attitudes-investments and budgeting related to less change in behavior-budgeting and record keeping (b= -0.593, SE= 0.020, β= -0.848, p= .007). However, the change score for attitudes-positive practices was positively and significantly related to change in behavior-budgeting and record keeping (b= 0.042, SE= 0.019, β= -0.109, p= .028). Finally, change in attitudes-negative practices and its relationship to overall change in behavior-budgeting and record keeping was non-significant (b= 0.032, SE= 0.018, β= 0.078, p= 0.082).

SIA-investments and budgeting, SIA-positive practices, SIA-negative practices and SIB change score. Attitudes-investments and budgeting (T1) significantly and negatively predicted change in behavior-budgeting and record keeping (b= -0.132, SE=

0.039, *β*= -0.154, *p*= .001). Thus, a higher time one score on attitudes-investments and budgeting predicted less overall change in behavior. The relationships between behavior-budgeting and record keeping, attitudes-positive practices (T1) (*b*= -0.006, *SE*= 0.027, *β*= -0.008, *p*= 0.835), and attitudes-negative practices (T1) (*b*= 0.016, *SE*= 0.027, *β*= 0.022, *p*= 0.554) were non-significant.

SIA change scores and SIB-budgeting and record keeping. All predictive relationships between behavior (T1) and the attitude change scores were significant. However, only the relationship between behavior-budgeting and record keeping (T1) and change in attitude-investments and budgeting was positive and significant (*b*= 0.633, *SE*= 0.255, *β* = 0.323, *p*= .013). Here, behavior-budgeting and record keeping positively predicted a change in attitudes-investing and budgeting. Behavior-budgeting and record keeping (T1) negatively predicted the attitude change score-positive practices (*b*= -0.112, *SE*= 0.050, *β*= -0.108, *p*= .026). Similarly, a negative predictive relationship was present between behavior-budgeting and record keeping (T1) and change in attitude-negative practices (*b*= -0.136, *SE*= 0.050, *β*= -0.126, *p*= .007) (see figure 4 and 4a for full model).

Research Question 2c: Savings/Investing

RQ2c: Will savings/investing attitudes mediate the relationship between credit/debt knowledge and savings/investing behavior at time one (T1) and change score (change over time)?

H2c: Savings/investing attitudes will mediate the relationship between savings/investing knowledge and savings/investing behavior both at time one (T1) and with the change score (change over time).

This model investigated the role of attitudes as a mediating influence between S/I knowledge and behavior. Will the presence of attitudes explain the relationship between knowledge and behavior? Hypothesis 2c was partially supported.

EFA, CFA, and model fit. Savings/investing knowledge had one factor (savings and investing accounts and return), attitudes had three (investing and budgeting, positive practices, and negative practices), and behavior had one factor (budgeting and record keeping). Each possible direct and indirect mediation pathway between factors and change scores was tested (see table 11 for mediation model indirect and direct effects).

Model fit was determined through testing a series of nested models from the most basic to the full model. The full model with all pathways was chosen for use in further analysis. Similar to the C/D mediation model, the incremental fit indices were slightly lower than the recommended cutoff (.95); however, the absolute fit index (RMSEA) was below the acceptable cutoff (.06) (Hu & Bentler, 1999). Further, the model did not significantly improve across iterations (i.e., only latent factors, time one cross-lags difference score cross-lags, or removal of non-significant pathways) (*CFI*= .940, *TLI*= .938, *RMSEA*= .046, RMSEA 90% CI= .043, .048).

Tests of indirect effects. The total indirect effect between the knowledge, attitudes, and behavior factors (β= 0.403, *SE*= 0.103, *p*< .001) was significant. All indirect effects between S/I knowledge-accounts and return and behavior-budgeting and record keeping were positive and significant. The relationship from S/I knowledge-accounts and return (T1) to behavior-investments and budgeting (T1) through attitudes-investments and budgeting (T1) (β= 0.069, *SE*= 0.031, *p*= .028, *95% CI*= .017, .120), attitudes-positive practices (T1) (β= 0.189, *SE*= 0.055, *p*= .050, *95% CI*= .097, .280), and attitudes-negative practices (T1) (β= 0.146, *SE*= 0.067, *p*= .029, *95% CI*= .036, .256) were significant.

Within the change score model the total indirect effect (β= 0.279, *SE*= 0.126, *p*= .027) was significant. However, between change scores (knowledge, attitudes, behavior) there was one significant indirect effect. The relationship between change in knowledge-accounts and returns and change in behavior-budgeting and record keeping was significantly mediated by change in attitudes-investments and budgeting (β= 0.223, *SE*= 0.096, *p*= .020, *95% CI*= .066, .038). From change in knowledge-accounts and return to change in behavior-budgeting and record keeping through change in attitudes-positive practices (β= 0.048, *SE*= 0.046, *p*= 0.288, *95% CI*= -.027, .123) and attitudes-negative practices (β= 0.007, *SE*= 0.017, *p*= 0.670, *95% CI*= -.020, .034) was non-significant (see figure 6 and 6a for full model).

Summary of Findings

- When time one scores were higher for credit/debt and savings/investing, attitudes and behavior, overall change was low. Conversely, lower time one scores related to greater change.
- High levels of C/D knowledge-uses and tracking (T1) related to positive behavior with payments and research (T1), and when knowledge changed, this area of behavior changed (payments and research). This was not true for behavior-holdings (number of cards in possession and utilized) and negative credit behavior (using cash advances, maxing and exceeding limits).
- High initial scores in C/D behavior-holdings and negative practices (T1) predicted low overall change in attitudes-positive practices and attitudes-avoidant responses.

Further, higher scores on attitudes-positive practices (T1) predicted less change in behavior-payments and research.

- Both change in behavior-holdings and negative practices, and behavior-payments and research were significantly related to change in attitudes-positive practices, and attitudes-avoidant responses.
- Savings/investing knowledge-accounts and return (T1) was significantly related to S/I behavior-budgeting and record keeping. Further, change in knowledge related to change in behavior.
- All S/I attitudes factors (T1) significantly related to S/I behavior-budgeting and record keeping (T1).
- When there was a change in S/I attitudes-positive practices and attitudes-negative practices there was related change in behavior-budgeting and record keeping.
- All predictive relationships between behavior-budgeting and record keeping (T1) and the S/I attitudes change scores were significant. However, the only positive and significant relationship was between behavior-budgeting and record keeping (T1) and change in attitudes-investing and budgeting.
- Financial attitudes were a more significant mediating presence in the realm of savings/investing then when compared to credit/debt.

Qualitative Study Results: Focus Groups

After conducting the qualitative focus groups, each session was transcribed verbatim. Following transcription the session records were thoroughly reviewed and coded in a stepwise fashion. Coding categories and subcategories were reviewed to determine their fit, relationship, and organization with one another, and to the study's purpose. This process resulted in retaining the most salient categories and subcategories. The following categories and subcategories will be discussed in detail: (a) financial capability—estimate of capability; (b) credit/debt management—cash vs. credit, and positive aspects of credit; (c) savings/investing management—saving, and investing; (d) knowledge, attitudes, and behavior—relationships, and questions of the quantitative results; (e) importance and developmental timing of financial education— importance of financial education, and age graded learning; and (f) financial education—course influence, and suggestions for financial education.

Financial Capability

Participants were asked to assess their financial capability (strengths, weaknesses, confidence) in both C/D and S/I. Further, they were asked to classify the factor or factors (knowledge, attitudes, behavior) they believed most important to their overall financial capability and why. Participants seemed overwhelmed when reflecting on their overall capability in these areas. After being asked to assess their C/D capability almost in unison several participants stated, "that's kind of broad!" Further, Rachel remarked, "I still feel like there's so much information out there and it's such a broad topic." When pressed, participants admitted to acceptable levels of understanding. As Alicia put it, "I have a good working knowledge," but poor overall execution.

Estimate of capability. One theme that appeared here and continued throughout the session was participants admitting to struggling more with C/D knowledge, management, and confidence than S/I. Vana stated, "I'm a beginner in all of this credit and debt stuff…I still rely mostly on my parents." Rachel seconded this thought stating:

> …it's kind of new territory for me. So I don't think I've really had enough experience with it to develop an attitude for it yet, whereas saving I've kind of developed my own attitude for how to save…(Rachel).

Edward claimed his S/I capability was actively improving, "now I'm improving my spending behavior." Zahara stated, "I think I've been pretty successful…saving-wise…I think I'm a lot better at making sure I'm saving a certain amount of each paycheck." When asked if an expressed confidence in S/I implied confidence with C/D management Zahara responded with "credit-wise, not as much. I think it's something I wish I started building up a little sooner." Alicia simply stated, "I'm not super confident [with credit/debt]."

Others either had a baseline understanding or had a desire for improvement. Chris spoke to his level of competency in the following way, "I don't know all the technicalities between credit and debt, but I know what most people know: don't spend more than you can pay on credit…otherwise you'll go into debt." Similarly, Ashley acknowledged a level of working knowledge with plenty of room to grow. "I would say I have a decent amount [C/D financial capability]. Enough to get me through the basics." She continued describing this "decent amount" of capability "…knowing actual definitions and what things actually mean…" Alicia said of her capability, "I wouldn't really say I'm…super confident on credit and debt but I have a basic knowledge and I'm okay with that because I will continue to seek more." While there were noted areas for improvement several participants believed they were growing in their capability. Vincent said, "I would rate my capability as constantly improving." Alicia pointed to her growth being spurred on by the personal finance course she was currently enrolled in, "I feel like the more that I'm learning in class, I'm building a budget…[trying] some of the apps…looking online to see what my student loan debt is."

Credit/Debt Management

Under the category of C/D management are two subcategories representing thoughts and feelings surrounding credit and its uses, and the positive aspects of credit. Here, the biggest theme to emerge was participants' feelings surrounding spending, saving, and debt, specifically their thoughts on the use of cash versus the use of credit. Many participants preferred a cash-based system. Jacob remarked, "the whole swiping the card thing is so bad." Edward continued, "…if you use cash you will save some money."

Cash vs. credit. For most of the participants cash represented something tangible, permanent, and easier to management than credit. Rachel remarked:

> It's so easy to just…'swipe,' 'spend,' 'swipe'…But then I'll go look at my account in a week and I'm like, 'shoot! I thought it was $100 and it's $300!'…you don't think you're spending a lot since you're just swiping you're not seeing the physical amount of money you're spending…(Rachel).

Participants spoke of the tangible nature of cash helping them realize what, when, and how much they were spending. Chris said "If you have two 20's in your wallet…you don't really want to give it up versus just swiping your card. Cause you can actually see it getting smaller and smaller." Edward provided a similar analogy: "when you use cash you say, 'wow, $50? Okay.'" Vana summarized, "for me credit and debt is more…vague, distant…

savings and investing is more personal…you can see it." Courtney felt her financial status was improved when she was relying solely on a cash-based system:

> …having [a] waitressing job…I had my income but it was all cash…having that on hand made it so much easier for me to manage…I would literally just take half of the stack…and set it aside, like 'okay I'm putting that in my savings, I have this to spend on gas, and I have this to spend extra'…not having that as my job now and having my money just go into my checking account, I'm like, 'oh well I'm getting paid, so I can just swipe this, this, this, and buy this, this, this' but I'm not actually looking at it [total spending] (Courtney).

For Scott, when he used cash, he limited himself to a certain budget, and he could track his spending better than solely relying on his credit or debit card. "…once I'd run out of money it was…like weekend's over…But now I've been using my debit card more and I just kind of lose track of where…I'm spending." Other participants described strategies they had tried to curb their spending. Alicia said, "I leave my credit card in my room now so I don't have [a] problem." Participants described *seeing* savings go down and *seeing* debt climb as an important stimulus for behavior change. "The only protection I feel," Jacob remarked "is…doing it [spending] on a debit card so that I can watch the money go down." Ray spoke of his preference for tracking and managing his money in a savings account stating, "you know the amount that you withdraw." Alicia justified her dislike for credit by stating "It's just like borrowing money from someone…" she went on to say, "…so I don't really spend with a credit card…'cause I don't want to see the number get higher and higher and I can't afford it."

Positive aspects of credit. The majority of participants did not have a credit card or credit established in their name. Scott feared, "…if I get a credit card there's a chance that I'm going to rack up that debt…" Many, like Olivia confessed, "I haven't really built up my credit." She went on to say that she never really considered applying for a credit card. Securing a job with steady income was a prerequisite for many participants before applying for credit. Chris explained, "I don't plan to get one [credit card] until I'm out of college because I'll have a steady income." Because of his mother's mismanagement of credit Scott has not applied for credit; however, he stated, "…obviously, going through this class it's kind of…I'm going to have to get one [credit card] eventually." Noah was advised to begin building his credit, "this is my first year in US…he [financial advisor] advised me to [get] a credit card. I never think that I want [a] credit card because I know it will attract me to the financial imbalance." Zahara recognized the benefits of establishing a responsible credit history early. "I don't have a credit card yet and I still have to apply for one. So I think it's something I wish I had done maybe a couple years earlier."

While most participants were aware of the pitfalls of credit and were reluctant to build their credit reputations, several spoke of knowing the benefits of responsible credit management. Growing up, Alicia learned lessons of saving and spending within a budget; however, she just became aware of positive aspects of credit, "I'm still learning that having credit is a really good thing." Noah described the lessons he learned after immigrating to America, "I learn that it is important to build a credit score here [US]…because everything here [US] is based on your credit score, your financial status…I [applied] for credit card last two week." Ashley informed the group, "once you get some of that under control…mindless spending…it is important to start using a credit card and paying off your credit or paying off what you had spent right away so that you do build your credit score…"

Participants talked about the benefits of credit including credit card points, credit card rewards, and purchasing big-ticket items (house, car). Other benefits surrounded the idea of "investing in yourself" (Jacob). According to Scott, "...bettering yourself" included "having a roof over your head, automobile for work…" but "racking up money for consumer goods that just…go away after a while. That's kind of nonsensical." Student loans were considered by the participants to be a good investment. Jacob felt "student loan debt is acceptable." Ashley elaborated on Jacob's opinion of student loans, "it's going toward something positive. It's going towards your education and towards your future…Where credit card debt could be you bought clothes. You were irresponsible with your money."

Savings/Investing Management

This category has two subcategories representing participants' beliefs and emotions surrounding savings and investing accounts. In addition, participants spoke of the importance of saving both now and into the future. According to the participants, savings can be seen, making it as tangible as cash. It was, for many, stressful to see levels of savings drop, and conversely triumphant to see that account grow. Participants preferred to keep their money in a savings account, as there was a feeling of security that their money was not easily retrieved. Courtney proclaimed, "…saving is a huge thing for me…keeping your savings and not taking out of your savings…" The subcategories of saving and investing will be described below.

Savings. When participants talked about savings, spending, debt, and investments multiple emotions were displayed. Emotions of guilt, anxiety, and fear were described.

Olivia said, “I think about credit and debt, I get a little nervous.” Olivia went on to state that mounting debt, lack of savings, and not building a responsible credit history were all related, affecting one another and creating financial stress and strain. “I think about…graduating, whether or not I’ll go to grad school, whether or not I’ll work…my debts play into those decisions. So it’s a troubling thought for me” (Olivia). Knowledge of what they “should” do with their savings created feelings of fear when there was any modification to this. Courtney admitted “I…get anxiety when I think about…not saving.” Similarly, Vana expressed strong emotions around spending money, “I sort of have a fear of spending money.” Rachel and Ashley spoke of feeling guilty making withdrawals and using money from their savings accounts. Ashley described her process:

> If I take anything out of my savings I write it down and I’m very uncomfortable until I’ve paid that back…when I have some type of debt on my credit card I’m uncomfortable until it’s paid back, and same with my savings (Ashley).

In his estimation, Noah was not saving enough, “I don’t think I’m a good saver…My money mostly I spend.” Ultimately, he was concerned with the adequacy of his savings plan, “10% from my checking. I transfer it to my savings account. So [I am] a little bit worried [about] my savings.”

The dominance of savings was clear for these student participants. Throughout the sessions the salience of savings appeared in descriptions of (a) the power of saving for future financial health, (b) the power of money saved, and (c) the power of lessons learned early in home. Saving for the future was a key lesson all participants believed in. In fact, many prioritized saving over handling credit and debt. Jacob described savings as a more present interest and concern:

> …debt that I'm worried about right this second, is not as important to me as the savings account that I can go take money out of right this second…Right now, I'm not trying to pay off any loans…I'm just trying to balance my lifestyle…I'm more worried about savings…paying other stuff off later (Jacob).

Zahara added, "I think credit and debt is something a little more short-term than savings and investing" she continued of savings, "you're going to kind of feel the consequences pretty immediately." Rachel said, "I always try and make an effort to save because I know it's important for my future." Vincent enjoyed seeing the fruit of his labor saying, "I like savings because I like seeing numbers grow, so that's one of the perks of a savings account." Others saw the power of saving for a goal and the reinforcement of reaching that goal. "I find reasons to save and spend money…In my mind, I'm saving to go on spring break or I'm saving because maybe I have a lot of interest on my loans" (Alicia).

Early on Rachel felt a foundation of savings capability was laid for her, however, gaps in credit/debt capability existed. She stated:

> …when you're a kid…you're always learning about saving…credit [is] something that there's so much that goes on with it…It's the kind of thing you have to learn when you're older…you don't really understand it until you're an adult and have a job…(Rachel).

Another participant seconded this dominance of savings education and experience, "…kids have always been taught to save, they always want to save…more money is always better" (Chris).

Many participants felt that lessons of savings, budgeting, and earning were staples growing up. Chris stated, "you're taught growing up…all from your parents…teach you to save, and if you're being taught to save from a young age you are going to save." Scott spoke of generational influences and lessons of savings. He described an experience that he had being mentored by several mature adults:

> …we're all pretty much children of baby boomers…They [internship mentors] were in their 40's and 50's and what they were telling me was you should start saving…if they're telling me that, I assume they're telling their kids that, which is basically people around our age…that's why we have that intuition to save instead of having knowledge on credit and debt (Scott).

Courtney described observing and learning from her mother and her saving behavior, "I have always saved my money because of my mom…I specifically remember when I was little…'you have to save.'" Olivia learned in her youth the wisdom of "…saving early because it will build up…even if It's just $5 every week…it'll ultimately build up."

Investing. The concept and execution of savings was well understood for all participants. However, when talk centered on investing, confidence, knowledge, and capability were all admittedly much lower. "I really wish I had a lot more knowledge on investing and what are good investments. I've made a few but it's…been mostly my parents…like, 'this is what you should be doing…'" (Zahara). Participants confessed to lacking investing knowledge and awareness of available investments. Further, while there was agreement on the importance of investing, most lacked active investments in their name. "I am very poor at saving and investing. I don't know much about investing so I don't save money" (Edward). Noah had the desire to invest, but lacked the knowledge of how, "I plan to do investing after this [graduation] but not sure which way." Participants knew they *should* start investing early, post-graduation, based on what they had observed. Scott described his thoughts on investing, which were colored by his experience:

> …the most important thing. The second I get out of college it's key to start putting away money to save for retirement…You see the difference between one person that's been saving for 25 years and then someone that's been saving for 5 [years] for retirement…the one that's saving for 5, they're sweating a little bit more (Scott).

Chris, convinced of the potency of early investing, provided this illustration from a previous internship experience: "I saw all sorts of accounts…people who hadn't been saving and they were 75…and…people that had hundreds of thousands...I just think it's really important to save when you're young."

Knowledge, Attitudes, and Behavior

Under this category participants reflected on, and responded to the quantitative results related to the relationship between knowledge, attitudes, and behavior, the directional influence between them, the dominance of each category, and change within each category. In addition, participants discussed their personal thoughts and feelings related to financial knowledge, attitudes, and behavior in their lives. The subcategories (knowledge, attitudes, behavior) of relationships and results are described below.

Relationships. Participants were split as to the biggest influence on their overall financial capability. Some believed change originated with knowledge. Edward felt "knowledge is the most important...If I know…it will change my attitude and behavior." Chris believed knowledge would affect behavior. He remarked, "most people don't say 'oh I have a complete understanding of credit,' and then go and go into huge credit debt." Others put the onus on attitudes as a gatekeeper, "I'd put attitude above knowledge for me" (Scott).

However, the majority of participants felt execution was what mattered. Ray believed, "behavior is the most important thing that will control your financial ability." Courtney summarized the potency of behavior, "I could say 'I'm going to save all this,' but then when I go out and spend it all that's not the case." Olivia thought behavior was the most important aspect of financial capability. She stated, "I was in high school…learning about finance and investments and…had mentors who told me exactly what to do, but…I don't do it. So behavior is huge for me…" Vana seconded this, "You can know everything but if you don't apply it to what you actually do, then it sort of goes to waste."

Reactions to quantitative results. Participants were asked to review and discuss several quantitative survey findings. The goal was to hear the participants' reactions, opinions, and personal evaluations of the presented findings, adding to the findings and the overall understanding of emerging adults' financial capability. The first question related to the mediating presence of savings/investing attitudes. The majority of participants across both focus group sessions vacillated between thinking knowledge and/or behavior was the primary influence either for their personal capability or in general. Vana revealed, "I never really thought about my [financial] attitudes." However, when confronted with the quantitative results regarding the presence of financial attitudes, several participants understood and interpreted the results. Zahara responded, "I definitely could see how attitude plays a part, especially with knowledge…wanting to actually go out and get the knowledge versus not even making an effort." Similarly, Courtney spoke of attitudes positively and negatively affecting knowledge and that in turn affecting behavior. Financial attitudes for Ray represented discipline and commitment to execute from one's knowledge. He posed the question: "When you have only knowledge and you don't have [the proper] behavior, what does knowledge mean for you?" Jacob agreed, proclaiming, "attitude is in the middle." However, he continued, adding subjective perception, "they're all pretty powerful. And that's where I think that you get into…attitude might be the most powerful for me, but behavior could be the most powerful for you."

Participants attempted to interpret and personalize the role of financial attitudes within financial capability. Here, they reviewed findings of S/I financial attitudes compared to C/D financial attitudes. Regarding S/I attitudes playing a more significant mediating role than C/D attitudes Vincent felt, "…if attitudes for savings and investing are one way, you may not be concerned for credit debt." Olivia concurred with the results presented saying, "I would just define financial attitudes as your motive for spending and saving and just how you go about doing that." She went on to say, "in my personal life…financial attitudes play somewhat of a role…I'm aware of it [financial attitudes], but I don't really act on it." Zahara in response to another participant defined financial attitudes:

> …she [Olivia] likes to travel a lot and so that's something she values. So it's something she's willing to…put her money towards. You know, other people might not agree…whatever different people value…and place more highly in their life is what they're going to end up actually spending money on (Zahara).

The next series of questions asked participants to review results of behavior change and the influence of this change. Vincent believed the impetus for change was "results…seeing positive or negative trends, or even life events." The quantitative results revealed when there was change in S/I attitudes (agreement and understanding) toward both positive and negative practices there was related change in S/I behavior. To this, Ashley espoused, "a lot of people feel the same way about savings…so they feel their attitude is in line with what they should be doing…with credit and debt, people feel different…their attitudes might not align with what they're actually doing."

A consistent finding across both C/D and S/I attitudes and behavior was an inverse relationship between time one scores and change scores. With C/D and S/I attitudes and behavior, when time one scores were higher there was negative change, conversely when time one scores were low there was positive change. Chris responded:

> …if someone is coming into this class with a [level of capability] of credit or saving…more than most, they're not going to change much. Their beliefs or attitudes are going to be reiterated by the teachings: save more, don't go into debt…But then someone who doesn't know much…and comes and goes, 'oh I didn't know this about credit, about savings, about retirement,' all their attitudes are going to change more (Chris).

Rachel summarized this change as confidence and comparison: what one feels they need at the end of the day, and how they compare themselves to others. She stated, "you get motivation to want to do well if other people are doing well…if you're already doing well, you're like, 'you know, I'm doing well. I don't need to do anything. I don't need to change my ways.'" Much like Rachel, Vana believed students gained motivation through experiencing the survey measure and course instruction. "I feel like…those questions [survey measure] got them thinking or…maybe over that 15-week period they started making connections" (Vana). Zahara spoke of the motivation to enroll in the personal finance course (general elective):

> I think if you're going out of your way to…take this class when you don't have to, I think it…means we already have a high attitude about our financial situation. So

> maybe it [financial capability] might not change as much as we'd like to think. But the people who aren't taking the offer…could really change a lot…the ones who would benefit about having a class (Zahara).

Others believed the student participants changed only if they desired change. Further, participants changed based on their interest and engagement with a particular topic. Courtney made the following statement, "I think that they might change…depending on someone's financial situation. I think that they might be open to have better attitudes if they were more financially stable…" Alicia followed with, "I think it depends on where their interests lie too."

Credit/debt behavior, related to paying bills and researching terms and conditions, changed significantly with an increase in C/D knowledge-uses and tracking. This was not true for C/D behavior related to C/D holdings and uses. Zahara responded to this saying, "paying bills…is something you're dealing with right now and a lot more frequently, like paying a monthly bill…it's something that you're constantly thinking about." Further, she stated, "behavior toward that would change…faster just because we're constantly experiencing it." For Jacob, this behavior change represented baseline change, a logical place to start to improve: "…that's a good starting point for a lot of people…you're learning…and you're getting older…starting to apply to you more, then it makes sense that you would be more interested in looking at the terms and conditions."

The Importance and Developmental Timing of Financial Education

The salience of financial education and the effect of age and stage are two themes that were prevalent throughout both focus group sessions. Participants referenced the importance of general financial education, and the influence of developmental stage on financial teaching and learning.

Importance of financial education. Participants spoke of the need for financial education to be available to all. Jacob warned, "if you go in the real world without knowing any of this stuff [financial capability], you're going to drown in debt." Alicia felt she needed this training, at this time her in life, "'It's senior year, I need to figure out this, this, this, and that.' I really want to learn how to save and invest and figure out what's out there." Courtney added that financial education is "something that everyone should have the rights to because…their knowledge could affect their attitudes and behaviors." Beyond the benefits of financial capability, Olivia touched on the macro influence of financial education on the economy. She stated, "[financial education] helps students to be more aware of their spending, and that's reflected in the economy…It's a domino effect."

Age graded learning. All participants acknowledged the value of financial education. Throughout both sessions age and developmental stage were referenced as a prominent factor in the teaching and learning of financial lessons. Participants referenced the meaning of financial literacy being realized as they advanced through their education and moved across the life course. Rachel remarked, "I think as you grow older and you start to make your own money…you become more aware of it." Not being aware and not caring during her teen years Courtney stated, "I didn't care about like actual banks and what the laws were and bankruptcy and loans and stuff like that when I was in high school...that's high school." Participants continued to espouse the merits of early financial education. Rachel responded, "Once you're in college it's more realistic…it's [an] important stage…it's a good opportunity to hone in on college students and get them these resources…it becomes a lot more important to them [college students] during their college years."

Expenses, budgeting, and goals differ with development—there is an age-graded effect. Ashley highlighted the implications of the transition into and throughout college. "Coming into college, you're going to be spending money completely different and you're going to be saving for different things than when you graduate. They're two different stages [freshman and senior years] that need different focus." Alicia simply stated, "your senior year it's going to hit a whole different realm of things than freshman year." Similarly, Rachel advocated for education that is sensitive to one's priorities during and after the collegiate years. She specifically referenced differing spending and management styles during college and beyond: "I feel like you almost need to learn how to manage your money in college. And then while you're ending college you need to start learning about managing your money once you have a full-time job…" For her, after graduation, paying bills regularly, saving for big purchases (e.g., house, car), and transitioning into marital and familial roles represents vastly different financial goals and values.

Financial Education

Under the category of financial education two subcategories will be highlighted: the influence of previous financial education and suggestions for the future of financial education. Participants referenced the effect of the personal finance course they were taking or had taken as a prerequisite for this study, and provided their opinions and suggestions on what is lacking, and necessary additions and revisions to collegiate financial education.

Course influence. Participants spoke of learning and growing in their understanding of the financial world. Edward said, "I learned a lot from the course material…it changed a lot of my mindset about money, about investments, [and] about saving." In addition, many provided examples of changes to their financial behavior. Some participants felt they went from zero knowledge to improvements in their knowledge, attitudes, and behavior. After taking the personal finance course Noah felt he was improving "I start to be a better manager, a better consumer, and apply it to my attitudes." Rachel said "Knowledge is power for me and I feel better because I realize how I'm going to start my career and do those things [manage savings and loans and save for retirement]. Now I feel more enabled." For Courtney, "Being in this class, I'm like, 'oh yeah, I do have to save, I'm going to keep budgeting my money,' whereas before…well I'm not actively thinking about it and thinking about my future." During the semester, Rachel felt, "I was constantly reminded…every week of financial advice…it made me more aware and more excited to save." Alicia affirmed the power of *actively* learning, "when you have that reminder of what's right and what's wrong I think you do change your actions."

Suggestions for financial education. Participants offered a slue of suggestions for adaptations and improvements to be made to financial education ranging from making financial education a mandatory requirement to extended offerings and increased exposure. Courtney recommended personal finance be required for all. She pointed to the implications financial education has for college students, those linked to the students, and the boarder economy. She stated:

> …ever since the recession, I think it should be absolutely mandatory to have some form of financial class…it's such a huge deal…having the knowledge…hopefully [we]

> won't go into something that has happened like that before…so people know how to manage their money.

Olivia believed in the effectiveness of financial education, ultimately concluding that every student should be forced to take a personal finance course. "I don't think that a lot of students take advantage of it [financial education offered], one, and two, I don't think that it's really enforced as much as it should be…financial education should be a requirement for college students."

Extending what financial education courses were offered and when they were offered was a concern for several participants. Vana said that she had an academic advisor "push me toward this class." For this she was grateful and concluded, "I was really lucky…But…a different advisor, like someone else, I might not have thought about it and taken the opportunity." The majority of participants wanted to see financial education offered at multiple points throughout their education. This could be facilitated through a series of courses or through other available resources such as: an online repository, financial counselors/advisors, or discussion forums. Chris advocated for additional courses or extended course length:

> …longer than one semester…should be one year…I took [the personal finance course] and I still don't know how to balance a checkbook and I don't know how to do my own taxes…I just think when I graduate and call my parents, 'Hey mom, I got this bill. What do I do? Where do I send the money?' (Chris).

Scott believed there should be at least two financial courses offered, one geared toward incoming freshman and one for exiting seniors. Many others seconded this suggestion for a "freshman and senior class" (Courtney).

Whether participants believed there should be a mandatory personal finance course or not, they believed financial education in various forms should be available. To this end, exposure was a big theme with the participants. Courtney proposed sending out a mass email "saying 'hey, this class is optional…' or saying they could take this class." Regarding exposure and additional offerings Rachel remarked on what was needed, "more ways to expose finance and knowledge on students without forcing them to take a class." Additional suggestions offered as alternatives to a required course included:

- "…financial advisors that help you find scholarships while you're in school. How you can determine unsubsidized versus subsidized loans to help pay for school" (Scott).
- "…peer advisors…put students…and train them with this knowledge, and put them in the [dorms] to answer…questions" (Alicia).
- "I think a financial center…help students set up [financial] plans" (Olivia).
- "…an online tutorial" (Jacob).
- "…a survey maybe to hone in on their interests…what are you interested in the realm of finance, and…they can just go seek that" (Alicia).
- "…having people come in for classes and presenting…'Do you guys know about your finances?' and you do a couple interactive questions… and maybe give them information about a website or if you have an event…" (Rachel).
- "…media outlets that might relate more to kids or millennial" (Vincent).
- "…connect with media that would be really… a big outreach" (Vana).

Summary of Findings

- Participants felt more confident, comfortable, and experienced with their savings and investing capability, especially when compared to credit/debt.
- All participants recognized room to improve their financial capability.
- Participants lacked experience with credit. The majority did not have credit established in their name and most were reluctant to apply.
- There was a prevailing feeling that a cash based system would help with responsible money management. Cash was described as tangible and limited, which helped to limit spending.
- The concept of savings was an emotional topic. Participants longed to create healthy savings, but struggled to consistently save and not overspend.
- Lessons of saving dominated the participants' early socialization experiences.
- Understanding the prominence of financial attitudes was difficult. Participants could see attitudes playing a part in financial capability, but admitted they did not think about the role of attitudes in their own lives. Knowledge and behavior were more concrete, representing financial input and output.
- Participants commented on the existence of a developmental gradient to financial teaching and learning. This was described as changing levels of understanding, ability, needs, wants, and goals.
- The salience of financial education was clear. However, many adaptations were proposed. Suggestions ranged from making financial education mandatory to creating a financial center. Placement tests, online repositories, and courses geared toward one's age and stage were also suggested.

Discussion

Personal financial education is a vital part of producing healthy citizens as well as cultivating a healthy, thriving campus (Robb, 2011). Cull and Whitton (2011) stated, "The wider implications of poor financial literacy levels on debt, health, educational outcomes, labor market decisions and general well being and quality of life are too severe and long reaching to be ignored" (p. 112). Mandell (2008) found students who had personal financial experience (e.g., having their own banking account) and those who had financial management courses had substantially higher financial literacy levels than their contemporaries. The aim of this study was to focus on college students and their capability (knowledge, attitudes, and behavior) in the areas of credit/debt and savings/investing, with the ultimate goal of contributing to the extant literature, increasing the understanding of financial capability for emerging adults, and promoting their financial literacy.

A mixed method protocol was used. The research questions guiding the quantitative analysis assessed the relationships between C/D and S/I knowledge, attitudes, and behavior. Understanding change in behavior and the factors associated with this change formed the primary goal. Latent change variables were created and modeled to assess change over time. In addition to this, mediation models were created to examine the indirect effect of C/D and S/I attitudes. The quantitative analysis process and ensuing results informed the direction of the follow-up focus groups. The goal of the focus groups was to hear the thoughts, feelings, reactions, and interpretations of the participants to (a) quantitative results; and (b) the concepts of financial capability, financial education, credit/debt, and savings/investing. Results and implications from this study are described in detail below. Quantitative results are interpreted and when appropriate bolstered by qualitative findings. Finally, a summary of the significant themes from the focus group sessions is provided, followed by limitations and directions for future research.

Quantitative Results

Research question 1a. Credit/debt knowledge did not relate to change in C/D behavior. Students' level of knowledge surrounding issues of consumer rights, credit terms and conditions, and the tracking of credit history did not significantly relate to how students actually managed their credit. Students may not have felt they fully understood or were completely confident with their understanding of how credit works. Focus group participants felt that while they grasped the basics of credit, they didn't know "all the technicalities between credit and debt" (Chris). In a study of financial knowledge and aptitude Chan et al. (2012) found in general, respondents did not feel confident in their knowledge of consumer credit terms and conditions.

Students with high scores on C/D behavior-holdings and negative practices and behavior-payments and research had less overall behavior change in these areas. This reveals that students coming in with C/D behaviors already implemented had less change overtime. This also may point to the strength of a particular pattern of behavior. If students were entrenched in a way of managing their finances, positive or negative, these behaviors may not easily be changed.

High levels of C/D knowledge-uses and tracking related to positive behavior with payments and research, and when knowledge changed, this area of behavior changed (payments and research). However, this was not true with change in behavior linked to holdings and negative practices. Analysis of the indicators related to behavior factors one and two revealed factor one contained questions regarding holdings—number of cards in possession and utilized and negative credit behavior—using cash advances, maxing and exceeding limits. Factor two questions were associated with payments and research—researching loans and offers before committing and paying all bills on time. This difference may explain the significant result for factor two and not factor one. Credit holdings and negative behavior may not be easily changed or augmented across the seven or fifteen week course span. Changes to credit holdings can have negative implications. For example, opening and closing credit accounts or closing the oldest account can lower one's credit score. Credit history (how long credit has been maintained) accounts for roughly 15% of one's overall credit score, and taking on new debt (opening new lines of credit) accounts for 10% of the score (Garman & Forgue, 2012). Therefore changes in these areas can elicit positive and negative fluctuations in credit score.

Changes, even in agreement, to better payment and research practices may be influenced across the short time span. Change in this area of behavior represents baseline change that focus group participants were able to recognize. One focus group participant said of change in payment and research behavior, "…that's a good starting point for a lot of people…it makes sense that you would be more interested in…looking at the terms and conditions" (Jacob). Other focus group participants spoke of behavior-payments and research representing proactive behavior, while behavior-holdings and negative practices were more closely associated with restraint. For them, the proactive approach was more accessible, something they could grasp and easily implement. Similarly, in a study of effective and risk-type behaviors, Borden et al. (2008), found that previous to taking a financial education course, the highest rated effective behavior college students engaged in was reading the fine print of credit or loan offers and contracts. In terms of payment behavior, Xiao et al. (2012) stated, "Objective credit knowledge reduces both risky paying and borrowing behaviors" (p. 123).

Research question 1b. Between all three C/D attitude factors and C/D behavior-payments and research, each relationship was positive and significant. These relationships indicated that high, positive levels of financial attitudes are related to high, positive levels within select areas of C/D behavior.

A higher score on attitudes-positive practices predicted less change in behavior-payments and research. This could indicate students with a high level of agreement concerning the positive way to handle their finances (e.g., "I am satisfied with the way I pay my bills") already had adequate payment plans in place, conducting research along the way.

When change occurred in attitudes-positive practices and attitudes-avoidant responses significant change also occurred in behavior related to holdings and negative practices and payments and research. Other studies have found similar results. For example, Borden et al. (2008) found that students with high levels of financial knowledge and positive attitudes were more likely to manage their finances effectively and not be avoidant toward the use of credit. Unlike knowledge, change in attitudes significantly related to change in both behavior factors. This aligns with previous literature that revealed financial attitudes are the most powerful influencer of behavior change (Jorgensen & Savla, 2010). The current study found that change in C/D attitudes (positive practices and avoidant responses) related to meaningful change in behavior. Change in values, priorities, and understanding of a C/D compared to change in factual knowledge associated with significant change in behavior.

Research question 1c. Attitudes-positive practices mediated C/D knowledge-utilization and tracking and behavior-payments and research. This indirect effect may be due to the positive practice questions relating to satisfaction with payment strategies and knowledge of how credit works. If students are content in their subjective grasp of C/D, they will likely behave accordingly. With knowledge about the proper *uses* of credit and agreement of what *positive C/D practices* are, the result will be implementation of healthy behavior surrounding *payments* and *research*.

All mediation pathways between C/D change scores were non-significant. This could be due to insufficient time for change to occur. In fact, focus group participants discussed several issues possibly impeding change. Participants felt that enrollment in the personal finance course was meaningful; however, it was not long enough to change a lifetime of teaching and learning financial knowledge, attitudes, and behavior. Rachel stated:

> I think that my parents have had the most influence because even though I had this class and I've learned a lot from it, it's kind of like a whole lifetime of influence and learning things from them before you have this *one 15-week class* [emphasis added] (Rachel).

Change produced by a seven or fifteen-week course would not be immediate. Participants also acknowledged learning and growing as a result of the course, but as time passed there was a tendency to revert back to previous ways of thinking and behaving. Rachel also spoke to this phenomenon:

> …when I first got out of the class…I started a monthly budget sheet…putting everything in…I can do this!...then my internship got really busy and I started to just

kind of forget about it and focus on my work…And as time had gone away since I had the class, I started realizing I was spending more and more…(Rachel).

In addition, behavior is often habitual, and habits are hard to change. To this, Olivia said, "financial behavior is something that is embedded to an extent…some things will be easier to change…But the things that you have already put into practice or grown used to will be harder to change." In short, behavior change will take time, desire to improve, and consistent stimulus (e.g., explicit teaching, personal experience, or constant reminders).

Credit/debt attitudes-negative practices did not play a significant role in affecting either C/D behavior factor. This may be due to the questions loaded on this factor. Here, questions reflected severe negative practices (e.g., exceeding credit limits, bouncing checks, having an excess of 10 credit cards). Whether or not this was a true representation of the participants' financial situation, most know these practices are unwise and not promoted by financial professionals. Thus, this factor may have been biased with participants indicating the "right" answer.

Research question 2a. A relationship existed between students' understanding of the basics of S/I and their execution of saving, budgeting, and money management. Here, knowing how savings and investing accounts work (e.g., inflation, interest) and when they are appropriate to use correlated with students' behavior around budgeting and record keeping. Savings/investing behavior-budgeting and record keeping like C/D behavior surrounding payments and research was an accessible starting point. Consistent with previous research, students who are highly knowledgeable tend to prioritize budgeting and record keeping as an important part of their financial lives (Chen & Volpe, 1998).

Research question 2b. There was a significant relationship between positive behavior in budgeting and record keeping and all three attitude factors. High time one attitude scores were significantly related to high behavior scores at time one. Students coming in to the personal finance course with an understanding of investing and budgeting and agreement of positive S/I and negative S/I practices demonstrated behavior consistent with good budgeting practices. This may be due to students' comfort, confidence, and experience level with the concept of savings. Focus group participants felt savings was something most students had experience with, and were motivated by. Thus, experience and motivation combined to create a positive pattern of behavior.

Additionally, when there was change in S/I student attitudes-positive practices there was correlated change in behavior-budgeting and record keeping. As students learned about the positive uses and power of savings and investing, this information moved to the process level, and in turn influenced the way in which they handled their budgeting and record keeping.

Both instances of attitudes-investments and budgeting at time one and the change score were negatively related to change in behavior-budgeting and record keeping. These results reveal that students with high levels of understanding and agreement regarding investments and *budgeting* were already implementing *budgeting* and record keeping behavior and thus had little change over time. This could be due to the accessibility of the budgeting and maintaining proper financial records. The questions loading on the attitudes-investments and budgeting factor asked participants to rate their understanding of savings, investing, and budgeting. Further, questions loading on the behavior factor surrounded issues of tracking income and expenses, maintenance of financial records, and creating an emergency fund. All of these financial lessons focus group participants recognized as occurring early in life and representing the basics of financial planning and management.

Behavior-budgeting and record keeping significantly predicted change in attitudes-investments and budgeting overtime. A high time one behavior score predicted positive growth in attitudes toward investments and budgeting. Students that were reportedly implementing investing and budgeting behavior had their attitudes align over time. The opposite was true with attitudes-positive practices and attitudes-negative practices. Here, high behavior scores related predicted less change in attitudes. This could be because utilization of saving and investing accounts as well as a budget guiding spending has as a prerequisite understanding of what is effective and ineffective management of C/D.

Research question 2c. Savings and investing attitude factors functioned as mediators between knowledge and behavior. Understanding investments and budgeting and positive and negative S/I practices were significant factors linking knowledge-accounts and return and behavior-budgeting and record keeping. In addition, the relationship between change in knowledge and change in behavior was significantly mediated by students' self-reported level of understanding around investments and budgeting.

Savings and investing attitudes occupied a more significant role in indirectly explaining the relationship between knowledge and behavior compared to C/D. The difference between these results and C/D may be due to the dominance of savings knowledge and experience. Focus group participants felt they had a better understanding and capability with savings compared to credit and debt. Jacob remarked, "…like debt that I'm worried about right this second, is not as important to me as the savings account that I can go take money out of right this second…" Participants' had more experience and felt more comfortable with the concept of saving, thus their attitudes were established and intervened between knowledge and behavior.

Qualitative Results

Savings. One of the most prominent focus group findings was the dominance of savings. Savings was a topic in which all participants felt confident, had experience, and reported learning during their primary years. Conversely, C/D was talked about in the following ways: (a) it had a future connotation—it was something that participants did not have as much experience, and something they could take care of over time; (b) it had a negative connotation—it was something that participants felt took from them, that depleted their savings, and was hard to manage; and (c) it was not the focus of their primary training—parents focused more on lessons of savings and working to earn what you desired.

Focus group participants mentioned all three of these characteristics of credit/debt throughout the sessions. In reference to the future connotation of C/D, Jacob said from his experience, "I think more kids here have savings…we all have savings…we all have a varying amount of debt." He continued stating, "…[students] have debt existing or student loans or something [and] they're not really worried about it right now…" Olivia commented on the negative connotation associated with credit/debt. She stated, "credit…people don't really take that responsibility…they don't take ownership…because it's not theirs. They're getting it from somewhere else. But with savings and investment, that's your possibility." The majority of participants described the lessons learned from their parents as "saving and being practical with things" (Alicia). The difference between the connotations associated with credit and savings may be due in part to access. Savings was talked about as approachable, something everyone can do, at any age. Conversely, access to credit via credit cards or loans is limited. Regulations now stipulate, credit card applicants must be at least 21 years of age, or have a co-signer, or provide proof of a steady income to have a card issued in their name (Curto et al., 2010).

Credit. Whether participants had a credit card or not, during the sessions credit cards were vilified as a system that promotes overspending. The use of credit for the participants was painless, dollars were out of sight and thus budgeting and total spending was out of mind. The negative aspects of credit were thoroughly understood, while positive aspects were only casually mentioned. Alicia stated, "there's this stigma against credit cards and credit itself." Jacob felt the credit-based system was a negative recurring cycle, "The issue with credit is…I know I'm going to have to pay this back later. And it's going to just eat into your savings later…" Participants felt that managing a cash-based system and/or maintaining their savings account provided better control of their budget, savings, and spending. Ray stated, "I manage my finances with saving in [my] savings account."

The emotional connections focus group participants described with savings/investing and credit/debt help to explain the positive, dominance of saving and the negative, avoidance to credit. Referencing savings, participants described joy, confidence, satisfaction, worry, anxiety, and guilt. One participant said, "…I'm more comfortable spending out of my savings because…you're watching it go [up] and down" (Jacob). A stimulus attached to saving was seeing the money grow, which elicited positive feelings. The opposite also was true, seeing savings deplete was negative and sobering.

Financial attitudes. The concept of financial attitudes was difficult for participants to process. Concerning financial attitudes Vana stated, "…its one of those things that goes unnoticed…" There was a clear lack of reflection and awareness in the realm of attitudes. The power and influence of financial attitudes was unrecognized. Participants were clear on the meaning of financial knowledge—learning objective lessons through formal or parental education, and behavior—acting out financial principles. The majority of participants however, did not define financial attitudes as process, evaluation, and values. Attitudes were talked about in close relationship with knowledge and often conflated. Students would say "I know why credit debt is bad (knowledge)," and "I believe that to be true (attitudes conflated with knowledge), but I still have debt because I spend more than I earn (behavior)." Participants struggled in two ways. First, the concept of financial attitudes is not simply agreement of fact. It was harder for the emerging adult participants to conceptualize that financially what they believe, what they value, and what they prioritize dictates their behavior. Second, intended behavior-meaning to do something-did not produce actual behavior. Participants demonstrated awareness of financial input (knowledge) and output (behavior), but not throughput (attitudes). If one's knowledge/input and behavior/output do not align, the problem may lie with attitudes/throughput.

Financial education. One interesting finding with important implications for the future of financial education was participants' distrust for and confusion with the university system as a business, in concert with the precepts of financial education. First, there was a belief that universities do not care about financial education because resources are not applied to these efforts. Numerous researchers have concluded that there is systemic lack of effort placed on financial education in primary, secondary, and collegiate settings (e.g., Beutler, 2012; Chan et al., 2012; Chen & Volpe, 1998; Cull & Whitton, 2011). One student responded to a colleague that their suggestion for future financial education would not be possible "…that would be awesome but that's an investment. [Universities] are not going to do that [universities] are so cheap."

Students felt that the high cost of attending university was in direct competition with the ideas of regular savings, limiting debt, and managing overall spending. In their opinion, the university was making profit and at the same time failing to put effort into financial education; they are not teaching students how to manage the debt they are creating. Jacob explained:

> …you've got this place that's probably going to make you go in debt. For a lot of people, you're going to run up a ton of loans. You show up and they're going to start telling you how debt's bad and trying to teach you about financial literacy: 'don't take out loans. Loans are bad except when they're coming to us!' (Jacob).

Olivia also perceived a misalignment between the goals of the institution and the goals of financial education. She stated, "…school is kind of a systematic setup when it comes to loans… institutions get money for it. I mean, if you take out a loan they're benefitting off of that."

This study illuminates multiple implications for financial education at the university-policy level and the classroom-pedagogical level. At the university-policy level, and in line with the desire of focus group participants, Cull and Whitton (2011) stated, "...universities have a moral obligation to assist students in learning to manage their higher education debt" (p. 110). Change here requires a motivated administrative staff, faculty, and board to increase the resources applied to financial education and awareness of what is offered. The result would be better financial help to students during a critical point in the life course. Participants spoke of not only the need for financial education, but also the inequality of time, attention, and resources applied to this effort. Vincent said, "…we have a career center. We have a writing center. [Why not a] financial center?" Efforts toward financial education should match what is done in other areas of general education (e.g., math, science, writing, and humanities). At the classroom-pedagogical level, educators must increase the opportunity for financial education. Additional workshops, internships, and resource fairs provide time for students to learn and grow outside of the formal classroom. This coincides with suggestions from focus group participants to dedicate increased resources to alternative forms financial education. Alicia summarized this discussion by saying students want access to "resources that we can go get ourselves." Change at the university and classroom levels will take time. However, if the goal is to holistically training students and creating productive citizens, then this change must take place.

Limitations

Several study limitations have been identified and point to improvements to be made and directions for future research. First, sampling bias was present in two distinct ways: (a) opting-in to the research experience, and (b) self-reporting on their levels of financial capability and parental influence. Collins and O'Rourke (2010) claimed that one methodological concern for studies examining financial education or financial counseling is that individuals taking these courses have self-selected these help services. Participants self-selected into the elective personal finance course as well as the survey measure and focus groups. In fact, of the survey measure participants 86% reported taking the personal finance course as an elective. Participation in the study was completely voluntary and refusal to participate was without penalty. Incentives were present, measurement completion took the form of a course assignment, and focus group participants received refreshments and were eligible to receive a gift card for their complete participation. Thus, there is a possibility for upward bias. The sample was intrinsically motivated. One of the focus group participants described his motive for participation, "coming in here I just wanted to gain more financial knowledge" (Scott). Others agreed that they were also driven to "go out and seek" financial literacy opportunities—the personal finance course and other events such as the focus groups (Alicia).

Self-reported surveys also raise concern and introduce bias. The meaning and interpretation of a question as well as question wording can introduce bias. Certain questions, and their associated content, elicit particular responses (Babbie, 2008). Response bias, especially with questions of financial knowledge, attitudes, and behavior, could cause participants to over represent themselves. Misrepresentation or straying away from accurate response is possible with self-reported data. Babbie (2008) refers to this phenomenon as "social desirability" defining it in the following way, "Whenever we ask people for information, they answer through a filter of what will make them look good" (p. 277). An example of this, in the current study, surrounds the latent construct of financial attitudes. This construct may not be accurately captured on a self-report survey. Bias may exist in the reported agreement with questions of financial attitudes—positive and negative aspects of C/D and S/I. Participants know the "right" answer, but only at a factual level, no deeper. In the future this may be better assessed in detail through one-on-one interviews or focus groups.

The quantitative study design and the conclusions drawn from it are limited. Without a control group, inferences about the effect of the personal finance course and the instruction given cannot be made. Further, all latent variables, knowledge, attitudes, and behavior, were collected at the same time. With this design, causality between factors (knowledge, attitudes, behavior) cannot be determined. In order to draw conclusions of causality, assessment of these factors should occur at different time points and in a stepwise fashion. The pre-and post-test design allowed change over time effects to be tested; however, it is important to note there was a limited span of time between time one and time two assessments. During the face-to-face sections, the semester lasted approximately 15 weeks with the pre-and post-tests administered within the first and last weeks of class. The summer, online sections lasted seven weeks in total. In addition to the limited and differing semester time spans, the format of courses differed, thus instruction type, format, and pacing varied.

During tests of measurement invariance two issues arose. First, as reported in previous studies, the chi-square difference test with large sample sizes is not an accurate measure of model fit. Thus, based on Chen et al. (2005), the CFI difference was used. Chen et al. (2005) concluded, "Assessment of fit is an active area of research and no definitive, widely accepted guidelines have yet been established in the context of testing measurement invariance" (p. 482). In addition, half of the subscales failed to retain strong invariance, retaining only partial invariance. Here, Chen et al. (2005) stated, "…the consequences of partial invariance are largely unknown. Studies are only beginning to examine how partial measurement invariance affects group comparison in terms of the relation between the factors, the factor mean, and the prediction of external criteria" (p. 489).

Future Research

To determine causality between C/D and S/I factors (knowledge, attitudes, and behavior) several models could be run. Equivalent models could be run to test additional directional assumptions between knowledge, attitudes, and behavior. The practice of equivalent models occurs when there is theoretical and substantive support to test alternative variables, relationships, and models. In this case, the models must be deemed similar in terms of model fit (Stelzl, 1986). Further, study design could be expanded, allowing separate repeated measures of knowledge, attitudes, and behavior to be conducted. With this information, multiple cross-lags could be run with the express intent that knowledge at time one and its influence on knowledge at time "x" could be assessed. Attitudes and behavior would be tested in the same fashion. Finally, the hypothesized influence between each variable could be assessed.

Focus group sessions held in concert with quantitative measures can function in two key ways: (a) survey feedback—during measure construction having participants provide feedback on the wording, pacing, and interpretation of the measure; or (b) results feedback—during data analysis having participants provide feedback on the emergent results. Giving participants an opportunity to review the survey and providing them with feedback forms is one technique that can increase the quality of the measure (Kitzinger, 1995; McKinne, 2008). Kitzinger (1995) stated, "Focus group discussion of a questionnaire is ideal for testing the phrasing of questions and is also useful in explaining or exploring survey results" (p. 4).

In focus group sessions designed to review results, having participants take and read the survey measure prior to the start of the session would help participants understand the context and research questions being asked (Colucci, 2007; Ouiment et al., 2004; Ritchie & Lewis, 2003). In the current study, at the beginning of the focus group sessions general questions of financial capability were posed, and at the end, participants provided suggestions for financial education. In the middle were questions directly related to the quantitative survey results. There was active participation when the student attendees were talking about themselves and their suggestions. However, during the quantitative results there was less interest, and moments of confusion interpreting the results. Attempts were made to word questions with a casual inflection. Further, at the beginning of the session operational definitions were reviewed and each participant received a handout with the definitions provided for their reference. However, connection, understanding, and interest can be increased to elicit better responses.

Conclusion

Previous literature has revealed mounting student loan and consumer debt and low levels of financial knowledge combine to create a "downward financial spiral" for emerging adult college students after leaving the university setting (Murphy, 2005, p. 478). The director of the Consumer Financial Protection Bureau (CFPB) stated, "Financial education should be as fundamental as the education we are all required to receive in American history and government. We must be deliberate about pursuing financial education in our schools" (as cited in Brown, 2013, p. 3).

This study, in line with previous literature, reveals the strengths and weaknesses of emerging adults as money managers and the saliency of financial education. Emerging adult college students are developmentally primed to receive, process, and implement financial lessons. In order to facilitate this, researchers must continue to pursue an understanding of financial capability at this point in the life course and opportunities for financial education must increase. Contributing to the existing body of research, this study identified several areas for growth in emerging adult financial capability: management of spending and debt, establishing a credit history and responsible management of credit, knowledge of investments and investing strategies, and awareness of the role of financial attitudes in their own lives. To this end, college campuses must invest in financial education. This could take several forms: (a) a required personal financial course; (b) training for student service representatives, loan officers, and campus counselors, equipping them to support students in a financial manner; or (c) an on campus center devoted to student-centered financial counseling. Whatever the form researchers, educators, and practitioners must be united in their efforts to promote emerging adult financial capability.

CHAPTER FOUR: MANUSCRIPT TWO

PARENTAL INFLUENCE: SOCIALIZATION PRACTICES AND EMERGING ADULT CREDIT/DEBT AND SAVINGS/INVESTING CAPABILITY

Review of Literature

Work and training for career through education occupy a central place in the life course, and thus there is pressure placed on the period of emerging adulthood (EA) (Settersten, 2002). For emerging adults, college is the beginning of disconnecting from their parents and gaining increased social and financial independence (Gutter & Copur, 2011). At once, emerging adults are experiencing unprecedented levels of freedom and yet are still dependent on external support (e.g., emotional, mental, financial) from parents, extended family, and friends (Shim et al., 2010). As Shim et al. (2010) stated, "The first year of college is characterized by a host of major life-changing experiences that often overlap; in particular, students typically experience various difficulties associated with adjusting to living away from home" (p. 1458). For many, this is the first time or first prolonged period when they are expected to manage a budget with limited funds, handle credit and debt, and pay bills consistently (Gutter & Copur, 2011). Xiao et al. (2009) argued that of all the transitions and novel experiences for first-year students, financial management and independence are the most crucial.

Arnett (1994, 1997) discovered that emerging adults experience increased levels of personal freedom, they practice roles and responsibilities, and prioritize financial independence. Physical and financial autonomy has been a key finding in several studies investigating the transition to adulthood (Arnett, 1994). Shim et al. (2010) remarked, "...financial independence is a particularly discernible marker of self sufficiency, and young adults who are, even temporarily, financially independent of their family of origin are more likely to view themselves as adults than are those who are not independent" (p. 1458). Financial independence for emerging adults is paramount; it forms a barometer by which they measure their development (Arnett, 1998).

It is important to consider the numerous barriers to financial independence that are present in the lives of many young people and their families. These may include: (a) experiencing difficult economic times (historical and cultural time), (b) residing in economically disadvantaged areas, or (c) a lack of resources. These factors limit opportunities for financial independence (Shim et al., 2010). Forming a financial base (e.g., budgeting, organizing financial statements), managing spending, and growing a profitable financial future are affected by a multitude of factors (e.g., parental-home education, formal education, and mental-emotional states) (Shim et al., 2009). Educators must be conscious of the fact that the emerging adult population is not homogeneous, thus financial education should not take only one form. It must be flexible and adaptive, meeting the needs of this diverse population. Further, not every emerging adult has access to a college education. These emerging adults also need age and context appropriate financial education (Taylor & Overbey, 1999).

Student Loans

A lack of consistent public funding has forced institutions to continuously raise tuition. This out-prices some, and forces other emerging adults and their families to assume high, forced levels of debt (Lee, 2013; Lyons, 2004). Izzo (2014) reported that the graduating class of 2014 had the highest level of average student loan debt. In 2014, 70% of the graduating class relied on and left with student loan debt. This can be compared to the class of 1994 when less than half of the graduates left with student loan debt. The rising cost of education has increased the debt burden for individuals and families and created the necessity to finance education through federal and private loans (Lyons, 2004; Shim et al., 2009). The number of students utilizing credit and other loans, often to excess, to finance schooling is a strong argument for increased financial education (Seyedian & Yi, 2011). For many emerging adult college students, managing student loan debt is one of the biggest and earliest financial decisions they will face (Cull & Whitton, 2011).

Parental Financial Socialization

Socialization is a process of learning how to live and operate in the world. The goals of socialization are: (a) tempering and controlling desires with situational, social, and cultural awareness; (b) knowledge of timing and requirements for future age appropriate roles; and (c) creation of a value set, or worldview (Arnett, 1995). In general, socialization is described as having multiple actors, including: family members, peers, school and work, the surrounding community, media, legal systems, and prevailing cultural.

Family socialization is as complex as families themselves, with multiple members and varying degrees of attachment (Gudmunson & Danes, 2011). Parents are the primary agents of socialization throughout the period of raising their children, and are the most important agents of socialization concerning financial education (Shim et al., 2010; Quinn, 2009). What children, adolescents, and emerging adults know about finance is related to how and what they have been socialized to know (Cho et al., 2012). Participants in the Chen and Volpe (2002) study revealed that parents were the number one agent of financial socialization. Following parents, participants said they learned from their own experience, especially financial mistakes. Education through college courses was ranked fourth in order of importance. In the family system, parents are not the only influential agents of socialization; extended family members, siblings, and grandparents also should be considered. Further, actors can self socialize, internalizing what they want and need (Settersten, 2002). The significance of peers as agents of socialization varies based on children's exposure to peers, time spent with peers, and cultural boundaries (e.g., rules and norms). The range of influence and power of school, work, communities, and media sources also vary based on family values, the community context, and cultural values and beliefs. How one feels and relates to the socialization agent(s) affects the overall influence of socialization (Arnett, 1995; Gudmunson & Danes, 2011). Family financial socialization is heavily based on the attachment bond that exists between family members (Gudmunson & Danes, 2011).

Parents socialize based on their experience of socialization. Thus, parental socialization will reflect their culture, values, and beliefs (Arnett, 1995). Parental education takes place through intentional (formal learning) and unintentional education (observational learning) (Shim et al., 2010). Unintentional teaching and learning occurs as a family's personal culture, beliefs, and financial atmosphere affect the financial attitudes and aspirations of their children (Beutler, 2012). Shim et al. (2010) emphasized that parents who intentionally teach their children financial lessons had an influence as great or greater than formal schooling on their children's level of financial knowledge. Overall, this produced better money managers. Referring to this as preventive parental behavior, Shim et al. (2010) went on to describe this as a powerful and intentional form of family education. Parents have multiple opportunities to intentionally teach financial lessons. Parents may teach budgeting and money management skills through a monthly allowance that is allocated to their child. Conversely, parents may opt to teach their child the value of work for pay, offering opportunities for paid chores (Quinn, 2009). These lessons extend across the life course, with adolescence and emerging adulthood representing fertile periods for financial knowledge to be absorbed.

Formal financial education is necessary, but not sufficient to prepare emerging adults for their future financial lives (Shim et al., 2009). Financial socialization is a key component to understanding financial capability, and is a concept that must be incorporated in future research (Gudmunson & Danes, 2011). Parents are the primary source of financial socialization, as they begin and encourage financial education. Family financial socialization is a key process in emerging adult development, laying the groundwork for emerging adults to succeed in college, career, and beyond.

Theoretical Framework

Emerging adult and life course theories together illuminate salient aspects of financial teaching and learning, as emerging adults' financial preparation, education, and training are keys to future success. Financial education starts early through parental/familial socialization. The strength and frequency of these early lessons has important implications for emerging adults and their continued training and overall financial capability. For many, this point in the life course represents a time to practice and apply financial lessons, putting finance into a personal context. Here, previous lessons can enhance and undergird new financial lessons and experiences.

Life course theory prioritizes change in humans over time. Aldous (1990) described three distinct forms of time: (a) individual time-chronological age; (b) social or family time-measuring age and sequencing in an interpersonal context; and (c) historical time-cultural and historical events. Included in individual time is the idea of age markers. These markers provide an understanding of where an individual is positioned on the life course and whether he or she is considered "on time" or "off time" (Aldous, 1990). The ideas of "on time" and "off time" transitions are socially constructed, and inherent in everyone. One tends to understand when transitions are working properly and when they are not (Settersten, 2002). Further, when the event or transition occurs (temporally and historically) often matters more than the transition itself (Elder, 1995; Kok, 2007). A premature transition into parenting in emerging adulthood or unexpected unemployment during mature adulthood are examples of "off time" life course transitions.

For those with the opportunity to do so, the late teens and early twenties is not a time to settle down into permanent roles and life choices. Instead they are frequently changing, experimenting, and living free of adult responsibility. EA is a time of exploring life possibilities while little is set in stone (Arnett, 2000a). "Emerging adults can pursue novel and intense experiences more freely than adolescents because they are less likely to be monitored by parents and can pursue them more freely than adults because they are less constrained by roles" (Arnett, 2000a, p. 475). Examples of these explorations may include: having multiple majors during their undergraduate career, working during educational training, participating in internships, continuing education into graduate and professional schools, experimenting with risk type behaviors, traveling, sharing in intimate relationships, and exploring various beliefs and worldviews (Nelson & Barry, 2005; Smith & Gordon, n.d.).

How emerging adults view adulthood and the transition to adulthood is vital. Their expectations of this transition are based on what they believe to be normative (Galambos, Barker, & Tilton-Weaver, 2003; Greene, Wheatley, & Aldava, 1992). However, emerging adults are not the only actors who have implicit notions of what “adolescence,” “youth,” and “adulthood” represent. All people, from emerging adults’ family members to those within their broader cultural contexts, have inherent beliefs about what these “stages” mean and what characteristics apply (Arnett & Galambos, 2003). As Arnett (1998) stated, there is “recognition that adolescents…are different from adults, and that they make the transition to adulthood in the course of acquiring the qualities of character needed for measuring up to cultural expectations of what it means to be an adult" (p. 311). The term “cultural expectations” implies layers of personal, familial, societal, and historical influences. The concept of EA draws on multiple facets of both macro life course theory, focused on history and time, and the more individualized emerging adult theory focused on the personal and familial influence.

There is diversity in the timing of individuals transitioning to adulthood, representing the diversity in how individuals are raised and their cultural contexts (Arnett & Taber, 1994). The period of EA is a complex biological, social, and cultural transition and as such with variance in any one of these dimensions there will be diversity in the definition and onset of adulthood (Arnett, 2003). Arnett (2000a) summarized, "emerging adulthood, then, is not a universal period but a period that exists only in cultures that postpone the entry into adult roles and responsibilities until well past the late teens" (p. 478).

Research Questions and Hypotheses

The aim of this manuscript is to assess the influence of parental financial socialization practices and experiences on emerging adults' credit/debt (C/D) and savings/investing (S/I) capability. Financial socialization and experiences in concert provided information on parental financial influence. Parental financial socialization practices included financial communication, explicit and implicit financial lessons, and the emerging adults' perception of quality and effectiveness. Parental financial experience was operationally defined as instances of financial stress and strain (e.g., excessive debt levels, home foreclosure, un-or underemployment).

Parental/household experiences considered to be stressful can negatively influence emerging adults and others linked to them. These repercussions can manifest physically, mentally, or emotionally. Financial strain is correlated with stress in all age groups, including emerging adults. Conversely, positive financial behavior is related to positive mental and emotional health (Serido et al., 2010). There are consequences for university students feeling financial stress and strain, which may translate to educational distress, poor performance, and even dropping out of school (Grable & Joo, 2006). Lyons and Yilmazer (2005) found that households reporting financial strain also reported having their "head of the household" in poor health. In addition, households that were late or delinquent on debt payments and had poor asset-to-income ratios had poor health within the overall household. Those in this study who were financially strained were more likely to have experienced a financial crisis and to struggle with overall wealth, income, assets, and net worth. It is important to acknowledge that personal, parental, or familial financial strain is a factor that can affect financial capability.

Personal demographic characteristics and experiences influence the way in which socialization is delivered and processed. These characteristics also influence available resources, opportunities, and social perception (Settersten, 2002). Serido et al. (2010) remarked, "...we contend that young adults' perceptions of financial parenting serve as a basis for the development of their own financial behavior" (p. 454).

Family financial socialization imparts mental, emotional, and factual education to children (Danes, 1994). Financial management and behaviors are skills that must be taught–they are not innate (Cho et al., 2012; Shim et al., 2010). Shim et al. (2010) found that parents exuded a strong influence on their emerging adult children and their financial behaviors. This level of influence surpassed the emerging adults' previous work and educational experience. Inadequate financial literacy levels among emerging adults can be attributed to a lack of formal financial education or parental education provided.

Life course and emerging adult theory, when merged with financial education, point to the importance of financial lessons learned early in life as vital to future financial health and stability. Financial habits, attitudes, and behaviors learned in young adulthood affect later life transitions and overall success (Elder, 1995). Further, the life long implications of financial literacy for parents and older adults are clear. Considering the fact that financial education has not been standardized and implemented within formal education much of the work to provide financial education is left to parents (Gudmunson & Danes, 2011; Jorgensen & Savla, 2010).

Financial education for parents is vital as research has revealed parents are the primary agents of socialization, and primarily teaching through observation (Danes, 1994). Whether parents are aware, care, or execute explicit financial lessons, they are teaching their children by what they do, and conversely do not do regarding finances. Bandura's (1986) social learning theory posits that individuals learn attitudes and behaviors through observation and modeling. Implicit, observed teaching and learning represents the majority of financial education that happens in house (Gudmunson & Danes, 2011; John, 1999; Jorgensen & Savla, 2010).

This manuscript examined: (a) the effect parental socialization practices have on emerging adult C/D and S/I knowledge, attitudes, and behavior; and (b) the effect parental financial experiences have on emerging adult C/D and S/I knowledge, attitudes, and behavior. A two phase mixed method design was implemented. This dictated that the quantitative data were collected and analyzed prior to the qualitative inquiry. With this design there was triangulation, multiple sources of data, and detailed interpretation of the results.

Based on the theoretical framework, previous literature, and the proposed models (see figures 7, 8, 9, 10, 11, and 12) the following are the quantitative research questions and hypotheses (see Appendix E for a complete and parallel list of research questions, hypotheses, and measures):

Parental Influence: Credit/Debt

> RQ1a: Do parental socialization practices positively predict and parental financial experiences negatively predict emerging adults' credit/debt knowledge?
>
> > H1a: Parental socialization practices will positively predict and parental financial experiences will negatively predict emerging adults' credit/debt knowledge.

RQ1b: Do parental socialization practices positively predict and parental financial experiences negatively predict emerging adults' credit/debt attitudes?

H1b: Parental socialization practices will positively predict and parental financial experiences will negatively predict emerging adults' credit/debt attitudes.

RQ1c: Do parental socialization practices positively predict and parental financial experiences negatively predict emerging adults' credit/debt behavior?

H1c: Parental socialization practices will positively predict and parental financial experiences will negatively predict emerging adults' credit/debt behavior.

Parental Influence: Savings/Investing

RQ2a: Do parental socialization practices positively predict and parental financial experiences negatively predict emerging adults' savings/investing knowledge?

H2a: Parental socialization practices will positively predict and parental financial experiences will negatively predict emerging adults' savings/investing knowledge.

RQ2b: Do parental socialization practices positively predict and parental financial experiences negatively predict emerging adults' savings/investing attitudes?

H2b: Parental socialization practices will positively predict and parental financial experiences will negatively predict emerging adults' savings/investing attitudes.

RQ2c: Do parental socialization practices positively predict and parental financial experiences negatively predict emerging adults' savings/investing behavior?

H2c: Parental socialization practices will positively predict and parental financial experiences will negatively predict emerging adults' savings/investing behavior.

Models

The models illustrate the study hypotheses (see figures 7, 8, 9, 10, 11, and 12 for manuscript two models). The construct of parental financial socialization was hypothesized to directly positively predict financial capability. Questions of parental socialization process and quality were examined. Are lessons of C/D and S/I learned from parents? Is this experience positive or negative? Are emerging adults being taught explicitly or implicitly? Survey questions assessed: (a) financial communication between parents and their emerging adult child, (b) the financial lessons disseminated by parents, and (c) emerging adults' perception of their parents financial socialization practices. Conversely, parental financial experiences were hypothesized as directly and negatively predicting C/D and S/I knowledge, attitudes, and behavior. The Emerging Adult Financial Capability Survey asked participants to report on their parents' experiences with key aspects of financial stress (Hy 1a, 1b, 1c, 2a, 2b, and 2c).

Factor analysis and confirmatory factor analysis were performed previous to testing full models. These tests helped determine number of factors and indicators, and proper model fit. Structural regression models were proposed as a way to test the directional assumptions between parental financial socialization and experiences and C/D and S/I capability (knowledge, attitudes, and behavior) (Raykov & Marcoulides, 2006).

Methodology

Sample: Emerging Adult Financial Capability Survey

Participants taking the quantitative survey measure were current students enrolled in an entry-level personal finance course offered at a large Midwestern university. All participation was voluntary. Students in the personal finance course were given the option of completing the survey (pre and post) as a course assignment. If participation was declined, or if the participant did not fit the inclusion criteria (18-30 years of age, student at the participating university, and enrolled in the personal finance course) they had the option to complete an alternative assignment. Students opting not to complete the survey or not completing both the pre-and post-tests were not penalized; they completed the equivalent alternative assignment for credit.

Through the personal finance course students received instruction on the basics of financial literacy. As an introductory, survey course the aim was to provide: (a) an understanding of how to build a strong financial foundation, (b) an understanding of financial products and resources, and (c) an understanding of their strengths and weaknesses as money managers. Topics covered over the course of the semester included: building a financial foundation (e.g., financial records, savings, credit), building a financial future (e.g., stocks, bonds, mutual funds), and building finance in a family context (e.g., housing, estate planning, college savings) (see Appendices C and D for course syllabi). The goal was to have an n=1,000, representing a set of completed pre-and post-test assessments.

Sample: Focus Groups

The purpose of the focus groups was to hear past and present personal finance students' thoughts, feelings, interpretations, and ideas related to: (a) a general understanding of credit/debt, savings/investing, and financial capability; (b) select results from the quantitative analysis; and (c) suggestions for financial education. This design also helped to provide triangulation (Colucci, 2007; Ouimet et al., 2004; Ritchie & Lewis, 2003). The goal for recruitment was a minimum of five participants and a maximum of eight participants. This range of participants allowed for a comfortable atmosphere, large enough for participants to feel secure actively participating, and small enough to decrease intimidation and the bystander effect. Participants were over recruited by one or two to protect against levels of attrition and guarantee at least five participants in each group (Colucci, 2007; Creswell & Clark, 2007; Daly, 2007). Marshall and Rossman (2011) stated focus groups ideally would range somewhere between four and twelve participants. Ambert et al. (1995) stated that within qualitative research there is no standard rule for sample size. The qualitative sample size should match the study's purpose, research questions, theoretical framework, and availability of subjects.

Participants were recruited in two ways: through recurring announcements to current students during the personal finance course (see Appendix O) and through email requests sent to previous students across the six semester time frame of the study (see Appendix N). As the inclusion criteria stated, recruits were 18-30 years of age, enrolled at the university, and had previously completed or were currently enrolled in the personal finance course.

Procedures

A two-step data collection and analysis process was implemented. First, a comprehensive self-report survey measure of financial capability was distributed in a pre- and post-test fashion to emerging adult college students taking an introductory personal finance course. Second, as a form of triangulation, two focus groups were assembled. The groups added in-depth analysis of the quantitative results, as well as their thoughts and feelings regarding financial education at home through financial socialization and on campus through formal financial education.

Emerging Adult Financial Capability Survey Protocol

After receiving official permission from the university's institutional review, protection, and integrity board the Emerging Adult Financial Capability Survey (EAFCS) was disseminated across six semesters. A team of researchers from a Southern Atlantic university created and piloted the measure. As a collaborative effort over the span of a year and a half the survey was provided to emerging adult college students. The survey and all recorded data were housed in *Qualtrics,* an online survey creation and management hub.

Survey data collection for this study span from May 2013 through August 2014. During this period the fall and spring semesters were taught face-to-face and typically netted between 300-350 students. During summer, there were two online sections offered (a and b sessions) with a typical enrollment of 100-150 students.

Emerging adult financial capability measure. The EAFCS is a 156-question assessment of financial capability including questions of financial knowledge, attitudes, behavior, motivations, socialization, and ability. The measure on average has a time to completion of 60-90 minutes. Questions were organized by category: (a) financial knowledge, attitudes, and behavior; (b) financial socialization; (c) influences on financial literacy; (d) financial experience and access; (e) salient relationships and their link to finance; and (f) demographic questions.

Focus Group Protocol

A total of two focus group sessions were held. The two separate sessions allowed for a mixture of individuals to participate and provide diverse perceptions, responses, and opinions (Marshall & Rossman, 2011). Holding two separate sessions was important as Marshall and Rossman (2011) stated, "...focus group interviews may be conducted several times with different individuals so that the researcher can identify trends in the perceptions and opinions expressed" (p. 150).

A safe and encouraging atmosphere was created with ice breaking conversations previous to the official start, providing refreshments, and constructing the room to establish a comfortable space (e.g., chairs in a circle). Each session lasted approximately two hours and included four sections: (a) introductions and review of terms (e.g., study vocabulary and operational definitions); (b) general impressions of C/D and S/I capability; (c) analysis of quantitative results; and (d) impressions of educational influences and concluding thoughts (see Appendix S for vocabulary term sheet). First, introductions between participants and the moderator were made. During this time a short demographic survey and the informed consent was completed. In addition, rules and important terms and operational definitions were reviewed. Second, once consent was given, opening questions related to general, personal evaluations of C/D capability and S/I capability. The third section focused on discussion of the survey results. Questions of financial capability and variable relationships were directly influenced by the quantitative results. These questions focused on significant results and themes that emerged during data analysis. The final section covered perceptions of financial education from formal schooling and parental financial socialization. Here, questions of financial education form, frequency, quality, and source were posed.

All questions asked for participants' thoughts, feelings, and reflections. The aim was to provide a loose structure for discussion. When necessary, additional/follow-up prompts were given. Matthews (2005) stated that creating an interview protocol requires drafting questions that are beyond "yes" and "no" answers. The objective is to garner participant stories, not allow one-word answers, or force specific participant remarks. The purpose of the drafted questions was to encourage and facilitate vibrant expression from participants (Marshall & Rossman, 2011). Fixed, standardized questions were not necessary. The goal was unadulterated opinions and expressions provided without coercion (Richards, 2009).

Trustworthiness. How one assesses reliability, validity, and quality differs between quantitative and qualitative research. According to Bloomberg and Volpe (2008) a main difference for qualitative studies is "…that the focus is on how well the researcher has provided evidence that her or his descriptions and analysis represent the reality of the situations and persons studied" (p. 77). This relates to the concept of trustworthiness, the process of ensuring "the rigor and usefulness of a qualitative study" (Marshall & Rossman, 2011, p. 40). For this study, trustworthiness was patterned after models set forth by Lincoln and Guba (1985) and Creswell and Miller (2000). Steps to ensure credibility and transferability were taken prior to the start of the study and throughout the duration of the study. These steps included: (a) creating a reflexive statement and keeping a reflexive journal; (b) developing an audit trail; (c) using multiple sources of data—quantitative survey measure and focus groups; (d) repeated engagement—pre-and post-tests and multiple focus group sessions; and (e) triangulation—dual phase data collection and analysis process, multiple methods assessing the same questions (see Appendix P for audit trail).

Analysis Plan

Quantitative Data

Questions related to parental financial socialization practices and experiences were taken from the EAFCS. Under parental socialization there were six total questions (e.g., "Extent of Explicit parental teaching…Building good credit"). There were four questions under parental financial experience (e.g., "Are one of your parents classified as unemployed or underemployed?") (see Appendix I). Questions related to, and deemed to fit within the categories of C/D and S/I knowledge, attitudes, and behavior were selected by the researcher. Within the category of C/D financial knowledge were questions related to consumer credit: interest rates, credit score and credit report, credit laws, and student loans. Savings/investing financial knowledge represented the basics of managing and investing money: savings interest rates, inflation, investing risk, and retirement. There were 29 total financial knowledge questions (C/D and S/I). These questions were re-coded one for a correct answer and a zero for an incorrect answer (see Appendix F). Financial attitudes for C/D and S/I revolved around subjective financial knowledge. Questions assessed one's understanding and estimation of positive, negative, and avoidant C/D and S/I practices. Within financial attitudes (C/D and S/I) there were four questions with multiple subsections (see Appendix G). Three of the four question subsections were reverse coded so that higher scores reflected positive financial practices. Credit/debt behavior included questions of holdings, credit score and reporting, total debt levels, debt payments, and research of terms and conditions. The category of S/I behavior had questions that ranged from holdings to regular savings and investing practices. There were

17 questions under financial behavior (C/D and S/I) and three were reverse coded (see Appendix H).

Model construction. Several models of the proposed variables and their relationship with one another were created. These models were tested using *Mplus* and structural equation modeling (SEM) (Muthen & Muthen, 1998). Structural equation modeling is a suite of statistical tests (e.g., confirmatory factor analysis, latent change score, mediation) popular for their ability to test theories, latent variables, and relationships between multiple variables.

Raykov and Marcoulides (2006) provided the following overview of SEM saying it, "…enables researchers to readily develop, estimate, and test complex multivariable models, as well as to study both direct and indirect effects of variables in a given model" (p. 1). One of the hallmarks of SEM is its ability to explicitly account for measurement error. Raykov and Marcoulides (2006) stated, "In the classical approaches, typically models are fit to raw data and no error of measurement in the independent variables is assumed" (p. 3). In SEM error is assumed and accounted for within the observed indicators. Reliability for each question subscale was determined through structural equation modeling and model fit. Yang and Green (2011) stated that coefficient alpha (α) assumes equal factor loadings and does not include measurement error. Thus, testing nested models through SEM was used in place of determining coefficient alpha.

Only time (pre-test) one data were used within the models. Testing directional and non-time bound relationships was the primary goal of this analysis. Thus, it was determined that time one data were sufficient to test the predictive relationship between the parental influence variables (experience and socialization) and the financial capability variables (knowledge, attitudes and behavior). However, in terms of the responsible conduct of research, all data were purposefully collected for analysis across multiple studies.

Quantitative data were organized, re-coded, and tested in the following way: (a) *Qualtrics* was used for survey management—data were housed; (b) *Excel* (version 14) was used for organization—data were separated and ordered by semester and pre-and post-test status; (c) *SPSS* (version 21) was used for classification—variables were re-named and re-coded, grouped into subscales, and measurement levels were defined; and (d) *Mplus* (version 7) for data analysis—EFA, CFT, and structural regression models were run (IBM Corp., 2012; Microsoft., 2011; Muthen & Muthen, 1998; Qualtrics, 2015).

Unique numerical IDs were assigned to each participant. The IDs represented the semester the course was completed (fall, spring, summer a, summer b), the school year, and a three digit participant code. Unidimensional item response theory (IRT) was used to test the current and hypothesized coding schemes for one question (Q141-parental socialization). The hypothesized coding scheme was based on knowledge of the topic and previous literature. The new scheme represented a gradient from negative parental interactions (my parents usually argued about the finances-1) to positive (my parents explicitly taught me about finances-4). The results revealed that the new answer choices were highly discriminate (IRT results available upon request). All coding changes were documented in the question subscales (see Appendices F – J). Missing data were coded in *SPSS* (999). Within *Mplus* missing data were assessed and handled by listwise deletion. This method of handling missing data excludes cases with missing values. Listwise deletion is the default for *Mplus* and the primary form of handling missing data with categorical outcomes (Institute for Digital Research and Education UCLA, 2015).

Factor analysis. This form of analysis is utilized to evaluate latent constructs and their hypothesized relationships. To test these theoretical constructs, observed indicators are measured. First, in order to determine the most parsimonious model, number of factors, the factor structure, and estimated relationships between latent factors and indicators, exploratory factor analysis (EFA) is preformed (Muthen & Muthen, 1998-2012; Raykov & Marcoulides, 2006). For each subscale (e.g., C/D knowledge) EFA was used to test models varying in structure from one to four factors. Following this, confirmatory factor analysis (CFA) was used on the predetermined model. This step affirms the factor structure and fit with the data. Raykov and Marcoulides (2006) summarized, "Hence, in CFA (a) the theory comes first, (b) the model is then derived from it, and finally (c) the model is tested for consistency with the observed data" (p. 117). In addition, during CFA the model was modified to improve and determine acceptable fit.

Satisfactory model fit indicates the model fits the data in a plausible way. Fit was evaluated based on the following indices and cutoff levels: (a) the Comparative Fit Index (CFI) at or above .95, (b) the Tucker Lewis Index (TLI) at or above .95, (c) the Root Mean Square Error of Approximation (RMSEA) less than .06, and (d) the RMSEA 90% confidence interval with an upper bound less than .06 (Hu & Bentler, 1999).

Model testing. After the constructs were evaluated through EFA and CFA, structural regression models were formed to test all related hypotheses. These models used regression equations to assume directional relationships between the latent variables.

Suppositions of explanatory relationships between parental influence variables and C/D and S/I capability were either retained or rejected.

Qualitative Data

The purpose of the focus groups was two-fold. The first goal was to validate the quantitative results through triangulation. This validation of data provides multiple perspectives from multiple points of view and multiple sources of data (Daly, 2007). As Richards (2009) stated, "often, using multiple approaches promises very interesting results; it's always interesting to see the same question different ways" (p. 149). Secondly, key to this exploration was participants providing their own thoughts and opinions in their voice, using their vocabulary, and prioritizing what is important to them. The aim was to receive first-hand accounts, in the participants' voice (Kitzinger, 1995). Participants commented on their own C/D and S/I capability, reacted to select survey results, and added their insight to parental socialization and financial education. During the focus group sessions, observational notes were taken and after each session additional notes and casual observations were recorded. This process provided a review of the session and major themes of the session (Ouimet et al., 2004).

Qualitative data analysis is defined as a recursive process (Dilworth et al., 2000). General coding procedures included: identifying significant passages (quotes and statements), providing these significant passages names or codes, distilling and grouping significant passages into related themes, and presenting themes in a meaningful way (Creswell, 2007). For this study, both focus group sessions were digitally recorded and later transcribed verbatim. During the transcription process pseudonyms were provided to each participant (see Appendix R for participant numbers and pseudonyms).

Transcripts were then read multiple times to gain the essence of the experience. Significant statements were highlighted and grouped based on evidence of relatedness (Creswell, 2007; Creswell & Clark, 2007). Initial codes were provided and reviewed twice before a codebook was created with detailed descriptions of each classification (see Appendix Q for focus group codebook). The goal was no more than five to seven general themes as Creswell (2007) stated, "…a popular form of analysis, classification involves identifying five to seven general themes. These themes, in turn, I view as a 'family' of themes with children, or subthemes, and even grandchildren, sub-subthemes represented by segments of data" (p. 153). Finally, a table of the major categories, their subcategories, and significant statements was created to help with review, organization, and write-up.

Results

Sample Frequency Distributions: EAFCS

Demographic data were collected, and frequencies and percentages are presented. This information provides context, and helps to illustrate the sample as a whole as well as groups within the broader sample. The sample for the quantitative survey analysis was 855, with limited data missing at random. The response rate for the sample was 85.5%. Across six semesters slightly over 1,000 cases were recorded in *Qualtrics*. Cases determined to be submitted in error, lacking at least 50% completion, were eliminated. Eliminated cases were systematically identified based on time and date stamps, and associated email and IP addresses. These cases were classified as either a personal or technical error. Cases were matched, pre-and post, and each participant/case was given an identifier representing the semester and year completed along with a random numerical ID.

Of the 855 participants, the overwhelming majority (95%) were between 18-22 years of age. Slightly over half of the participants were males (55.7%), with the largest proportion identifying as white/Caucasian (69.8%). The next largest segment was "other" (14.8%), followed by black/African American (8%), Asian (5.4%), Hispanic (1.8%), and American Indian (.2%). Within this group the majority were raised in the United States (84.4%).

In terms of class standing, the sample was weighted toward upperclassmen with 40.1% seniors, 20.9% juniors, 29.9% sophomores, and 9% freshman. One student participant identified as a graduate student. The majority of students enrolled in the personal finance course as an elective (86%). Just over 12% took the course as a requirement, and 1.2% selected "other." Major field of study varied; however, the greatest proportion selected "other." This was from a list that included: accounting, finance, education, engineering, psychology, sociology, and human development and family studies.

Seventy percent of participants either financed their education themselves (23.3%) or claimed parents and family as the primary source of financing (47.7%). Looking toward the future, participants stated their desired level of education was a bachelor's degree (41.6%), master's degree (44.5%), and/or doctorate, law, or professional degree (12.3%). Fourteen students (1.6%) selected an associate's degree. Further, in terms of future income, the majority of students selected $50,000-$74,999 (42%) and $40,000-$49,999 (25.7%).

Participants self-reported on their parents' level of education and combined level of income. Father's level of education was reported as slightly higher than mother's level, with the highest concentrations around bachelor's degree (35.1%) and the category labeled as Master's, doctorate, or professional (27.9%). Mother's level of education had the majority with a bachelor's degree (37.4%). The other categories had similar proportions between mothers and fathers, with a slightly higher percentage of mothers having some college (14%) or an associates/community college degree (11.9%), and fathers slightly higher with training in a trade (2.2%) or at a military school (1%). Parental income was reportedly high with 70.5% of student participants claiming household income within the ranges of $80,000-149,000 (35.9%) and $150,000 or more (34.6%). This left 29.6% of families with an income lower than $80,000 (see table 14 for all demographic questions and results).

Sample Frequency Distributions: Focus Groups

Seven participants attended each focus group session, representing a response/participation rate of 87.5%. Of the 14 total participants there was an equal distribution of males and females. Twelve of the fourteen participants (85.7%) reported their age as falling within the 18-22 range. Those outside of this range reported being between 23-26 years of age (14.3%). Fifty percent of sample identified themselves as white or Caucasian. The other half identified as: (a) black or African American (14.3%), (b) Hispanic American (7.1%), (c) Asian American (14.3%), (d) other—self reported/defined as Asian (14.3%).

Current seniors represented nearly three quarters of the overall sample (71.5%). Of the remaining participants, one was a freshman (7.1%) and three were sophomores (21.4%). In the category of current major, only the majors of accounting (14.3%), finance (14.3%), and communication (14.3%) had more than one participant. The remaining fields of study included: engineering, psychology, sociology, animal science, criminal justice, hospitality business, human biology, and media information. When asked what was the highest level of education they wished to achieve 35.7% of respondents said their bachelors degree, 42.9% master's degree, and 21.4% stated a doctorate, law, or professional degree.

Five participants (38.5%) reported they were currently enrolled in the personal finance course. The remaining participants took the course during previous summer (a and b sessions), fall, or spring semesters. Nine participants (69.2%) took a fall or spring face-to-face offering, while four participants (30.8%) took the course during the summer in an online format (see table 15 for all demographic questions and results).

Quantitative Study Results: EAFCS

This manuscript focuses on how parental financial socialization practices and experiences affect C/D and S/I knowledge, attitudes, and behavior. The hypotheses assumed that both parental financial socialization practices and experiences would predict C/D and S/I capability (knowledge, attitudes, and behavior). However, the direction of this relationship was assumed to differ. Parental financial socialization was hypothesized to positively predict levels of C/D and S/I capability, while parental financial experiences would negatively predict capability.

Tables and figures were created for each of the models tested. Standardized and unstandardized estimates were presented in both the tables and figures. In addition, the figures picture the standard error, and the tables list standard error and significance levels (p-value) (see tables 10 and 11 and figures 7, 8, 9, 10, 11, and 12).

Research Question 1a: Credit/Debt

RQ1a: Do parental socialization practices positively predict and parental financial experiences negatively predict emerging adults' credit/debt knowledge?

H1a: Parental socialization practices will positively predict and parental financial experiences will negatively predict emerging adults' credit/debt knowledge.

The first research question and hypothesis centered on the relationship between parental financial socialization practices and experiences and their ability to predict credit/debt knowledge. To test this and all other hypotheses structural regression models (Raykov & Marcoulides, 2006) were created using *Mplus* 7 version 1.31 (Muthen & Muthen, 1998-2012). Hypothesis 1a was partially supported.

EFA, CFA, and model fit. Exploratory factor analysis and confirmatory factor analysis were run for all latent constructs: (a) parental financial socialization; (b) parental financial experiences; (c) C/D knowledge, attitudes, and behavior; and (d) S/I knowledge, attitudes, and behavior.

Exploratory analysis revealed a two-factor model for parental financial socialization. Here, the two factors represented implicit financial teaching (factor one) and explicit financial teaching (factor two). In both instances students rated the degree to which their parents taught various financial concepts (e.g. budgeting, building good credit, loans/debt) implicitly and explicitly on a scale from "never" to "always." The parental experience factor related to issues of severe financial stress and strain (e.g. large debt levels, recent home foreclosure, bankruptcy, un-or underemployment). Here, students answered yes and no questions and when applicable (question of un-or underemployment) denoted which parent (mother, father). Finally, C/D knowledge had one factor related to credit and its uses (e.g., "Which of the following cannot legally access your credit report?") (see table 3 for factor themes). Throughout this review each factor will be referred to by its content area (knowledge, attitudes, behavior) and associated factor theme.

After the factor structure was determined, confirmatory factor analysis (CFA) was run to examine the relationships between factors. Directional relationships are not tested during this step, instead the factor structure is confirmed, existing relationships are observed, and the hypothesized relationships between both the observed indicators and latent factors are tested (Raykov & Marcoulides, 2006). During CFA modification indices (MI) were reviewed and used as a guide for adaptions and improvements to overall model fit. The MI provide information on the potential change in chi-square when a parameter is freed (Muthen & Muthen, 1998-2012).

Using the results from CFA (pre-test), models were combined, and relationships assumed through structural regression. Final model fit (regression model) is reported throughout. Fit results from EFA and CFA are presented in table two. The evaluation of fit was determined through absolute and confirmatory indices such as the CFI, TLI, RMSEA, and the RMSEA 90% confidence interval. Hu and Bentler (1999) suggested a model have adequate fit with a CFI and TLI above 0.95 and the RMSEA and RMSEA 90% confidence interval below, in value and range, 0.60. This model demonstrated requisite fit with the data following the standards outlined above (*CFI*= .976, *TLI*= .973, *RMSEA*= .043) (see table 1 for model fit indices).

C/D knowledge-credit uses. There was only one significant pathway in this model. Explicit parental socialization significantly predicted one's level of C/D knowledge surrounding credit and it uses (b= 0.155, SE= 0.068, β= 0.173, p= .05). Implicit instruction (b= 0.054, SE= 0.053, β= 0.067, p= .308) and parental experiences (b= -0.089, SE= 0.077, β= -0.091, p= .249) did not significantly predict C/D knowledge (see figure 7 and 7a for full model).

Research Question 1b: Credit/Debt

RQ1b: Do parental socialization practices positively predict and parental financial experiences negatively predict emerging adults' credit/debt attitudes?

H1b: Parental socialization practices will positively predict and parental financial experiences will negatively predict emerging adults' credit/debt attitudes.

The second research question and hypothesis examined the relationship between parental influence and C/D attitudes. The assertion was that parental financial socialization would positively predict, and experience would negatively predict emerging adults C/D attitudes. Hypothesis 1b was partially supported.

EFA, CFA, and model fit. Exploratory factor analysis revealed a three-factor structure for C/D attitudes. The first factor for C/D attitudes represented understanding of negative credit practices (e.g., "Please identify each of the following as 'Good Practice' or 'Not Good Practice'…bouncing checks"). Conversely, the second factor surrounded an evaluation of positive C/D practices (e.g., "Please rate your agreement with the following statements…I'm satisfied with the way I pay my bills"). Finally, the third factor represented one's opinion of avoidant responses or reactions to credit and its uses (e.g., "Please rate your agreement with the following statements…The cost of using credit is too high"). After testing several nested models this structural regression model was deemed to have sufficient fit with the data (*CFI*= .959, *TLI*= .955, *RMSEA*= .051).

C/D attitudes-negative practices. Parental influence did not significantly predict students' estimation and agreement with negative C/D practices. Parents' implicit financial socialization (b= 0.047, *SE*= 0.108, β= 0.043, p= .663), explicit socialization practices (b= 0.047, *SE*= 0.108, β= 0.043, p= .663), and parental financial experiences (b= -0.247, *SE*= 0.159, β= -0.210, p= .085) were not significant predictors of one's attitude toward negative C/D practices.

C/D attitudes-positive practices. Explicit parental financial socialization significantly predicted C/D attitudes of positive practices (b= 0.388, *SE*= 0.067, β= 0.389, p= .001). Implicit socialization practices (b= 0.003, *SE*= 0.048, β= 0.004, p= .947) and parental financial experiences (*b*= -0.025, *SE*= 0.065, *β*= -0.026, *p*= .695) did not significantly predict attitudes surrounding the positive handling of C/D.

C/D attitudes-avoidant responses. Explicit parental financial socialization significantly predicted C/D attitudes toward avoidant responses (*b*= 0.228, *SE*= 0.081, *β*= 0.172, *p*= .01). Implicit parental financial socialization (*b*= -0.088, *SE*= 0.064, *β*= -0.074, *p*= .168) and parental financial experiences (*b*= -0.156, *SE*= 0.100, *β*= -0.110, *p*= .120) had a negative and non-significant relationship (see figure 8 and 8a for full model).

Research Question 1c: Credit/Debt

RQ1c: Do parental socialization practices positively predict and parental financial experiences negatively predict emerging adults' credit/debt behavior?

H1c: Parental socialization practices will positively predict and parental financial experiences will negatively predict emerging adults' credit/debt behavior.

The final C/D hypothesis examined the predictive power of parental socialization and experiences on C/D behavior. Hypothesis 1c was partially supported.

EFA, CFA, and model fit. A two-factor model for C/D behavior sufficiently fit the data. Factor one was associated with an individual's credit and debt holdings (e.g., "How many credit cards do you have?") and negative C/D practices (e.g., "In the past 12 months have you…maxed out the limit on one or more credit card"). The second C/D behavior factor related to C/D payment practices (e.g., "Please indicate the frequency with which you engage in the following activities…I paid all my bills on time in the past year") and research of C/D terms and conditions (e.g., "Please indicate the frequency with which you engage in the following activities…I compare offers before applying for a loan"). Model fit was acceptable (*CFI*= .972, *TLI*= .970, *RMSEA*= .043).

C/D behavior-holdings and negative practices. Explicit parental socialization significantly predicted C/D behavior-holdings and negative practices (*b*= 0.247, *SE*= 0.086, *β*= 0.191, *p*= .01). In addition, parental financial experiences significantly and negatively predicted C/D behavior-holdings and negative practices (*b*= 0.520, *SE*= 0.139, *β*= 0.356, *p*= .001). Finally, the directional assumption between implicit parental financial socialization and C/D behavior-holdings and negative practices was non-significant (*b*= 0.036, *SE*= 0.070, *β*= 0.031, *p*= .605).

C/D behavior-payments and research. Implicit (*b*= 0.110, *SE*= 0.045, *β*= 0.150, *p*= .05) and explicit (*b*= 0.215, *SE*= 0.059, *β*= 0.263, *p*= .001) parental socialization significantly predicted C/D behavior-payments and research. However, parental financial experiences did not significantly predict C/D payment and research behavior (*b*= -0.092, *SE*= 0.076, *β*= -0.100, *p*= .227) (see figure 9 and 9a for full model).

Research Question 2a: Savings/Investing

RQ2a: Do parental socialization practices positively predict and parental financial experiences negatively predict emerging adults' savings/investing knowledge?

H2a: Parental socialization practices will positively predict and parental financial experiences will negatively predict emerging adults' savings/investing knowledge.

This second series of research questions and hypotheses looked at the predictive effect of parental financial socialization and parental financial experiences on S/I capability (knowledge, attitudes, and behavior). This hypothesis asserted that both of these aspects of parental influence would predict, positively and negatively, one's level of S/I knowledge. Hypothesis 2a was partially supported.

EFA, CFA, and model fit. Parental financial socialization, as described above, divided into two factors: implicit and explicit teaching. Parental financial experiences loaded onto one factor representing issues of financial stress and strain. Exploratory factor analysis also revealed one factor for S/I knowledge. Questions surrounding this factor related to S/I accounts and return on accounts (e.g., "Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, how much would you be able to buy with the money in this account?"). After testing a series of nested models, fit was determined to be satisfactory (*CFI*= .972, *TLI*= .970, *RMSEA*= .043).

S/I knowledge-accounts and return. There was only one significant pathway in this model. Parental financial experiences negatively and significantly predicted level of S/I knowledge-accounts and return (b= -0.231, SE= 0.087, β= -0.292, p= .01). Neither implicit financial socialization (b= 0.080, SE= 0.048, β= 0.121, p= .100) nor explicit financial socialization (b= 0.011, SE= 0.061, β= 0.014, p= .861) significantly predicted level of S/I knowledge-accounts and return (see figure 10 and 10a for full model).

Research Question 2b: Savings/Investing

RQ2b: Do parental socialization practices positively predict and parental financial experiences negatively predict emerging adults' savings/investing attitudes?

H2b: Parental socialization practices will positively predict and parental financial experiences will negatively predict emerging adults' savings/investing attitudes.

The second hypothesis asserted that parental socialization would positively affect S/I attitudes and further parental experiences would negatively affect S/I attitudes. Hypothesis 2b was partially supported.

EFA, CFA, and model fit. During exploratory factor analysis, the data for S/I attitudes fit a three-factor model. Each attitude factor related to subjective financial knowledge. Factor one related to an understanding of investing and budgeting (e.g., "Rate your understanding…Saving for retirement"). The second factor had to do with identification and agreement of positive S/I practices (e.g., "Please rate your agreement with the following statements…It is important to keep track of where money is spent"). The third factor reflected understanding and agreement with negative S/I practices (e.g., "Please rate your agreement with the following statements…Financial planning is an unnecessary distraction when families are just trying to get by today"). This model had acceptable comparative fit and absolute fit, each was at or below the suggested cutoff level (*CFI*= .962, *TLI*= .958, *RMSEA*= .052).

S/I attitudes-investments and budgeting. Both implicit (*b*= 0.198, *SE*= 0.057, *β*= 0.190, *p*= .001) and explicit (*b*= 0.201, *SE*= 0.074, *β*= 0.174, *p*= .01) parental financial socialization significantly predicted the understanding and agreement one had concerning attitudes toward investments and budgeting. The relationship between parental financial experiences was negative and non-significant (*b*= -0.015, *SE*= 0.080, *β*= -0.012, *p*= .369).

S/I attitudes-positive practices. There was only one significant pathway. Explicit parental socialization significantly predicted attitudes toward positive S/I practices (*b*= 0.303, *SE*= 0.071, *β*= 0.259, *p*= .001). Implicit socialization (*b*= 0.085, *SE*= 0.057, *β*= 0.081, *p*= .0135) and parental financial experiences (*b*= -0.077, *SE*= 0.086, *β*= -0.060, *p*= .369) did not significantly predict one's attitudes of positive S/I practices.

S/I attitudes-negative practices. Explicit parental socialization significantly predicted S/I attitudes associated with negative S/I practices (*b*= 0.267, *SE*= 0.069, *β*=

0.235, p= .001). Both implicit instruction (b= -0.005, SE= 0.052, β= -0.004, p= .930) and parental financial experiences (b= -0.160, SE= 0.085, β= -0.129, p= .059) were negative and non-significant (see figure 11 and 11a for full model).

Research Question 2c: Savings/Investing

RQ2c: Do parental socialization practices positively predict and parental financial experiences negatively predict emerging adults' savings/investing behavior?

H2c: Parental socialization practices will positively predict and parental financial experiences will negatively predict emerging adults' savings/investing behavior.

In this model parental socialization and parental experiences and their directional effects were tested. The hypothesis was parental socialization would positively predict the way emerging adults behave around S/I, and parental experiences would negatively predict behavior. Hypothesis 2c was partially supported.

EFA, CFA, and model fit. Exploratory factor analysis revealed the data for S/I behavior fit with a one-factor model. This factor represented issues of budgeting (e.g., "Please indicate the frequency with which you engage in the following activities…I use a weekly/monthly budget to track my income and expenses") and record keeping (e.g., "Please indicate the frequency with which you engage in the following activities…I maintain adequate financial records"). For this structural regression model fit was determined by testing a series of nested models and overall fit was deemed to be acceptable (CFI= .964, TLI= .962, $RMSEA$= .049).

S/I behavior-budgeting and record keeping. For S/I behavior both implicit parental socialization (b= 0.109, SE= 0.041, β= 0.129, p= .01) and explicit socialization (b= 0.356, SE= 0.055, β= 0.390, p= .001) significantly predicted behavior related to budgeting and financial record keeping. Parental financial experiences did not significantly predict S/I behavior-budgeting and record keeping (*b*= -0.093, *SE*= 0.065, *β*= -0.088, *p*= .154) (see figure 12 and 12a for full model).

Summary of Findings

- Explicit parental socialization was a more significant predictor of emerging adult C/D and S/I knowledge, attitudes, and behavior then when compared to implicit forms of teaching and learning.
- Explicit financial socialization significantly predicted C/D knowledge.
- Explicit financial socialization significantly predicted C/D attitudes-positive practices and attitudes-avoidant responses.
- Explicit financial socialization significantly predicted C/D behavior-holdings and negative practices. Parental financial experience significantly and negatively predicted C/D behavior-holdings and negative practices.
- Implicit and explicit financial socialization significantly predicted C/D behavior-payments and research.
- Parental financial experiences significantly and negatively predicted S/I knowledge.
- Implicit and explicit financial socialization significantly predicted S/I attitudes-investing and budgeting.
- Explicit financial socialization significantly predicted S/I attitudes-positive practices and attitudes related to negative practices.
- Implicit and explicit financial socialization significantly predicted S/I behavior related to budgeting and record keeping.

Qualitative Study Results: Focus Groups

Throughout the coding process several themed categories and subcategories emerged. During the focus group sessions participants were asked to reflect and respond to questions of financial capability, formal financial education, and parental socialization practices with their personal thoughts, feelings, opinions, and anecdotes. Five major categories and their subcategories will be described in detail: (a) financial capability—estimation of credit/debt and savings/investing habits, ability, strengths, and weaknesses; (b) credit/debt and savings/investing management—savings and spending habits; (c) the importance and developmental timing of financial education—salience of financial education and age related issues in financial teaching and learning; (d) financial influence—explicit and implicit teaching, sources of socialization, and parental capability; and (e) financial education—influence of current financial education, influence of culture on financial teaching and learning, and suggestions for improvement and expansion of collegiate financial education.

Financial Capability

This category covered participants' estimation of their C/D and S/I financial capability (knowledge, attitudes, and behavior). Participants talked of their uncertainty in areas of C/D and S/I, level of knowledge, and desire to learn more. Participants' estimate of their financial capability form a subcategory and is described below.

Estimate of capability. When commenting on their personal financial capability participants referenced areas of strength, but overall acknowledged areas of growth. Courtney began by stating, "I'd say that I only have a basic knowledge 'cause all I've taken is the course [personal finance elective].'" She continued confessing, "I still don't feel like I'm fully prepared for moving on to being an adult." Alicia felt her financial knowledge was advancing, "I'm like…growing toward the point of understanding;" however, there was much more she longed to learn before graduating and entering the working world. Ashley described a connection between her financial knowledge and behavior saying, "I would say that my behaviors reflect what I have learned and what I know." Numerous participants described dissonance between their knowledge and behavior. According to Courtney, "I behave better financially than I do with actually knowing things." Jacob explained his financial disconnect: "I have a decent understanding in terms of the big picture, but honestly on a day-to-day basis…and on a weekly monthly budgeting basis I'm terrible…spending money on food and whatever else I need at the time." Scott did not see a direct connection between his financial knowledge, attitudes, and behavior. He described his financial capability in the following way, "…my knowledge that I have is maybe below average, but my attitudes and behaviors [are] based off of prior experience which I would say, through the years, gets better and better."

Credit/Debt and Savings/Investing Management

These categories and their subcategories were combined in this presentation. Here, participants commented on their spending and savings habits and struggle to manage money during their collegiate years. As Vana stated, "I'm really good at saving but I'm terrible at spending. I don't manage my spending very well."

Saving and spending habits. These subcategories covered participants' thoughts and feelings on two important aspects of C/D and S/I management. Throughout both of these categories a common thread was a mindset of living in the present and dealing with aspects of financial management in the future—once out of school. Jacob explicitly stated, "you're only 21 once. So you've got to live it up now and you can save up later…that's the way I've been thinking lately." Rachel seconded this, "Like him, [I'm] only 21 once, I'm like, 'I'm only in college once! I'm graduating, I want to enjoy myself!' but I always try to find ways to be mindful too because it's important." Jacob remarked, "I know that the spending…I know I shouldn't be doing it, but I have the attitude like, 'oh, whatever. I'll make it back.'" Edward knew what was "right" he knew what "to do" however, he struggled to execute on a daily, weekly, or monthly basis. "I knew how to maintain a good credit score, but every month I just cannot do it. I'm always spending more than I earn…" Chris described how he vacillates between a mentality of spending and saving:

> I spend more money cause I'm like 'well I've had a job since I was 15. I've been a responsible saver. I can spend a little on myself,' like it's okay to spend [and buy] a $200 watch every once in a while which is really not okay! But I've saved money for the past four or five years so I was like, 'it's alright. It's not a big deal' (Chris).

Many struggled with ideas like this, knowing what they should do with their money, and some even doing it, but looking for the reward or reinforcement. Vana talked about putting money away toward savings, but then spending it on events and outings with friends saying, "I'll just end up spending it all." In one night, Vincent said his monthly spending plan can become unhinged, "spending gets out of control [in] a night…It's bad! $10, $10, $10, you know?" Courtney's mindset was, "'…I still have all these savings from my jobs,' but I definitely was, spending a lot more, thinking that…'cause I had savings…I still ended up spending that money anyway…" She continued to tell a story of saving money from work over the summer for expenses during the school year. However, without the discipline of working and earning she did not manage her money effectively. She recalled:

> …not only did I not have money coming in…I had so much extra time…I found myself spending so much. And I got a new credit card and it was…[a] rewards one. And I was like, 'Oh my god, I have to spend $500 to get my $100 back!' (Courtney).

Scott in a similar fashion worked during the summer, but did not have regular income during the fall and spring semesters. The money that he saved, like Chris and Courtney, was to be budgeted across the semester. However, he admitted struggling to stay within his previously determined budget, saying, "that cycle of 'oh, I have money, I can still buy it,' but I'm not having any income. It just doesn't click with me."

The Importance and Developmental Timing of Financial Education

In this category participants addressed the saliency of financial education. These thoughts correlated with thoughts of the developmental timing of financial lessons. The timing and content of the lessons influenced what the students learned, how they evaluated the lesson, and how prepared they felt. The importance of financial education and age graded learning subcategories will be outlined below.

Importance of financial education. Edward felt financial literacy was a necessary component to higher education. He responded, "it's effective…the earlier, the better…if you just go to college and you don't know anything before, it's very good." Rachel stated, "I feel like having conversations about this can really make a difference for people and really open people's eyes to it. I think it kind of proves how important…trying to have all college students have financial literacy." Olivia agreed stating, "the ones that know…they make better decisions."

Age graded learning. The need for financial education aimed at college students was clear to participants. Chris began by stating, "all the freshmen…who haven't taken this class, I'm sure they're not aware of the credit cards and the debt they can bring…it's fundamental knowledge to save money…" He continued:

> …a kid who's grown up and had everything handed to him has no concept of saving money or putting money away…if he hasn't taken a course or anything…[he won't know] you need to put money away towards retirement or that you need to start a savings account…(Chris).

Alicia spoke of the knowledge she had gained through financial education influencing her behaviors, but without constant attention paid to these lessons she lacked direction. "I felt like I had to take responsible actions just to make sure I'm paying my credit card on time." As she continued, her comments revealed her struggle, "…I'm doing all this stuff and sometimes you just get lost, like, what does this all mean? I'm 21. I should be doing this.

Participants perceive there were different stages of life when certain financial lessons were more applicable, when the lesson "clicked," and when they had the opportunity to put into practice what they had learned. Early on in their development participants felt, "you don't really know the financial situation in your home when you're a kid…and you don't know what's really happening with the finances" (Alicia). Olivia added, "I wish I did [know what was going on financially] because I obviously wouldn't have wanted to make the same mistakes." Courtney referenced early lessons failing to be retained due to her mindset and lack of first-hand experience. She said mandatory financial and economics courses in high school were not influential, "that's high school. And…besides me waitressing, I mean I didn't have to manage my money." Rachel explained her developmental journey and learning through experience:

> I think they [financial lessons] do come with time because as I got older and I had my first big job at a country club, I kind of started saving up more and started to understand. Once I had all this money, I kind of wanted to know more…I didn't want to do wrong with it. It encouraged me to do more (Rachel).

Participants described changing priorities, interests, and levels of understanding as they moved throughout their collegiate education. On valuing financial education, Rachel revealed, "I don't think you even know how important it is until you get to a certain point… I'm a senior now but I'm like…I [will] have a full-time career. I have to start providing for myself." Scott recalled the student make-up of his personal finance course and their differing stages: "first day [the professor] asked how many were freshmen…sophomores, juniors, and seniors. I would say the class was probably half freshmen and half seniors. Half ready to plan for college and half freaked." Courtney acknowledged the differing financial goals and attitudes between freshman and seniors. She said, "I wish I would have taken this class when I was a freshman…now…I'm pretty happy taking it as a senior because…I'm going to be applying a lot more of this stuff to right when I graduate." When probed further regarding the financial implications and development differences between freshman and seniors Rachel stated, "There's a whole different array of expenses that you need to learn to manage for…"

Participants also talked about their age and stage influencing their parents' socialization practices. How and when parents taught financial lessons became a subject of discussion. Zahara spoke of her parents providing financial lessons only after she had a job, steady income, and money to manage. She claimed, "I entered college and started getting my own job and started making my own money. Then they realized, 'well maybe she should also know what to do with all this stuff.'" Vana had a similar family culture, stating, "Growing up…I would just sort of…observe and just sort of wonder, but they would never tell me anything. And then senior year of high school they started explaining to me some stuff." Courtney mused as to why her parents delayed many explicit financial lessons saying:

> …maybe thinking that I was too young or something…now [I'm] realizing that some of the stuff that my parents may not have explicitly explained to me, I can realize now…when you're older it's hard to teach someone that's younger using the right wording…(Courtney).

Rachel also thought her age and level of comprehension played a role in how and what her parents chose to teach her. "I don't think they really took the time to sit down and [teach] maybe that's just because they thought I didn't understand…" Olivia recognized her age and attitude as a factor in her overall financial learning, "with my parents, it [was] just like, 'okay dad, gotcha mom'…I would definitely say age plays a part."

Financial Influence

The category of financial influence contains information on parental socialization. Here, participants discussed explicit and implicit teaching, their estimation of their primary socialization source and greatest lessons provided, and parents' financial capability.

Explicit and implicit socialization. Participants were first asked to review and consider results from the previously conducted quantitative survey. The analysis of the survey data revealed explicit parental socialization was a stronger influence on emerging adult financial capability than implicit, observational learning. Participants reacted to this and provided their opinions on explicit and implicit parental socialization. Some participants had strong preferences between explicit and implicit teaching, reflecting on what they received or conversely what they did not receive growing up, and which they believed to be a stronger influence.

Many believed parents that made the effort to explicitly teach their children would also exemplify good money management. Thus, explicit action begat implicit example. Courtney added, "…if a parent is explicitly teaching…then they might also be implicitly acting upon whatever they're also teaching. Another participant stated, "parent teaching definitely correlates with the parent doing it" (Jacob). Ashley cited a list of merits for both explicit and implicit socialization, but ultimately concluded that explicit teaching was more powerful saying, "…you can't learn everything implicitly."

Olivia felt, based on personal experience and anecdotal evidence, explicit parental socialization was more common. In her comments she alluded to parental experience and familial status playing a role in the form and function of socialization. She stated, "I think the explicit approach is more common given certain groups of people" and went on to say, "the people I grew up with, it was definitely more explicit." Ashley favored explicit teaching stating, "…when people know why they should do something, they're more likely to do it that way. So purposeful teaching is the 'why' behind what they're learning." Rachel described her preference in the following way:

> I feel like if your parents are taking the time to teach you and have you learn rather than just having you observe, it kind of makes it seem important. If my parents sat down and told me the purpose of a credit card and how to use it and gave me some advice form their own experience, it may make me…understand or want to know more. But if I just went to the store and saw my dad use one I'd just be like, 'well

> you know…' but when they actually told me about it, I feel like I learned a lot more and had a more positive result (Rachel).

It was clear in terms of financial socialization the "who" behind each explicit lesson was as important as the "why" behind the lesson. Vana stated:

> …when someone's up front with you about something and they tell it to your face how it is, it just gives more of an impact…implicit [socialization] can be really influential, but I feel like explicit [socialization] has more force to it (Vana).

Noah elaborated on this point describing the importance of reputation, "when someone with authority, someone with knowledge tells you something you're more [likely] to trust him or her rather than you see someone doing things…"

Observing their parents' financial ups and downs for Olivia and her sister created their preference to *see* the results before believing. "…we always say talk is cheap, basically… [we've] seen how my parents, how their financial attitudes, have affected us in both good and bad ways. And that kind of trickled over to how I handle my finances." Edward agreed that seeing "the results" was the most powerful influence on his financial capability. Zahara said, "I don't know a whole lot of stuff about investing even though my parents have…tried to sit me down and teach me" she continued, "it's really gone in one ear and out the other…I think what actually…brought my attention to it was when I would see them make some good investments and how excited they'd get…or how sad they'd get when something kind of went down the drain."

Socialization source. When asked who or what was the participants' greatest financial influence, answers ranged from parents and extended family to books and media sources. However, parents and extended family were the most common response. Rachel remarked it's been "a whole lifetime of influence and learning things." Zahara responded that her parents were her primary agents of socialization. She explained, "…their financial situation…directly influences my financial situation… since it's directly affecting me it's kind of influenced the way I've created my own ideas." Some participants delineated between their parents, highlighting either mom or dad. Courtney explained:

> …[it was] different with my mom than with my dad…my mom was more like teaching me: 'Okay you have to build your credit score,' and I'd be like, 'Well, why do I have to build my credit score?' and then explaining stuff like that…(Courtney).

Vana expressed similar feelings noting that her mother was influential because "if I ever had a question she would always try her best to explain it to me." Olivia stated, "My biggest influence would be my parents…specifically my dad." She explained, "…he's the breadwinner in the house…I've seen his successes and his failures, and his failures obviously hit my family of six hard when it hit."

Participants described learning from both the successes and failures. Chris described an important financial figure in his life:

> My uncle was also a finance major…he's very successful and he's taught me a lot of stuff. I asked him a lot of questions growing up about finances and savings. I was always aware of how he did very well off for himself (Chris).

Rachel learned from her fathers' spending habits "[he's] always been the type to not spend what he doesn't have." Alicia learned from her parents to buy only what she could afford, "…they just felt like if you can't really own it, you don't need it!" Scott learned from struggles he saw his mother endure. He explained:

> …if I wanted something [growing up] I got it…now I realize my mom was in a lot of debt…she started being like, 'I'm going to need some money from you'…maybe I shouldn't have had all of those things when I was younger (Scott).

When participants were asked whether the lessons their parents or other socialization agents provided them were explicit or implicit. While the lessons may have varied, participants tended to agree that, when reflecting back, all of the lessons were ultimately positive. "When I was younger they were definitely a lot more negative because I didn't understand finances…and I realized looking back how positive they all were…"(Ashley). The key lessons recalled by participants represented a basic understanding of savings and spending:

- "If you don't have it, we're not spending it" (Alicia).
- "Always have enough money just in case something bad happens" (Scott).
- "…the time value of money" (Courtney).
- "…you have to work for what you have…they would always say, 'never spend more than what you have,' like, 'only buy what you can afford'" (Vana).

Parental capability. Within this subcategory participants referenced the effect of parental socioeconomic status (SES), financial success, financial education and understanding on their socialization practices. These factors affected the frequency and quality of financial lessons disseminated. Participants felt that parental financial accomplishment naturally transferred to their children. Olivia provided this example:

> …if your parents are the type to invest or to manage their money well they pass it down to their children. I knew people who, like I said in high school, had stocks…I think it just depends on how your parents were brought up (Olivia).

Similarly, Jacob felt that if one's "parent is responsible…[he or she is] more likely to try to pass that habit on to their kids than a parent that doesn't know better themselves…If the parent doesn't know, how are they going to teach it?" The positive transfer of knowledge and experience was clear; however, the inverse was also true. A lack of knowledge and experience could pose unintended consequences. Alicia spoke to this point, "I've learned a lot from them and I've picked up a lot of really good habits as far as saving but there's a lot that they didn't even know, so I wasn't able to gain that."

Participants commented on level of resources and SES as keys to how well parents are equipped to handle financially teaching their children. In Jacob's opinion, "If you're in a more well-off or middle class community I think you'll find a community where the parents are more responsible themselves, that it's more of an emphasis…" According to Rachel, "the environment makes a difference." Confidence was the attribute that Courtney thought made the difference, "I think parents that are well-off…because they are they have the confidence…And that's why they might want to teach their kids about it." Most participants agreed that where and how one grew up financially created scenarios of advantage and disadvantage. Jacob concluded, for those without proper resources (e.g., education, parental influence), "they might have only seen bad habits and not ever had exposure to [explicit teaching], which is a big disadvantage for them."

Financial Education

Under the heading of financial education are several subcategories: (a) the influence of a personal finance course, (b) the influence of culture on the teaching and learning of financial education, and (c) suggested improvements to financial education. Each subcategory will be discussed in detail below.

Course influence. All focus group participants have taken or are currently taking a general elective personal finance course offered at the host university. Participants spoke of the influence exposure to financial education had or is currently having on them. Rachel stated, "…for us students, we take this class and learn all this stuff, and I'm like, 'wow, I'm learning how to do loans and save for retirement.'" Noah said of the course "[it's had a] huge impact for me as a beginner…I take some improvement, effort to apply what I have learned, and use the materials and resources." Formal education for many participants had an additive and clarifying effect on the lessons learned early in life. For some, experience with the personal finance course helped improve their capability. For others, the course clarified lessons learned, providing the 'why.' Courtney stated:

> …having my mom teach me when I was young that, 'okay you should do this with your credit card and not this,' and like, 'you should save this much and not this much,' but no definite reasons how or why except for what I'm learning in the class now (Courtney).

Vana is currently enrolled in the personal finance course and excited for what she will learn, "…looking down the road what we're going to study, it's just really important information and I feel like it will be effective."

Previous literature has revealed that experience with financial concepts is key to lasting learning. Financial lessons were effective when there was awareness, and awareness came with experience. Further, practice managing one's finances coupled with consistent learning yielded successful results. Alicia said, "for 15 weeks you're in this class and you're being reminded…you're learning about what's right and what's kind of wrong." Chris agreed he desired a consistent developmentally appropriate approach to financial education. He stated, "I don't think I'm going to remember that stuff [from the personal finance course] in two years after taking so many other classes in between." Alicia was motivated to find resources and solutions for her financial questions. She was actively learning, "asking questions in the financial aid office or even the class." Olivia was excited for and practicing what she had learned. When commenting on the greatest lesson she has learned, she exclaimed, "Personal Finance!...I had no idea how taxes worked at all. And I took it my junior year and that year I filed taxes and I got so much money back and I made money."

Cultural influence. Within this subcategory are references to family culture and the implications of parental financial socialization. Family culture determined if, when, and how much parents spoke openly and/or provided financial lessons. Edward stated, "…my family, we don't even talk about any money thing at all…" Vana had a similar experience:

> …my parents always told me, 'Don't worry about finances,' because being an immigrant family, they wanted to take care of everything for us. They didn't want us to have to think about it. And so for me, whenever they tell me something, I get really interested because they never told me anything (Vana).

Noah's family culture was completely hands off when it came to financial instruction. "My parents didn't teach me about finances. They just let me learn by my own…[they] say that you are grown up and you have to live by your own." Parents born and raised outside of the US with different cultural lenses affected how the participants view finance. "My dad is not from America. He was born and raised in Panama…very private with finances until I was older. We had some hard times and I didn't know what was going on…we wouldn't talk about money." Zahara tried to summarize and explain the cultural and age-graded phenomenon in question. "I think it's maybe a cultural thing with immigrant parents, they kind of tend to keep finances on the very low-key. While you're young, especially it's nothing that we really outwardly talk about." Edward's experience included a developmental component. He felt that he had to reach a certain age and stage before receiving explicit parental financial socialization, "…after your graduation, my parents would talk to me about money things, but before that they don't want to talk to me so much about that."

Evaluating this form of parental financial socialization, Vana felt the timing of financial lessons provided to her was successful. She said, "I would say it was positive because then you sort of have your childhood to be a little…just to have fun, and not to worry about it [finance] until you actually need to…" However, Olivia disagreed saying it was "…somewhat negative just because it was nonexistent."

Suggestions for financial education. A lively discussion began when questions of financial education form and function were asked. Participants provided their opinions on collegiate financial education, what was lacking, what they would like to see added, revised, or changed. "I feel like the resources are limited," Scott remarked, "there are people that just go through college without realizing there are so many ways of making financial decisions that impact you for your whole life." Rachel stated the goal for the university should be "every student has a chance to learn."

The groups were split when it came to the form financial education should take; however, they all agreed financial education offerings and the exposure to available resources must be expanded, "I just think it should be a little more in-depth on personal finance" (Chris). Many believed a general personal finance course should be a core curriculum requirement. Others offered a multitude of alternatives. Rachel offered, "financial advisors or something like that as an option for students." Participants desired additional resources/outlets for financial advice. Vincent mused, "…we have a career center, we have a writing center, [maybe a] financial center…" Along these lines Alicia suggested, "…drop-in hours in the office where you could stop in and talk with someone…" Olivia also wanted an office, "…center–just somewhere… where they could help students actually invest something…the students could see the money grow…" Other suggestions included workshops, resource fairs, and interactive resources (e.g., social media, instructional videos). Multiple participants thought an entrance exam or survey to assess incoming students' financial capability and placement within financial courses. Chris stated, "…all incoming students required to take a test on their knowledge and financial ability…"

Scott continued with this idea:

> …when you take your entrance math and all those tests, make it one of those [assessment of financial capability] and your advisor can be like, 'hey you didn't score very well on your financial knowledge maybe you should take this class' (Scott).

All participants agreed that whether or not major changes are made, students need to be aware of what financial resources exist on campus. Rachel said, "I actually found out about this course from a friend. I didn't know it was an option." Courtney took it upon herself to let friends and roommates know about the personal finance course offered, "both my roommates are signing up for spring semester because they're like, 'I want to know how to handle my finances and stuff like that. So I think just having more exposure…"

Throughout the discussion of the future of financial education, participants were aware of the financial and temporal implications of adding courses to their schedule. Many suggestions took these factors into account. Rachel spoke directly to this:

> …if you're paying for your tuition and need to get your classes out of the way you don't want to take extra electives or something, some people might not be able to fit this kind of course in their schedule… if there's other ways than just this course to…expose students [to the] resources are here, I feel like that would be really important to try and reach everyone.

Participants corporately discussed options and alternatives to additional courses. The majority of the suggestions utilized technology. An example of this was Jacob's suggestion, "an online tutorial in the beginning and end [of their education] would be perfect…rather than force them to pay for a class. An online tutorial would be brief just to cover the basics." Courtney and others lobbied for an online repository, one place where financial articles, videos, and other tutorials would be housed.

Summary of Findings

- Participants acknowledged limitations in their financial capability and multiple areas for improvement, especially in knowledge and behavior.
- The majority of participants described a mindset of living now—managing their finances as a college student, and regularly saving and investing and paying down debt in the future.
- Age played a role in understanding, absorbing, and applying financial lessons.
- Participants felt that parents who took the time to explicitly teach their children would also teach by example.

- Participants reported their parents as the primary agents of socialization. Extended family, peers, media, books, and internship experiences also were mentioned.
- Participants believed parental demographics, SES, and overall financial capability influenced what and how they taught their children.
- Family culture was an influential factor affecting parental financial socialization. Culture dictated the form and timing of financial lessons.
- Financial education positively influenced all participants. However, participants believed extended offerings and increased exposure were two key areas for improvement. Increased access to financial material was desired. Following this, participants wanted published knowledge of what was available.

Discussion

Parents are an important educational channel for emerging adults to learn about financial literacy (Cull & Whitton, 2011). As Gutter and Copur (2011) stated, "...education occurs in both the classroom and social learning experiences" (p. 702). While socialization is a lifelong process, EA is a period of application, a time when emerging adults begin to practice financial management based on what their parents taught, apart from their parents (Arnett, 1994). Financially and developmentally, this is a prime time of testing and experimentation, resulting in the execution and growth of financial knowledge, beliefs, and behavior patterns. Financial independence, the ability to support themselves and live independently from their parents, has been frequently cited by emerging adults as having a significant role in their transition (Arnett 1995). To this end, the financial knowledge and positive financial habits that students receive from their parents will set them up for a more prosperous financial future (Jorgensen & Savla, 2010). This study focused on the influence of parental financial socialization and experiences on credit/debt and savings/investing capability. Financial capability was operationally defined as one's ability and level of functioning across three key areas: knowledge, attitudes, and behavior. The directional influence of financial socialization and experiences on C/D and S/I knowledge, attitudes, and behavior was examined.

Parental financial socialization was represented by two factors: explicit instruction and implicit instruction, while parental financial experiences represented instances of financial stress and strain. A mixed method approach was used to assess the predictive power and influence of parental financial socialization and experience. The research questions and associated hypotheses assumed parental socialization would positively predict and parental financial experience would negatively predict students' level of C/D and S/I knowledge, attitudes, and behavior. To assess these assumptions, a structural regression model was used. After the models were run and data analyzed, two focus group sessions were held. During these sessions participants provided insight, depth, and definition to the topic under investigation and quantitative survey results. This section will provide a discussion of the quantitative and qualitative results as well as limitations and areas for future research. Qualitative results are presented in conjunction with quantitative results when applicable, in an effort to provide triangulation.

Quantitative Results

The influence of parental financial socialization (explicit and implicit) and financial experience (instances of stress and strain) on knowledge, attitudes, and behavior were tested for both credit/debt and savings/investing. Findings are group based on the outcome variable (knowledge, attitudes, and behavior). In each section below parental influence on credit/debt will be discussed first followed by a discussion of savings/investing.

Credit/debt and savings/investing financial knowledge. Parents that explicitly taught their emerging adult children about budgeting, bank accounts, credit cards, building good credit, and managing loans significantly affected the level of knowledge and understanding their children had regarding credit and its function and uses. Here, purposeful teaching resulted in an increase of factual, objective knowledge in the realm of C/D.

Households that experienced financial stress and strain negatively influenced emerging adults' level of S/I knowledge. If parents were struggling with high levels of debt, un-or underemployment, or home foreclosure, these instances likely precluded discussions of savings and investing. Interestingly, neither explicit nor implicit parental socialization affected S/I knowledge. This may be due in part to the socialization questions asked. There was only one question that referenced saving directly. Other concepts were related (e.g., budgeting and managing needs and wants); however, the majority of questions used focused on elements more closely associated with C/D (e.g., loans, debt, credit cards). In addition, the concept of investing was included. According to focus group participants, this was a concept they knew little of, nor was it a focus of their early socialization. Edward said, "I don't know much about investing so I don't [invest] money so I don't have [investments]." Zahara followed by saying, "I really wish I had a lot more knowledge on investing and what are good investments." The nature of the questions asked, and lack of training surrounding the topic of investing may account for the model results.

Credit/debt and savings/investing financial attitudes. Regardless of the presence or level of parental socialization, student understanding and identification of negative C/D practices was not significantly affected. This could be due to knowledge and understanding of C/D rules and what not to do coming from the students' formal education. In-depth information on negative C/D practices (e.g., cash advances) and the associated long-term implications may not be covered by parents in the home, but would be included in a personal finance course. Focus group participants, when evaluating their C/D capability, felt they had a cursory understanding of the "big picture" of credit and debt (Jacob). There was a clear need for additional training in this area.

Unlike attitudes surrounding negative practices, explicit C/D instruction positively predicted attitudes-positive practices and attitudes-avoidant responses. Throughout the focus group sessions participants spokes of their early education in saving and limiting debt. Many felt their parents purposely focused on positive lessons. Others felt the positive handling of credit is common knowledge; most people know what they *should* be doing even if they do not behave accordingly. In addition, these results may be due to the nature of the questions posed and the relationship between these topics. The avoidant responses directly contrasted with positive practices (e.g., I am afraid of credit and credit cards). Answers affirming positive C/D practices (e.g., I am satisfied with the way I pay my bills) would naturally lead to disagreement with a fearful avoidant response to C/D. Affirmative answers to the C/D positive practices questions represent the holding of credit and a satisfaction with its management. When this is true, one would not be avoidant toward credit.

Seeing and hearing from parents (implicit and explicit socialization) regarding S/I predicted emerging adults' attitudes surrounding investments and budgeting. With early, purposeful instruction, participants rated their level of understanding regarding investing, savings for retirement, budgeting, and earning through compound interest as high. Focus group participants talked of both implicit and explicit lessons of savings being dominate growing up. Parents that successfully manage their finances provided an implicit example for their children to follow. In addition, as focus group participants pointed out, parents' actions often correlated with parents' teaching.

Explicit socialization positively predicted attitudes-positive S/I practices, and attitudes-negative S/I practices. Focus group participants spoke of the positive nature of S/I being one reason lessons surrounding these topics were prominent in their homes. Chris said, "…people don't always know about credit and debt…" and Jacob followed with

"…debt is definitely negative…" Countering this, Olivia spoke of the positive nature of S/I saying, "savings and investment, that's your possibility." The emotional nature and connotations attached to savings contributed to the focus on these lessons. Even students who did not *see* their parents successfully manage their savings and investments were *taught* what to do and what not to with S/I.

Credit/debt and savings/investing financial behavior. Credit/debt behavior was predicted by the presence of explicit socialization. What students learned from their parents influenced the amount of credit they had and how that credit was managed. However, C/D behavior-payments and research was the only C/D behavior factor predicted by both implicit and explicit socialization. Observing one's parents and their management and research of C/D may be more accessible than implicitly learning about their C/D holdings. Focus group participants spoke of learning practical lessons from their parents—researching to find the best deal, not spending more than you can afford, and working for what you wanted. These lessons were described as primarily learned early and through implicit socialization. As Olivia stated, her parents' financial attitudes "trickled over to how I handle my financial finances." Credit and debt payment practices and research of terms and conditions were visible, proactive lessons that participants learned explicitly and implicitly.

Financial stress and strain (parental financial experiences) significantly predicted C/D-holdings. Instances of parental financial stress and strain influenced the amount of credit emerging adults held. Scott, a focus group participant, described growing up seeing his mother experience times of financial hardship resulting in her amassing debt and struggling to make ends meet. Because of these experiences he was reluctant to apply for credit. Other participants echoed his feelings. The topic of credit holdings and uses elicited feelings of caution and apprehension. Many participants knew someone who displayed mismanagement of credit resulting in stress and stain. Students were determined not to repeat these mistakes.

Implicit and explicit socialization predicted savings and investing behavior- budgeting and record keeping. Behavior represented execution of the fundamentals of money management, and according to the focus group participants, these were common lessons in their households. The influence of financial socialization on financial behavior also was seen in studies conducted by Cho et al. (2012) and Shim et al. (2009). In their study, Shim et al. (2009) found parental explicit, preventative education and parental expectations positively influenced financial responsibility and money management.

Qualitative Results

Spending and saving habits. Participants described trying to implement a savings plan. At minimum, all participants were well versed in the how and why of savings. However, many confessed to overspending. Vana stated, "I am really good at saving money but then an event will come up…I'll just end up spending it all." Borden et al. (2008) revealed, in terms of risky behavior, the participants in their study reported the most likely behavior they engaged in was the use of credit for entertainment purposes when they were out of cash. In line with this finding, Scott stated:

> I'd get money for the weekend. And once I'd run out of money it was kind of like weekend's over kind of thing. But now I've been using my debit card more and I just kind of lose track of where actually I'm spending that money (Scott).

Spending money on wants-entertainment, leisure, travel-was an area of cognitive dissonance. Participants struggled at the intersection of spending and savings, knowing what they should do but not executing that behavior. Many rationalized the inconsistency between spending and savings by saying EA and the college years must be enjoyed. As Jacob stated, "you're only 21 once. So you've got to live it up now." Participants believe this pattern of behavior would not continue, it was temporary and linked to this particular phase of life.

Parental socialization practices. Of all the possible agents of financial socialization (e.g., parents, peers, teachers, schools, media) students consistently report their parents as the most influential (e.g., Gutter et al., 2010). Parents occupy a major place in the lives of their children. They are the individuals that spend the majority of time and exert the greatest influence on their offspring. Both the positive and negative aspects of a young adult's financial life are rooted in the family home with their parents (Jorgensen & Savla, 2010). The majority of participants in the present study felt their parents were the biggest contributors to their financial capability. The main sources of financial socialization, in order, were as follows: parents, relatives and extended family, and the media. This was replicated in Chan et al. (2012). Participants in their study of financial knowledge, aptitude, and well-being reported a similar order.

Explicit parental socialization was a significant influence on emerging adults' C/D and S/I knowledge, attitudes, and behavior. Rachel described this influence in the following way, "There's a difference between someone actually sitting there and making the effort versus you just observing. I feel like that has a stronger influence on how you perceive that kind of financial information [credit card knowledge]." The influence of parents who assume an active role in their emerging adult children's financial capability has been seen throughout previous research. For example, Gutter et al. (2010) found financial discussions between parents and their children lead to better financial behavior in the areas of saving and budgeting.

While the power and influence of explicit financial socialization was clear throughout the quantitative analysis, several focus group participants admitted explicit teaching was not a consistent part of their family's routine. There were several reasons levied as to why: the developmental appropriateness of financial lessons, parents personal lack of financial capability, and family culture. Participants felt that their parents waited "until they were old enough" to teach them certain financial lessons (Rachel). Further, many admitted that certain concepts took time to fully understand and implement through experience. Beutler (2012) spoke to the developmental appropriateness of financial lessons. He hypothesized that higher order financial concepts may be out of the grasp of young people. Examples included the concept of investing and understanding the ramifications of credit.

Focus group participants felt that parental financial capability determined emerging adult financial capability. References were made to parents' level of experience handling finances, confidence handling finances, and their overall level of resources affecting socialization practices. Curto et al. (2010), referring to parents' experience, found that the result of parents being involved in the stock market was their children had a better understanding of risk diversification. This points to the importance of family characteristics and their influence on emerging adults' financial literacy. Similarly, Shim et al. (2009) found family SES influenced the level of financial knowledge that emerging adults have. Parental financial capability not only influences parental financial socialization, it also affects developmental transitions. Carman (2009) felt that factors such as SES and its influence on developmental transitions has not been adequately researched.

The focus groups represented a diverse cross-section of student majors, rank, and ethnicity. Cultural diversity was one factor reported as affecting parental financial socialization—the age of dissemination and form and frequency of financial lessons. Participants from cultures outside of the US spoke of money not being an appropriate topic of discussion when they were growing up. Their parents did not prioritize financial lessons and would not share intimate details of their household finances. While there was implicit learning that came from watching their parents most participants said that when they were a certain age, launching into emerging adulthood, explicit lessons from their parents began. Edward said once he graduated from high school his parents began to talk about finance with him. One participant described his parents' belief that when you become an adult it is your duty to learn about personal finance for yourself, learning to support yourself. Noah stated, "my parents, they don't teach, help, or rely on me. They just say that you can do it on your own." Participants with these cultural experiences tended to learn through implicit socialization, but spoke highly of the explicit socialization they received, as well as the training in and through the personal finance course.

The financial lessons participants reported learning from their parents and extended family tended to be cautionary lessons of spending and saving. The lesson, "don't spend what you don't have" was prevalent throughout both focus group sessions (Rachel). These early lessons were influential in shaping how students thought about cash, credit, spending, saving, and investing. Alicia described one of her greatest lessons, "…if you can't buy it in full, then you don't need it." Scott followed with,

> My grandpa, he's very similar. You have to buy everything in full, which is a reason I don't have a credit card right now…my mom, she's very irresponsible with her credit cards and he's just like, 'I don't have one,' and he's done well for himself…(Scott).

Participants, because of the centrality of these lessons, formed strong beliefs about managing their spending and saving. Further, in hindsight all participants believed the lessons taught by their parents and extended family positively influenced their financial capability.

Limitations

Several limitations were present in this study, many of which point to necessary improvements for future research, as well as lingering questions to be analyzed. This study's sample was drawn from a unique and limited population. As previously stated, the developmental transition of emerging adulthood is not a concept with universal application. Instead, it is a concept bound by culture, context, access, and level of resources. Courtney, a focus group participant, summarized the privilege many emerging adult college students, especially participants in this study experience:

> …unfortunately, not a lot of people get to have that [financial] knowledge…we had the option to take this class, but not a lot of people can or they might just not have had the parents that we have had to teach us (Courtney).

Participant privilege went beyond access to higher education. From their self-report, parental financial capability and explicit socialization were high. Also, this study's sample and their families had on average higher income and level of education.

Selection bias was present based on the fact that the student participants' self-selected participation in the elective personal finance course as well as with the survey measure (EAFCS) and focus group session participation. Collins and O'Rourke (2010) stated selection bias is a serious methodological issue, "...the most motivated consumers enroll in programs and that they may be the most likely to demonstrate improvements regardless of the intervention" (p. 492). A focus group participant stated:

> …it's super effective [financial education] for people that have the initiative to go out and learn... All of us, obviously there was free stuff involved [in focus group participation], but we took the initiative because…we wanted to take something back financially…(Scott).

Further, participants self-reported on their financial ability. The emerging adult participants answered a variety of questions, which revealed (a) their level of financial understanding and knowledge; (b) their financial beliefs and attitudes; (c) their financial habits and behavior; (d) their estimation of parental financial socialization; and (e) the occurrence of stress and strain through parental un-or underemployment, high debt levels, bankruptcy, or home foreclosure. Within each of these content areas, the potential for either a negative or positive response bias exists. For example, the questions surrounding parental experiences asked students to report on several financial stressors (e.g., foreclosure, bankruptcy). However, with the limited number of questions and the sensitive nature of the questions, participants may not have known the answer, felt uncomfortable sharing, or biased their answer in one direction.

Future Research

Focus group participants highlighted the theme of developmental/age-graded influence. They believed age was a factor in the teaching and learning financial capability. Future research, in order to focus on developmental capabilities, should replicate this study with other age groups. A new series of studies could examine the financial capability of emerging adults outside of academia, parents of young children, and older adults nearing retirement. Examining the change of financial capability with age and stage could contribute to better understanding the sources of socialization and growth of financial capability over time.

Conclusion

There are two vital forms of learning: formal learning and observational learning. Financial socialization, implicit and explicit, starts at birth and continues throughout the life course. Gudmunson and Danes (2001) said, "...financial behavior is first grounded in family socialization and that the continued effect of family socialization occurs over the life course" (p. 663). Most research on socialization places the family generally, and parents specifically, as the main agents of socialization (Settersten, 2002). There are several reasons why parents are reported to be the greatest influence on emerging adults' financial capability. First, parents have a plethora of experience, both good and bad. Second, there is the possibility for a personal and intimate connection with one's parents; trust is more easily shared (Gutter et al., 2010). In line with previous research, one of the most prominent results of this study was the influence parents have to socialize their children and teach them proper money management. Parental financial socialization through both implicit and explicit means is key in forming emerging adults' baseline financial capability and dictating their potential. However, research has revealed that explicit instruction from parents often leads to early experience and acuity in financial knowledge, attitudes, and behavior. In addition, overt parental financial involvement helps to support emerging adults through life course transitions, especially the transition to adulthood (e.g., Bucx et al., 2012; Gudmunson & Danes, 2011; Gutter et al., 2010; Serido et al., 2010). This study, similar to Jorgensen and Savla (2010), found that explicit financial socialization significantly shaped aspects of emerging adult financial capability. These findings indicate emerging adult college students are learning from their parents' concerted efforts to teach lessons of credit/debt and savings/investing.

The ability to prepare their children to be viable participants in the financial world places the onus on parents to be financially knowledgeable. Research has revealed that parents that have a high level of experience with finance, value providing financial instruction to their children, and financially lead by example produce capable money managers (Gutter et al., 2010; Shim et al., 2010; Shim et al., 2009). A need exists for financial education across the life course. Parents who are well trained and confident are better equipped to help their emerging adult children launch into college and the working world.

CHAPTER FIVE: DISCUSSION AND CONCLUSION

Previous research on emerging adult financial capability paints a picture of both ability and need. Emerging adulthood (EA) is an important, exciting, and tumultuous time for most young people. At this time in the life course individuals are preparing themselves to take on new and different roles and increased responsibility. Numerous developmental changes take place during EA. Of these changes, growth in financial freedom and responsibility are central. However, personal financial capability is one area in which emerging adults continue to struggle, and the learning resources available to them are limited. This struggle has been exacerbated by recent economic uncertainty, which has created increased pressure for emerging adults to receive additional training and qualifications. Stein et al. (2013) described the situation facing many young people pursuing their education and entering the job market after the Great Recession:

> In the current recession, undergraduates often contend with the staggering cost of higher education and subsequent burden of college debt, and endure the results of institutional cost cutting measures such as increased class size, reduced course offerings, and fewer student support services. Students also face a highly competitive job market...(p. 201).

During the recent economic crisis personal savings rates decreased, and the reliance on consumer credit and student loans debt increased (Peng et al., 2007). Further, these are areas (savings, investing, credit, and debt and risk management) where research has seen a noticeable gap in emerging adult capability. Currently, emerging adults struggle to spend wisely, manage current and long-term debt, and save for the future.

This dissertation endeavored to further understand the financial capability of emerging adults during this transitional period. Based on previous research, two particular areas of financial capability were identified as areas of need, credit/debt (C/D) and savings/investing (S/I). Specifically, this study examined: (a) the relationship between C/D and S/I knowledge, attitudes, and behavior; (b) factors affecting behavior change; (c) financial attitudes as a mediating presence between knowledge and behavior; and (d) the predictive influence of parental socialization and experiences on knowledge, attitudes, and behavior. A mixed method assessment of C/D and S/I knowledge, attitudes, and behavior was conducted. A quantitative survey measure and tests of structural equation modeling were used to test latent constructs, direct and indirect effects, change over time, and regressed and correlated relationships. Focus groups held post data analysis added depth and meaning to the results.

Major findings from the quantitative analysis include: (a) behavior change over time was limited, aspects of behavior changed at different rates, in different relationships, and by different predictors; (b) change in one area (knowledge, attitudes, and behavior) often related to change in another area; (c) students with high time one scores on C/D and S/I attitudes and behavior had little to no change over time; (d) financial attitudes were a significant mediator of S/I knowledge and behavior, much more than C/D knowledge and behavior, (e) explicit parental financial socialization was a greater predictor of knowledge, attitudes, and behavior than implicit socialization, and (f) parental financial experiences had a negative relationship (significant and non-significant) with all financial capability variables except C/D behavior related to holdings and usage.

The qualitative results supported and elaborated on the quantitative findings. Overarching themes from both focus group sessions include: (a) the positive nature of saving; (b) the negative nature of credit; (c) developmental appropriateness of financial teaching and learning, (d) the need for change in collegiate education, and (e) the influence of early education and experience through financial socialization. This study's main integrated themes will be discussed further below. Implications and considerations for future research in this area, links to the theoretical framework, and policy issues also will be addressed. Finally, study limitations and areas for future research will be presented.

Integration of Study Findings

Financial capability. Financial capability is a robust concept, which includes skills and ability in the areas of financial knowledge, attitudes, and behavior. Financial knowledge refers to an individual's actual level of understanding, the ability to answer questions on various financial topics correctly. Subjective financial knowledge (attitudes) is defined as an individual's assessment of his or her financial understanding (Xiao, 2012). Financial behavior is defined as the product of knowledge and ability, or action taken toward an outcome. This includes two important components, decision-making and action orientation (Gudmunson & Danes, 2011). The majority of previous research has focused on the input of financial knowledge and the output of financial behaviors. However, financial goals, values, beliefs, and attitudes are key aspects affecting financial behavior and overall capability. Attitudes are important to include in a study of financial capability, and vital to fully grasping the motivation, beliefs, and effect of financial behaviors (Dilworth et al., 2000). They are the underlying motivations to everything that we do financially (Dilworth et al., 2000; Garman & Forgue, 2012).

Change in financial behavior is the ultimate end goal for financial researchers, teachers, and counselors. This study, in line with previous research, revealed that change in C/D and S/I knowledge and attitudes often correlated with change behavior. Key to change was the characteristic of behavior. For example, change in C/D behavior related to payments and research changed with knowledge, but this was not true with behavior related to credit holdings and uses. This same phenomenon was true with change in C/D attitudes and behavior. Focus group participants believed change was relative to the subject of change, certain areas of behavior (payments and research) and behavior patterns could change easier than others. Financial attitudes influenced behavior directly and indirectly. This relationship has been seen in other studies of financial capability (e.g., Handcock et al., 2013; Jorgensen & Savla, 2010). However, this study examined capability (knowledge, attitudes, and behavior) within the areas of C/D and S/I. A distinct difference between the two was the indirect effect of S/I attitudes. S/I attitudes functioned as a more significant mediator of knowledge and behavior. In addition, C/D and S/I behavior scores (T1) were significantly predicted by explicit parental socialization.

Two interesting findings to emerge during the focus group sessions were the emotions surrounding C/D and S/I, and the dissonance between participants' knowledge and behavior. Regarding the emotions tied to money and its uses Masuo, Malroutu, Hanashiro, and Kim (2004) stated, "Money is not only an instrument of commerce and a medium of exchange for products and services, but also a powerful tool that can cause happiness or dependency" (p. 470). Money can represent power, control, respect, love, and adequacy (Taylor & Overbey, 1999). Much of the emotion expressed by focus group participants was in reference to their levels of saving and saving habits. Strong negative emotions were linked to mismanagement of their savings. Participants wanted to see their savings grow, and felt guilt, fear, and anxiety when they behaved counter to this goal. Bordon et al. (2008) examined both effective and risky financial behaviors as distinct concepts that can happen in conjunction with one another. They are not pictured as opposite ends of the spectrum. As the authors suggested, an individual could be trying to save consistently for a financial goal and at the same time be going through a period of excess spending. Focus group participants spoke at length about the importance of saving. However, this would be followed with numerous instances of frivolous spending and a lack of saving.

Learning, application, and experience. Emerging adult financial education starts early and within the home. Early education, experience, and exposure to finance helps to create successful money managers. Brown (2013) referenced a financial advisor that spoke of the importance of family financial socialization. The advisor stated, "If you grow up around money and you tend to have conversations at the dinner table about savings accounts, there is a familiarity that helps promotes financial literacy." He went on to say, "This is how financial literacy grows." Multiple focus group participants reiterated this idea. Parents' confidence, ability, and experience with finance are "passed down" to their children. Participants described this transferal of financial qualities. If your parents are "knowledgeable," "responsible," "well-off," or the "type to invest" this dictates parental socialization practices and emerging adult capability. In the quantitative analysis this was seen in the predictive power of explicit parental financial socialization. Explicit socialization predicted C/D knowledge, attitudes, and behaviors, and S/I attitudes and behaviors.

Parents are the most influential socialization agents. Parents can function financially as informal educators and proponents of positive money management (Shim et al., 2009). The majority of focus group participants referenced their parents' socialization as positive and effective. Even parents that were not always financially successful, according to participants, provided an implicit example of what to do and not do regarding handing their finances, and taking risks. For participants in both the quantitative and qualitative sections of this study, explicit financial socialization was more influential, and more often preferred. Focus group participants felt that explicit socialization represented purpose, time and attention, value and effort, and overall was more influential than implicit socialization. While there was consistency in participants' preference for explicit financial socialization, a large amount of variance in parental socialization practices must be recognized. These differences are due to a multitude of factors including: family structure, parental financial capability, level of accessible resources, familial beliefs, and family ethnic and household culture (Arnett, 1995). For example, the values that parents hold concerning their finances influence the quantity and quality of their financial socialization. Culture is another determinant of the training and socialization received at home. Focus group participants from minority or non-native homes described financial matters in their home as private. They were explicitly taught when they began managing funds and their parents felt they were ready.

One key to increasing long lasting financial literacy is practical experience. Studies have found that students had greater knowledge and understanding of financial topics that they had experienced, such as, credit, rent, and insurance. This is in contrast to issues that students struggle with such as, investing, retirement, and mortgages (Jorgensen & Savla, 2010). Krizek and Ing (2012) found that a level of familiarity and ability to navigate financial products is important for all individuals. In this study, familiarity with the concepts of C/D and S/I may account for survey participants scoring high (T1) on the attitude and behavior factors and then experiencing little change over time. Focus group participants reported feeling comfortable with their level of capability surrounding the concept of saving. Lessons of savings dominated their early education. Further, seeing their savings grow was a powerful motivator. This confidence, experience, and process-level understanding of saving is in line with the quantitative results, which revealed S/I attitudes mediated the relationship between all knowledge and behavior factors. On the other hand, participants described experiencing more confusion with the details of credit, reported it was not a mainstay of their early education, and were fearful of overuse.

During EA youth have greater freedom and independence. Attending college can help emerging adults experience life away from home and gain first-hand experience managing their finances (Arnett & Taber, 1994). Financial experience during this time allows emerging adults to grow in their confidence, seeing the importance and application of personal finance to their lives.

Developmental timing. The developmental timing of financial lessons was a key focus group finding that parallels ideas found in emerging adult and life course theories. Throughout the life course individuals will deal with a multitude of financial issues and decisions that vary, developmentally, in difficulty and application. These include but are not limited to: (a) managing student loan debt; (b) credit and debt management; (c) saving and investing for future goals; (d) managing retirement funds; (e) filing taxes; and (f) applying and obtaining a home mortgage, home insurance, auto insurance, and life insurance. Emerging adults are being asked to tackle many of these financial issues without the proper training. Further, the financial education and training that does exist often fails to consider the developmental appropriateness of the lessons disseminated. Focus group participants called for age and stage appropriate financial education. For example, incoming freshman may need instruction on creating a saving plan, budgeting, the uses and management of credit, managing work and school (when applicable), and tempering wants and needs. This is contrasted with the needs of an upperclassman. A course geared toward juniors and seniors could cover: managing monthly expenses, paying student loans, investing, retirement accounts, housing, taxes, and insurance. This approach accounts for differing levels of understanding, awareness, responsibilities, wants, and needs.

Participants suggested having a financial education course for incoming freshmen designed to teach them how to manage finances throughout their educational journey, and one for seniors designed to address financial issues as one launches from the university. Rachel stated, "there's a whole difference [financially] between starting college…And when you're ending college." Chris added that financial education should be "offered at multiple points." Ashley reiterated the vision for developmentally appropriate financial education, "I think it's important at the beginning and at the end…because there's so many different stages in your life." Financial education that is sensitive to the needs, desires, and aptitude of its participants would affect greater change. On college campuses this may manifest itself through multiple courses being offered with topics tailored to the students in each course. This model would ensure sufficient time was given to the presentation of concepts as well as student learning and application.

Focus group participants felt that development influenced the teaching and learning of financial lessons. Participants believed that the type and timing of financial socialization received in the home, their ability to process the lesson, and the value and priority they placed on the lessons all evolved over time. One example given was parents waiting to explicitly teach financial lessons until they were "developmentally ready." Participants were split as to the effectiveness of this. Some believed this allowed them time to fully understand the concept. Rachel stated, "[some things] you have to learn when you're older because you don't really understand it until you're an adult." However, most believed early education and experience is effective. Zahara agreed, feeling overall she was disadvantaged:

> I…wish they'd pushed me to get a job when I was 16 and to…start building knowledge about credit and just maintaining my finances in general a little earlier. I think I would have saved myself a couple years of struggling if I had learned it a little earlier (Zahara).

Whether the participants felt their socialization experience was positive or negative, how emerging adults and their parents conceptualized their age, stage, and ability affected the financial education that occurred in the home.

Implications

Research. To better understand emerging adult college students, their financial capability (credit/debt and savings/investing), and the financial instruction (parental socialization and formal schooling) provided to them, sampling from a college campus was deemed necessity and sufficient. The majority of participants in both the EAFCS and focus groups were upper classmen of junior and senior rank. Further, seniors made up the majority in both the survey measure (40,1%) and focus groups (71.5%). The consistency of the samples has implications for financial education. Upperclassmen were more likely to engage with this content, knowing it has immediate application and consequences. Focus group participants felt there was a vast difference between the consciousness (needs and wants) and capability (understanding and ability) of freshmen and seniors.

Privilege could be seen as participants reported on their personal and household demographics. Individually, the sample projected high levels of future education and income. Participants wanted to finish their bachelor's degree, and many wanted to continue their education into a master's degree. Nearly half of the EAFCS sample estimated earning $50,000-75,000 after finishing their education. The quantitative and qualitative samples also reported high levels of parental education and household income. Sixty three percent of fathers, according to EAFCS participants, had a bachelors or masters/doctorate/professional degree. Mothers were close behind with 56.5% in these categories. The overwhelming majority reported their household income was between $80,000-150,000 or more. This left only 29.6% of EAFCS families with an income lower than $80,000. Nearly half of the EAFCS participants (47.7%) reported their parents or close family members paid for their education. Jacob, a focus group participant, said, "A lot of us are fortunate enough to have our parents pay for a good portion of it [collegiate education]…" Many focus group participants described the privilege they were afforded. Their parents had financial success, taught them about finances, and helped them finance their goals.

The demographic characteristics of this sample must be acknowledged and considered during interpretation of the study's findings. First, not all college students have the same benefits of this sample. Others may have the opportunity to attend college, but at great cost and sacrifice to themselves and their family. Second, this sample (EAFCS and focus groups) does not represent the demographics of *all* students at the university in question, nor do they represent *all* emerging adult college students. As previously stated, this sample reported high levels of personal and familial privileged. Finally, not all young people have the opportunity to explore roles and responsibilities and receive a higher education. Many quickly assume adult roles such as working full-time, marriage, and parenthood. Emerging adults, inside and outside of the university, represent future leaders and decision makers and their financial capability must be researched, and financial education made available to them.

Previous research has found demographic characteristics such as familial education exposure and attainment influence positive financial behaviors, and help students successfully transition from high school to college. Demographic factors also influence the form, frequency, and quality of financial socialization. The context individuals and families are positioned within and the resources available to them must be acknowledged. Gudmunson and Danes (2011) found families from higher SES backgrounds with higher levels of education prioritized financial education. Jorgensen and Savla (2010) proposed the converse. They asserted that some parents may not have enough financial knowledge to teach their children, or they may not value such teaching. Focus group participants described a chain of influence from parental financial capability to emerging adult financial capability. They specifically referenced parental/family SES, financial confidence, and success as contributing to the level and quality of financial instruction in the home. Participants also believed that the strengths and weaknesses of one's parents would directly influence, negatively or positively, their children. Lives are linked; parental financial successes and failures influence their children.

Financial socialization starts in the early years of a child's life. The role parents play in their children's financial socialization has implications for parental proficiency in financial matters and an ability to transmit financial values to their children. This represents an opportunity for family life educators, financial professionals, and practitioners to connect with, prepare, and provide parents with the proper tools to educate their children (Serido et al., 2010). As Danes (1994) stated parents, that lack financial knowledge and confidence are less effective as teachers.

This research study endeavored to increase the understanding and awareness of financial capability and financial education at home and in the classroom. This study focused on one particular group, at one particular point in the life course. However, two important conclusions can be drawn: (a) financial education is a lifelong concept, and (b) lives are linked in meaning and influence. Parents and older adults should have access to information and education to help them better manage their current financial situations and grow in their financial capability. Parents with the proper financial training will be better equipped to explicitly and implicitly teach their emerging adult children, preparing them for the future.

Theory. Because of the complex nature of financial knowledge, attitudes, and behavior, Shim et al. (2009) suggested that research investigating this content come from a "broad and integrative framework" (p. 709). Life course theory and emerging adult theory together guided this study. The combination allowed macro issues of influence such as age, time, and historical context to be understood juxtaposed to individuals and their developmental trajectory. Both theories are sensitive to context (e.g., economic and cultural), flexible, and adaptive to natural contextual changes. Life course and emerging adult theories as a framework to the study of college students and their financial capability provide the following insights: (a) age and the process of aging are determining factors in one's identity, ability, status, and functioning within society; (b) development is a dynamic, fluid, and complex process; (c) changes to demographics, societal and historical landscapes, and cultural values have affected the conception and definition of youth and the timing by which *some* transition from adolescence into adulthood; and (d) the period of emerging adulthood is an important time for the teaching and learning of financial lessons.

Given the centrality of work and finance in the life course, the period of EA is an important time of training for future financial opportunities. The benefits of financial education during this developmental period are: (a) individuals are mentally and financially preparing for adulthood, (b) they are developmentally primed to learn financial lessons, and (c) the lessons they learn and implement during this time have current and future implications. Throughout the focus group sessions, participants described the influence of their age and developmental stage. Conversation centered on one's age dictating one's aptitude and desire for financial lessons and management. What participants learned, how they absorbed the lessons, and how effective it was were all determined by their age, stage, and mindset.

Growth in financial literacy becomes more prominent as emerging adults become more independent from their parents. Shim et al. (2009) acknowledged the importance of EA as an independent and influential stage. Financial independence is a key component of gaining independence from parents and transitioning into adulthood (Beutler, 2012).

Arnett (1998) described financial independence as a developmental test for emerging adults, “It is a yardstick by which young people can measure quite definitely their progress toward adulthood" (p. 307). This study found that emerging adults had a rudimentary level of financial capability. Focus group participants recognized that they knew enough to be successful, but lacked a depth of knowledge. Further, many nearing the end of their education felt the urgency to learn before entering the working world. Overall, participants understood their strengths and weaknesses, were aware of their impending transition to adulthood, and wanted to learn more.

The long-term effect of early financial education is another clear indication of the need for emerging adults to receive this training. Financial decisions made during emerging adulthood dictate outcomes in adulthood (Handcock et al., 2013; Hanna et al., 2010; Hayes, 2012). Settersten (2002) stated, “As we move through life, we make decisions that eliminate later options, we select or are put onto pathways from which we cannot easily shift, and these decisions and pathways constrain subsequent years" (p. 22).

Early and consistent financial education is key to current and future success (Cull and Whitton, 2011). Participants in this study reported, through the survey measure and focus groups, having access to early education through explicit parental financial socialization. However, focus group participants described the need for this education to continue in greater depth through their university coursework. While all focus group participants had taken or were taking the personal finance course, they still did not feel prepared to leave the university and manage their finances on their own. One participant said, even after taking the personal finance course, he did not know how to execute aspects of his financial life (e.g., filing taxes). The influence of early financial education and reported need of emerging adults reveal the necessity for increased financial education at *this* point in the life course.

Policy. Financially, safeguarding and educating consumers are primary policy concerns. An overall increase in the general public's level of financial literacy would mitigate the misuse of financial products (Cull and Whitton, 2011). Without the proper level of education, individuals are more likely to make financial mistakes, suffer financial hardship, experience stress and strain, and see a decrease in their well-being (physical, mental, emotional) (e.g., Chen and Volpe, 2002; Cull and Chitton, 2001). Sherman Ragland, a real estate developer and best selling author, stated, "The last economic downturn is a clear demonstration of the need for financial literacy to be taught in high schools, colleges and to adults" (as cited in Brown, 2013, p. 1). Policy at the local, state, and federal levels must consider the need for universal financial education. Currently, control over financial education requirements and curriculum is decentralized. State and school systems abide by their own rules and regulations (Avard et al., 2005), and this is not acceptable. Emerging adult college students are not being properly prepared to become successful money managers.

Protecting emerging adults from debt mismanagement and accumulation recently has garnered legislative attention. Historically, emerging adult college students were targeted by marketers of credit, loans, and multiple brands (Borden et al., 2008). The CARD Act of 2009, which limited access to credit by young people was a concerted effort by policy makers to protect young adults (Curto et al., 2010). To have access to a revolving line of credit, individuals must qualify in one of the following ways: (a) be 21 years of age or over, (b) have an of-age co-signer, (c) provide proof of income if under 21 years of age, or (d) be an authorized signature on a parent's card (if conditions a and b are not met). In addition, those under 21 will not be pre-screened for offers or receive offers unless they opt-in to receiving offers (Curto et al., 2010). Thus, the majority of "traditional" students near the end of sophomore or beginning of their junior year will have access to credit.

Growing student loan debt is another consumer protection issue legislators are grappling with. Chan highlighted this, stating, "…recent increases in costs of higher education and deteriorating economic conditions, the situations are going to get more challenging for some students..." (p. 127). Here, policy should focus on: (a) allowing students to re-finance loans to a lower interest rate, (b) expanding loan forgiveness and relief policies, (c) providing financial counseling to students and their families prior to and during the life of the loan, and (d) requiring all students will loans to take a mandatory personal finance course or additional training. Policy occupies an important place in the effort to educate and protect all consumers, especially emerging adults. Research must continue to examine emerging adult financial capability, informing legislators and stakeholders of the areas of need and pertinent implications. Assessing emerging adults' level of financial knowledge directly relates to how financial education can be reformed and improved (Cull & Whitton, 2011).

Limitations

Several studies investigating financial literacy, capability, socialization, and well-being have examined college-age students. This may be due, at least in part, to the proximity between the researchers and the students and the practicality of sampling students within their courses. In addition, according to Arnett (1994), the college student population is the focus of multiple studies as they are considered to be past adolescence but not fully considered adults. However, this approach excludes many important and often vulnerable populations, including young people who fall into the following categories: (a) economic disadvantage—those without the opportunity to attend university; (b) minorities—ethnic minorities lacking access to training, and/or considering themselves adults at an earlier age; (c) mandatory work—those financially forced to forgo additional educational training for regular income; (d) military—persons enrolled in the military; and (e) religious affiliation—individuals with religious beliefs dictating assumed roles and the timing of roles (Arnett & Jensen, 2002; Mayseless & Scharf, 2003; Nelson, 2003). Arnett and Galambos (2003) found similarities in emerging adults across diverse ethnic groups. Nevertheless, these similarities must be tempered with an understanding that the definition and process of becoming an adult is not an objective, universal reality. Emerging adulthood is characterized by diversity. Each emerging adult will experience this period in his/her own way (Arnett, 2000a). This study's sample was a purposive sample of emerging adult college students. Individuals in the university setting are privileged to have access to a high level of training and an extended period of exploration, experimentation, role trial, and development. A need exists for financial research and education outside of this privileged population, extending to all young people.

Future Research

Future research should examine both the transition to adulthood and financial capability of individuals in minority populations. Arnett (1998) stated little is known about minority cultures living in the US and their transition to adulthood. Arnett, (2003) revealed that ethnic groups within the US may self-report adulthood status earlier than their white counterparts, suggesting there is variance in who experiences EA and how this stage is experienced. Further, these minority groups, especially those outside of the university setting, are not typically included in research on financial education, literacy, and capability. There are pedagogical benefits to research conducted on the cultural and ethnic differences in financial knowledge and beliefs. Knowing the aptitude, beliefs, and behaviors of one's audience can create a more precise and successful form of financial education.

The majority of research focusing on the financial capability of young people (18-30) has sampled college students. This fails to capture a diverse range of individuals, leaving the sample homogeneous. Cohen et al. (2003) felt there needed to be more understanding given to the complexity of EA, not simply stating the roles and markers of development but acknowledging the richness, fluidity, and the unique way these roles are experienced by different cultures. Further, financial inequality in the domains of education and ethnicity are pervasive. Future research on financial capability should focus on: (a) individuals not attending university, (b) those reporting adult status, (c) ethnic minorities, and (d) individuals not native to the US. Carman (2009) felt the need for future research to investigate diversity in participant background demographics (e.g., race, ethnicity, gender, SES, and environmental context) and educational delivery methods.

“Financial education efforts vary by the setting, audience, and subject matter" (Bartholomae et al., 2005, p.197). Additional work must be done to provide standardized assessments of financial education. Gutter and Copur (2011) stated a universal measure of financial knowledge, capability, behavior, and well-being would help educators assess course influence and quality. Research on collegiate financial curriculum and its influence on students’ financial management is lacking. Peng et al. (2007) stated, "Continued research in this area should use a more general measure of financial knowledge to account for known differences in curricula at the high school and college level" (p. 280). A measure must be created that is invariant and that holistically covers financial capability, and assesses the *true* level of participants' financial knowledge, attitudes, and behavior.

It is important for researchers to understand if respondents honestly do not know the answer to a question, or if they guessed the answer (correctly or incorrectly). One way to address this is by giving participants the option to select a choice denoting that they do not know the answer. This reduces the propensity to guess, and helps to parcel out true correct, and incorrect answers. Hill and Perdue (2008) punctuated this by saying, "Failure to have an 'I don't know' option would have masked the fact that nearly one-third of the non-correct responses are from people who knew that they had a knowledge deficiency" (p. 52). Measures used to assess financial literacy and education must cover all aspects of financial capability (knowledge, attitudes, behavior, socialization, educational outlets) and must be in line with what is taught, vetted for clarity, and consistently administrated.

Follow-up qualitative interviews or focus groups with the same participants that completed the survey measure could provide meaning and explanation as to why answer choices were selected. According to Bartunek and Myeong-Gu Seo (2002), "...questionnaire studies…leave out the dynamics of meaning-making, both sense-making and sense-giving in a local context" (p. 239). Distinct aspects of the person, experience, process, and structure are revealed with the addition of qualitative methods. A mixed method approach allows data to be gathered, analyzed and compared, and examined deeper, asking the how and why.

In addition to a standardized measure of financial capability, monitoring change over time is key to understanding where financial education is succeeding and identifying areas for improvement. This could take the form of a longitudinal study assessing financial capability in students from their freshman to senior year. Longitudinal research has long been considered the most powerful and effective form of assessment. In addition, longitudinal methods are often used in conjunction with life course theory (Kok, 2007). This approach would help researchers understand how students think about, prioritize, and grow in their financial capability overtime.

Conclusion

The goal for many researchers, educators, and financial professionals is to increase the quality and visibility of collegiate financial education. Emerging adults need to be equipped with the proper tools to function successfully in the financial world. To this end, a concerted and collaborative effort among parents, teachers, financial counselors, practitioners, family life educators, and policy makers must take place; ensuring emerging adults are receiving financial education and training and leaving campus capable money managers. As Barry (2013) stated, "Financial illiteracy is a problem Americans can't afford to ignore" (p. 7).

APPENDICES

APPENDIX A

Emerging Adult Financial Capability Survey (EAFCS)

Q195 Information and Consent Form Welcome!   You are being invited to participate in a research study titled “Understanding the Financial Capability of Emerging Adults” being conducted by Dr. Bryce Jorgensen, an Assistant Professor at East Carolina University in the Child Development and Family Relations department, in collaboration with Dr. Barbara Ames, a Professor at Michigan State University in the Human Development and Family Studies department.   Amanda Guinot-Talbot and Erica Tobe, Graduate Assistants at Michigan State University are also involved in the study. The goal is to survey 2000 individuals at Eastern Carolina University and Michigan State University.   The online survey will take approximately 60-90 minutes to complete and you are asked to complete the survey two times during the semester, as designated by your course instructor. It is hoped that this information will assist us to better understand emerging adults’ financial knowledge, attitudes, and behaviors–their financial literacy/capability. There are questions about financial attitudes, financial behaviors, financial knowledge, influences on financial literacy, experiences in relationships with others, and demographic information.   Participants must be 18 years old to participate. Participation in this project is completely voluntary. Participants may discontinue the study at any time and/or refuse to answer any questions they do not want to answer. The potential benefits in taking part in this study are the opportunity to discuss your financial needs and ideas, and your participation in this study may contribute to an understanding of needs for future emerging adults. There is no penalty for not taking part in this research study. Students participating in HDFS 238 at Michigan State University may complete this survey instead of the Case Study Analysis Assignment. If you choose not to complete the study, you can complete the Case Study Analysis, which is a different and equivalent assignment. This assignment is the alternative option to the financial capability survey. The potential risks of participating in this study revolve around discussion of financial knowledge.   Any responses you offer during the interview will be combined with others, making your response confidential, and your privacy will be protected to the full extent allowable by the law. Identifying information will not be attached to any of your individual responses when reporting results from the interviews. Survey data will only be accessible by the principal investigators, research coordinators, and the University Research Protection staff.   If you have concerns or questions about this study, such as scientific issues, how to do any part of it, or to report an injury, please contact the research team: - Dr. Bryce Jorgensen, East Carolina University, 252-737-2074, jorgensenb@ecu.edu   - Dr. Barbara Ames, Michigan State University, 517-432-3324, ames@msu.edu   - Amanda Guinot-Talbot, Graduate Research Assistant, Michigan State University, guinotam@msu.edu   - Erica Tobe, Graduate Research Assistant, Michigan State University, tobee@msu.edu.   If you have questions or concerns about your role and rights as a research participant, would like to obtain information or offer input, or would like to register a complaint about this study, you may contact, anonymously if you wish, the Michigan State University's Human Research Protection Program at 517-355-2180, Fax 517-432-4503, or e-mail irb@msu.edu or regular mail at 202 Olds Hall, MSU, East Lansing, MI 48824. This project is also approved by the Office for Human Research Integrity (OHRI) at East Carolina University and their contact information is 252-744-2914.   I have read all of the above information.   I know that I can stop taking part in this study at any time.   By clicking on the acceptance of this informed consent form and willingness to participate, I am not giving up any of my rights   I can print a copy of this consent form and keep it for my own records.   I am 18 years of age or older

- ❍ I have read and understood this consent form and am willing to participate in this study. (1)
- ❍ I have read and understood this consent form and do NOT want to participate in this study. (2)

If I have read and understood ... Is Selected, Then Skip To Thank you for your consideration. Cred...If I have read and understood ... Is Selected, Then Skip To End of Block

Q197 Thank you for your consideration. Credit for study completion will NOT be given. In order to find an alternate way to receive credit for this assignment please contact your professor.

If Thank you for your consider... Is Displayed, Then Skip To End of Survey

Q1 How would you rate the Savings and Investments that you have?

- ❍ Adequate for my needs right now (1)
- ❍ Slightly less than I should have right now (2)
- ❍ Much less than I should have right now? (3)

Q6 Please identify each of the following as "Good Practice" or "Not Good Practice"

	Not Good Practice (1)	Good Practice (2)
Making payments on time (1)	❍	❍
Having a high APR credit card (2)	❍	❍
Paying off store and other credit cards each month (3)	❍	❍
Bouncing checks (4)	❍	❍
Having more than 10 credit cards from stores, banks, etc. (5)	❍	❍
Owning financial assets (6)	❍	❍
Exceeding credit limits (7)	❍	❍

Q200 Using a scale from 0 to 10 where 0 means "the worst possible financial situation" and 10 means "the best possible financial situation," how would you rate your financial situation these days?

- Worst 0 (1)
- 1 (2)
- 2 (3)
- 3 (4)
- 4 (5)
- 5 (6)
- 6 (7)
- 7 (8)
- 8 (9)
- 9 (10)
- Best 10 (11)

Q7 My personal financial situation makes me feel stressed on a regular basis
- ❍ Strongly Disagree (1)
- ❍ Disagree (2)
- ❍ Agree (3)
- ❍ Strongly Agree (4)

Q8 I think about dropping out of school because of financial stress
- ❍ Never (1)
- ❍ Rarely (2)
- ❍ Sometimes (3)
- ❍ Always (4)

Q186 Learning more about managing my money and resources motivates me to:

	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
Work harder to raise my GPA (1)	❍	❍	❍	❍
Remain in school and work towards my degree (2)	❍	❍	❍	❍
Drop out of school to pursue work or other endeavors (3)	❍	❍	❍	❍
Work harder to graduate sooner (4)	❍	❍	❍	❍
Work to minimize student loans/debt (5)	❍	❍	❍	❍

Q9 Please rate your agreement with the following statements.

	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
As long as one meets monthly payments there is no need to worry about the length of time it will take to pay off outstanding debts (1)	❍	❍	❍	❍
I am confident in my ability to understand loan terms. (2)	❍	❍	❍	❍
It is important to understand financial contracts (e.g., apartment leases and loan agreements) before I sign them. (3)	❍	❍	❍	❍
I am satisfied with the way I pay my bills (4)	❍	❍	❍	❍
I feel credit cards are safe and risk free (5)	❍	❍	❍	❍
I am afraid of credit and credit cards (6)	❍	❍	❍	❍
The cost of using a credit card is too high (7)	❍	❍	❍	❍
I am comfortable with not paying my credit card bills in full each month as long as I make the minimum payment (8)	❍	❍	❍	❍

Q10 Please rate your agreement with the following statements.

	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
Maintaining adequate insurance coverage is important (health, auto, home/rent) (1)	❍	❍	❍	❍
It is important to maintain adequate auto-insurance coverage. (2)	❍	❍	❍	❍
Having life insurance is an important way to protect loved ones. (3)	❍	❍	❍	❍
It is important to plan for the possible disability of a family wage earner. (4)	❍	❍	❍	❍
I feel disability insurance is less important than life insurance. (5)	❍	❍	❍	❍
I feel being covered by homeowner's insurance or renter's insurance is important. (6)	❍	❍	❍	❍
It is important to maintain adequate health insurance coverage. (7)	❍	❍	❍	❍

Q11 Please rate your understanding of the following topics as Poor, Fair, Good, Excellent.

	Poor (1)	Fair (2)	Good (3)	Excellent (4)
Budgeting (1)	❍	❍	❍	❍
Compound Interest (2)	❍	❍	❍	❍
Credit Bureaus (3)	❍	❍	❍	❍
Investing (4)	❍	❍	❍	❍
Saving for Retirement (5)	❍	❍	❍	❍
Student Loans (6)	❍	❍	❍	❍
Credit Cards (7)	❍	❍	❍	❍
Insurance (8)	❍	❍	❍	❍
Overall understanding of personal finance and money management concepts and practices. (9)	❍	❍	❍	❍

Q14 Please rate your agreement with the following statements.

	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
I feel in control of my financial situation (1)	❍	❍	❍	❍
How I manage my money right now works for me (2)	❍	❍	❍	❍
I feel confident about my ability to manage my own finances (3)	❍	❍	❍	❍
I enjoy thinking about and have interest in reading about money management (4)	❍	❍	❍	❍
I feel capable of using my future income to achieve my financial goals (5)	❍	❍	❍	❍
I am good at dealing with day-to-day financial matters, such as checking accounts, credit and debit cards, and tracking expenses. (6)	❍	❍	❍	❍
I am pretty good at math. (7)	❍	❍	❍	❍

Q16 Please rate your agreement with the following statements:

	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
I firmly believe money can solve all of my problems (1)	❍	❍	❍	❍
Money is the most important goal in my life (2)	❍	❍	❍	❍
I often fantasize about money and what I could do with it. (3)	❍	❍	❍	❍
Money can give you the opportunity to be what you want to be (4)	❍	❍	❍	❍
Money means power (5)	❍	❍	❍	❍
Money can bring you many friends (6)	❍	❍	❍	❍
I believe that the amount of money that a person earns is closely related to his/her ability and effort (7)	❍	❍	❍	❍
Money represents one's achievement (8)	❍	❍	❍	❍
I believe that a person's salary is very revealing in assessing their intelligence (9)	❍	❍	❍	❍
Most of my friends have more money than I do (10)	❍	❍	❍	❍
I am worse off (in monetary terms) than most of my	❍	❍	❍	❍

friends think (11)				
I envy those around me who can buy things at their whim and fancy (12)	❍	❍	❍	❍
I often have difficulty in making decisions about spending money regardless of the amount (13)	❍	❍	❍	❍
I often say "I can't afford it" whether I can or not (14)	❍	❍	❍	❍
Even when I have sufficient money I often feel guilty about spending money on necessities like clothes (15)	❍	❍	❍	❍
I often contribute to charity (16)	❍	❍	❍	❍
I prefer not to lend people money (17)	❍	❍	❍	❍
Some of the most important achievements in life include acquiring material possessions (18)	❍	❍	❍	❍
I don't place much emphasis on the amount of material objects people own as a sign of success. (19)	❍	❍	❍	❍
I like to own things that impress people (20)	❍	❍	❍	❍

I usually buy only the things I need (21)	❍	❍	❍	❍
I try to keep my life simple, as far as possessions are concerned (22)	❍	❍	❍	❍
I put less emphasis on material things than most people I know (23)	❍	❍	❍	❍
I have all the things I really need to enjoy life (24)	❍	❍	❍	❍
Purchasing things is very important to my happiness (25)	❍	❍	❍	❍
I'd be happier if I could afford to buy more things. (26)	❍	❍	❍	❍
I often feel anxious and defensive when asked about my personal finances (27)	❍	❍	❍	❍
I worry about my finances much of the time (28)	❍	❍	❍	❍
Each individual should be responsible for his or her own financial well-being (29)	❍	❍	❍	❍
It is important for a family to develop a regular pattern of saving and stick to it (30)	❍	❍	❍	❍

I feel confident about making decisions that deal with money (31)	❍	❍	❍	❍

Q17 Please rate your agreement with the following statements:

	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
Saving money regularly is important (1)	❍	❍	❍	❍
I feel satisfied with how I spend my money (2)	❍	❍	❍	❍
It is important that I spend less than my income. (3)	❍	❍	❍	❍
It is important to keep track of where money is spent (4)	❍	❍	❍	❍
Budgets take the fun out of spending. (5)	❍	❍	❍	❍
Families should have written financial goals that help them determine priorities in spending (6)	❍	❍	❍	❍
A written budget is absolutely essential for successful financial managment (7)	❍	❍	❍	❍
Keeping records of financial matters is too time consuming to worry about (8)	❍	❍	❍	❍
Financial planning is an unnecessary distraction when families are just trying to get by today (9)	❍	❍	❍	❍

Q185 Please rate your agreement with the following statements:

	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
When I make plans, I am almost certain that I can make them work (1)	❍	❍	❍	❍
Many times I feel that I have little influence over the things that happen to me (2)	❍	❍	❍	❍
What happens to me is my own doing (3)	❍	❍	❍	❍
My financial situation depends on my control of the situation (4)	❍	❍	❍	❍
Whatever has happened to me in life, I can still choose my own future. (5)	❍	❍	❍	❍
I believe my future depends on me, not others (6)	❍	❍	❍	❍

Q74 What kind of financial accounts do you have? Mark all that apply
- ❑ I do not have a bank account or investments (1)
- ❑ Savings account (2)
- ❑ Checking account (3)
- ❑ Money market (4)
- ❑ Certificates of deposit (CD) (5)
- ❑ Stocks (6)
- ❑ Bonds (7)
- ❑ Mutual Funds (8)
- ❑ IRA/401K (9)
- ❑ ETF's (11)
- ❑ Other (10) ____________________

Q77 In the past 2 months, I have
- ❑ Saved for a home purchase (1)
- ❑ Saved for an important event (e.g. wedding, vacation) (2)
- ❑ Invested money in a mutual fund, stocks, IRAs or other investments (3)
- ❑ None of the above (4)

Q79 Please indicate how often you have engaged in the following activities.

	Never (1)	Rarely (2)	Sometimes (3)	Always (4)
I save or invest money out of each paycheck (1)	❍	❍	❍	❍
I contribute money to a savings account used for emergencies only (2)	❍	❍	❍	❍
I save for a long-term goals such as a car (3)	❍	❍	❍	❍
I contribute money to a retirement account (4)	❍	❍	❍	❍
I invest money across more than one type of investment (5)	❍	❍	❍	❍
I usually live from paycheck to paycheck (6)	❍	❍	❍	❍
I spend less than my income (7)	❍	❍	❍	❍
I spend more than I earn (8)	❍	❍	❍	❍
I buy things when I can't really afford them (9)	❍	❍	❍	❍
I worry about my debt (10)	❍	❍	❍	❍

Q80 How much do you have in savings or investments, excluding retirement savings?
- I don't have savings or investments (1)
- under $500 (2)
- $500-999 (3)
- $1,000-1,999 (4)
- $2,000-4,999 (5)
- $5,000-9,999 (6)
- $10,000-19,999 (7)
- over $20,000 (8)

Q203 Would your parents be considered to be in debt (high debt to income ratio-above 15%)?
- Yes (1)
- No (2)

Q204 Has your family been through home foreclosure?
- Yes (1)
- No (2)

Q83 Are you currently paying a mortgage?
- ❍ Yes (1)
- ❍ No (2)

If No Is Selected, Then Skip To Click to write the question text

Q84 Is your mortgage a fixed-rate mortgage or an adjustable-rate mortgage?
- ❍ Fixed-rate mortgage (1)
- ❍ Adjustable-rate mortgage (2)

Q85 Is your mortgage an interest-only mortgage or a mortgage with an interest only option, or neither of these
- ❍ Interest-only mortgage or interest-only option (1)
- ❍ Neither (2)

Q86 Approximately what interest rate are you paying on this mortgage at the moment?

Q87 When you were getting your mortgage, did you consider how much the monthly payments would be as a percentage of your income?
- ❍ Yes (1)
- ❍ No (2)

Q88 How many times have you been late with your mortgage payments in the last 2 years?
- ❍ Never (1)
- ❍ Once (2)
- ❍ More than once (3)

Q89 When you were getting your first mortgage, did you compare offers from different lenders or mortgage brokers?
- ❍ Yes (1)
- ❍ No (2)

Q90 Do you currently have an auto loan? (We are NOT referring to an auto lease)
- ❍ Yes (1)
- ❍ No (2)

Q96 Please indicate the frequency with which you engage in the following activities

	Never (1)	Rarely (2)	Sometimes (3)	Always (4)
I compare offers before applying for a loan (1)	❍	❍	❍	❍
I read over and understand apartment leases and loan agreements before I sign them. (2)	❍	❍	❍	❍
I make only minimum payments on a loan (3)	❍	❍	❍	❍
I paid all my bills on time in the past year (4)	❍	❍	❍	❍

Q93 When you finish your undergraduate education, how much do you expect to owe in student loans?

- ❍ Nothing (1)
- ❍ $1-$999 (2)
- ❍ $1,000-$1,999 (3)
- ❍ $2,000-$4,999 (4)
- ❍ $5,000-$9,999 (5)
- ❍ $10,000-$19,999 (6)
- ❍ $20,000-$49,999 (7)
- ❍ $50,000-$99,999 (8)
- ❍ $100,000 or more (9)

Q174 When you finish your undergraduate education, how much do you expect to owe in TOTAL debt (including student loans, auto loans, credit card debt), not including mortgage debt?

- Nothing (1)
- $1-$999 (2)
- $1,000-$1,999 (3)
- $2,000-$4,999 (4)
- $5,000-$9,999 (5)
- $10,000-$19,999 (6)
- $20,000-$49,999 (7)
- $50,000-$99,999 (8)
- $100,000 or more (9)

Q97 How many credit cards do you HAVE, including store credit cards?
- None (1)
- One (2)
- Two (3)
- Three (4)
- Four (5)
- Five to Nine (6)
- Ten or more (7)

If None Is Selected, Then Skip To In the past 12 months have you

Q99 How many credit cards do you USE, including store credit cards?
- None (1)
- One (2)
- Two (3)
- Three (4)
- Four (5)
- Five to Nine (6)
- Ten or more (7)

Q104 What is the combined total balance owed on your credit cards?
- $0-$99 (1)
- $100-$499 (2)
- $500-$999 (3)
- $1,000- $1,999 (4)
- $2,000- $4,999 (5)
- $5,000 or more (6)
- Don't know (7)

Q103 Thinking about when you obtained your most recent credit card, did you collect information about different cards from more than one company in order to compare them?
- Yes (1)
- No (2)

Q98 When did you get your first credit card?
- Before graduating high school (1)
- When I graduated from high school (2)
- When I started college (3)
- During my first year of college (4)
- After completing my first year of college (5)

Q100 How did you get your first credit card?
- ❍ Parents help (1)
- ❍ Signed up in order to receive a free item in High School (2)
- ❍ Signed up in order to receive a free item in College (3)
- ❍ Compared cards, chose the best, and applied (4)
- ❍ Mail offer (5)
- ❍ Store card- to get a discount on a purchase (6)
- ❍ I had to have a cosigner (7)
- ❍ Other (8) ____________________

Q101 Which of the following statements best describes the way in which you have made payments on your credit card over the last 12 months?
- ❍ I always pay off the total balance each month (1)
- ❍ I occasionally do not pay off the balance for a month or so when I am short on funds (2)
- ❍ I generally have an outstanding balance, but occasionally am able to pay it off (3)
- ❍ I seldom, if ever, pay off all my balances, but try to pay them down when I can (4)
- ❍ I generally pay only the minimum required payment each month (5)
- ❍ I occasionally make less than the minimum payment (6)

Q102 In the past 12 months have you
- ❑ Cancelled a credit card (1)
- ❑ Been late making a payment (2)
- ❑ Opened a new credit card (3)
- ❑ Missed a credit card payment (4)
- ❑ Transferred the balance from one credit card to another (5)
- ❑ Made a payment that was less than the minimum payment required (6)
- ❑ Been rejected for a new credit card (7)
- ❑ Obtained a cash advance from your credit card company (8)
- ❑ Consolidated your credit card debt into a personal bill consolidation loan (9)
- ❑ Been contacted by a collection agency (10)
- ❑ Maxed out the limit on one or more credit cards (11)
- ❑ Exceeded my credit limit on one or more credit cards (12)
- ❑ None of these (13)

Q105 What was your credit score the last time you checked?
- ❍ Under 620 (1)
- ❍ 621-660 (2)
- ❍ 661-700 (3)
- ❍ 701-740 (4)
- ❍ Over 740 (5)
- ❍ I have not checked my credit score (6)

Q107 I have a life insurance policy
- Yes (1)
- No (2)

Q108 I have a disability insurance policy
- Yes (1)
- No (2)

Q109 I am covered by a homeowner's or renter's insurance policy
- Yes (1)
- No (2)

Q175 I am covered by an auto insurance policy
- Yes (1)
- No (2)

Q176 I am covered by a medical or health insurance policy
- Yes (1)
- No (2)

Q113 Thinking of the last time you purchased insurance, did you compare offers from different insurance providers?
- Yes (1)
- No (2)

Q111 Have you purchased any type of insurance directly for yourself, that is NOT through an employer?
- Yes (1)
- No (2)

Q112 How often do you review your insurance coverage
- Never (1)
- Rarely (2)
- Once every few years (3)
- At least once a year (4)

Q114 I work ________ to meet bills and expenses

- Not employed (1)
- 0-10 hours per week (2)
- 10-20 hours per week (3)
- 20-30 hours per week (4)
- 30-40 hours per week (5)
- 40+ hours per week (6)

Q115 Please indicate the frequency with which you engage in the following activities

	Never (1)	Rarely (2)	Sometimes (3)	Always (4)
I pay for yearly expenses out of current income or savings (not with loans) (1)	❍	❍	❍	❍
I use a weekly/monthly budget to track my income and expenses (2)	❍	❍	❍	❍
Stayed within your budget or spending plan (3)	❍	❍	❍	❍
I maintain adequate financial records (4)	❍	❍	❍	❍
I regularly set aside money for large expected expenses (like insurance or taxes) (5)	❍	❍	❍	❍
I set aside emergency or rainy day funds that would cover your expenses for 3 months, in case of sickness, job loss, economic downturn, or other emergencies (6)	❍	❍	❍	❍
I save receipts for major purchases (7)	❍	❍	❍	❍
I ensure all charges to my savings and checking accounts are accurate (8)	❍	❍	❍	❍
I review and	❍	❍	❍	❍

evaluate my spending habits (9)				
I overdraw my account and am charged a fee from my bank. (10)	❍	❍	❍	❍
I review my total financial situation (11)	❍	❍	❍	❍

Q116 Please indicate how often you have engaged in the following activities

	Never (1)	At least once (2)	2-5 Times (3)	6-10 times (4)	More than 10 times/Regularly (5)
I have used a pay day loan type service (1)	❍	❍	❍	❍	❍
I have used a rent-to-own transaction as a way to buy an appliance or furniture (2)	❍	❍	❍	❍	❍
I have used a check cashing service. (3)	❍	❍	❍	❍	❍
I have used a pawn shop for a small loan while the shop holds an item as collateral until I pay back the loan. (4)	❍	❍	❍	❍	❍
I have received an advance on your tax refund ("refund anticipation loan" or "Rapid Refund") (5)	❍	❍	❍	❍	❍
I have taken out an auto title loan (6)	❍	❍	❍	❍	❍

Q117 Are you using a 529 Plan or Coverdell Educational Savings Account to save for college?

- ❍ Yes (1)
- ❍ No (2)
- ❍ Don't know (3)

Q118 Does your household have a savings, checking, or other bank account?

- ❍ Yes (1)
- ❍ No (2)

Answer If Does your household have a savings, checking, or oth... No Is Selected

Q122 Why do you not have a checking or savings account?

- ❑ Do not have enough money to make it worthwhile (1)
- ❑ Do not like dealing with banks (2)
- ❑ Bank fees are too high (3)
- ❑ Inconvenient hours or location (4)
- ❑ Banks would not let me open an account (5)
- ❑ Do not want to share my personal information (6)
- ❑ Other (7) ____________________

Q120 Do you or your spouse/partner use a debit card tied to your bank account?

- ❍ Yes (1)
- ❍ No (2)

Q123 Not including retirement accounts does your household have any investments in stocks, bonds, mutual funds, or other securities?

- ❍ Yes (1)
- ❍ No (2)

Q92 Have you or your parents declared bankruptcy in the last two years?

- ❍ Yes (1)
- ❍ No (2)

Q124 Growing up, whenever I felt sick or needed to go to the doctor, I went to:
- ❍ The emergency room (1)
- ❍ A free or discount clinic (2)
- ❍ A doctor's office and paid cash (3)
- ❍ A doctor's office and used private insurance (4)
- ❍ A doctor's office and used government health insurance (e.g., Medicaid) (5)

Q125 Growing up, I went to the dentist office:
- ❍ Twice per year (1)
- ❍ Once per year (2)
- ❍ Every couple years (3)
- ❍ Only if I had a cavity (4)
- ❍ Only if I had multiple cavities or my teeth really hurt (5)
- ❍ Never (6)

Q202 Are one of your parents classified as unemployed or underemployed?
- ❍ Yes, my mother (1)
- ❍ Yes, my father (2)
- ❍ No (3)

Q193 Please rate your agreement with the following statements.

	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
It is all right for an individual to rely on others (friends, family) for financial assistance even if they are capable of getting a job themselves (1)	❍	❍	❍	❍
It is all right for an individual to rely on the government for financial assistance even if they are capable of getting a job themselves (2)	❍	❍	❍	❍

Q136 Thinking now about what you have learned about personal finance, where do you think that you learned the MOST?

- ❍ From your parents or at home (1)
- ❍ From friends (2)
- ❍ From school (3)
- ❍ From self-help books or media (4)
- ❍ From a financial professional (5)
- ❍ From the internet (6)
- ❍ At work (7)
- ❍ Spouse or partner (8)
- ❍ Learned on my own (9)
- ❍ Other (Please indicate below) (10) ____________________

Q139 How much did you learn about managing your money from the following:

	Nothing (1)	Very Little (2)	Some (3)	A Lot (4)
Parents (1)	❍	❍	❍	❍
Friends (2)	❍	❍	❍	❍
School (3)	❍	❍	❍	❍
Books (4)	❍	❍	❍	❍
Internet (5)	❍	❍	❍	❍
Media (6)	❍	❍	❍	❍
Job (7)	❍	❍	❍	❍
Life experience (8)	❍	❍	❍	❍
Financial planner or counselor (9)	❍	❍	❍	❍
Other (10)	❍	❍	❍	❍

Q140 Please tell us the most important ways you learned about managing money?

Q135 Where do you expect to learn/increase your financial knowledge?

- ❑ Parents (1)
- ❑ Friends (2)
- ❑ School (3)
- ❑ Books (4)
- ❑ Internet (5)
- ❑ Media (6)
- ❑ Job (7)
- ❑ Life experience (8)
- ❑ Financial planner or counselor (9)
- ❑ Other (10)

Q126 Comparing yourself to your parents, would you say that you are:
- ❍ Much more likely to save (1)
- ❍ Somewhat more likely to save (2)
- ❍ About as likely to save/spend (3)
- ❍ Somewhat more likely to spend (4)
- ❍ Much more likely to spend (5)

Q127 Please indicate how often you engage in the following activities:

	Never (1)	Rarely (2)	Sometimes (3)	Always (4)
I talk about my credit card use with my parents (1)	❍	❍	❍	❍
I keep my credit card use private from my parents. (2)	❍	❍	❍	❍
I make financial decisions based on what my parents have done in similar situations. (3)	❍	❍	❍	❍

Q141 How would you describe how finances were communicated in your family?

- ❍ My parents usually argued about the finances (1)
- ❍ My parents explicitly taught me about finances (e.g., credit cards, debt, budgeting, savings) (2)
- ❍ We didn't talk much about finances but I learned (implicitly) from their examples (3)
- ❍ I didn't learn about finances from my parents implicitly or explicitly. (4)

Q128 Please indicate the extent to which you think your parents DIRECTLY/EXPLICITLY taught you about the following topics

	Never (1)	Rarely (2)	Sometimes (3)	Always (4)
Budgeting (1)	❍	❍	❍	❍
Bank accounts (e.g., savings or checking) (2)	❍	❍	❍	❍
Investing (3)	❍	❍	❍	❍
Taxes deducted from paychecks (4)	❍	❍	❍	❍
Building good credit (5)	❍	❍	❍	❍
Medical insurance (6)	❍	❍	❍	❍
Life insurance (7)	❍	❍	❍	❍
Auto insurance (8)	❍	❍	❍	❍
Renter's/Homeowner's insurance (9)	❍	❍	❍	❍
Loans/Debts (10)	❍	❍	❍	❍
Credit cards (11)	❍	❍	❍	❍
Saving (12)	❍	❍	❍	❍
Giving to charities (13)	❍	❍	❍	❍
Work for what you receive (14)	❍	❍	❍	❍
Distinguishing between needs and wants (15)	❍	❍	❍	❍

Q130 Explian how your parents directly taught you about these topics?

Q129 Please indicate the extent to which you INDIRECTLY OR IMPLICITLY learned the following topics from your parents

	Never (1)	Rarely (2)	Sometimes (3)	Always (4)
Budgeting (1)	❍	❍	❍	❍
Bank accounts (e.g., savings or checking) (2)	❍	❍	❍	❍
Investing (3)	❍	❍	❍	❍
Taxes deducted from paychecks (4)	❍	❍	❍	❍
Building good credit (5)	❍	❍	❍	❍
Medical insurance (6)	❍	❍	❍	❍
Life insurance (7)	❍	❍	❍	❍
Auto insurance (8)	❍	❍	❍	❍
Renter's/Homeowner's insurance (9)	❍	❍	❍	❍
Loans/Debts (10)	❍	❍	❍	❍
Credit cards (11)	❍	❍	❍	❍
Saving (12)	❍	❍	❍	❍
Giving to charities (13)	❍	❍	❍	❍
Work for what you receive (14)	❍	❍	❍	❍
Distinguishing between needs and wants (15)	❍	❍	❍	❍

Q131 In what ways did you indirectly or implicitly learn from your parents about these topics?

Q205 Overall, I would classify learning from my parents regarding financial matters:
- ❍ positive (1)
- ❍ negative (2)
- ❍ Click to write Choice 3 (3)

Q206 Overall, I would classify my parents' management of their personal finances:
- ❍ positive (1)
- ❍ negative (2)
- ❍ Click to write Choice 3 (3)

Q132 Which of the following classes have you had in HIGH SCHOOL? (check all that apply)

- ❑ A semester-length course in personal money management or personal finances (1)
- ❑ A portion of a course where at least a week was focused on money management or personal finance (2)
- ❑ Economics (3)
- ❑ Finance (4)
- ❑ Accounting (5)
- ❑ A portion of a course where at least one week was focused on economics, finance, or accounting (6)
- ❑ None of the above. (7)

Q134 Which of the following classes have you had in COLLEGE? (check all that apply)

- ❑ A semester-length course in personal money management or personal finances (1)
- ❑ A portion of a course where at least a week was focused on money management or personal finance (2)
- ❑ Economics (3)
- ❑ Finance (4)
- ❑ Accounting (5)
- ❑ A portion of a course where at least one week was focused on economics, finance, or accounting (6)
- ❑ I am currently enrolled in a course that covers personal money management (7)
- ❑ None of the above (8)

Q143 Read the following money personalities and answer the questions below.Type 1: SpenderSatisfied emotionally when they spend money; tend to be very compulsive shoppers.Type 2: SaverSavers tend to be the opposite of spenders- most are very aware of how much they buy, spend and use items. They clip coupons, keep up with sales, and are always trying to figure out how to save more money. Savers usually have little to no debt. On the extreme, they can be view as frugal or cheap.Type 3: EntrepreneurEntrepreneurs (people who run their own business) are driven by a passion to live a purposeful life. They know that running their own business is a sure way to get wealth. Despite being the highest income earners, they can be workaholics who are not motivated by money alone. Money is used as a way to measure their achievements. They enjoy the power and status that hard work and money brings.Type 4: Planner/InvestorPlanners are very aware of money. They understand their financial situation and try to put their money to work. Regardless of their current finances, they seek a day when passive investments (money they earn without working) will give them enough money to cover all of their bills.Type 5: HoarderHoarders do just that, they hoard money (and tend to hoard other things too). Hoarders are usually afraid to spend money, and they are always saving for a rainy day. This type tends to be fueled by fear versus the Saver, who is fueled by a desire to build a stable financial situation.Type 6: OptimistOptimists have a peace of mind from money. They worry/think the least about money, and their money choices are a little impulsive, but not risk-oriented. Often in or near retirement, they are more interested in enjoying their money than making it grow. They are not highly involved with their money, taxes or investments, which could cause them stress and make it less enjoyable.Type 7: OstrichOstrich's don't like dealing with money. They aren't trying to make a statement with their purchases, and they don't shop to entertain or cheer themselves up. They simply don't spend much time thinking about their money. They often face financial crises because they did not deal with a money issue early in it's existence. This individual also tends to have a lot of fear around money.Type 8: Flashy pantsFlashy folks love nice cars, new gadgets and brand-name clothing. They aren't bargain shoppers; they are fashionable and look to make a statement with their purchases. They are comfortable spending money, don't fear debt and often take big risks when investing. The level of debt often depends on their financial wisdom. They are huge thrill seekers.

Q144 Which of the money personalities above most closely describes YOU?

- ❍ Spender (1)
- ❍ Saver (2)
- ❍ Entrepreneur (3)
- ❍ Planner/Investor (4)
- ❍ Hoarder (5)
- ❍ Optimist (6)
- ❍ Ostrich (7)
- ❍ Flashy pants (8)

Q146 Which of the money personalities above most closely describes your MOTHER or FEMALE GUARDIAN?

- ❍ Spender (1)
- ❍ Saver (2)
- ❍ Entrepreneur (3)
- ❍ Planner/Investor (4)
- ❍ Hoarder (5)
- ❍ Optimist (6)
- ❍ Ostrich (7)
- ❍ Flashy pants (8)
- ❍ Don't know or Not applicable (9)

Q147 Which of the money personalities above most closely describes your FATHER or MALE GUARDIAN?

- ❍ Spender (1)
- ❍ Saver (2)
- ❍ Entrepreneur (3)
- ❍ Planner/Investor (4)
- ❍ Hoarder (5)
- ❍ Optimist (6)
- ❍ Ostrich (7)
- ❍ Flashy pants (8)
- ❍ Don't know or Not applicable (9)

Q148 Which of the money personalities above most closely describes your SIGNIFICANT OTHER?

- ❍ Spender (1)
- ❍ Saver (2)
- ❍ Entrepreneur (3)
- ❍ Planner/Investor (4)
- ❍ Hoarder (5)
- ❍ Optimist (6)
- ❍ Ostrich (7)
- ❍ Flashy pants (8)
- ❍ Don't know or Not applicable (9)

Q18 Assume you are in your early twenties and you would like to build up your nest egg for a secure retirement in 30 years. Which of the following tends to have the highest growth over periods of time as long as 30 years

- ❍ Savings account (1)
- ❍ Checking account (2)
- ❍ Certificates of deposit account (3)
- ❍ Put monthly savings in a diversified growth mutual fund (4)
- ❍ Long-term Treasury bonds (5)
- ❍ Money in a safe-box rented from a local bank (6)

Q189 In most cases, the lower the expected rate of return on an investment, the lower the risk

- ❍ True (1)
- ❍ False (2)

Q19 A high-risk, and high-return investment strategy would be most suitable for:

- ❍ An elderly retired couple living on a fixed income (1)
- ❍ A middle aged couple needing funds for their children's education in two years (2)
- ❍ A young married couple without children (3)
- ❍ All of the above because they all need high return (4)

Q20 Which of the following combination of investments is most risky?

- ❍ A mutual fund containing 80% stocks and 20% bonds (1)
- ❍ A mutual fund containing 80% bonds and 20% stocks (2)
- ❍ An index fund (like the S&P 500) (3)
- ❍ Stock in a single company (4)

Q188 Retirees need _________ percent of their pre-retirement income to maintain the same standard of living during retirement.

- ❍ 50-60% (1)
- ❍ 70-80% (2)
- ❍ 90-100% (3)

Q21 The figure that best reflects a mutual fund's performance over a period of years is

- ❍ Its current yield (1)
- ❍ The total dividends and capital gains it has paid (2)
- ❍ Its total return (3)

Q22 You invested $1,000 in a stock two years ago. The stock's trading price declined 40% the first year and rose 40% the next. As a result, you have

- Lost Money (1)
- Made Money (2)
- Broken Even (3)

Q24 Which of the following types of investment would best protect purchasing power of a family's savings in the event of a sudden increase in inflation?

- A 10-year bond issued by a corporation (1)
- A certificate of deposit at a bank (2)
- A 25-year corporate bond (3)
- A house financed with a fixed-rate mortgage (4)

Q25 Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, how much would you be able to buy with the money in this account?

- More than today (1)
- Exactly the same (2)
- Less than today (3)

Q26 How much money do experts recommend that you set aside in a short term fund for emergencies?

- 3-6 months of your income (1)
- 3-6 months of your expenses (2)
- Enough until you can find another job (3)
- You don't need an emergency fund because you can qualify and receive unemployment. (4)

Q27 Rebecca has saved $12,000 for her college expenses by working part-time. Her plan is to start college next year and she needs all of the money she saved. Which of the following is the best place for her college money?

- Locked in her closet at home (1)
- Stocks (2)
- Corporate Bonds (3)
- A bank savings account (4)

Q28 Many savings programs are protected by the Federal government against loss. Which of the following is not?

- A U.S. Savings Bond (1)
- A certificate of deposit (2)
- A bond issued by one of the 50 states (3)
- A U.S. Treasury Bond (4)

Q29 If you had a savings account at a bank which of the following would be correct concerning the interest that you would earn on this account?

- Earnings from savings account interest may not be taxed (1)
- Income tax may be charged on the interest if your income is high enough. (2)
- Sales tax may be charged on the interest that you earn (3)
- You cannot earn interest until you pass your 18th birthday (4)

Q30 Rob and Molly are the same age. At age 25 Rob began saving $2000 a year for 10 years and then stopped at age 35. At age 35, Molly realized that she needed money for retirement and started saving $2000 per year for 30 years and then stopped at age 65. Now they are both 65 years old. Who has the most money in his or her retirement account (assume both investments have the same interest rate)?

- Molly, because she saved more money overall (1)
- Rob, because his money has grown for a longer period of time (2)
- They would each have about the same amount (3)
- Unable to determine with information provided (4)

Q31 Which asset is the least liquid (has the lowest liquidity)?

- Savings account (1)
- Money market account (2)
- Money in a safe deposit box (3)
- Certificate of deposit (4)

Q33 David just found a job with a take-home pay of $2,000 per month. He must pay $900 for rent and $150 for groceries each month. He also spends $250 per month on transportation. If he budgets $100 each month for clothing, $200 for restaurants and $250 for everything else, how long will it take him to accumulate savings of $600?

- 3 months (1)
- 4 months (2)
- 1 month (3)
- 2 months (4)

Q34 Which of the following statements best describes your right to check your credit history for accuracy?

- ❍ Your credit record can be checked once a year for free (1)
- ❍ You cannot see your credit record (2)
- ❍ All credit records are the property of the U.S. Government and access is only available to the FBI and Lenders (3)
- ❍ You can only check your record for free if you are turned down for credit based on a credit report (4)

Q35 What does a credit bureau do?

- ❍ Approves applications for credit (1)
- ❍ Informs applicants of the reasons for denial of credit (2)
- ❍ Extends credit to qualified applicants (3)
- ❍ Provides creditors with reports of consumers' bill-paying records (4)

Q36 Which of the following cannot legally access your credit report?

- ❍ Creditors (1)
- ❍ Employers (2)
- ❍ Apartment rental agencies (3)
- ❍ Insurance companies (4)
- ❍ All of the above can access your credit report (5)

Q37 Which of the following is NOT correct about most debit cards?

- ❍ You can generally get cash 24 hours a day (1)
- ❍ You can generally obtain information concerning your bank balance at an ATM machine (2)
- ❍ You can get cash anywhere in the world with no fee (3)
- ❍ You must have a bank account to have an ATM card (4)

Q38 Inflation can cause difficulty in many ways. Which group would have the greatest problem during periods of high inflation that last several years?

- ❍ Older, working couples saving for retirement (1)
- ❍ Older people living on a fixed income (2)
- ❍ Young couples with nor children who both work (3)
- ❍ Young working couples with children (4)

Q39 Net worth is:
- The difference between expenditures and income (1)
- The difference between liabilities and assets (2)
- The difference between cash inflow and outflow (3)
- The difference between borrowings and savings (4)
- None of the above (5)

Q40 In which year after a car is bought does it lose its value the fastest?
- First year (1)
- Second year (2)
- Fourth year (3)
- Seventh year (4)

Q41 If you signed a 12 month lease for $300 per month but never occupied the apartment, you legally owe the landlord:
- Your security deposit (1)
- Your first month's rent of $300 (2)
- Your twelve months rent of $3600 (3)
- Nothing (4)
- Whatever the landlord wants (5)

Q43 If a consumer fails to pay personal debts, a creditor is allowed to do all of the following EXCEPT:
- Discuss the consumer's debts with his or her empolyer (1)
- Bring suit against the consumer (2)
- Tell a credit bureau that the account is delinquent (3)
- Turn the account over to a professional debt collector (4)

Q44 All of the following are TRUE of bankruptcies EXCEPT:
- It is more difficult to get a low interest rate loan (1)
- It will stay on your credit for ten years (2)
- Any loan you receive will have a higher interest rate due to the bankruptcy (3)
- For all types of bankruptcies you are released from all your debt (4)

Q45 The MOST important factors that lenders use when deciding whether to approve a loan are:
- Marital status and number of children (1)
- Education and occupation (2)
- Age and gender (3)
- Bill-paying record and income (4)

Q192 A 15-year mortgage typically requires higher monthly payments than a 30-year mortgage, but the total interest paid over the life of the loan will be less.

- ❍ True (1)
- ❍ False (2)

Q46 If you co-sign a loan for a friend, then you:

- ❍ Become eligible to receive part of the loan principle (1)
- ❍ Vouch for the friend's reliability but have no legal obligation for the loan (2)
- ❍ Are responsible for repaying the loan if the friend defaults (3)
- ❍ Are in better position to get a personal loan (4)

Q187 Students with student loans have ________ after graduation until they have to begin to make payments on their student loans.

- ❍ 1 month (1)
- ❍ 6 months (2)
- ❍ 1 year (3)
- ❍ Depends on your income (4)

Q47 Which of the following statements is true?

- ❍ Banks and other lenders share the credit history of their borrowers with each other and are likely to know of any loan payments that you have missed (1)
- ❍ People have so many loans it is very unlikely that one bank will know your history with another bank (2)
- ❍ Your bad loan payment record with one bank will not be considered if you apply to another bank for a loan. (3)
- ❍ If you missed a payment more than 2 years ago, it cannot be considered in a loan decision (4)

Q48 Under which of the following circumstances would it be financially beneficial to you to borrow money to buy something now and repay it with future income?

- ❍ When you need to buy a car to get a much better paying job (1)
- ❍ When you really need a week vacation (2)
- ❍ When some clothes you like go on sale (3)
- ❍ When the interest on the loan is greater than the interest you get on your savings (4)

Q49 Scott and Eric each have a good credit history. They work at the same company and make approximately the same salary. Scott has borrowed $6000 to take a foreign vacation. Eric has borrowed $6000 to buy a car. Who is likely to pay the lowest finance charge?

- Eric will pay less because the car is collateral for the loan (1)
- They will both pay the same because the rate is set by law (2)
- Scott will pay less because people who travel overseas are better risks (3)
- They will both pay the same because they have almost identical financial backgrounds (4)

Q50 If a credit card account has a balance carried over from the previous month, interest charges accrue:

- From the beginning of the statement period (1)
- One month after the date of the purchase (2)
- After a 2-week grace period (3)
- After a 2-month grace period (4)

Q51 Which of the following statements is TRUE about the annual percentage rate (APR)?

- APR is the actual rate of interest paid over the life of the loan (1)
- APR is a good measure of comparing loan costs (2)
- APR takes into account all loan fees (3)
- All of the above (4)
- None of the above (5)

Q52 Barbara has just applied for a credit card. She is an 18-year old high school graduate with a few valuable possessions and no credit history. If Barbara is granted a credit card, which of the following is the most likely way that the credit card company will reduce ITS risk?

- It will make Barbara's parents pledge their home to repay Barbara's credit card debt (1)
- It will require Barbara to have both parents co-sign for the card (2)
- It will charge Barbara twice the finance charge rate it charges older cardholders (3)
- It will start Barbara out with a small line of credit to see how she handles the account (4)

Q53 If your credit card is stolen, and the thief runs up a total debt of $1000, but you notify the issuer of the card as soon as you discover it is missing, what is the maximum amount that you can be forced to pay according to Federal law

- $500 (1)
- $1000 (2)
- Nothing (3)
- $50 (4)

Q54 Which of the following credit card users is likely to pay the GREATEST dollar amount in finance charges per year, if they all charge the same amount per year on their cards?

- Jessica, who pays at least the minimum amount each month, and more when she has the money (1)
- Vera, who generally pays off her credit card in full but, occasionally, will pay the minimum when she is short of cash (2)
- Megan, who always pays off her credit card bill in full shortly after she receives it (3)
- Erin, who only pays the minimum amount each month (4)
- Jessica and Erin pay the same (5)

Q55 The difference between a debit debit card and a credit card is:

- The liability is greater with the debit card if lost or stolen (1)
- The money comes directly out of your bank account (2)
- There is no grace period (3)
- No interest is charged when using an ATM debit card (4)
- All of the above (5)

Q56 The main reason to purchase insurance is to:
- ❍ Protect you from a loss recently incurred (1)
- ❍ Provide you with excellent investment returns (2)
- ❍ Protect you from sustaining a catastrophic loss (3)
- ❍ Protect you from small incidental losses (4)
- ❍ Improve your standard of living by filing fraudulent claims (5)

Q191 Insurance costs can be reduced by having high deductible clauses in your contracts.
- ❍ True (1)
- ❍ False (2)

Q57 Many young people receive health insurance benefits through their parents. Which of the following statements is true about health insurance coverage?
- ❍ You are covered by your parents' insurance until you marry, regardless of your age (1)
- ❍ If your parents become unemployed, your insurance coverage may stop, regardless of your age (2)
- ❍ Young people don't need health insurance because they are so healthy (3)
- ❍ You continue to be covered by your parents' insurance as long as you live at home, regardless of your age (4)

Q58 If each of the following persons had the same amount of take home pay, who would need the greatest amount of life insurance?
- ❍ An elderly retired man, with a wife who is also retired (1)
- ❍ A young married man without children (2)
- ❍ A young single woman with two young children (3)
- ❍ A young single woman without children (4)

Q59 Assume you are in your early twenties, don't have a lot of money, are married and have one child. Assuming you already have disability insurance through your employment, which of the following would you do regarding your life insurance?
- ❍ You would buy a term life insurance policy (1)
- ❍ You probably do not need to buy any life insurance policy (2)
- ❍ You would buy flight insurance each time you travel by air (3)
- ❍ You would buy a cash value insurance policy (4)

Q60 If an auto insurance policy has bodily injury limits of $100,000/$300,000, the insured person is covered for:

- ❍ Up to $100,000 for each accident but no more than $300,000 for the life of the policy (1)
- ❍ Up to $100,000 for medical bills but no more than $300,000 for hospital costs (2)
- ❍ Up to $100,000 for each person injured but no more than $300,000 for each accident (3)
- ❍ Up to $100,000 for people in the insured auto but no more than $300,000 for people outside of the insured auto (4)

Q64 Choose the type of insurance coverage that pays for the following:

Q65 The replacement of your car if stolen
- ❍ Liability (1)
- ❍ Comprehensive (2)
- ❍ Collision (3)
- ❍ Uninsured motorist (4)

Q66 A loss resulting from a lawsuit
- ❍ Liability (1)
- ❍ Comprehensive (2)
- ❍ Collision (3)
- ❍ Uninsured motorist (4)

Q67 Damage to your own car from an accident caused by you
- ❍ Liability (1)
- ❍ Comprehensive (2)
- ❍ Collision (3)
- ❍ Uninsured motorist (4)

Q69 If you went to college and earned a four-year degree, how much more money could you expect to earn if you only had a high school diploma?

- No more; I would make about the same either way (1)
- A little more; about 20% more (2)
- A lot more; about 70% more (3)

Q70 Chelsea worked her way through college earning about $15,000 per year. After graduation, her first job pays $30,000. The total amount Chelsea will have to pay in Federal Income taxes in her new job will:

- Double, at least, from when she was in college (1)
- Go up a little from when she was in college (2)
- Stay the same as when she was in college (3)
- Be lower than when she was in college (4)

Q71 Matt has a good job on the production line of a factory in his home town. During the past year or two the state in which Matt lives has been raising taxes on its businesses to the point where they are much higher than in neighboring states. What effect is this likely to have on Matt's job?

- Higher business taxes will cause more businesses to move into Matt's state, raising wages (1)
- Higher business taxes can't have any effect on Matt's job (2)
- Matt's company may consider moving to a lower tax state, threatening Matt's job (3)
- He is likely to get a large raise to offset the effect of higher taxes (4)

Q72 Your take home pay from your job is less than the total amount you earn. Which of the following best describes what is taken out of your total pay

- Federal income tax, property tax, and Medicare and social security contributions (1)
- Social security and Medicare contributions (2)
- Federal income tax, social security and Medicare contributions (3)
- Federal income tax, sales tax, and social security contribution (4)
- Federal income tax, social security and Medicare contributions, and state and local taxes (5)

Q73 Is a $500 tax credit or a $500 tax deduction more valuable to you?

- A $500 tax credit (1)
- A $500 tax deduction (2)
- They are the same (3)
- Depends on your tax bracket (4)

Q179 What is your gender?
❍ Male (1)
❍ Female (2)

Q155 Which university do you attend?
❍ I attend: (1) ____________________

Q194 In which semester are you currently enrolled?

Q207 Is the current course you are taking required for your major or an elective?
❍ required for major (1)
❍ an elective (2)
❍ other (3) ____________________

Q180 What is your academic standing?
❍ Freshman (1)
❍ Sophomore (2)
❍ Junior (3)
❍ Senior (4)
❍ Graduate Student (5)

Q156 Which of the following best describes your status as a student?
❍ I am a full-time undergraduate student at a four year college (1)
❍ I am a full-time undergraduate student at a two year college or university (2)
❍ I am not currently a student (3)

Q157 What is the highest level of education you expect to achieve?
❍ Associate degree (two-year) (1)
❍ Bachelor degree (four-year) (2)
❍ Master's degree (3)
❍ Doctorate, law, or professional (six-year or more) (4)

Q184 My education is paid by (including who will pay off student loans if applicable)?
❍ Self (loans, scholarships, grants, other financial aid) (1)
❍ Parents or other family (2)
❍ Mostly Self (more than 50%) (3)
❍ Mostly parents (more than 50%) (4)
❍ 50% self, 50% parents (5)
❍ Employer (6)
❍ Military (7)

Q182 What was the highest level of education achieved by your FATHER/MALE GUARDIAN?

- ❍ Don't know (1)
- ❍ Less than high school (2)
- ❍ High school or equivalent (3)
- ❍ Some college (4)
- ❍ Associates/community college degree (5)
- ❍ Bachelor's degree (6)
- ❍ Masters, doctorate, or professional (7)
- ❍ Trade school (8)
- ❍ Military academy (9)

Q183 What was the highest level of education achieved by your MOTHER/FEMALE GUARDIAN?

- ❍ Don't know (1)
- ❍ Less than high school (2)
- ❍ High school or equivalent (3)
- ❍ Some college (4)
- ❍ Associates/community college degree (5)
- ❍ Bachelor's degree (6)
- ❍ Masters, doctorate, or professional (7)
- ❍ Trade school (8)
- ❍ Military academy (9)

Q158 What is your best estimate of your parents'/guardians' total income last year? Consider annual income from all sources before taxes.

- ❍ Less than $20,000 (1)
- ❍ $20,000-$39,999 (2)
- ❍ $40,000-$59,999 (3)
- ❍ $60,000-$79,999 (4)
- ❍ $80,000-$149,999 (5)
- ❍ $150,000 or more (6)
- ❍ Don't know (7)

Q159 How do you describe yourself?
- ❍ White or Caucasian (1)
- ❍ Black or African American (2)
- ❍ Hispanic American (3)
- ❍ Asian American (4)
- ❍ American Indian, Alaska Native, or Native Hawaiin (5)
- ❍ Other (6)

Q164 Were you raised in the United States?
- ❍ Yes (1)
- ❍ No (2)

Answer If Were you raised in the United States? No Is Selected

Q6 In which country were you raised?

- ❍ Afghanistan (1)
- ❍ Albania (2)
- ❍ Algeria (3)
- ❍ Andorra (4)
- ❍ Angola (5)
- ❍ Antigua and Barbuda (6)
- ❍ Argentina (7)
- ❍ Armenia (8)
- ❍ Australia (9)
- ❍ Austria (10)
- ❍ Azerbaijan (11)
- ❍ Bahamas (12)
- ❍ Bahrain (13)
- ❍ Bangladesh (14)
- ❍ Barbados (15)
- ❍ Belarus (16)
- ❍ Belgium (17)
- ❍ Belize (18)
- ❍ Benin (19)
- ❍ Bhutan (20)
- ❍ Bolivia (21)
- ❍ Bosnia and Herzegovina (22)
- ❍ Botswana (23)
- ❍ Brazil (24)
- ❍ Brunei Darussalam (25)
- ❍ Bulgaria (26)
- ❍ Burkina Faso (27)
- ❍ Burundi (28)
- ❍ Cambodia (29)
- ❍ Cameroon (30)
- ❍ Canada (31)
- ❍ Cape Verde (32)
- ❍ Central African Republic (33)
- ❍ Chad (34)
- ❍ Chile (35)
- ❍ China (36)
- ❍ Colombia (37)
- ❍ Comoros (38)

- Congo, Republic of the... (39)
- Costa Rica (40)
- Côte d'Ivoire (41)
- Croatia (42)
- Cuba (43)
- Cyprus (44)
- Czech Republic (45)
- Democratic People's Republic of Korea (46)
- Democratic Republic of the Congo (47)
- Denmark (48)
- Djibouti (49)
- Dominica (50)
- Dominican Republic (51)
- Ecuador (52)
- Egypt (53)
- El Salvador (54)
- Equatorial Guinea (55)
- Eritrea (56)
- Estonia (57)
- Ethiopia (58)
- Fiji (59)
- Finland (60)
- France (61)
- Gabon (62)
- Gambia (63)
- Georgia (64)
- Germany (65)
- Ghana (66)
- Greece (67)
- Grenada (68)
- Guatemala (69)
- Guinea (70)
- Guinea-Bissau (71)
- Guyana (72)
- Haiti (73)
- Honduras (74)
- Hong Kong (S.A.R.) (75)
- Hungary (76)
- Iceland (77)
- India (78)

- Indonesia (79)
- Iran, Islamic Republic of... (80)
- Iraq (81)
- Ireland (82)
- Israel (83)
- Italy (84)
- Jamaica (85)
- Japan (86)
- Jordan (87)
- Kazakhstan (88)
- Kenya (89)
- Kiribati (90)
- Kuwait (91)
- Kyrgyzstan (92)
- Lao People's Democratic Republic (93)
- Latvia (94)
- Lebanon (95)
- Lesotho (96)
- Liberia (97)
- Libyan Arab Jamahiriya (98)
- Liechtenstein (99)
- Lithuania (100)
- Luxembourg (101)
- Madagascar (102)
- Malawi (103)
- Malaysia (104)
- Maldives (105)
- Mali (106)
- Malta (107)
- Marshall Islands (108)
- Mauritania (109)
- Mauritius (110)
- Mexico (111)
- Micronesia, Federated States of... (112)
- Monaco (113)
- Mongolia (114)
- Montenegro (115)
- Morocco (116)
- Mozambique (117)
- Myanmar (118)

- Namibia (119)
- Nauru (120)
- Nepal (121)
- Netherlands (122)
- New Zealand (123)
- Nicaragua (124)
- Niger (125)
- Nigeria (126)
- Norway (127)
- Oman (128)
- Pakistan (129)
- Palau (130)
- Panama (131)
- Papua New Guinea (132)
- Paraguay (133)
- Peru (134)
- Philippines (135)
- Poland (136)
- Portugal (137)
- Qatar (138)
- Republic of Korea (139)
- Republic of Moldova (140)
- Romania (141)
- Russian Federation (142)
- Rwanda (143)
- Saint Kitts and Nevis (144)
- Saint Lucia (145)
- Saint Vincent and the Grenadines (146)
- Samoa (147)
- San Marino (148)
- Sao Tome and Principe (149)
- Saudi Arabia (150)
- Senegal (151)
- Serbia (152)
- Seychelles (153)
- Sierra Leone (154)
- Singapore (155)
- Slovakia (156)
- Slovenia (157)
- Solomon Islands (158)

- Somalia (159)
- South Africa (160)
- Spain (161)
- Sri Lanka (162)
- Sudan (163)
- Suriname (164)
- Swaziland (165)
- Sweden (166)
- Switzerland (167)
- Syrian Arab Republic (168)
- Tajikistan (169)
- Thailand (170)
- The former Yugoslav Republic of Macedonia (171)
- Timor-Leste (172)
- Togo (173)
- Tonga (174)
- Trinidad and Tobago (175)
- Tunisia (176)
- Turkey (177)
- Turkmenistan (178)
- Tuvalu (179)
- Uganda (180)
- Ukraine (181)
- United Arab Emirates (182)
- United Kingdom of Great Britain and Northern Ireland (183)
- United Republic of Tanzania (184)
- United States of America (185)
- Uruguay (186)
- Uzbekistan (187)
- Vanuatu (188)
- Venezuela, Bolivarian Republic of... (189)
- Viet Nam (190)
- Yemen (191)
- Zambia (192)
- Zimbabwe (193)

Answer If Were you raised in the United States? Yes Is Selected

Q2 In which state were you raised?

- Alabama (1)
- Alaska (2)
- Arizona (3)
- Arkansas (4)
- California (5)
- Colorado (6)
- Connecticut (7)
- Delaware (8)
- District of Columbia (9)
- Florida (10)
- Georgia (11)
- Hawaii (12)
- Idaho (13)
- Illinois (14)
- Indiana (15)
- Iowa (16)
- Kansas (17)
- Kentucky (18)
- Louisiana (19)
- Maine (20)
- Maryland (21)
- Massachusetts (22)
- Michigan (23)
- Minnesota (24)
- Mississippi (25)
- Missouri (26)
- Montana (27)
- Nebraska (28)
- Nevada (29)
- New Hampshire (30)
- New Jersey (31)
- New Mexico (32)
- New York (33)
- North Carolina (34)
- North Dakota (35)
- Ohio (36)
- Oklahoma (37)
- Oregon (38)

- Pennsylvania (39)
- Puerto Rico (40)
- Rhode Island (41)
- South Carolina (42)
- South Dakota (43)
- Tennessee (44)
- Texas (45)
- Utah (46)
- Vermont (47)
- Virginia (48)
- Washington (49)
- West Virginia (50)
- Wisconsin (51)
- Wyoming (52)
- I do not reside in the United States (53)

Q169 In which state did you live during your senior year of high school?
- I do not reside in the United States (1)
- Alabama (2)
- Alaska (3)
- Arizona (4)
- Arkansas (5)
- California (6)
- Colorado (7)
- Connecticut (8)
- Delaware (9)
- District of Columbia (10)
- Florida (11)
- Georgia (12)
- Hawaii (13)
- Idaho (14)
- Illinois (15)
- Indiana (16)
- Iowa (17)
- Kansas (18)
- Kentucky (19)
- Louisiana (20)
- Maine (21)
- Maryland (22)
- Massachusetts (23)
- Michigan (24)
- Minnesota (25)
- Mississippi (26)
- Missouri (27)
- Montana (28)
- Nebraska (29)
- Nevada (30)
- New Hampshire (31)
- New Jersey (32)
- New Mexico (33)
- New York (34)
- North Carolina (35)
- North Dakota (36)
- Ohio (37)
- Oklahoma (38)
- Oregon (39)

- Pennsylvania (40)
- Puerto Rico (41)
- Rhode Island (42)
- South Carolina (43)
- South Dakota (44)
- Tennessee (45)
- Texas (46)
- Utah (47)
- Vermont (48)
- Virginia (49)
- Washington (50)
- West Virginia (51)
- Wisconsin (52)
- Wyoming (53)

Q170 What was your standard of living growing up?
- ❍ Lived in poverty (1)
- ❍ Lower class (2)
- ❍ Lower-middle class (3)
- ❍ Middle class (4)
- ❍ Upper middle class (5)
- ❍ Upper class (6)

Q181 How many years of working experience do you have? (Include full or part-time experience, internships, co-ops, summer jobs, etc.)
- ❍ None (1)
- ❍ Less than 2 years (2)
- ❍ 2 years to less than 4 years (3)
- ❍ 4 years to less than 6 years (4)
- ❍ 6 years or more (5)

Q171 When you start to work full-time after you finish your education, how much do you expect to make per year before taxes (i.e., gross pay)?
- ❍ Under $30,000 (1)
- ❍ $30,000-$39,999 (2)
- ❍ $40,000-$49,999 (3)
- ❍ $50,000-$74,999 (4)
- ❍ $75,000 or more (5)

Q172 Which of the following best describes your major or area of interest in college?
- ❍ Accounting (1)
- ❍ Finance (2)
- ❍ Education (3)
- ❍ Engineering (4)
- ❍ Psychology (5)
- ❍ Sociology (6)
- ❍ Human Development & Family Studies (7)
- ❍ Other (8) ____________________

Q173 What is your age?

- ❍ 18-22 (1)
- ❍ 23-25 (2)
- ❍ 26-29 (3)
- ❍ 30-39 (4)
- ❍ 40-59 (5)
- ❍ 60 or older (6)

Q178 Please enter your name and email below (in order to receive credit and match your answers to when you take the survey again at the end of the semester).

First Name (1)
Last Name (2)
Email (3)

Q196 Thank you for participating in the Financial Capability Survey! Your participation will be sent to your professor so you can receive credit.

If Thank you for participating... Is Displayed, Then Skip To End of Survey

APPENDIX B

Introductory Survey Paragraph

Information and Consent Form Welcome!

You are being invited to participate in a research study titled **"Understanding the Financial Capability of Emerging Adults"** being conducted by Dr. Bryce Jorgensen, an Assistant Professor at East Carolina University in the Child Development and Family Relations department, in collaboration with Dr. Barbara Ames, a Professor at Michigan State University in the Human Development and Family Studies department. Amanda Guinot-Talbot and Erica Tobe, Graduate Assistants at Michigan State University are also involved in the study. The goal is to survey 2000 individuals at Eastern Carolina University and Michigan State University.

The online survey will take approximately 60-90 minutes to complete and you are asked to complete the survey two times during the semester, as designated by your course instructor. It is hoped that this information will assist us to better understand emerging adults' financial knowledge, attitudes, and behaviors–their financial literacy/capability. There are questions about financial attitudes, financial behaviors, financial knowledge, influences on financial literacy, experiences in relationships with others, and demographic information.

Participants must be 18 years old to participate. Participation in this project is completely voluntary. Participants may discontinue the study at any time and/or refuse to answer any questions they do not want to answer. The potential benefits in taking part in this study are the opportunity to discuss your financial needs and ideas, and your participation in this study may contribute to an understanding of needs for future emerging adults. There is no penalty for not taking part in this research study. Students participating in HDFS 238 at Michigan State University may complete this survey instead of the Case Study Analysis Assignment. If you choose not to complete the study, you can complete the Case Study Analysis, which is a different and equivalent assignment. This assignment is the alternative option to the financial capability survey. The potential risks of participating in this study revolve around discussion of financial knowledge.

Any responses you offer during the interview will be combined with others, making your response confidential, and your privacy will be protected to the full extent allowable by the law. Identifying information will not be attached to any of your individual responses when reporting results. Survey data will only be accessible by the principal investigators, research coordinators, and the University Research Protection staff.

If you have concerns or questions about this study, such as scientific issues, how to do any part of it, or to report an injury, please contact the research team:
- Dr. Bryce Jorgensen, East Carolina University, 252-737-2074, jorgensenb@ecu.edu
- Dr. Barbara Ames, Michigan State University, 517-432-3324, ames@msu.edu

- Amanda Guinot-Talbot, Graduate Research Assistant, Michigan State University, guinotam@msu.edu
- Erica Tobe, Graduate Research Assistant, Michigan State University, tobee@msu.edu.

If you have questions or concerns about your role and rights as a research participant, would like to obtain information or offer input, or would like to register a complaint about this study, you may contact, anonymously if you wish, the Michigan State University's Human Research Protection Program at 517-355-2180, Fax 517-432-4503, or e-mail irb@msu.edu or regular mail at 202 Olds Hall, MSU, East Lansing, MI 48824. This project is also approved by the Office for Human Research Integrity (OHRI) at East Carolina University and their contact information is 252-744-2914.

- I have read all of the above information.
- I know that I can stop taking part in this study at any time.
- By clicking on the acceptance of this informed consent form and willingness to participate, I am not giving up any of my rights.
- I can print a copy of this consent form and keep it for my own records.
- I am18 years of age or older.

- (button) I have read and understood this consent form and am willing to participate in this study.

- (button) I have read and understood this consent form and do NOT want to participate in this study.

("Start Survey" Button)

At the end of the survey, the following message appears after hitting the submit button

Thank you for participating in the Financial Capability Survey! Your participation will be sent to your professor so you can receive credit.

APPENDIX C

Syllabus
Personal Finance
HDFS 238 – Spring 2014

10:20 a.m. – 11:40 a.m. - 108 Ernst Bessey Hall

Instructor:
Mrs. Erica Tobe
Doctoral Student, HDFS
Rm. 13 E Human Ecology
Email: tobee@msu.edu
Office Hours: Wednesday's 10:30 am – 12:30 pm
Or By Appointment

Teaching Assistants:
Ms. Wen Wang
Doctoral Student, HDFS
Rm. 4 Human Ecology (Student Lounge)
Email: wangwe43@msu.edu,
Office Hours: Thursday's Noon – 2:00 pm
Or By Appointment

Undergraduate Learning Assistant: Casey Stone (stonecas@msu.edu) - Casey will primarily manage the I-Clicker points for the course.

Course Description:
Strategies, techniques and resources useful in the management of Personal Finance.

Course Objectives:
- The student will describe her/his strengths and weaknesses as a money manager.
- The student will identify the characteristics of various financial instruments and their use in a personal finance plan.
- The student will apply his/her new knowledge of financial instruments to individual and family situations across the life cycle.

Required Reading:
Garman, E. T., & Forgue, R. E. (2012). Personal Finance. Australia: South-Western Cengage Learning.
The book is also in the assigned reading section of the Main Library, West, second floor. Other readings may be assigned in class as determined by the instructors.

Desire2Learn (or D2L):
D2L is the main communication tool for this class and will be used for discussion posts and the official gradebook. This system is very similar to the ANGEL course management system previously used by Michigan State University. Please check often for course announcements and information regarding group discussion posts and assignments. http://d2l.msu.edu.

Course Requirements: There are four main requirements for this course.

1) I-Clicker (20 Total Points; 10% of your final grade)
The I-Clicker system will be utilized daily as a **participation tool**. There is no formal attendance policy for this class. Students are eligible to receive one point/lecture for a total of 20 points. Participation in the question(s) posed during class will result in one point. There are a total of 23 days (excluding exams) that clicker points will be offered and only 20 points counted total. I-Clicker points will begin on Tuesday, January 14h, 2014 and end on April 15, 2014. Due to the flexibility of the policy, missed clicker points for any reason (e.g., absence, forgotten clicker, clicker malfunction, no battery) will not be made up. Directions on how to set-up and register I-Clickers can be found on D2L. Students can purchase the I-Clicker, I-Clicker 2, or use the Mobile I-Clicker system on a cell phone, if available. You

can view your I-Clicker points by clicking on Attendance in D2L. I-Clicker points will not show up in the gradebook on D2L until after class on April 15, 2014. Please contact Casey Stone at stonecas@msu.edu if you have any questions.

2) Group Discussion Questions (40 Total Points; 20% of your final grade)
Group discussion questions will occur on D2L and will be in response to a question or question(s) posed. All students have been randomly assigned to a group within the D2L course management system. This group will serve as your discussion group for the entire course and the discussion questions each week. Posts are due by **10:20 am** on the day that they are due and are to be **posted in D2L** under the Discussion section, which can be found by clicking on the Communication tab and then clicking on Discussions. Each post should adequately answer the questions posed.

Each discussion question will have **two requirements**. The first is an **initial post** to your group and the second is a **response to at least one group members post**. This process will be repeated for each discussion question. See the discussion question due dates below for more information!

Late discussion posts are accepted without point penalty by **prior discussion only**. Late discussion posts received past the due date, without prior discussion are penalized **3 points per class period No credit will be given for a discussion question submitted after the due date of the next discussion post.** Discussion posts are due on the following dates:

Discussion Questions	Due Date	Points
Discussion Question #1 Topic: Introduction, Financial Planning, and Credit	Initial Post and Response to a Group Member by: January 21, 2014	10 points
Discussion Question #2 Topic: Understanding the Markets	Initial Post and Response to a Group Member by: February 18, 2014	15 points
Discussion Question #3 Topic: Housing Crisis/Families in Crisis	Initial Post and Response to a Group Member by: March 25, 2014	15 points

3) Assignments (60 total points; 30% of final grade)

1. **Personal Financial Analysis:** This assignment will ask you to complete a personal financial analysis so that you may apply the skills presented in Unit 1. All students **must** complete this assignment. Assignment directions will be posted on D2L.

2. **Investment/Retirement Analysis:** This assignment will ask you to complete an investment retirement analysis so that you may explore a diverse range of investment options by applying the skills presented in Unit 2. All students **must** complete this assignment. Assignment directions will be posted on D2L.

3. **Emerging Adults Financial Capability Survey (Option A) or the Case Study Analysis (Option B):** You will have the choice to complete Option A **or** Option B:

Option A: The Financial Capability Survey will take approximately **60-90 minutes** to complete and needs to be completed **twice**--the first week of the semester and the last week of the semester). This survey asks questions about your financial attitudes, behaviors, knowledge, influences on financial literacy, experiences in relationships with others, and demographic characteristics (e.g., age, gender). **You must be between 18-24 years of age to participate**. Any responses you offer during the survey will be combined with others, making your response confidential, and your privacy will be protected to the full extent allowable by the law. Identifying information (e.g., name, PID) will **not** be attached to any of your individual responses when reporting results from the surveys.

After a completed pre-assessment is received, notification will be provided to students by clicking on Attendance in

D2L under the “Pre-Assessment Log.” Points for a completed pre and post assessment will not show up in the gradebook on D2L until the end of the semester. You must complete both a pre and post assessment to receive 20 points for this assignment. More information will be provided on D2L.

Due Date for Option A: Pre-Assessment can be completed between January 7th and January 16th, 2013 **AND** Post Assessment to be taken between April 15th through April 22nd, 2013) **(survey must be taken by both dates to receive full credit! No credit provided for a pre assessment only or a post assessment only!)**

Option B: In the Case Study Analysis, you will have an opportunity to provide recommendations to a family based on their current financial information. A variety of personal financial topics (e.g., budget, savings, investing, household financial planning) that are covered over the course of the semester will need to be addressed in your analysis. The Case Study Analysis directions will be posted on D2L. **Due Date for Option B:** April 15, 2013

Papers/Assignments are due on the following dates:

Assignment	**Due Date**	**Points**
Assignment 1: Personal Financial Plan	January 28, 2014	20 points
Assignment 2: Investment/Retirement Analysis	February 25, 2014	20 points
Assignment 3: Option A: Emerging Adults Financial Assessment Or Option B: Case Study Analysis	Option A: Pre Survey for the Assessment can be completed between January 9th and January 21st. Post Assessment can be completed: April 15th through April 22nd Option B: Case Study Analysis Due: April 15, 2014	20 points (Option A or Option B). Credit for the Pre/Post survey will only be given if you complete the Pre and the Post! You will not receive extra credit for completing both Option A and Option B!

Assignment #1, 2, and 3 -Option B: Case Study Analysis assignments are due on the due date or earlier and should be turned in via hard copy in class. The Emerging Adult Pre and Post Assessment (Option A) should be completed on the web address that will be provided to you by course instructors on D2L. Late papers are accepted without point penalty by **prior discussion only**. An assignment is considered late if it is turned in after the class session concludes of the due date. Late papers accepted without prior discussion are penalized **3 points for each class session** they are late.

Paper format should follow the rubric as specified in D2L. All papers should be: typed (not handwritten), stapled (if necessary), double spaced, and use 12-point font. Assignments that do not follow the criteria will be marked down. An assignment may be emailed by **prior discussion only**.

4) Exams (50 total points) and Final Exam (30 total points) (40% of final grade)
There will be three exams and one comprehensive Final Exam for the course.

Exams:
The two highest scores between Exam 1, 2, or 3 will be taken and counted in the students overall grade. Thus, the lowest grade between Exam 1, 2, and 3 will be dropped.

Final Exam:
All students **must** take the final exam. The final exam is a comprehensive exam covering material throughout the

entire course and cannot be dropped as the low scoring assessment.

Taking an Assessment Early:
Students may take assessments early during times arranged with the instructors, with prior discussion only, but **not** after the assessment is given.

Exams	**Date of Exam**	**Points**
Exam 1	January 30, 2014	25 Points (Top 2 scores count from Exam 1, 2, 3)
Exam 2	February 27, 2014	25 Points (Top 2 scores count from Exam 1, 2, 3)
Exam 3	April 17, 2014	25 Points (Top 2 scores count from Exam 1, 2, 3)
Final Exam (The final exam will cover all content throughout the semester including the lectures after Exam 3!)	April 29, 2014 7:45 am – 9:45 am Location: 108 Ernst Bessey Hall	30 Points

Other Expectations:

- **All written communication** will be written in a professional manner.
- If you have any problems, questions, or concerns with a grade that you have received and wish to discuss your grade, you must make contact with your instructors within **two-class sessions** after assignments are returned or grades have been posted on D2L.
- It is expected that all cell phones will be turned off during each class. It is expected that all laptop computers and other personal devices will be used for classroom purposes only.
- If you register for the course late, please meet with your instructor within the **first two class periods that you are in class** to discuss how you will make up any missed assignments. It is **your responsibility** to contact the instructor.
- **Extra credit is NOT given** in this course. Your final point score dictates your final grade.

Academic Integrity:

- This instructor adheres to the MSU Academic Integrity Policy. All work completed in this class must be completed individually. **There are no group assignments in this class.** Please refer to the Ombudsman Office for more information. http://www.msu.edu/unit/ombud (Click on Academic Honesty)

Grading Policy:	**Points:**	200 – 180 = 4.0 (90% and above)
		179 - 170 = 3.5 (85%-89%)
		169 - 160 = 3.0 (80% - 84%)
		159 – 150 = 2.5 (75% - 79%)
		149 - 140 = 2.0 (70% - 74%)
		139 – 130 = 1.5 (65% - 69%)
		129 - 120 = 1.0 (60% - 64%)

*An Incomplete will only be given only in instances of extreme need in consultation with the instructor and when the student has completed at least 80% of the course requirements.

Importance of SIRS Forms:

- Michigan State University takes seriously the opinion of students in the evaluation of the effectiveness of instruction, and has implemented the SIRS (Student Instructional Rating System) process to gather student feedback. This course utilizes the “online SIRS” system. You will receive an e-mail sometime during the last two weeks of class asking you to fill out the SIRS online form at your convenience.

- Please note: the final grade for this course will **NOT** be accessible on STUINFO during the week following the submission of grades for this course **UNLESS** the SIRS online form has been filled out. You will have the option on the online SIRS form to decline to participate in the evaluation of the course –we hope, however, that you will be willing to give us your frank and constructive feedback so that we may instruct students even better in the future.

Miscellaneous:

- **Honor students** are to contact the instructors by **Tuesday, March 25, 2014** with a paragraph proposal on their honors project. Your instructor will confirm the acceptance of the project in writing. A more detailed explanation (with draft submission due dates and instructions) will be posted on D2L. **All Honors Projects are due to the course instructor via hard copy on April 22, 2014 at the beginning of class.**
- **Accommodations** for students can be made. Please submit your accommodations memo early in the semester. Contact can be made with the Resource Center for Persons with Disabilities by 353-9642 (voice) or 355-1293 (TTY).
- It is the instructors right to change the syllabus if needed during the semester. Any changes will be announced in class and posted on D2L in the Announcements section.

Unit One: Building Your Financial Foundation

Unit Objective:
The student will describe her/his strengths and weaknesses as a money manager.

Unit One Assignments/Due Dates:
- Assignment #3 - Option A: Pre Assessment - Survey – **(**Available: January 9 – 21, 2014)
- Discussion Question #1 (Initial Post and Response: January 21, 2014)
- Assignment #1 – Due by January 28, 2014
- Exam #1 – January 30, 2014

January 9- Thursday:
Topic: Class Overview

January 14 - Tuesday:
Topic: Financial Statements
Reading: pg. 1-6, Chapter 3, and pg. 224

January 16 - Thursday:
Topic: Savings
Reading: pg. 16-21 and Chapter 5

January 21 - Tuesday:
Topic: Credit I
Reading: pg. 47, pg. 170-190, and Chapter 7
Discussion Question #1 due by 10:20 am
- Assignment #3 - Option A: Pre-Assessment - Emerging Adult Survey (Available: January 9 – 21)

January 23 – Thursday:
Credit II

January 28 – Tuesday:
Topic: Finances and the Economy/Alternative Financial Sectors
Reading: pg. 6-15/ pg. 185
Assignment #1 due – Personal Financial Plan

January 30 - Thursday:
Exam #1
- Bring: Pencils and Calculators
- NO Cell Phone Calculators Allowed/NO Sharing of Calculators Allowed

Unit Two: Understanding Your Investments

Unit Objective: The student will identify the characteristics of various financial instruments and their use in a personal finance plan.

Unit Two Assignments/Due Dates:
- Discussion Question #2 (Initial Post and Response: February 18, 2014)
- Assignment #2- Investment Retirement Analysis (February 25, 2014)
- Exam #2 (February 27, 2014)

February 4 - Tuesday:
Topic: Stocks I
Reading: Chapter 13 and pg. 413-431

February 6 - Thursday:
Topic: Stocks II

February 11 - Tuesday:
Topic: Bonds
Reading: pg. 411-413 and 439-449

February 13 - Thursday:
Topic: Mutual Funds I
Reading: Chapter 15

February 18 - Tuesday:
Topic: Mutual Funds II and ETF's
Discussion Question #2 due by 10:20 am

February 20 - Thursday:
Topic: Retirement I
Reading: pg. 24-27, pg. 44-46 and Chapter 17

February 25 - Tuesday:
Topic: Retirement II
Assignment #2 Due: Investment Retirement Analysis

February 27 – Thursday:
Exam #2
- Bring: Pencils and Calculators
- NO Cell Phone Calculators Allowed/NO Sharing of Calculators Allowed

March 4 and March 6 – No School- Spring Break

Unit Three: Family Financial Planning

Unit Objective: The student will apply his/her new knowledge of financial instruments to individual and family situations across the life cycle.

Unit Three Assignments/Due Dates:

- Discussion Question #3 (Initial Post and Response: March 25, 2014)
- Assignment #3 - Option B: Case Study Analysis (April 15, 2014) **or** Option A: Post Assessment of the Emerging Adult Financial Capability Survey (between April 15th – 22nd)
- Exam #3 (April 17, 2014)

March 11 - Tuesday
Topic: Education and Families: College Planning
Reading: pg. 127; 152; 174; 209; 343

March 13 - Thursday
Topic: Education and Families: Student Loans
Reading: pg. 177-178
Guest Speaker: Judy Marks, MSU Office of Financial Aid

March 18 - Tuesday
Topic: Housing 1
Reading: Chapter 9

March 20 - Thursday
Topic: Housing 2

March 25 - Tuesday
Topic: Families in Crisis: Housing Crisis
Reading: pg. 46-47
Discussion Question #3 due 10:20 am

March 27 - Thursday
Topic: Families in Crisis: Unemployment/Underemployment and Bankruptcy
Reading: pg. 190-191

April 1 - Tuesday
Family Financial Management: Marriage and Divorce/ Culture and Money
Reading: pg. 183, pg. 363, pg. 561

April 3 – Thursday:
Topic: Family Protection of Assets - Auto/Health/Life Insurance
Reading: Chapter 10, 11, and 12
Guest Speaker: Mike Krauch, MSU Extension

April 8 – Tuesday:
Topic: Family Protection of Assets - Estate Planning
Reading: Chapter 18
Guest Speaker: TBA

April 10 – Thursday:
Topic: Taxes 1
Reading: pg. 15 and Chapter 4

April 15 - Tuesday
Topic: Taxes 2
- Assignment #3 - Option A: Post Assessment - Emerging Adult Survey - (Available April 15 - April 22)

- Assignment #3 – Option B: Case Study Analysis

April 17 - Thursday
- Exam #3

- Bring: Pencils and Calculators
- NO Cell Phone Calculators Allowed/NO Sharing of Calculators Allowed

April 22 – Tuesday:
Topic: Where to go for help? - Investment Professionals & Trading Options/Financial Fraud
Reading: pg. 27-28 and pg. 432-439
Guest Speaker: Amanda Talbot, Doctoral Student HDFS, MSU and Pam Boyce, BASE Financial

April 24 – Thursday:
Topic: Review – It's Final Exam Time! What does it all mean?

April 29, 2014 – Tuesday:
FINAL EXAM 7:45 am – 9:45 am Location: 108 Ernst Bessey Hall

APPENDIX D

Syllabus
Personal Finance
HDFS 238 – Summer 2014

Section 730

Course Instructor:
Ms. Amanda Guinot Talbot
Doctoral Candidate, HDFS
Email: guinotam@msu.edu
Office Hours: By Appointment via E-Mail

Teaching Assistant:
Ms. Camaya Wallace Bechard
Doctoral Student, HDFS
Email: walla337@msu.edu
Office Hours: By Appointment via E-Mail

Course lectures will feature your course instructor and Ms. Erica Tobe (another course instructor for HDFS 238). All questions should be directed to Ms. Amanda Guinot Talbot or Ms. Camaya Wallace Bechard for this course via email on D2L

Course Description:
- Strategies, techniques and resources useful in the management of Personal Finance.

Course Objectives:
- Students will know their strengths and weaknesses as a manager of money.
- Students will be introduced to the characteristics of various financial instruments and their use in a financial plan.
- Students will apply their new knowledge of financial instruments to individual and family situations across the life cycle.

Required Reading:
Garman, E. T., & Forgue, R. E. (2010). Personal Finance. Australia: South-Western Cengage Learning.

The book is in the assigned reading section of the Main Library, West, second floor.

Desire2Learn (D2L):
- D2L is the main communication tool for this class. You are responsible to acquire **all** course information through D2L. Please check often for announcements and scores for assignments. http://d2l.msu.edu
- For help with D2L and questions, please call the MSU Distance Learning Services at 517-355-2345 or 800-500-1554
- The recommended browsers for use with the current D2L system can be found at the following website: http://help.d2l.msu.edu/

Access to Course Content:
Most content will use lectures that were developed in previous years on Adobe Presenter, Camtasia, or similar software. It is recommended that you have broad-band (high speed) Internet connection. You also

will need speakers and volume control. If you are unable to meet the technology requirements for this course, it may result in the need for you to take this course either Fall or Spring semester on campus.

Course Requirements: There are five main requirements for this course. All requirements listed below are to be turned in to D2L by the associated **due dates at 11:50 p.m. (eastern standard time).** All assignments listed below have their associated directions posted on D2L (Content tab). It is your responsibility to read and adhere to the assignment directions and grading rubric.

1) Syllabus Quiz (5 Total Points, 2.5% of your final grade)
For this assignment you will be asked to read and thoroughly review the course syllabus before completing a 10-question assessment worth 5 points. You will only have **15 minutes** to complete the quiz and you are only allowed **one submission** (see Quizzes below for more information on the set-up of course assessments). This quiz must be completed by **Monday, May 19, 2014**.

2) About Me – Introductory Post (5 Total Points, 2.5% of your final grade)
This assignment will help us get to know one another and become oriented with the D2L system. Please post a short introduction to your group (see Group Discussions below for more information on the group process)**, due by Monday, May 19, 2014 (initial post to group) AND by Monday, May 26, 2014 (response to a group member's post)**.

3) Group Discussions (40 Total Points, 15% of your final grade)
All students have been randomly assigned a group within the D2L course management system. You will receive an email at the open of the course listing your group assignment. The master list also will be posted on D2L. It is your responsibility to know your group assignment, as they will serve as your discussion group for the duration of the course.

Group Discussion questions will occur on D2L and will be in response to questions posed by the course instructor. Group Discussion questions can be found under the Communication tab (Discussions). Discussion question responses should adequately answer each aspect of the question. A good response will not only answer a particular question but also provide detail to support your response. As an example, detail can include a definition of terms or your reasoning/support for your argument. Posts should be composed using proper grammar and include complete sentences.

Group Discussion #1 (20 points)
- Due Dates:
    - Initial post—Monday, June 2, 2014
    - Response post—Monday, June 9, 2014

Group Discussion #2 (20 points)
- Due Dates:
    - Initial post—Monday, June 16, 2014
    - Response post—Wednesday, June 25, 2014

4) Assignments (60 total points, 30% of your final grade)
There will be three assignments due for this course. See posted assignment directions on D2L (Content).

- **Assignment #1:** **Credit Report Analysis** (20 points) Due: Monday, May 26, 2014
- **Assignment #2:** **Mutual Fund Analysis** (20 points) Due: Monday, June 9, 2014
- **Assignment #3:** **See Option A or B below** (20 points) Due: See Below

For Assignment #3: You will have the choice to complete Option A or Option B.

Option A: The Financial Capability Survey. This survey will take approximately 60-90 minutes to complete and must be **completed twice**–during the first unit of the semester and the last unit of the semester. The survey will ask questions about your financial attitudes, behaviors, knowledge, influences on financial literacy, experiences in relationships with others, and demographic characteristics (e.g., age, gender). **You must be between 18-24 years of age to participate**. Any responses you offer during the survey will be combined with others, making your response confidential, and your privacy will be protected to the full extent allowable by the law. Identifying information (e.g., name, PID) will **not** be attached to any of your individual responses when reporting results from the surveys. More information will be posted on D2L (Content).

Due Dates for Option A: Monday, May 26, 2014 **AND** Wednesday, June 25, 2014 **(survey must be taken by both dates to receive credit)**

Option B: The Case Study Analysis. For this assignment, you will provide recommendations to a family based on their current financial information. A variety of personal financial topics (e.g., budget, savings, investing, household financial planning) that are covered over the course of the semester will need to be addressed in your analysis. To access the Case Study assignment directions, please visit our course page on D2L (Content).

Due Date for Option B: Wednesday, June 25, 2014

Format for All Assignments: All papers/assignments are due on the due date or earlier. All papers are to be submitted via Dropbox (under the Assessments tab) on D2L. Late papers are accepted without point penalty by **prior discussion only**. Late papers accepted without prior discussion are penalized **2 points for each day** they are late.

Paper format should follow the rubric as outlined in each of the assignment directions (posted under Content tab). All papers should be: typed (not handwritten), double spaced, one-inch margins, and use 12-point font. Assignments that do not follow the rubric criteria will be marked down.

Please note: All units will close at **11:50 p.m. (eastern standard time - EST)** the night the assignments are due, therefore you will **not** be able to post assignments or take online quizzes on D2L once the unit closes!

5) Quizzes (90 total points, 50% of your final grade)
There will be six quizzes, consisting of 20 questions, worth 15 points each. You will only have **30 minutes** to complete each quiz, and you are only allowed **one submission** per quiz meaning you can only log into the quiz once and you must complete the quiz in one setting. You will not be allowed to go back to previous questions in the quiz after you answer each question in the quiz. Quizzes can be accessed under the Assessments tab (Quizzes). Make sure you have plenty of time in your day set aside to complete each

quiz and that your internet connection is strong. For problems with D2L during the quiz, please contact MSU Distance Learning Services (contact information located on pg.1).

- Unit One:
  - Quiz #1 (after Fin. Statements – Bankruptcy) – Monday, May 26, 2014
  - Quiz #2 (after Credit) – Monday, May 26, 2014

- Unit Two:
  - Quiz #3 (all topics in Unit 2) – Monday, June 9, 2014
  - Quiz #4 (all topics in Unit 2) – Monday, June 9, 2014

- Unit Three:
  - Quiz #5 (Insurance, Housing, Taxes) – Wednesday, June 25, 2014
  - Quiz #6 (Family Fin. Mgt. and Estate Planning) – Wednesday, June 25, 2014

Grading Policy:	200 – 180 = 4.0 (90% and above)	149 – 140 = 2.0 (70% - 74%)
	179 – 170 = 3.5 (85%-89%)	139 – 130 = 1.5 (65% - 69%)
	169 – 160 = 3.0 (80% - 84%)	129 – 120 = 1.0 (60% - 64%)
	159 – 150 = 2.5 (75% - 79%)	

*An Incomplete will be given only in instances of emergency or extreme need, and when the student has completed at least 80% of the course requirements. Discussion with your course instructor is necessary before an incomplete is granted.

Additional Resources:
Having trouble understanding a concept? Need an idea explained in a different way? Check Additional Resources for help. This section of our course is there to help provide additional information along the major topics we cover throughout the semester (e.g., credit, stocks, estate planning). Within the master folder there are content specific folders with associated resources. These resources may include: video clips (humorous and helpful), articles, and guides that are posted for your aid and enrichment. This will periodically be updated and your course instructor will announce when something new has been added.

Personal Finance in the News:
This section of our course is intended to create a connection with the world of finance. Here you are able to keep up-to-date on interesting past and current financial events. Apply the knowledge you are learning toward the reading and comprehension of these articles. The articles posted provide general financial information as well as current events. Please send any interesting and applicable articles you find to be posted for the class.

Other Expectations:
- **All written communication** will be written in a professional manner.
- If you have any problems, questions, or concerns with a grade that you have received and wish to discuss your grade, you must make contact with your instructor within **the close of the following unit (e.g., a question concerning a grade for unit one must be discussed before unit two closes).**
- **All Assignments will be submitted and/or posted via D2L.** Emailed assignments without previous discussion with your instructor and permission will not be accepted.
- The course gradebook will be kept and updated on D2L. It is your responsibility to frequently check D2L and your assignment grades in the gradebook.

Miscellaneous:
- There are no official study guides for this course.
- **Honor students** are to contact the instructors by **Friday, June 6, 2014** with a paragraph proposal on their honors project. The instructors will confirm the acceptance of the project with required revisions in writing.
- **Accommodations** for students can be made. Please submit your accommodations memo early in the semester. Contact can be made with the Resource Center for Persons with Disabilities by 353-9642 (voice) or 355-1293 (TTY).
- **Extra credit is NOT given** in this course. Your final point total dictates your final grade.

Academic Integrity:

- These instructors adhere to the MSU Academic Integrity Policy. Please refer to the Ombudsman Office for more information. http://www.msu.edu/unit/ombud (Click on Academic Honesty). **Please see Appendix A (page 9) for examples of academic misconduct.**

Importance of SIRS Forms:

Michigan State University takes seriously the opinion of students in the evaluation of the effectiveness of instruction, and has implemented the SIRS (Student Instructional Rating System) process to gather student feedback. This course utilizes the "online SIRS" system. You will receive an email sometime during the last two weeks of class asking you to fill out the SIRS online form at your convenience.

Please note: the final grade for this course will NOT be accessible on STUINFO during the week following the submission of grades for this course UNLESS the SIRS online form has been filled out. You will have the option on the online SIRS form to decline to participate in the evaluation of the course – we hope, however, that you will be willing to give us your frank and constructive feedback so that we may instruct students even better in the future.

HDFS 238
Summer Session A – Section 730
Course Schedule

Unit One: Building Your Financial Foundation
Opens Monday, May 12, 2014 – Closes Monday, May 26, 2014

Objective for Unit One:
Students will know their strengths and weaknesses as a manager of money.

Unit One Reading:

Financial Statements, Bankruptcy, and Savings	p. 1-20, Ch. 3, Ch. 5
Credit	Ch. 6; p. 192-208

Unit One Assignments/Due Dates:

Syllabus Quiz	Monday, May 19, 2014
"About Me" Introduction to Class	**Initial post**—Monday, May 19, 2014 **Response post**—Monday, May 26, 2014
Credit Report Analysis	Monday, May 26, 2014
Quiz #1 (after Fin. Statements - Bankruptcy)	Monday, May 26, 2014
Quiz #2 (after Credit)	Monday, May 26, 2014
Assignment #3 – Option A Online Assessment	Monday, May 26, 2014

*Students must complete Option A first submission (1 of 2 total submissions) by this date to receive full credit for Option A at the end of the semester

Unit Two: Understanding Your Investments
Opens Friday, May 23, 2014 – Closes Monday, June 9, 2014

Objective for Unit Two:
Students will be introduced to the characteristics of various financial instruments and their use in a financial plan.

Unit Two Reading:

Bonds, Stocks, and Mutual Funds	Ch. 13, 14, and 15
Investment Professionals	p. 27-28 and p. 432-439
Retirement	p. 22-25; Ch. 17

Unit Two Assignments/Due Dates:

Group Discussion #1	**Initial post**—Monday, June 2, 2014 **Response post**—Monday, June 9, 2014
Mutual Fund Analysis Paper	Monday, June 9, 2014
Quiz #3 (all topics in Unit 2)	Monday, June 9, 2014
Quiz #4 (all topics in Unit 2)	Monday, June 9, 2014

Unit Three: Family Financial Planning

Opens Friday, June 6, 2014 – Closes Wednesday, June 25, 2014

Objective for Unit Three:
Students will apply their new knowledge of financial instruments to individual and family situations across the life cycle.

Unit Three Reading:

Insurance	Ch. 10,11, and 12
Housing	Ch. 9
Taxes	p. 14; Ch. 4
Family Financial: Marriage/Divorce	p. 180; p. 361
Family Financial: College Planning	p. 127; 152; 174; 209; 343
Family Financial: Unemployment	p. 46-47
Estate Planning	Ch. 18

Unit Three Assignments/Due Dates:

Group Discussion #2	**Initial post**—Monday, June 16, 2014
	Response post—Wednesday, June 25, 2014
Quiz #5 (Insurance, Housing, Taxes)	Wednesday, June 25, 2014
Quiz #6 (Family Fin. Mgt. and Estate Plan.)	Wednesday, June 25, 2014
Assignment #3 Option A or Option B	Wednesday, June 25, 2014

*Students must complete Option A second submission by this date or Option B if Option A was not completed during Unit 1 to received credit

HDFS 238
Summer Session A – Section 730
Appendix A

Academic Misconduct:

- Using work or answers that are not your own
- Providing academic work or answers to another person
- Accepting or providing unauthorized assistance with completing assignments or examinations
- Failing to cite others ideas, theories, or written work when used in an assignment
- Interfering through any means with another's academic work
- Fabricating or falsifying research data or results

Plagiarism:

- Copying sentences or phrases from the work of another without citation
- Changing a few words in a sentence that was written by another and claiming it as your own original work
- Using someone else's original idea without citation
- Failing to reference the source of data or facts
- Submitting a borrowed, purchased, or downloaded paper as your own work

Taken from Academic Integrity: A Core Value at Michigan State-Office of the Associate Provost for Undergraduate Education

APPENDIX E

Financial Knowledge – EAFCS Survey Questions

Credit/Debt – *Consumer Credit Basics*

Q43 If a consumer fails to pay personal debts, a creditor is allowed to do all of the following EXCEPT:
1. **Discuss the consumer's debts with his or her employer (1)**
2. Bring suit against the consumer (0)
3. Tell a credit bureau that the account is delinquent (0)
4. Turn the account over to a professional debt collector (0)

Q48 Under which of the following circumstances would it be financially beneficial to you to borrow money to buy something now and repay it with future income?
1. **When you need to buy a car to get a much better paying job (1)**
2. When you really need a week vacation (0)
3. When some clothes you like go on sale (0)
4. When the interest on the loan is greater than the interest you get on your savings (0)

Q55 The difference between a debit card and a credit card is:
1. The liability is greater with the debit card if lost or stolen (0)
2. The money comes directly out of your bank account (0)
3. There is no grace period (0)
4. No interest is charged when using an ATM debit card (0)
5. **All of the above (1)**

Q52 Barbara has just applied for a credit card. She is an 18-year old high school graduate with a few valuable possessions and no credit history. If Barbara is granted a credit card, which of the following is the most likely way that the credit card company will reduce ITS risk?
1. It will make Barbara's parents pledge their home to repay Barbara's credit card debt (0)
2. It will require Barbara to have both parents co-sign for the card (0)
3. It will charge Barbara twice the finance charge rate it charges older cardholders (0)
4. **It will start Barbara out with a small line of credit to see how she handles the account (1)**

Credit/Debt – *Interest Rates*

Q50 If a credit card account has a balance carried over from the previous month, interest charges accrue:
1. **From the beginning of the statement period (1)**
2. One month after the date of the purchase (0)
3. After a 2-week grace period (0)
4. After a 2-month grace period (0)

Q51 Which of the following statements is TRUE about the annual percentage rate (APR)?
1. APR is the actual rate of interest paid over the life of the loan (0)
2. APR is a good measure of comparing loan costs (0)
3. APR takes into account all loan fees (0)
4. **All of the above (1)**

5. None of the above (0)

Q54 Which of the following credit card users is likely to pay the GREATEST dollar amount in finance charges per year, if they all charge the same amount per year on their cards?
1. Jessica, who pays at least the minimum amount each month, and more when she has the money (0)
2. Vera, who generally pays off her credit card in full but, occasionally, will pay the minimum when she is short of cash (0)
3. Megan, who always pays off her credit card bill in full shortly after she receives it (0)
4. **Erin, who only pays the minimum amount each month (1)**
5. Jessica and Erin pay the same (0)

<u>Credit/Debt – *Credit Score & Report*</u>

Q34 Which of the following statements best describes your right to check your credit history for accuracy?
1. **Your credit record can be checked once a year for free (1)**
2. You cannot see your credit record (0)
3. All credit records are the property of the U.S. Government and access is only available to the FBI and Lenders (0)
4. You can only check your record for free if you are turned down for credit based on a credit report (0)

Q35 What does a credit bureau do?
1. Approves applications for credit (0)
2. Informs applicants of the reasons for denial of credit (0)
3. Extends credit to qualified applicants (0)
4. **Provides creditors with reports of consumers' bill-paying (1)**

Q36 Which of the following cannot legally access your credit report?
1. Creditors (0)
2. Employers (0)
3. Apartment rental agencies (0)
4. Insurance companies (0)
5. **All of the above can access your credit report (1)**

<u>Credit/Debt – *Credit Law*</u>

Q53 If your credit card is stolen, and the thief runs up a total debt of $1000, but you notify the issuer of the card as soon as you discover it is missing, what is the maximum amount that you can be forced to pay according to Federal law
1. $500 (0)
2. $1000 (0)
3. Nothing (0)
4. **$50 (1)**

<u>Credit/Debt – *Loan Basics*</u>

Q192 A 15-year mortgage typically requires higher monthly payments than a 30-year mortgage, but the total interest paid over the life of the loan will be less.

1. **True (1)**
2. False (0)

Q46 If you co-sign a loan for a friend, then you:
1. Become eligible to receive part of the loan principle (0)
2. Vouch for the friend's reliability but have no legal obligation for the loan (0)
3. **Are responsible for repaying the loan if the friend defaults (1)**
4. Are in better position to get a personal loan (0)

Credit/Debt – *Student Loans*

Q187 Students with student loans have___after graduation until they have to begin to make payments on their student loans
1. 1 month (0)
2. **6 months (1)**
3. 1 year (0)
4. Depends on your income (0)

Savings/Investing – *Savings Basics*

Q28 Many savings programs are protected by the Federal government against loss. Which of the following is not?
1. A U.S. Savings Bond (0)
2. A certificate of deposit (0)
3. **A bond issued by one of the 50 states (1)**
4. A U.S. Treasury Bond (0)

Q31 Which asset is the least liquid (has the lowest liquidity)?
1. Savings account (0)
2. Money market account (0)
3. Money in a safe deposit box (0)
4. **Certificate of deposit (1)**

Hypotheses 3a, 3c, 6a

Q39 Net worth is:
1. The difference between expenditures and income (0)
2. **The difference between liabilities and assets (1)**
3. The difference between cash inflow and outflow (0)
4. The difference between borrowings and savings (0)
5. None of the above (0)

Savings/Investing – *Savings Interest Rate*

Q25 Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, how much would you be able to buy with the money in this account?
1. More than today (0)
2. Exactly the same (0)
3. **Less then today (1)**

Q30 Rob and Molly are the same age. At age 25 Rob began saving $2000 a year for 10 years and then stopped at age 35. At age 35, Molly realized that she needed money for retirement and started saving $2000 per year for 30 years and then stopped at age 65. Now they are both 65 years old. Who has the most money in his or her retirement account (assume both investments have the same interest rate)?
1. Molly, because she saved more money overall (0)
2. **Rob, because his money has grown for a longer period of time (1)**
3. They would each have about the same amount (0)
4. Unable to determine with information provided (0)

<u>Savings/Investing – *Inflation*</u>

Q24 Which of the following types of investment would best protect purchasing power of a family's savings in the event of a sudden increase in inflation?
1. A 10-year bond issued by a corporation (0)
2. A certificate of deposit at a bank (0)
3. A 25-year corporate bond (0)
4. **A house financed with a fixed-rate mortgage (1)**

Q38 Inflation can cause difficulty in many ways. Which group would have the greatest problem during periods of high inflation that last several years?
1. Older, working couples saving for retirement (0)
2. **Older people living on a fixed income (1)**
3. Young couples with nor children who both work (0)
4. Young working couples with children (0)

<u>Savings/Investing – *Investing Basics*</u>

Q21 The figure that best reflects a mutual fund's performance over a period of years is
1. Its current yield (0)
2. The total dividends and capital gains it has paid (0)
3. **Its total return (1)**

Q22 You invested $1,000 in a stock two years ago. The stock's trading price declined 40% the first year and rose 40% the next. As a result, you have
1. Lost Money (0)
2. Made Money (0)
3. **Broken Even (1)**

Q26 How much money do experts recommend that you set aside in a short term fund for emergencies?
1. 3-6 months of your income (0)
2. **3-6 months of your expenses (1)**
3. Enough until you can find another job (0)
4. You don't need an emergency fund because you can qualify and receive unemployment (0)

<u>Savings/Investing – *Investing Risk*</u>

Q189 In most cases, the lower the expected rate of return on an investment, the lower the risk

1. **True (1)**
2. False (0)

Q19 A high-risk, and high return investment strategy would be most suitable for
1. An elderly retired couple living on a fixed income (0)
2. A middle aged couple needing funds for their children's education in two years (0)
3. **A young married couple without children (1)**
4. All of the above because they all need high return (0)

Q20 Which of the following combination of investments is most risky?
1. A mutual fund containing 80%stocks and 20% bonds (0)
2. A mutual fund containing 80% bonds and 20% stocks (0)
3. An index fund (like the S&P 500) (0)
4. **Stock in a single company (1)**

Q27 Rebecca has saved $12,000 for her college expenses by working part-time. Her plan is to start college next year and she needs all of the money she saved. Which of the following is the best place for her college money?
1. Locked in her closet at home (0)
2. Stocks (0)
3. Corporate Bonds (0)
4. **A bank savings account (1)**

Savings/Investing – *Retirement*

Q18 Assume you are in your early twenties and you would like to build up your nest egg for a secure retirement in 30 years. Which of the following tends to have the highest growth over periods of time as long as 30 years.
1. Savings account (0)
2. Checking account (0)
3. Certificates of deposit account (0)
4. **Put monthly savings in a diversified growth mutual fund (1)**
5. Long-term Treasury bonds (0)
6. Money in a safe-box rented from a local bank (0)

Financial Knowledge Scoring

- 29 total questions
    - C/D = 14 questions
    - S/I = 15 questions
- Incorrect answer = 0
- Correct answer = 1
- Sum the scores in each section (C/D and S/I)
- Scoring range for each section 0-14 (C/D), 0-15 (S/I)

Table 1
Knowledge Questions & Coding

Question	Answer Choices	Old Coding Scheme	New Coding Scheme
Q43	**Discuss the consumer's debts with his or her employer,** Bring a suit against the consumer, Tell a credit bureau that the account is delinquent, Turn the account over to a professional debt collector	**1**,2,3,4 (bold is correct)	1(correct), 0(incorrect)
Q48	**When you need to buy a car to get much better paying job,** When you really need a week vacation, When some clothes you like go on sale, When the interest on the loan is greater than the interest you get on your savings	**1**,2,3,4	1,0
Q55	The liability is greater with the debt card if lost or stolen, The money comes directly out of your bank account, There is no grace period, No interest is charged when using an ATM debit card, **All of the above**	1,2,3,4,**5**	1,0
Q52	It will make Barbara's parents pledge their home to repay Barbara's credit card debt, It will require Barbara to have both parents co-sign for the card, It will charge Barbara twice the finance charge rate it charges older cardholders, **It will start Barbara out with a small line of credit to see how she handles the account**	1,2,3,**4**	1,0
Q50	**From the beginning of the statement period,** One month after the date of the purchase, After a 2-week grace period, After a 2-month grace period	**1**,2,3,4	1,0
Q51	APR is the actual rate of interest paid over the life of the loan, APR is a good measure of comparing loan costs, APR takes into account all loan fees, **All of the above**, None of the above	1,2,3,**4**,5	1,0

Table 1 (cont'd)

Q54	Jessica, who pays at least the minimum amount each month and more when she has the money, Vera, who generally pays off her credit card in full but occasionally will pay the minimum when she is short of cash, Megan who always pays off her credit card bill in full shortly after she receives it, **Erin, who only pays the minimum amount each month**, Jessica and Erin pay the same	1,2,3,**4**,5	1,0
Q34	**Your credit record can be checked once a year for free,** You cannot see your credit record, All credit records are the property of the US Government and access is only available to the FBI and lenders, You can only check your record for free if you are turned down for credit based on a credit report	**1**,2,3,4	1,0
Q35	Approves applications for credit, Informs applicants of the reasons for denial of credit, Extends credit to qualified applicants, **Provides creditors with reports of consumers' bill-paying**	1,2,3,**4**	1,0
Q36	Creditors, Employers, Apartment rental agencies, Insurance companies, **All of the above can access your credit report**	1,2,3,4,**5**	1,0
Q53	$500, $1,000, Nothing, **$50**	1,2,3,**4**	1,0
Q192	**True**, False	**1**,2	1,0
Q46	Become eligible to receive part of the loan principle, Vouch for the friend's reliability but have no legal obligation for the loan, **Are responsible for repaying the loan if the friend defaults**, Are in better position to get a personal loan	1,2,**3**,4	1,0
Q187	1 month, **6 months**, 1year, Depends on your income	1,**2**,3,4	1,0

Table 1 (cont'd)

Q28	A US savings bonds, A certificate of deposit, **A bond issued by one of the 50 states**, A US treasury bond	1,2,**3**,4	1,0
Q31	Savings account, Money market account, Money in a safe deposit box, **Certificate of deposit**	1,2,3,**4**	1,0
Q39	The difference between expenditures and income, **The difference between liabilities and assets**, The difference cash inflow and outflow, The difference between borrowing and savings, None of the above	1,**2**,3,4	1,0
Q25	More than today, Exactly the same, **Less then today**	1,2,**3**	1,0
Q30	Molly, because she saved more money overall, **Rob, because his money has grown for a longer period of time**, They would each have about the same amount, Unable to determine with information provided	1,**2**,3,4	1,0
Q24	A 10-year bond issued by a corporation, A certificate of deposit at a bank, A 25-year corporate bond, **A house financed with a fixed-rate mortgage**	1,2,3,**4**	1,0
Q38	Older, working couples savings for retirement, **Older people living on a fixed income**, Young couples with no children who both work, Young working couples with children	1,**2**,3,4	1,0
Q21	Its current yield, The total dividends and capital gains it has paid, **Its total return**	1,2,**3**	1,0
Q22	Lost money, Made money, **Broken even**	1,2,**3**	1,0
Q26	3-6 months of your income, **3-6 months of your expenses**, Enough until you can find another job	1,**2**,3	1,0
Q189	**True**, False	**1**,2	1,0
Q19	An elderly retired couple living on a fixed income, A middle aged couple needing funds for their children's education in two years, **A young married couple without children**, All of the above because they all need high return	1,2,**3**,4	1,0
Q20	A mutual fund containing 80% stocks and 20% bonds, A mutual fund containing 80% bonds and 20% stocks, An index fund (like the S&P 500), **Stock in a single company**	1,2,3,**4**	1,0
Q27	Locked in her closet at home, Stocks, Corporate bonds, **A bank savings account**	1,2,3,**4**	1,0
Q18	Savings account, Checking account, Certificates of deposit account, **Put monthly savings in a diversified growth mutual fund**, Long-term treasury bonds, Money in a safe-box rented from a local bank	1,2,3,**4**, 5,6	1,0

APPENDIX F

Financial Attitudes – EAFCS Survey Questions

Credit/Debt and Savings/Investing – *Subjective Financial Knowledge*

Q11 Please rate your understanding of the following topics as Poor, Fair, Good, Excellent.
1. Budgeting (S/I)
2. Compound Interest (S/I)
4. Investing (S/I)
5. Saving for Retirement (S/I)
8. Insurance (S/I)

3. Credit Bureaus (C/D)
6. Student Loans (C/D)
7. Credit Cards (C/D)
    - Poor (1)
    - Fair (2)
    - Good (3)
    - Excellent (4)

New categories: S/I = 5, C/D = 3
Average score taken for each category (C/D and S/I)

Credit/Debt – *Personal Attitudes*

Q9 Please rate your agreement with the following statements.
1. As long as one meets monthly payments there is no need to worry about the length of time it will take to pay off outstanding debts
2. I am confident in my ability to understand loan terms.
3. It is important to understand financial contracts (e.g., apartment leases and loan agreements) before I sign them.
4. I am satisfied with the way I pay my bills
5. I feel credit cards are safe and risk free
6. I am afraid of credit and credit cards
7. The cost of using a credit card is too high
8. I am comfortable with not paying my credit card bills in full each month as long as I make the minimum payment
    - Strongly Disagree (0)
    - Disagree (1)
    - Agree (2)
    - Strongly Agree (3)

Reverse coded: 1, 5, 6, 7
Higher score = better practice

Credit/Debt – *Consumer Credit Practice Evaluation*

Q6 Please identify each of the following as "Good Practice" or "Not Good Practice"
1. Making payments on time
2. Having a high APR credit card
3. Paying off store and other credit cards each month
4. Bouncing checks
5. Having more than 10 credit cards from stores, banks, etc.
6. Owning financial assets
7. Exceeding credit limits
    - Not Good Practice (0)
    - Good Practice (1)

Reverse coded: 2, 4, 5, 7
Higher score = better practice

Savings/Investing – *Personal Attitudes*

Q17 Please rate your agreement with the following statements:
1. Saving money regularly is important
2. I feel satisfied with how I spend my money
3. It is important that I spend less than my income.
4. It is important to keep track of where money is spent
5. Budgets take the fun out of spending.
6. Families should have written financial goals that help them determine priorities in spending
7. A written budget is absolutely essential for successful financial management
8. Keeping records of financial matters is too time consuming to worry about
9. Financial planning is an unnecessary distraction when families are just trying to get by today
    - Strongly Disagree (0)
    - Disagree (1)
    - Agree (2)
    - Strongly Agree (3)

Reverse coded: 5, 8, 9
Higher score = better practice

Financial Attitudes Scoring
- 4 total question
- C/D = Q11 (3 subcategories), Q9 (8 subcategories), Q6 (7 subcategories)
- S/I = Q11 (5 subcategories), Q17 (9 subcategories)

Table 2
Attitudes Questions & Coding

Question	Answer Choices	Old Coding Scheme	New Coding Scheme
Q11	Poor, Fair, Good, Excellent	1,2,3,4	*Scheme stayed the same
Q9	Strongly disagree, Disagree, Agree, Strongly agree	1,2,3,4	0,1,2,3
Q6	Not good practice, Good practice	1,2	0,1
Q17	Strongly disagree, Disagree, Agree, Strongly agree	1,2,3,4	0,1,2,3

APPENDIX G

Financial Behavior – EAFCS Survey Questions

<u>Credit/Debt – *Holdings*</u>

Q97 How many credit cards do you HAVE, including store credit cards?
1. None (0)
2. One (1)
3. Two (2)
4. Three (3)
5. Four (4)
6. Five to Nine (5)
7. Ten or more (6)

Q104 What is the combined total balance owed on your credit cards?
1. $0-$99 (0)
2. $100-$499 (1)
3. $500-$999 (2)
4. $1,000- $1,999 (3)
5. $2,000- $4,999 (4)
6. $5,000 or more (5)
7. Don't know (System Missing)

<u>Credit/Debt – *Behavior*</u>

Q96 Please indicate the frequency with which you engage in the following activities
1. I compare offers before applying for a loan
2. I read over and understand apartment leases and loan agreements before I sign them.
3. I make only minimum payments on a loan
4. I paid all my bills on time in the past year
    - Never (0)
    - Rarely (1)
    - Sometimes (2)
    - Always (3)

Reverse coded: 3
Higher score = better practice

Q103 Thinking about when you obtained your most recent credit card, did you collect information about different cards from more than one company in order to compare them?
1. Yes (1)
2. No (0)

Q99 How many credit cards do you USE, including store credit cards?
1. None (0)
2. One (1)
3. Two (2)
4. Three (3)

5. Four (4)
6. Five to Nine (5)
7. Ten or more (6)

Q101 Which of the following statements best describes the way in which you have made payments on your credit card over the last 12 months?
1. I always pay off the total balance each month (5)
2. I occasionally do not pay off the balance for a month or so when I am short on funds (4)
3. I generally have an outstanding balance, but occasionally am able to pay it off (3)
4. I seldom, if ever, pay off all my balances, but try to pay them down when I can (2)
5. I generally pay only the minimum required payment each month (1)
6. I occasionally make less than the minimum payment (0)

Higher score = better practice

Q102 In the past 12 months have you
1. Cancelled a credit card
2. Been late making a payment
3. Opened a new credit card
4. Missed a credit card payment
5. Transferred the balance from one credit card to another
6. Made a payment that was less than the minimum payment required
7. Been rejected for a new credit card
8. Obtained a cash advance from your credit card company
9. Consolidated your credit card debt into a personal bill consolidation loan
10. Been contacted by a collection agency
11. Maxed out the limit on one or more credit cards
12. Exceeded my credit limit on one or more credit cards
13. None of these

Credit/Debt – *Credit Score*

Q105 What was your credit score the last time you checked?
1. Under 620 (0)
2. 621-660 (1)
3. 661-700 (2)
4. 701-740 (3)
5. Over 740 (4)
6. I have not checked my credit score (System Missing)

Higher score = better practice

Credit/Debt – *Total Debt*

Q174 When you finish your undergraduate education, how much do you expect to owe in TOTAL debt (including student loans, auto loans, credit card debt), not including mortgage debt?
1. $1-$999 (0)
2. $1,000-$1,999 (1)
3. $2,000-$4,999 (2)
4. $5,000-$9,999 (3)

5. $10,000-$19,999 (4)
6. $20,000-$49,999 (5)
7. $50,000-$99,999 (6)
8. $100,000 or more (7)

Higher score = higher total debt levels

Credit/Debt – *Student Loan Debt*

Q93 When you finish your undergraduate education, how much do you expect to owe in student loans?
Nothing
1. $1-$999 (0)
2. $1,000-$1,999 (1)
3. $2,000-$4,999 (2)
4. $5,000-$9,999 (3)
5. $10,000-$19,999 (4)
6. $20,000-$49,999 (5)
7. $50,000-$99,999 (6)
8. $100,000 or more (7)

Higher score = higher total debt levels

Savings/Investing – *Holdings*

Q74 What kind of financial accounts do you have? Mark all that apply

1. I do not have a bank account or investments (System Missing)
2. Savings account (Savings) (1)
3. Checking account (Savings) (1)
4. Money market (Savings) (1)
5. Certificates of deposit (CD) (Savings) (1)
6. Stocks (Investing) (1)
7. Bonds (Investing) (1)
8. Mutual Funds (Investing) (1)
9. IRA/401K (Investing) (1)

11. ETF's (Investing) (1)

10. Other

Sum the score across each category (savings and investing)-one point per holding.

Q80 How much do you have in savings or investments, excluding retirement savings?
1. I don't have savings or investments (0)
2. under $500 (1)
3. $500-999 (2)
4. $1,000-1,999 (3)
5. $2,000-4,999 (4)
6. $5,000-9,999 (5)
7. $10,000-19,999 (6)
8. over $20,000 (7)

Higher score = higher total debt levels

Savings/Investing – *Behavior*

Q77 In the past 2 months, I have ?
1. Saved for a home purchase (1)
2. Saved for an important event (e.g. wedding, vacation) (1)
3. Invested money in a mutual fund, stocks, IRAs or other investments (1)
4. None of the above (0)

Sum the score

Q79 Please indicate how often you have engaged in the following activities.
1. I save or invest money out of each paycheck
2. I contribute money to a savings account used for emergencies only
3. I save for a long-term goals such as a car
4. I contribute money to a retirement account
5. I invest money across more than one type of investment
6. I usually live from paycheck to paycheck
7. I spend less than my income
8. I spend more than I earn
9. I buy things when I can't really afford them
10. I worry about my debt
    - Never (0)
    - Rarely (1)
    - Sometimes (2)
    - Always (3)

Reverse coded: 6, 8, 9, 10

Q115 Please indicate the frequency with which you engage in the following activities
1. I pay for yearly expenses out of current income or savings (not with loans)
2. I use a weekly/monthly budget to track my income and expenses
3. Stayed within your budget or spending plan
4. I maintain adequate financial records
5. I regularly set aside money for large expected expenses (like insurance or taxes)
6. I set aside emergency or rainy day funds that would cover your expenses for 3 months, in case of sickness, job loss, economic downturn, or other emergencies
7. I save receipts for major purchases
8. I ensure all charges to my savings and checking accounts are accurate
9. I review and evaluate my spending habits
10. I overdraw my account and am charged a fee from my bank.
11. I review my total financial situation
    - Never (0)
    - Rarely (1)
    - Sometimes (2)
    - Always (3)

Reverse coded: 10

Q118 Does your household have a savings, checking, or other bank account?
a. Yes (1)
b. No (0)

Higher score = better practice

Q123 Not including retirement accounts does your household have any investments in stocks, bonds, mutual funds, or other securities?
a. Yes (1)
b. No (0)

Higher score = better practice

Financial Behavior Scoring

- 17 total questions
- C/D = 10 questions
- S/I = 7 questions

Table 3
Behavior Questions & Coding

Question	Answer Choices	Old Coding Scheme	New Coding Scheme
Q97	None, One, Two, Three, Four, Five to nine, Ten or more	1,2,3,4,5,6,7	0,1,2,3,4,5,6
Q104	\$0-99, \$100-499, \$500-999, \$1,000-1,999, \$2,000-4,999, \$5,000 or more, Don't know	1,2,3,4,5,6,7	0,1,2,3,4,5,6
Q96	Never, Rarely, Sometimes, Always	1,2,3,4	0,1,2,3
Q103	Yes, No	1,2	1,0
Q99	None, One, Two, Three, Four, Five to nine, Ten or more	1,2,3,4,5,6,7	0,1,2,3,4,5,6
Q101	I always pay off the total balance each month, I occasionally do not pay off the balance for a month or so when I am short on funds, I generally have an outstanding balance, but occasionally am able to pay it off, I seldom if ever pay off all my balances but try to pay them down when I can, I generally pay only the minimum required payment each month, I occasionally make less than the minimum payment	1,2,3,4,5,6	5,4,3,2,1,0

Table 3 (cont'd)

Q102	Cancelled a credit card, Been late making payment, Opened a new credit card, Missed a credit card payment, Transferred the balance from credit card to another, Made a payment that was less than the minimum payment required, Been rejected for a new credit card, Obtained a cash advance from your credit card company, Consolidated your credit card debt into a personal bill consolidation loan, Been contacted by a collection agency, Maxed out the limit on one or more credit cards, Exceeded my credit limit on one or more credit cards, None of these	1,2,3,4,5,6,7,8,9,10,11,12,13	0,1,2,3,4,5,6,7,8,9,10,11,12
Q105	Under 620, 621-660, 661-700, 701-740, Over 740, I have not checked my credit score	1,2,3,4,0	0,1,2,3,4, system missing
Q174	$1-999, $1,000-1,999, $2,000-4,999, $5,000-9,999, $10,000-19,999, $20,000-49,999, $50,000-99,999, $100,000 or more	1,2,3,4,5,6,7,8	0,1,2,3,4,5,6,7
Q93	$1-999, $1,000-1,999, $2,000-4,999, $5,000-9,999, $10,000-19,999, $20,000-49,999, $50,000-99,999, $100,000 or more	1,2,3,4,5,6,7,8	0,1,2,3,4,5,6,7
Q74	I do not have a bank account or investment, Savings account, Checking account, Money market, Certificate of deposit, Stocks, Bonds, Mutual funds, IRA/401k, ETFs	1 = having the account/savings/investment, Empty/0 = no account/savings/investment	*Scheme stayed the same
Q80	I do not have a bank account or investment, Savings account, Under $500, $500-999, $1,000-1,999, $2,000-4,999, $5,000-9,999, $10,000-19,999, Over $20,000	1,2,3,4,5,6,7,8	0,1,2,3,4,5,6,7

Table 3 (cont'd)

Q77	Saved for a home purchase, Saved for an important event (e.g. wedding, vacation), Invested money in a mutual fund, stocks, IRAs or other investments, None of the above	1 = having the account/savings/ investment, Empty/0 = no account/savings/ investment	*Scheme stayed the same
Q79	Never, Rarely, Sometimes, Always	1,2,3,4	0,1,2,3
Q115	Never, Rarely, Sometimes, Always	1,2,3,4	0,1,2,3
Q118	Yes, No	1,2	1,0
Q123	Yes, No	1,2	1,0

APPENDIX H

Parental Financial Experiences & Socialization – EAFCS Survey Questions

Parental Financial Experiences

Q203 Would your parents be considered to be in debt (high debt to income ratio-above 15%)?
1. Yes (1)
2. No (0)

Q204 Has your family been through home foreclosure?
1. Yes (1)
2. No (0)

Q92 Have you or your parents declared bankruptcy in the last two years?
1. Yes (1)
2. No (0)

Q202 Are one of your parents classified as unemployed or underemployed?
1. Yes (1)
2. No (0)

Parental Financial Demographic Characteristics

Q182 What was the highest level of education achieved by your FATHER/MALE GUARDIAN?
1. Don't know (System Missing)
2. Less than high school (0)
3. High school or equivalent (1)
4. Some college (2)
5. Associates/community college degree (3)
6. Bachelor's degree (4)
7. Masters, doctorate, or professional (5)
8. Trade school (6)
9. Military academy (7)

Q183 What was the highest level of education achieved by your MOTHER/FEMALE GUARDIAN?
1. Don't know (System Missing)
2. Less than high school (0)
3. High school or equivalent (1)
4. Some college (2)
5. Associates/community college degree (3)
6. Bachelor's degree (4)
7. Masters, doctorate, or professional (5)
8. Trade school (6)
9. Military academy (7)

Q158 What is your best estimate of your parents'/guardians' total income last year? Consider annual income from all sources before taxes.
1. Less than $20,000 (0)

2. $20,000-$39,999 (1)
3. $40,000-$59,999 (2)
4. $60,000-$79,999 (3)
5. $80,000-$149,999 (4)
6. $150,000 or more (5)
7. Don't know (System Missing)

<u>Credit/Debt – *Parental Financial Socialization*</u>

Q127 Please indicate how often you engage in the following activities:
1. I talk about my credit card use with my parents (1)
2. I keep my credit card use private from my parents (2)
3. I make financial decisions based on what my parents have done in similar situations (3)

<u>General – *Parental Financial Socialization*</u>

Q141 How would you describe how finances were communicated in your family?
1. My parents usually argued about the finances (1)
2. My parents explicitly taught me about finances (e.g., credit cards, debt, budgeting, savings) (4)
3. We didn't talk much about finances but I learned (implicitly) from their examples (3)
4. I didn't learn about finances from my parents implicitly or explicitly (2)

Q128 Please indicate the extent to which you think your parents DIRECTLY/EXPLICITLY taught you about the following topics
1. Budgeting (S/I)
2. Bank accounts (e.g., savings or checking) (S/I)
3. Investing (S/I)
12. Saving (S/I)
15. Distinguishing between needs and wants (S/I)

10. Loans/Debts (C/D)
11. Credit cards (C/D)
5. Building good credit (C/D)

Possible new categories: S/I = 5, C/D = 3

Q129 Please indicate the extent to which you INDIRECTLY OR IMPLICITLY learned the following topics from your parents
1. Budgeting (S/I)
2. Bank accounts (e.g., savings or checking) (S/I)
3. Investing (S/I)
12. Saving (S/I)
15. Distinguishing between needs and wants (S/I)

5. Building good credit (C/D)
10. Loans/Debts (C/D)
11. Credit cards (C/D)

Possible new categories: S/I = 5, C/D = 3

Q205 Overall, I would classify learning from my parents regarding financial matters:
1. Positive (1)
2. Negative (0)
3. Click to write Choice 3

Q206 Overall, I would classify my parents' management of their personal finances:
1. Positive (1)
2. Negative (0)
3. Click to write Choice 3

Parental Financial Experiences & Socialization

- 13 total questions
- Parental Financial Experiences = 4
- Parental Financial Demographic Characteristics = 3
- Parental Financial Socialization = 6

Table 4
Parental Financial Experiences & Socialization Questions & Coding

Question	Answer Choices	Old Coding Scheme	New Coding Scheme
Q203	Yes, No	1,2	0,1
Q204	Yes, No	1,2	0,1
Q92	Yes, No	1,2	0,1
Q202	Yes, mother, Yes, father, No	1,2,3	1,2,0
Q182	Don't know, Less than high school, High school or equivalent, Some college, Associates/community college degree, Bachelor's degree, Masters, doctorate, or professional, Trade school, Military academy		
Q183	Don't know, Less than high school, High school or equivalent, Some college, Associates/community college degree, Bachelor's degree, Masters, doctorate, or professional, Trade school, Military academy		
Q158	Less than $20,000, $20,000-39,999, $40,000-59,999, $60,000-79,999, $80,000-149,999, $150,000 or more, Don't know	1,2,3,4,5,6,7	0,1,2,3,4,5,System missing
Q127	Never, Rarely, Sometimes, Always	1,2,3,4	0,1,2,3
Q141	My parents usually argued about the finances, My parents explicitly taught me about finances (e.g., credit cards, debt, budgeting, savings), We didn't talk much about finances but I learned (implicitly) from their examples, I didn't learn about finances from my parents implicitly or explicitly	1,2,3,4	1,4,3,2
Q128	Never, Rarely, Sometimes, Always	1,2,3,4	0,1,2,3
Q129	Never, Rarely, Sometimes, Always	1,2,3,4	0,1,2,3
Q205	Positive, Negative	1,2	1,0

Table 4 (cont'd)

Q206	Positive, Negative	1,2	1,0

APPENDIX I

Demographics – EAFCS Survey Questions

Q179 What is your gender?
1. Male (0)
2. Female (1)

Q207 Is the current course you are taking required for your major or an elective?
1. required for major (0)
2. an elective (1)
3. other (2)

Q180 What is your academic standing?
1. Freshman (0)
2. Sophomore (1)
3. Junior (2)
4. Senior (3)
5. Graduate Student (4)

Q157 What is the highest level of education you expect to achieve?
1. Associate degree (two-year) (0)
2. Bachelor degree (four-year) (1)
3. Master's degree (2)
4. Doctorate, law, or professional (six-year or more) (3)

Q184 My education is paid by (including who will pay off student loans if applicable)?
1. Self (loans, scholarships, grants, other financial aid) (0)
2. Parents or other family (1)
3. Mostly Self (more than 50%) (2)
4. Mostly parents (more than 50%) (3)
5. 50% self, 50% parents (4)
6. Employer (5)
7. Military (6)

Q182 What was the highest level of education achieved by your FATHER/MALE GUARDIAN?
1. Don't know (System Missing)
2. Less than high school (0)
3. High school or equivalent (1)
4. Some college (2)
5. Associates/community college degree (3)
6. Bachelor's degree (4)
7. Masters, doctorate, or professional (5)
8. Trade school (6)
9. Military academy (7)

Q183 What was the highest level of education achieved by your MOTHER/FEMALE GUARDIAN?
1. Don't know (System Missing)
2. Less than high school (0)
3. High school or equivalent (1)
4. Some college (2)
5. Associates/community college degree (3)
6. Bachelor's degree (4)
7. Masters, doctorate, or professional (5)
8. Trade school (6)
9. Military academy (7)

Q158 What is your best estimate of your parents'/guardians' total income last year? Consider annual income from all sources before taxes.
1. Less than $20,000 (0)
2. $20,000-$39,999 (1)
3. $40,000-$59,999 (2)
4. $60,000-$79,999 (3)
5. $80,000-$149,999 (4)
6. $150,000 or more (5)
7. Don't know (System Missing)

Q159 How do you describe yourself?
1. White or Caucasian (0)
2. Black or African American (1)
3. Hispanic American (2)
4. Asian American (3)
5. American Indian, Alaska Native, or Native Hawaiian (4)
6. Other (5)

Q164 Were you raised in the United States?
1. Yes (1)
2. No (0)

Q6 In which country were you raised?

Q2 In which state were you raised?

Q181 How many years of working experience do you have? (Include full or part-time experience, internships, co-ops, summer jobs, etc.)
1. None (0)
2. Less than 2 years (1)
3. 2 years to less than 4 years (2)
4. 4 years to less than 6 years (3)
5. 6 years or more (4)

Q171 When you start to work full-time after you finish your education, how much do you expect to make per year before taxes (i.e., gross pay)?
1. Under $30,000 (0)
2. $30,000-$39,999 (1)
3. $40,000-$49,999 (2)

4. $50,000-$74,999 (3)
5. $75,000 or more (4)

Q172 Which of the following best describes your major or area of interest in college?
1. Accounting (0)
2. Finance (1)
3. Education (2)
4. Engineering (3)
5. Psychology (4)
6. Sociology (5)
7. Human Development & Family Studies (6)
8. Other (7)

Q173 What is your age?
1. 18-22 (0)
2. 23-25 (1)
3. 26-29 (2)
4. 30-39 (3)
5. 40-59 (4)
6. 60 or older (5)

Demographics

- 16 total questions

Table 5
Demographics Questions & Coding

Question	Answer Choices	Old Coding Scheme	New Coding Scheme
1,2Q179	Male, Female	1,2	0,1
Q207	Required for major, An elective, Other	1,2,3	0,1,2
Q180	Freshman, Sophomore, Junior, Senior, Graduate student	1,2,3,4,5	0,1,2,3,4
Q157	Associate degree (two-year), Bachelor degree (four-year), Master's degree, Doctorate, law, or professional (six-year or more)	1,2,3,4	0,1,2,3
Q184	Self (loans, scholarships, grants, other financial aid), Parents or other family, Mostly self (more than 50%), Mostly parents (more than 50%), 50% self, 50% parents, Employer, Military	1,2,3,4,5,6,7	0,1,2,3,4,5,6
Q182	Don't know, Less than high school, High school equivalent, Some college, Associates/community college degree, Bachelor's degree, Masters, doctorate, or professional, Trade school, Military academy	1,2,3,4,5,6,7,8,9	0,1,2,3,4,5,6,7

Table 5 (cont'd)

Q183	Don't know, Less than high school, High school equivalent, Some college, Associates/community college degree, Bachelor's degree, Masters, doctorate, or professional, Trade school, Military academy	1,2,3,4,5,6,7,8,9	0,1,2,3,4,5,6,7
Q158	Less than $20,000, $20,000-$39,999, $40,000-59,999, $60,000-79,999, $80,000-149,999, $150,000 or more, Don't know	1,2,3,4,5,6,7	0,1,2,3,4,5,system missing
Q159	White or Caucasian, Black or African American, Hispanic American, Asian American, American Indian, Alaska Native or Native Hawaiian	1,2,3,4,5,6	0,1,2,3,4,5
Q164	Yes, No	1,2	1,0
Q6	*Select Country raised		
Q2	*Select State raised		
Q181	None, Less than 2 years, 2 years to less than 4 years, 4 years to less than 6 years, 6 years or more	1,2,3,4,5	0,1,2,3,4
Q171	Under $30,000, $30,000-39,999, $40,000-49,999, $50,000-74,999, $75,000 or more	1,2,3,4,5	0,1,2,3,4
Q172	Accounting, Finance, Education, Engineering, Psychology, Sociology, Human Development and Family Studies, Other	1,2,3,4,5,6,7,8	0,1,2,3,4,5,6,7
Q173	18-22, 23-25, 26-29, 30-39, 40-59, 60 or older	1,2,3,4,5,6	0,1,2,3,4,5

APPENDIX J

Focus Group Informed Consent

Emerging Adult Financial Literacy

Michigan State University
Department of Human Development and Family Studies

Research Participant Information and Consent Form

You have been asked to participate in a research project. Researchers are required to provide a consent form to inform you about the study, to convey that participation is voluntary, to explain risks and benefits of participation, and to empower you to make an informed decision. You should feel free to ask the researchers any questions you have.

Study Title:
Emerging Adult Financial Literacy

Researcher and Title:
Dr. Barbara D. Ames, Principle Investigator
Amanda Guinot Talbot, PhD candidate, Secondary Investigator

Department and Institution:
Human Development and Family Studies, Michigan State University

Contact Information:
Dr. Barbara D. Ames – Phone: (517) 432-3324, E-mail: ames@msu.edu
Amanda Guinot Talbot - Phone: (248) 974-9969, E-mail: guinotam@msu.edu

Purpose of Research:

- You are being asked to participate in a research study of emerging adults' financial capability (knowledge, attitudes, and behaviors) in the areas of credit/debt and savings/investing, and the effectiveness of parental financial socialization.
- You have been selected as a possible participate in this study because you fit the inclusion criteria of the study.
- From this study, the researchers hope to: (a) contribute knowledge and understanding to the issues of emerging adult credit/debt and savings/investing capability; (b) better understand the relationship between credit/debt knowledge, attitudes, and behavior and savings/investing knowledge, attitudes, and behavior; and (c) characterize the role parental financial characteristics play in emerging adults' credit/debt and savings/investing capability.
- Your participation in this study will require 2 hours.

What You Will Do:

- If you agree to participate in this study you will be asked to complete a short demographic survey and participate in the 2-hour focus group session.

Potential Benefits:

- Through your participation the researchers will learn more about emerging adult financial literacy/capability in two timely areas credit/debt and savings/investing. The researchers also will be able to gain information on the influence of parental socialization on the key areas of credit/debt and savings/investing.
- Each participant will be eligible to win a gift card.

Potential Risks:

- Participation in the focus group does not represent risk over and above what one would experience in everyday life. Participants should know that all information is completely voluntary and all identifying information will be kept confidential.
- If for any reason, you experience distress during this study and would like to talk to a couple and family therapy counselor, contact can be made either directly to the MSU Couple and Family Therapy Clinic (517) 432-2272, or through the principle investigator, Barbara Ames, or the secondary investigator, Amanda Guinot Talbot.

Privacy and Confidentiality:

- Identifying information will be kept confidential.
- Names used during the session will be changed to pseudonyms or numerical codes during transcription.
- Your privacy/confidentiality will be protected to the maximum extent allowable by law.
- The results of this study may be published or presented at professional meetings, but the identities of all research participants will remain confidential.
- Data will be kept on a password-protected computer and locked file cabinet. Only the principle and secondary researcher and the university's institutional review board will have access to the research data and research results.

Your Right to Participate, Say No, or Withdraw:

- Participation in this study is completely voluntary. You have the right to say no.
- You may change your mind at any time and withdraw.
- You may choose not to participate at all, or you may refuse to participate in certain parts/questions or discontinue your participation at any time without consequence.
- Refusal to participate will involve no penalty or loss of benefits to which the subject is otherwise entitled.

Audio Recording:

By agreeing to participate you will take part in a focus group session, this session will be audiotaped with your consent. If you agree to be audiotaped, please circle your response and initial in the box below.

I agree to allow audiotaping of the focus group session.	Yes	No	Initials___________

Contact Information for Questions and Concerns:

If you have concerns or questions about this study, such as scientific issues, how to do any part of it, or to report an injury (e.g., physical, psychological, social, financial, or otherwise), please contact the principle investigator Dr. Barbara D. Ames at the Department of Human of Development and Family Studies Room 11, Human Ecology Building East Lansing, MI 48824 1030, through e-mail at ames@msu.edu, or by phone 517-432-3324.
Contact also can be made to the secondary investigator Amanda Guinot Talbot at 248-974-9969 or e-mail at guinotam@msu.edu.

If you have questions or concerns about your role and rights as a research participant, would like to obtain information or offer input, or would like to register a complaint about this study, you may contact, anonymously if you wish, the Michigan State University Human Research Protection Program at (517) 355-2180, Fax (517) 432-4503, e-mail irb@msu.edu, or regular mail at 207 Olds Hall, MSU, East Lansing, MI 48824.

Documentation of Informed Consent:

- Your signature below means that you voluntarily agree to participate in this research study.
- Your consent certifies the following: (a) you are 18 years of age or older, (b) you have read the present document, and (c) your participation is voluntary and that you can withdraw at any time.
- A copy of the informed consent document will be given to you.

____

Signature of Participant

____

Date

Emerging Adult Financial Literacy

Michigan State University
Department of Human Development and Family Studies

Research Participant Consent to Use Direct Quotes

Your signature on this form provides consent to use direct quotes from this focus group session in the publishing and presenting of study results. Your identity will be kept confidential; no identifying information will be used. A false name or a numerical id will be assigned. Only the researchers will know the name or id assigned to you. By signing this form you are giving consent to use direct quotes from this session, and understand that any identifying information will be kept confidential and your privacy will be protected to the maximum extent of the law.

Your signature below indicates your voluntarily consent to the use of direct quotes in presentations and/or publications of this study.

____
Signature of Participant

____
Date

APPENDIX K

Focus Group Demographic Survey

Please fill in the blanks or circle the response that best describes you.

<u>Demographics</u>

1) What is your gender?
   a) Male
   b) Female

2) What is your age?
   a) 18-22
   b) 23-26
   c) 27-30

3) How do you describe yourself?
   a) White or Caucasian
   b) Black or African American
   c) Hispanic American
   d) Asian American
   e) American Indian, Alaska Native, or Native Hawaiian
   f) Other______________________________

4) What is your academic standing?
   a) Freshman
   b) Sophomore
   c) Junior
   d) Senior
   e) Graduate Student

5) Which of the following best describes your major or area of interest in college?
   a) Accounting
   b) Finance
   c) Education
   d) Engineering
   e) Psychology
   f) Sociology
   g) Human Development & Family Studies
   h) Other ____________________________________

6) What is the highest level of education you expect to achieve?
   a) Bachelor degree (four-year)
   b) Master's degree
   c) Doctorate, law, or professional (six-year or more)

Coursework

7) In what semester were you enrolled in Personal Finance (HDFS 238)?
   ____

8) Was the Personal Finance course offered in-person or online?
   a) Face-to-face
   b) Online

APPENDIX L

Focus Group Protocol

This protocol has been created to organize the structure and flow of the focus group sessions from preparation to review of results. There are four phases to each focus group that will be outlined below.

PHASE 1: SET UP

1. Organize Two Focus Groups
    a. Holding multiple focus groups will allow for comparing and contrasting results and identifying common themes.
    b. Identify participants. The goal will be to recruit between 5-8 participants for each group.
    c. Participants will identify as being between 18-30 years of age and will be or have been enrolled in HDFS 238 Personal Finance.
    d. A recruitment email messages will be sent out to past and present Personal Finance students, and a recurring announcement will occur in the Personal Finance course.

2. Draft Questions
    a. Initial, establishing questions have been drafted. At the start of the focus group sessions several questions will be discussed in order to gain baseline information and establish a comfortable atmosphere for further discussion.
    b. After the quantitative data analysis is completed questions related to and in response to the results will be drafted. These questions will analyze the quantitative results, look at perceptions of financial education—both from formal schooling and parental socialization, and implications and suggestions for future research and financial education.

3. Choose a Location
    a. A central campus location will be selected and reserved for both focus group sessions.
    b. The sessions will be scheduled after regular school hours.
    c. The sessions will last approximately two hours.

PHASE 2: FOCUS GROUP SESSION INTRODUCTION

1. Informed Consent
    a. Introduction of moderator.
    b. Review of Informed Consent.
        i. Alert participants of digital audio recording and consent.
        ii. Alert participants to the direct quote consent.

2. Introductions
    a. Participants will introduce themselves. Participants will be reminded that all identifying information will be kept confidential and their privacy will be protected to the full extent of the law.
    b. Participants will be asked to identify themselves by their first name.
        i. Participants will be reminded that all names will be changed to pseudonyms or numerical ids during transcription. No identifying information will be used in the presentation of results.
    c. Participants will be reminded of the focus group guidelines.
        i. Active participation by everyone will be encouraged.
        ii. Basic courtesy will be expected when talking or listening to other participants.
        iii. The sessions will require an environment of respect. Each participant should feel comfortable talking and expressing their thoughts.
        iv. *Any* thoughts, feelings, or ideas are encouraged and welcomed.
        v. Take turns speaking and listening so that everyone has the opportunity to participate.

3. Demographic Survey
    a. Prior to the focus group sessions commencing participants will complete a short demographic survey. This survey will help profile the focus group sample.

4. Establishing Questions
    a. At the start of the focus group sessions several questions will be discussed in order to gain baseline information and establish a comfortable atmosphere for further discussion.
    b. These questions will help profile the sample beyond the basic demographic questions.

PHASE 3: DISCUSSING & INTREPRETING QUANTITATIVE RESULTS

1. Draft Questions
    a. Questions will be created that reflect and respond to the quantitative survey results.

2. Notes
    a. The moderator will take notes on her impressions and any observations made during the focus group sessions.

PHASE 4: CODING & INTERPRETING RESULTS

1. Summary of the Focus Group Sessions
    a. After the conclusion of each session the moderator will write a summary of the session with her impressions and the main themes observed.

2. Transcription
    a. The two focus group sessions will be transcribed verbatim.
    b. Participant names and any other identifiers will be changed to pseudonyms or numerical ids during transcription.

3. Coding
    a. The transcriptions will first be read in full to gain a sense of each session as a whole. During this process, notes will be made, and significant statements and quotes will be flagged.
    b. Significant statements and quotes will be identified and clustered based on relatedness. These common themes will be acknowledged and presented together.

Draft Focus Group Script

Good afternoon/evening. Thank you for being here today/tonight and agreeing to participate in this study of emerging adult financial literacy.

My name is Amanda Guinot Talbot I am a doctoral candidate in the department of Human Development and Family Studies and will be your moderator for this focus group session.

You have been asked to participate in this focus group to discuss emerging adult financial capability in the areas of credit/debt and savings/investing. We will look at the results from a survey assessing emerging adult financial knowledge, attitudes, behavior, and parental influences. I will ask for your thoughts, feelings, and impressions.

First, before we begin, we will review the informed consent. Participation in this focus group session is completely voluntary. Participation will require a signed copy of the informed consent.

READ AND REVIEW THE INFORMED CONSENT

Thank you for your participation today. This session will last two hours and will include questions across three separate sections: general impressions of financial capability, analysis of quantitative results, and educational influences.

For your full participation throughout the entire session you will be eligible to receive a gift card.

Before we begin, lets review some important aspects of this group session:

- This session will be recorded so please speak loudly and clearly to be heard by all participants and on the recording.
- When you speak please state your first name only. During transcription you will be assigned a pseudonym or numerical ids. This will ensure that your privacy is maintained.
- Active participation by everyone is encouraged. *Any* thoughts, feelings, or ideas are encouraged and welcomed.
- Basic courtesy will be expected. When talking or listening to other participants give respect.
- All participants should feel comfortable talking and expressing their thoughts.
- Take turns speaking and listening so that everyone has the opportunity to participate.

Throughout this session I will be here to listen and answer any questions necessary. I am not a participant in the discussion. Please feel free to respond to each other directly.
I will work as the moderator. As moderator it's my responsibility to keep the discussion going. To do this, I may call on people to stimulate discussion or keep balance within the discussion. Remember, it is your right to refuse to answer any question at any time.

I will be taking notes throughout the session.

If it is ok we will start the recording now.

START RECORDING Start time:______________________

Ok let's get started. This is __________(date) at ____________(time) and we are starting focus group session ______(session number)

Lets begin with some general questions.

General

1. How would you classify your level of credit/debt capability (knowledge, attitudes, behavior)?

Prompts: How confident do you feel with your knowledge of credit/debt issues? Do you struggle managing credit/debt? In what areas are you successful and how?

2. How would you classify your level of savings/investing capability (knowledge, attitudes, behavior)?

Prompts: How confident do you feel with your knowledge of savings/investing issues? Do you struggle managing savings/investing? In what areas are you successful and how?

3. What factor do you see as most important to your financial capability (knowledge, attitudes, and/or behavior)? Why?

Prompts: Have you ever thought about your own financial capability? Do you see all three factors (knowledge, attitudes, and behavior) as important in general? Do you see all three factors (knowledge, attitudes, and behavior) as important to you and your financial life?

Results

4. Savings/investing financial attitudes (understanding, agreement of positive savings/investing practices, negative practices, and avoidant responses) influenced the relationship between savings/investing knowledge and behavior. In other words, attitudes bridged the gap between knowledge and behavior. Why do you think this is?

Prompts: What does this mean to you? Do you think financial attitudes are the most powerful force to influence behavior?

5. Financial attitudes did not play as big of a role between credit/debt knowledge and behavior as it did for savings/investing. Why do you think this is?

Prompts: What are the differences you can think of between credit/debt and savings/investing and the attitudes associated with them? Do financial attitudes play a bigger role with savings/investing?

6. Why do you think financial attitudes are so important to financial capability? What role do they play?

Prompts: Is the role and prominence of financial attitudes surprising to you? How would you define financial attitudes? What role do financial attitudes play in your life?

7. When there was a change in student agreement of positive and negative S/I practices there was overall change in behavior. What does this say about financial attitudes? Do you think agreement of the "right" and "wrong" things to do with your money is key to change how you act?

Prompts: Are there any problems or biases here? Can behavior change without a change in attitudes?

8. When time one (pre-test) scores were higher for attitudes and behavior overall change was lower and negative. When time one scores were low overall change was higher. What does this say to you? Why do you think this was not true with knowledge?

Prompts: How long do you think it takes to change your financial knowledge, attitudes, or behavior? Do you think knowledge, attitudes, or behavior could change over the course of a semester? Do they influence one another?

9. High levels of credit/debt knowledge related to positive behavior with bill payments and research of terms and conditions. When knowledge changed this area of behavior changed (payments and research). This was not true for behavior related to holdings (number of cards in possession and utilized) and negative credit behavior (using cash advances, maxing and exceeding limits). Do you think certain aspects of behavior change faster or more easily?

Prompts: Why would these results be mixed? What does this say about financial behavior? What does this say about financial learning and literacy?

10. Explicit (purposeful teaching/learning) parental communication surrounding credit/debt and savings/investing was a stronger influence than implicit (teaching/learning by example) parental teaching. What is your reaction to this? Why do you think this is?

Prompts: What is more powerful in your opinion implicit (teaching/learning by example) or explicit (purposeful teaching/learning) teaching? What do you think is more frequent implicit or explicit parental/familial financial instruction?

<u>Educational Influence</u>

11. Who or what was the greatest influence on your financial capability (knowledge, attitudes, behavior)?

Prompts: Parents, Formal Education, Friends, Media, or Other? Are all sources of financial socialization equally important and influential? Can you provide an example of what you learned and with whom you learned from?

12. Did your parents teach you about finance and/or financial management?

Prompts: Where these lessons implicit (teaching/learning by example) or explicit (purposeful teaching/learning)? In your opinion, what is the greatest financial lesson you have learned from your parents?

13. How would you classify the interactions you had with your parents/family regarding finance?

Prompts: Where these interactions positive, negative, helpful, neutral, or other? If they were positive how or why were they positive? If they were negative how or why were they negative?

14. What are your opinions about financial education at the collegiate level? Is it effective? Why or why not?

Prompts: Would you say you have learned about personal finance through your collegiate studies? What is lacking? What would you add, revise, change? What can we do to make financial education on campus better?

As we conclude, thank you for your time and help with this study. We hope to learn more about college students and their credit/debt and savings/investing capability.

Of all the things we discussed, what to you is the most important?

Are there any further comments? Anything we missed?

Thanks again for you participation.

END RECORDING End time:___________________

APPENDIX M

Focus Group Recruitment Email

Spartans,

- Have you taken or are you currently enrolled in **HDFS 238 personal finance?**
- Are you between the ages of **18-30?**

If you answered **YES** to these questions, here is your opportunity to participate in a research study investigating college student financial literacy.

Participation will include:
- Taking part in a two hour focus group
- Completing a short demographic survey
- You will be eligible to win a gift card
- Free food will be provided at the focus group

Session #1:
Thursday, October 1st
6:00pm – 8:00pm
Room 9 Human Ecology (next to the student union)

Session #2:
Friday, October 2nd
4:00pm – 6:00pm
Room 9 Human Ecology (next to the student union)

If you are interested in participating or would like more information please contact Amanda Guinot Talbot at guinotam@msu.edu
*Please indicate which of the two sessions you would be available

*Participation is completely voluntary and based on a first come first served basis. No personal or financial information will be asked. All information will be kept confidential.

APPENDIX N

Focus Group Recruitment Advertisement

College Student Financial Literacy

- Have you taken or are currently enrolled in HDFS 238 personal finance?
- Are you between the ages of 18-30?

Participate in a research study investigating college student financial literacy!

Session #1:
Thursday, October 1st
6:00pm – 8:00pm
Room 9 Human Ecology (next to the student union)

Session #2:
Friday, October 2nd
4:00pm – 6:00pm
Room 9 Human Ecology (next to the student union)

Participation will include:

- Taking part in a two hour focus group
- Completing a short demographic survey
- You will be eligible to win a gift card
- Free food will be provided at the focus group

If you are interested in participating or would like more information please contact **Amanda Guinot Talbot at guinotam@msu.edu**

APPENDIX O

Table 6
Emerging Adult Financial Literacy Audit Trail

Action Taken	Result
Project Proposal	Proposal was created with general introduction, problem statement, literature review, research questions and hypotheses, and the description of the manuscripts.
Proposal Defense	Defense date was set and the proposal was presented. Following the presentation suggested edits were executed and submitted for review by committee chair. The majority of edits dealt with cutting down the overall study and both manuscripts.
Submitted to Institutional Review Board (IRB)	The IRB application was completed and submitted. The project was submitted as an expedited project and needed few revisions prior to approval.
Exported Data from *Qualtrics* to *Excel*	Semester pre and post-test files were selected, reviewed, and downloaded to *Excel*. In *Excel* data were separated and organized by semester (Fall ’13, Spring ’13, Summer A ’13, Summer B ’13, Summer A ’14, Summer B ’14).
Organized Data in *Excel*	Participants were assigned a unique ID-identifying the semester, year, and participant. Each participant’s pre and post-test were identified and group based on the participant’s ID. Data were prepared to be exported to *SPSS*.
Data Exported to *SPSS*	Data were merged, labeled, grouped according to subscales, and measurement levels were identified.
Data Re-coded	Financial knowledge questions were re-coded to reflect a correct score (1) and an incorrect answer (0). Financial attitudes and behavior questions were re-coded to, when applicable, to reflect a 0-3 scale. All missing data were acknowledged and coded (999). All changes were documented in questions subscales (see Appendices F – J).

Table 6 (cont'd)

Item Response Theory	The current and hypothesized coding schemes for two questions (Q101-credit/debt behavior and Q141-parental socialization) were tested through item response theory. The hypothesized coding schemes were chosen based on the results.
Export Subscales to *Excel*	The organized subscales were each individually exported from *SPSS* to *Excel*. Labels were removed and the separate scales were saved as comma separated value (.CSV) files for use in *Mplus*.
Exploratory Factor Analysis (EFA)	Exploratory factor analysis was performed on each subscale, pre and post. The results of the EFA were reviewed.
Confirmatory Factor Analysis (CFA)	Model fit was tested on multiple models (1-4 factor models) based on the results of EFA to find the best fitting model. Fit was evaluated based on the Comparative Fit Index (CFI) being above .95, the Tucker Lewis Index (TLI) being above .95, the Root Mean Square Error of Approximation (RMSEA) being less than .06, and the 90% RMSEA confidence interval having an upward bound less than .06.
Measurement Invariance	All levels of measurement invariance were tested in a stepwise fashion. Configural, weak, and strong invariance were first tested. If strong invariance was not achieved partial invariance was tested. The steps included: (a) testing configural invariance; (b) testing weak invariance; (c) evaluating the Chi square difference between weak and configural; (d) testing strong invariance; (e) evaluating the Chi square difference between strong and weak; and (f) when applicable, testing partial invariance and the Chi square difference test between partial and configural.
Data Re-organized Into Full Data Set	The full data set was exported to *Excel*. Three questions were re-coded. These questions were a "check all that applies" format. They were recoded to a "1" if applicable and a "0" if not. The full data set was saved without labels and saved as a .CSV and .TXT files for use with *Mplus*.

Table 6 (cont'd)

Latent Change Models	The latent change models (manuscript one, hypotheses 1a, 1b, 2a, and 2b) created were patterned after McArdle (2009). First, subscale latent change scores with and without means were both individually tested and reviewed. The output was reviewed for warning messages. Parameters, variances, model fit, and findings also were reviewed. After each subscale was tested the models were combined, testing the interaction and influence between knowledge and behavior and attitudes and behavior (credit/debt and savings/investing).
Mediation Models	Mediation models (hypotheses 1c and 3c) were created and tested in a stepwise fashion: (a) baseline model with only latent factors was tested, (b) time one cross-lags were added, (c) difference scores and cross lags were added, (d) full model was tested, and (e) an adjusted model with the non-significant pathways removed was tested. This process provided checks of the significant pathways and the level and possible improvement of fit across all models (see Table 1 for fit across all tested models). The fourth, full model was deemed to have acceptable fit. Any improvement of fit within the CFI, TLI, RMSEA, or Chi Square was non-significant. After fit was tested and confirmed the model was re-estimated with a bootstrap of 1,000. The bootstrap provided confidence intervals, which determined if a mediation pathway was possible. This also provided more information than the standard p-value.

Table 6 (cont'd)

Creating Figures and Tables	Figures of each tested model were created displaying all tested pathways and only significant results (estimate and standard error) were provided. Tables were created to display all results, significant and non-significant (estimates, standard error, p-value). For the mediation models the 95% confidence intervals also were provided. For each model, within the tables and figures, both unstandardized and standardized results were provided. The standardized results allow for comparison of model effects across interactions.
Focus Group Recruitment	Recurring recruitment emails begun 9-9-15. Recurring in class (HDFS 238) recruitment announcements begun 9-10-15.
Defense Date	Poll committee for 12/4/15. Defense date was set for 12/4/15 from 2:00 p.m. – 4:30 p.m. in Room 9 (HE).
Room for the Focus Groups	Focus groups scheduled for 10/1/15 (6:00 p.m. – 8:00 p.m.) and 10/2/15 (4:00 p.m. -6:00 p.m.) in Room 9 (HE)
Models Manuscript Two (Hypotheses 1a, 1b, 1c, 2a, 2b, and 2c)	CFA, pre-test, models for parental financial socialization, parental financial experiences, C/D knowledge, attitudes, behavior, and S/I knowledge, attitudes, and behavior were reviewed. Model fit was confirmed and regression models were created.
Regression Models	Regression models with parental financial socialization, parental financial experiences, C/D knowledge, attitudes, behavior, and S/I knowledge, attitudes, and behavior were tested. Results were analyzed and added to figures and tables.
Focus Group Reminders	Three email reminders were set to each participant across both focus group sessions. The reminders went out one week prior to the sessions, during the week of the sessions, and on the day of each session.

Table 6 (cont'd)

Transcription	Each session was professionally recorded for maximum capture and clarity. Two additional recorders were used as insurance that each session would be recorded. After each session the files were downloaded and sent to a professional transcriptionist.
Coding	The coding process followed Creswell (2007). In a thorough and ordered manner each transcript was read and reviewed multiple times. During this time detailed notes were taken. Initial codes were provided and reviewed twice before a codebook was created and used to provide final coding, categories, and subcategories. Finally, a table of the major categories, their subcategories, and significant statements was created to help with review, organization, and the results write-up.

APPENDIX P

Table 7
Focus Group Codebook

Code	Description	Manuscript
Financial Capability		
Estimate of Capability	References to ability, confidence, strengths and weaknesses regarding financial knowledge, attitudes, and behavior in the realm of credit/debt and savings/investing.	1,2
Credit/Debt Management		
Cash vs. Credit	References to the uses, strategies, pros and cons, and emotions of cash and credit.	1
Positive Aspects of Credit	References to the positive aspects of credit and why establishing credit is necessary.	1
Spending Habits	References to thoughts and feelings surrounding the execution of daily, weekly, and monthly spending.	2
Savings/Investing Management		
Saving	References to beliefs and emotions surrounding saving and savings accounts, and the importance of saving both currently and in the future.	1,2
Investing	References to beliefs and emotions surrounding investing and investing accounts.	1
Knowledge, Attitudes, and Behavior		
Relationships	References to the relationship between knowledge, attitudes, and behavior, the directional influence, and dominance of each category.	1
Reactions to Quantitative Results	Responses to select quantitative results- the influence of C/D and S/I attitudes, the role of financial attitudes, change in select areas of C/D and S/I (knowledge, attitudes, and behavior), and the role of explicit parental socialization.	1
The Importance and Developmental Timing of Financial Education		
Age Graded Learning	References to the influence of age and developmental stage on financial teaching and learning.	1,2

Table 7 (cont'd)

Importance of Financial Education	References to the importance of general financial education offered to all students.	1,2
Financial Influence		
Explicit Teaching and Learning	References to explicit, purposeful parental financial socialization—pros, cons, thoughts, and feelings.	2
Implicit Teaching and Learning	References to implicit, observed parental financial socialization—pros, cons, thoughts, and feelings.	2
Parental Capability	References to the effect of parental SES, financial status, education, and understanding on socialization practices.	2
Socialization Source	References to the greatest source of socialization, greatest lessons learned, and evaluation of lessons (positive, negative, neutral).	2
Financial Education		
Course Influence	References to the influence of the personal finance course.	1,2
Cultural Influence	References to cultural differences/adaptations to parental financial socialization.	2
Suggestions for Financial Education	References to suggestions for future financial education (e.g., mandatory financial education, extended financial education offerings, and increased exposure).	1,2
Other		
Selection Bias	References to the increased desire, longing, and level of financial capability with those seeking financial education opportunities.	1,2
Financial Education & University Cost	References to the perceived inconsistency in financial education offerings, cost of education, debt (student loans), and the university mission.	1

APPENDIX Q

Table 8
Participant Numbers & Pseudonyms

Participant Numbers	Participant Pseudonyms
#1	Chris
#2	Jacob
#3	Ashley
#4	Scott
#5	Courtney
#6	Alicia
#7	Rachel
#8	Vana
#9	Vincent
#10	Olivia
#11	Noah
#12	Zahara
#13	Edward
#14	Ray

APPENDIX R

Focus Group Vocabulary Term Sheet

Vocabulary

Financial Capability: sum of financial knowledge, attitudes, and behavior.

Financial Knowledge: facts, truths, or principles.

- **Ex: "**Which of the following cannot legally access your credit report?"

Financial Attitudes: perception of financial standing and the emotions associates with money and its uses.

- **Ex:** "Please identify each of the following as 'Good Practice' or 'Not Good Practice'…Exceeding credit limits"

Financial Behavior: the carrying out of financial knowledge and attitudes.

- **Ex:** "In the past 12 months have you… Maxed out the limit on one or more credit card"

Savings/Investing: savings accounts, budgeting, investing, interest (APR).

Credit/Debt: credit cards, credit history, loans, student loans, bill paying.

Implicit Parental Teaching: unintentional, implied, teaching by example.

Explicit Parental Teaching: purposeful, intentional, direct teaching.

Table 9
Hypothesized Models: Model Fit Results

Manuscript One						
Model	***Hypothesis***	***Chi-square***	***CFI***	***TLI***	***RMSEA***	***RMSEA 90% C.I.***
CD K and CD B Latent Change Score	1a	668.176	0.976	0.975	0.032	0.028 - 0.036
CD A and CD B Latent Change Score	1b	1381.083	0.947	0.943	0.044	0.041 - 0.047
SI K and SI B Latent Change Score	2a	677.485	0.971	0.971	0.042	0.038 - 0.046
SI A and SI B Latent Change Score	2b	1668.674	0.951	0.949	0.049	0.047 - 0.052
CD K, A, B Mediation Model	1c	2190.500	0.934	0.931	0.038	0.036 - 0.040
SI K, A, B Mediation Model	2c	2322.453	0.940	0.938	0.046	0.043 - 0.048
Manuscript Two						
Model	***Hypothesis***	***Chi-square***	***CFI***	***TLI***	***RMSEA***	***RMSEA 90% C.I.***
PS, PE, CD K Regression Model	1a	715.252	0.976	0.973	0.043	0.039-0.047
PS, PE, CD A Regression Model	1b	1095.812	0.959	0.955	0.051	0.047-0.054
PS, PE, CD B Regression Model	1c	828.943	0.972	0.970	0.043	0.040-0.047
PS, PE, SI K Regression Model	2a	672.939	0.975	0.972	0.047	0.043-0.052
PS, PE, SI A Regression Model	2b	1152.399	0.962	0.958	0.052	0.049-0.056

Table 9 (cont'd)

PS, PE, SI B Regression Model	2c	1005.571	0.964	0.962	0.049	0.045-0.052

Table 10
EFA and CFA: Model Fit Results

EFA: Manuscript One					
Model	***Chi-square***	***CFI***	***TLI***	***RMSEA***	***RMSEA 90% C.I.***
CD K Pre-Test	93.660	0.982	0.974	0.023	0.012 - 0.033
CD K Post-Test	106.496	0.990	0.988	0.021	0.010 - 0.030
CD A Pre-Test	374.620	0.932	0.898	0.056	0.050 - 0.062
CD A Post-Test	501.449	0.954	0.932	0.068	0.062 - 0.074
CD B Pre-Test	1205.380	0.946	0.935	0.067	0.063 - 0.070
CD B Post-Test	1339.937	0.927	0.912	0.071	0.068 - 0.075
SI K Pre-Test	179.858	0.887	0.868	0.034	0.027 – 0.041
SI K Post-Test	131.894	0.979	0.975	0.023	0.014 – 0.032
SI A Pre-Test	545.325	0.938	0.892	0.105	0.097 – 0.113
SI A Post-Test	367.493	0.969	0.947	0.084	0.076 – 0.092
SI B Pre-Test	5051.806	0.668	0.649	0.085	0.083 – 0.087
SI B Post-Test	6328.256	0.635	0.615	0.097	0.095 – 0.099
CFA: Manuscript One					
Model	***Chi-square***	***CFI***	***TLI***	***RMSEA***	***RMSEA 90% C.I.***
CD K Pre-Test	9.498	0.998	0.996	0.015	0.000-0.044
CD K Post-Test	5.409	1.000	1.004	0.000	0.000-0.030
CD A Pre-Test	90.156	0.970	0.954	0.058	0.046-0.071
CD A Post-Test	42.327	0.997	0.995	0.031	0.016-0.046
CD B Pre-Test	87.355	0.998	0.997	0.043	0.032-0.054
CD B Post-Test	172.545	0.993	0.991	0.069	0.059-0.079
SI K Pre-Test	7.531	0.991	0.981	0.024	0.000 – 0.057
SI K Post-Test	5.451	0.999	0.999	0.010	0.000 – 0.050
SI A Pre-Test	121.215	0.985	0.979	0.065	0.054 – 0.077
SI A Post-Test	127.929	0.987	0.982	0.068	0.056 – 0.080
SI B Pre-Test	143.894	0.978	0.979	0.068	0.057 – 0.079
SI B Post-Test	198.679	0.975	0.976	0.083	0.072 – 0.094

Table 10 (cont'd)

EFA: Manuscript Two					
Model	***Chi-square***	***CFI***	***TLI***	***RMSEA***	***RMSEA 90% C.I.***
PS Pre-Test	3030.302	0.835	0.798	0.133	0.129 – 0.137
PS Post-Test	2725.082	0.855	0.821	0.126	0.121 – 0.130
PE Pre-Test	0.395	1.000	1.030	0.000	0.000 – 0.041
PE Post-Test	0.784	1.000	1.016	0.000	0.000 – 0.051
CFA: Manuscript Two					
PS Pre-Test	627.361	0.963	0.959	0.081	0.075 – 0.087
PS Post-Test	630.834	0.962	0.958	0.081	0.075 – 0.087
PE Pre-Test	0.395	1.000	1.030	0.000	0.000 – 0.041
PE Post-Test	0.784	1.000	1.016	0.000	0.000 – 0.051

Table 11
Factor Themes

Factors	Themes
Credit/Debt Knowledge Factor One	Credit and its uses
Credit/Debt Attitudes Factor One	Estimate and understanding of negative credit/debt practices
Credit/Debt Attitudes Factor Two	Estimate and understanding of positive credit/debt practices
Credit/Debt Attitudes Factor Three	Estimate and understanding of avoidant credit/debt responses/reactions
Credit/Debt Behavior Factor One	Credit/debt holdings and negative practices
Credit/Debt Behavior Factor Two	Credit/debt payment practices and research of terms and conditions
Savings/Investing Knowledge Factor One	Savings/investing accounts and return on accounts
Savings/Investing Attitudes Factor One	Estimate and understanding of investing and budgeting
Savings/Investing Attitudes Factor Two	Estimate and understanding of positive savings/investing practices
Savings/Investing Attitudes Factor Three	Estimate and understanding of negative savings/investing practices
Savings/Investing Behavior Factor One	Budgeting and record keeping
Parental Financial Socialization Factor One	Implicit financial teaching
Parental Financial Socialization Factor Two	Explicit financial teaching
Parental Financial Experience Factor One	Financial stress and strain

Table 12
Measurement Invariance

CD K	RMSEA	CFI	Chi-sq Diff	df Diff	p-value	CFI Diff
Configural	0.025	0.992				
Weak	0.032	0.986	16.363 (we vs. co)	5 (we vs. co)	0.0059 (we vs. co)	0.006
Strong	0.037	0.978	35.827 (st vs. we)	6 (st vs. we)	0.0001 (st vs. we)	0.008
SI K	**RMSEA**	**CFI**	**Chi-sq Diff**	**df Diff**	**p-value**	**CFI Diff**
Configural	0.017	0.997				
Weak	0.028	0.99	8.59 (we vs. co)	3 (we vs. co)	0.0353 (we vs. co)	0.007
Partial	0.032	0.986	15.511 (pa vs. co)	5 (pa vs. co)	0.0084 (pa vs. co)	0.004
Strong	0.089	0.883	159.932 (st vs. we)	4 (st vs. we)	0 (st vs. we)	0.107
CD A	**RMSEA**	**CFI**	**Chi-sq Diff**	**df Diff**	**p-value**	**CFI Diff**
Configural	0.064	0.952				
Weak	0.063	0.951	23.542 (we vs. co)	6 (we vs. co)	0.0006 (we vs. co)	0.001
Partial	0.063	0.947	79.427 (pa vs. co)	17 (pa vs. co)	0 (pa vs. co)	0.005
Strong	0.1	0.859	1099.319 (st vs. we)	17 (st vs. we)	0 (st vs. we)	0.092
SI A	**RMSEA**	**CFI**	**Chi-sq Diff**	**df Diff**	**p-value**	**CFI Diff**
Configural	0.085	0.946				
Weak	0.082	0.947	17.169 (we vs. co)	6 (we vs. co)	0.0087 (we vs. co)	-0.001
Partial	0.083	0.939	137.269 (pa vs. co)	14 (pa vs. co)	0 (pa vs. co)	0.008
Strong	0.127	0.851	1380.107 (st vs. we)	22 (st vs. we)	0 (st vs. we)	0.096
CD B	**RMSEA**	**CFI**	**Chi-square Diff**	**df Diff**	**p-value**	**CFI Diff**
Configural	0.047	0.985				
Weak	0.045	0.985	7.675 (we vs. co)	6 (we vs. co)	0.2629 (we vs. co)	0
Strong	0.05	0.977	152.932 (st vs. we)	22 (st vs. we)	0 (st vs. we)	0.008

Table 12 (cont'd)

SI B	RMSEA	CFI	Chi-square Diff	df Diff	p-value	CFI Diff
Configural	0.058	0.97				
Weak	0.057	0.971	6.077 (we vs. co)	3 (we vs. co)	0.1079 (we vs. co)	-0.001
Partial	0.063	0.962	101.906 (pa vs. co)	10 (pa vs. co)	0 (pa vs. co)	0.009
Strong	0.065	0.958	183.92 (st vs. we)	9 (st vs. we)	0 (st vs. we)	0.013

Table 13
Hypothesis 1c & 3c (Manuscript One)
Mediation Model Fit

CD Mediation Model					
	Chi-square	**df**	**RMSEA**	**CFI**	**TLI**
Model 1 (latent factors)	1977.022	973	0.035	0.945	0.941
Model 2 (time one cross lags)	2156.479	976	0.038	0.935	0.931
Model 3 (diff score cross lags)	1981.601	976	0.035	0.945	0.942
Model 4 (time one and diff score cross lags)	2190.499	979	0.038	0.934	0.93
Adjusted Model (non-sig pathways removed)	2162.341	989	0.037	0.936	0.933
SI Mediation Model					
	Chi-square	**df**	**RMSEA**	**CFI**	**TLI**
Model 1 (latent factors)	2311.874	825	0.046	0.94	0.937
Model 2 (time one cross lags)	2362.162	835	0.046	0.938	0.936
Model 3 (diff score cross lags)	2144.144	826	0.043	0.947	0.945
Model 4 (time one and diff score cross lags)	2354.583	833	0.046	0.939	0.936
Adjusted Model (non-sig pathways removed)	2302.432	837	0.045	0.941	0.939

Table 14

Hypothesis 1a (Manuscript One)

Unstandardized & Standardized Results

Credit/Debt Knowledge & Credit/Debt Behavior - Hypothesis 1a **<u>Unstandardized</u> Estimate, Standard Error, & P-Value**			
Effect	***Estimate***	***S.E.***	***P-Value***
DCKF1 on CBF1P	0.003	0.035	0.945
CKF1P with DCKF1	-0.033	0.021	0.110
DCBF1 with CBF1P	-0.116	0.021	0.000***
DCBF1 with DCKF1	0.008	0.019	0.687
DCBF1 with CKF1P	0.002	0.022	0.928
DCBF1 with CBF2P	-0.012	0.017	0.494
CBF2P with DCBF2	-0.128	0.020	0.000***
CBF2P with CKF1P	0.181	0.020	0.000***
DCBF2 with DCKF1	0.047	0.017	0.006**
DCBF2 with CKF1P	0.009	0.019	0.625
DCBF2 with CBF1P	-0.028	0.027	0.297
DCBF2 with DCBF1	0.033	0.020	0.101
CBF1P with CBF2P	0.000	0.025	0.986
CBF1P with CKF1P	-0.071	0.029	0.015*
Credit/Debt Knowledge & Credit/Debt Behavior - Hypothesis 1a **<u>Standardized</u> Estimate, Standard Error, & P-Value**			
Effect	***Estimate***	***S.E.***	***P-Value***
DCKF1 on CBF1P	0.005	0.075	0.942
CKF1P with DCKF1	-0.121	0.066	0.065
DCBF1 with CBF1P	-0.281	0.028	0.000***
DCBF1 with DCKF1	0.040	0.099	0.685
DCBF1 with CKF1P	0.007	0.075	0.928
DCBF1 with CBF2P	-0.047	0.069	0.494
CBF2P with DCBF2	-0.429	0.038	0.000***
CBF2P with CKF1P	0.520	0.043	0.000***
DCBF2 with DCKF1	0.201	0.073	0.006**
DCBF2 with CKF1P	0.026	0.054	0.624
DCBF2 with CBF1P	-0.056	0.054	0.296
DCBF2 with DCBF1	0.130	0.079	0.097

Table 14 (cont'd)

CBF1P with CBF2P	0.001	0.052	0.986
CBF1P with CKF1P	-0.121	0.049	0.014*

Table 15
Hypothesis 1b (Manuscript One)
Unstandardized & Standardized Results

Credit/Debt Attitudes & Credit/Debt Behavior - Hypothesis 1b Unstandardized Estimate, Standard Error, & P-Value			
Effect	*Estimate*	*S.E.*	*P-Value*
DCBF1 on CAF1P	0.008	0.066	0.903
DCBF1 on CAF2P	-0.054	0.067	0.418
DCBF1 on CAF3P	-0.027	0.042	0.523
DCBF2 on CAF1P	0.055	0.052	0.286
DCBF2 on CAF2P	-0.251	0.076	0.001**
DCBF2 on CAF3P	0.064	0.044	0.148
DCAF1 on CBF1P	-0.058	0.061	0.345
DCAF1 on CBF2P	0.036	0.140	0.795
DCAF2 on CBF1P	-0.143	0.028	0.000***
DCAF2 on CBF2P	0.001	0.048	0.992
DCAF3 on CBF1P	-0.153	0.039	0.000***
DCAF3 on CBF2P	0.029	0.089	0.743
CAF1P with DCAF1	-0.309	0.065	0.000***
CAF2P with DCAF2	-0.073	0.015	0.000***
CAF2P with CAF1P	0.041	0.021	0.053
CAF3P with DCAF3	-0.243	0.036	0.000***
CAF3P with CAF1P	0.210	0.041	0.000***
CAF3P with CAF2P	0.175	0.020	0.000***
DCBF1 with CBF1P	-0.109	0.027	0.000***
DCBF1 with DCAF1	0.014	0.038	0.714
DCBF1 with DCAF2	0.030	0.014	0.030*
DCBF1 with DCAF3	0.046	0.020	0.021*
CBF2P with DCBF2	-0.143	0.024	0.000***
CBF2P with CAF1P	0.188	0.040	0.000***
CBF2P with CAF2P	0.110	0.026	0.000***
CBF2P with CAF3P	0.115	0.026	0.000***
CBF2P with CBF1P	0.005	0.026	0.842
DCBF2 with DCAF1	0.067	0.038	0.078
DCBF2 with DCAF2	0.093	0.015	0.000***

Table 15 (cont'd)

DCBF2 with DCAF3	0.057	0.024	0.000***
DCBF2 with DCBF1	0.030	0.021	0.154
CBF1P with CAF1P	-0.126	0.052	0.015*
CBF1P with CAF2P	0.190	0.023	0.000***
CBF1P with CAF3P	0.284	0.034	0.000***
DCAF2 with DCAF1	-0.007	0.030	0.826
DCAF3 with DCAF1	0.193	0.046	0.000***
DCAF3 with DCAF2	0.036	0.017	0.030*
Credit/Debt Attitudes & Credit/Debt Behavior - Hypothesis 1b <u>Standardized</u> Estimate, Standard Error, & P-Value			
Effect	***Estimate***	***S.E.***	***P-Value***
DCBF1 on CAF1P	0.015	0.121	0.903
DCBF1 on CAF2P	-0.055	0.068	0.419
DCBF1 on CAF3P	-0.048	0.075	0.522
DCBF2 on CAF1P	0.081	0.076	0.284
DCBF2 on CAF2P	-0.203	0.061	0.001**
DCBF2 on CAF3P	0.090	0.062	0.149
DCAF1 on CBF1P	-0.069	0.073	0.342
DCAF1 on CBF2P	0.026	0.101	0.795
DCAF2 on CBF1P	-0.274	0.049	0.000***
DCAF2 on CBF2P	0.001	0.056	0.992
DCAF3 on CBF1P	-0.192	0.047	0.000***
DCAF3 on CBF2P	0.022	0.067	0.742
CAF1P with DCAF1	-0.432	0.060	0.000***
CAF2P with DCAF2	-0.306	0.046	0.000***
CAF2P with CAF1P	0.095	0.049	0.050
CAF3P with DCAF3	-0.374	0.035	0.000***
CAF3P with CAF1P	0.275	0.052	0.000***
CAF3P with CAF2P	0.416	0.035	0.000***
DCBF1 with CBF1P	-0.236	0.044	0.000***
DCBF1 with DCAF1	0.036	0.097	0.713
DCBF1 with DCAF2	0.128	0.061	0.036*

Table 15 (cont'd)

DCBF1 with DCAF3	0.127	0.057	0.026*
CBF2P with DCBF2	-0.411	0.047	0.000***
CBF2P with CAF1P	0.362	0.075	0.000***
CBF2P with CAF2P	0.384	0.047	0.000***
CBF2P with CAF3P	0.230	0.051	0.000***
CBF2P with CBF1P	0.009	0.045	0.842
DCBF2 with DCAF1	0.141	0.079	0.073
DCBF2 with DCAF2	0.324	0.048	0.000***
DCBF2 with DCAF3	0.127	0.053	0.017*
DCBF2 with DCBF1	0.105	0.073	0.152
CBF1P with CAF1P	-0.146	0.060	0.015*
CBF1P with CAF2P	0.402	0.044	0.000***
CBF1P with CAF3P	0.342	0.041	0.000***
DCAF2 with DCAF1	-0.017	0.076	0.826
DCAF3 with DCAF1	0.317	0.071	0.000***
DCAF3 with DCAF2	0.099	0.046	0.030

Table 16

Hypothesis 2a (Manuscript One)

Unstandardized & Standardized Results

Savings/Investing Knowledge & Savings/Investing Behavior – Hypothesis 2a Unstandardized Estimate, Standard Error, & P-Value			
Effect	***Estimate***	***S.E.***	***P-Value***
DSBF1 on SKF1P	-0.056	0.061	0.359
DSKF1 on SBF1P	-0.056	0.049	0.254
SKF1P with DSKF1	-0.027	0.028	0.333
SBF1P with DSBF1	-0.139	0.015	0.000***
SBF1P with SKF1P	0.091	0.022	0.000***
DSBF1 with DSKF1	0.060	0.020	0.002**
Savings/Investing Knowledge & Savings/Investing Behavior – Hypothesis 2a Standardized Estimate, Standard Error, & P-Value			
Effect	***Estimate***	***S.E.***	***P-Value***
DSBF1 on SKF1P	-0.056	0.061	0.356
DSKF1 on SBF1P	-0.082	0.071	0.249
SKF1P with DSKF1	-0.103	0.096	0.285
SBF1P with DSBF1	-0.359	0.026	0.000***
SBF1P with SKF1P	0.235	0.052	0.000***
DSBF1 with DSKF1	0.230	0.075	0.002**

Table 17
Hypothesis 2b (Manuscript One)
Unstandardized & Standardized Results

Savings/Investing Attitude & Savings/Investing Behavior - Hypothesis 2b Unstandardized Estimate, Standard Error, & P-Value			
Effect	*Estimate*	*S.E.*	*P-Value*
DSBF1 on SAF1P	-0.132	0.039	0.001**
DSBF1 on SAF2P	-0.006	0.027	0.835
DSBF1 on SAF3P	0.016	0.027	0.554
DSAF1 on SBF1P	0.633	0.255	0.013*
DSAF2 on SBF1P	-0.112	0.050	0.026*
DSAF3 on SBF1P	-0.136	0.050	0.007**
SAF1P with DSAF1	-0.185	0.041	0.000***
SAF2P with DSAF2	-0.192	0.025	0.000***
SAF2P with SAF1P	0.111	0.022	0.000***
SAF3P with DSAF3	-0.261	0.025	0.000***
SAF3P with SAF1P	0.036	0.020	0.079
SAF3P with SAF2P	0.311	0.022	0.000***
SBF1P with DSBF1	-0.116	0.015	0.000***
SBF1P with SAF1P	0.205	0.021	0.000***
SBF1P with SAF2P	0.195	0.024	0.000***
SBF1P with SAF3P	0.156	0.022	0.000***
DSBF1 with DSAF1	-0.593	0.220	0.007**
DSBF1 with DSAF2	0.042	0.019	0.028*
DSBF1 with DSAF3	0.032	0.018	0.082
DSAF1 with DSAF1	-0.020	0.066	0.761
DSAF3 with DSAF1	-0.017	0.061	0.786
DSAF3 with DSAF2	0.071	0.019	0.000***
Savings/Investing Attitudes & Savings/Investing Behavior - Hypothesis 2b Standardized Estimate, Standard Error, & P-Value			
Effect	*Estimate*	*S.E.*	*P-Value*
DSBF1 on SAF1P	-0.154	0.044	0.001**
DSBF1 on SAF2P	-0.008	0.038	0.835
DSBF1 on SAF3P	0.022	0.038	0.553
DSAF1 on SBF1P	0.323	0.043	0.000***
DSAF2 on SBF1P	-0.108	0.047	0.023*
DSAF3 on SBF1P	-0.126	0.047	0.007*
SAF1P with DSAF1	-0.224	0.072	0.002**
SAF2P with DSAF2	-0.340	0.031	0.000***
SAF2P with SAF1P	0.205	0.039	0.000***
SAF3P with DSAF3	-0.454	0.024	0.000***
SAF3P with SAF1P	0.068	0.038	0.076

Table 17 (cont'd)

SAF3P with SAF2P	0.478	0.028	0.000***
SBF1P with DSBF1	-0.308	0.029	0.000***
SBF1P with SAF1P	0.459	0.037	0.000***
SBF1P with SAF2P	0.357	0.040	0.000***
SBF1P with SAF3P	0.291	0.039	0.000***
DSBF1 with DSAF1	-0.848	0.068	0.000***
DSBF1 with DSAF2	0.109	0.049	0.026
DSBF1 with DSAF3	0.078	0.045	0.085
DSAF1 with DSAF1	-0.023	0.072	0.745
DSAF3 with DSAF1	-0.019	0.065	0.774
DSAF3 with DSAF2	0.143	0.037	0.000***

Table 18

Hypothesis 1c (Manuscript One)

Unstandardized Direct and Indirect Effects & Standardized Direct and Indirect Effects

Credit/Debt Knowledge, Attitudes, and Behavior Mediation - Hypothesis 1c **Standardized & Unstandardized Direct Effects** **Estimate, Standard Error, & P-Value**				
Effect	***Stand. Est.***	***Est.***	***S.E.***	***P-Value***
DCKF1 on CBF1P	-0.084	-0.036	0.038	0.346
DCBF1 on DCAF1	-0.019	-0.011	0.105	0.918
DCBF1 on DCAF2	-0.009	-0.008	0.081	0.924
DCBF1 on DCAF3	0.056	0.033	0.063	0.603
DCBF2 on DCAF1	0.036	0.023	0.105	0.828
DCBF2 on DCAF2	0.410	0.374	0.079	0.000***
DCBF2 on DCAF3	-0.069	-0.045	0.100	0.652
DCBF2 on DCKF1	0.209	0.269	0.520	0.605
DCBF2 on CAF1P	0.053	0.031	0.046	0.505
DCAF1 on DCKF1	0.350	0.712	0.954	0.456
DCAF1 on CBF1P	-0.075	-0.065	0.084	0.442
DCAF1 on CBF2P	0.177	0.291	0.180	0.106
DCAF2 on DCKF1	0.210	0.297	0.352	0.398
DCAF2 on CBF1P	0.137	0.082	0.046	0.074
DCAF2 on CBF2P	0.269	0.309	0.132	0.019*
DCAF3 on DCKF1	0.410	0.805	1.377	0.559
DCAF3 on CBF1P	0.163	0.136	0.123	0.268

Table 18 (cont'd)

DCAF3 on CBF2P	0.295	0.471	0.191	0.014*
CBF1P on CAF1P	-0.112	-0.118	0.104	0.258
CBF1P on CKF1P	-0.200	-0.299	0.162	0.066
CBF1P on CAF2P	0.391	0.728	0.118	0.000***
CBF1P on CAF3P	0.383	0.439	0.075	0.000***
CBF2P on CAF1P	0.144	0.079	0.048	0.096
CBF2P on CKF1P	0.388	0.303	0.066	0.000***
CBF2P on CAF2P	0.397	0.387	0.067	0.000***
CBF2P on CAF3P	0.103	0.062	0.039	0.106
CAF1P on CKF1P	0.596	0.845	0.095	0.000***
CAF2P on CKF1P	0.142	0.114	0.064	0.075
CAF3P on CKF1P	0.268	0.349	0.095	0.000***
CKF1P with DCKF1	-0.162	-0.041	0.029	0.148
DCBF1 with CBF1P	-0.315	-0.116	0.040	0.004**
CBF2P with DCBF2	-0.539	-0.090	0.032	0.004**
CBF1P with CBF2P	-0.249	-0.070	0.028	0.013*
CAF1P with DCAF1	-0.620	-0.345	0.075	0.000***
CAF2P with DCAF2	-0.618	-0.184	0.041	0.000***

Table 18 (cont'd)

CAF3P with DCAF3	-0.640	-0.370	0.064	0.000***
DCBF2 with DCBF1	0.202	0.044	0.021	0.037*

Credit/Debt Knowledge, Attitudes, and Behavior Mediation - Hypothesis 1c Unstandardized Indirect Effects Estimate, Standard Error, & P-Value				
Effect	*Estimate*	*S.E.*	*P-Value*	*95% Confidence Interval*
Effects from CKF1P to CBF1P				
CBF1P CAF1P CKF1P	-0.100	0.092	0.277	-0.251—0.051
CBF1P CAF2P CKF1P	0.083	0.051	0.105	-0.001—0.167
CBF1P CAF3P CKF1P	0.153	0.057	0.007**	0.059—0.247
Effects from CKF1P to CBF2P				
CBF2P CAF1P CKF1P	0.067	0.043	0.118	-0.004—0.138
CBF2P CAF2P CKF1P	0.044	0.023	0.053	0.007—0.082
CBF2P CAF3P CKF1P	0.022	0.014	0.116	-0.001—0.044
Effects from DCKF1 to DCBF1				
DCBF1 DCAF1 DCKF1	-0.008	0.161	0.962	-0.273—0.258
DCBF1 DCAF2 DCKF1	-0.002	0.041	0.956	-0.070—0.065
DCBF1 DCAF3 DCKF1	0.027	0.167	0.873	-0.247—0.300
Effects from DCKF1 to DCBF2				
DCBF2 DCAF1 DCKF1	0.016	0.256	0.949	-0.404—0.437

Table 18 (cont'd)

DCBF2 DCAF2 DCKF1	0.111	0.164	0.497	-0.158—0.380
DCBF2 DCAF3 DCKF1	-0.036	0.238	0.879	-0.428—0.355
Credit/Debt Knowledge, Attitudes, and Behavior Mediation - Hypothesis 1c Standardized Indirect Effects Estimate, Standard Error, & P-Value				
Effect	***Estimate***	***S.E.***	***P-Value***	***95% Confidence Interval***
Effects from CKF1P to CBF1P				
CBF1P CAF1P CKF1P	-0.067	0.061	0.273	-0.167—0.033
CBF1P CAF2P CKF1P	0.056	0.034	0.101	0.000—0.111
CBF1P CAF3P CKF1P	0.103	0.037	0.006**	0.041—0.164
Effects from CKF1P to CBF2P				
CBF2P CAF1P CKF1P	0.086	0.056	0.126	-0.006—0.178
CBF2P CAF2P CKF1P	0.056	0.027	0.035*	0.012—0.100
CBF2P CAF3P CKF1P	0.028	0.017	0.108	-0.001—0.056
Effects from DCKF1 to DCBF1				
DCBF1 DCAF1 DCKF1	-0.007	0.084	0.937	-0.145—0.132
DCBF1 DCAF2 DCKF1	-0.002	0.024	0.935	-0.042—0.038
DCBF1 DCAF3 DCKF1	0.023	0.064	0.720	-0.082—0.128

Table 18 (cont'd)

Effects from DCKF1 to DCBF2				
DCBF2 **DCAF1** **DCKF1**	0.013	0.088	0.886	-0.132—0.157
DCBF2 **DCAF2** **DCKF1**	0.086	0.051	0.091	0.002—0.170

Table 19

Hypothesis 2c (Manuscript One)

Unstandardized Direct and Indirect Effects & Standardized Direct and Indirect Effects

Savings/Investing Knowledge, Attitudes, and Behavior Mediation– Hypothesis 2c Standardized & Unstandardized Direct Effects Estimate, Standard Error, & P-Value				
Effect	*Stand. Est.*	*Est.*	*S.E.*	*P-Value*
SBF1P on SAF1P	0.424	0.528	0.063	0.000***
SBF1P on SKF1P	-0.164	-0.263	0.213	0.218
SBF1P on SAF2P	0.322	0.263	0.068	0.000***
SBF1P on SAF3P	0.211	0.175	0.076	0.021*
SAF1P on SKF1P	0.162	0.209	0.100	0.038*
SAF2P on SKF1P	0.586	1.152	0.190	0.000***
SAF3P on SKF1P	0.691	1.333	0.186	0.000***
DSBF1 on DSAF1	0.299	0.322	0.132	0.014*
DSBF1 on DSAF2	0.183	0.150	0.149	0.314
DSBF1 on DSAF3	0.080	0.062	0.090	0.489
DSAF1 on DSKF1	0.747	2.049	1.867	0.273
DSAF2 on DSKF1	0.265	0.956	0.988	0.333
DSAF3 on DSKF1	0.089	0.337	0.406	0.406
SKF1P with DSKF1	0.376	0.030	0.018	0.089
SAF1P with DSAF1	-0.741	-0.138	0.024	0.000***
SAF2P with DSAF2	-0.549	-0.244	0.041	0.000***
SAF3P with DSAF3	-0.706	-0.297	0.040	0.000***
SBF1P with DSBF1	-0.388	-0.114	0.020	0.000***
DSBF1 with DSKF1	-0.202	-0.021	0.029	0.473
DSBF1 with DSAF1	0.205	0.038	0.070	0.581
DSBF1 with DSAF2	-0.045	-0.016	0.053	0.760
DSBF1 with DSAF3	-0.010	-0.004	0.034	0.906

Savings/Investing Knowledge, Attitudes, and Behavior Mediation - Hypothesis 2c Unstandardized Indirect Effects Estimate, Standard Error, & P-Value				
Effect	*Estimate*	*S.E.*	*P-Value*	*95% Confidence Interval*
Effects from SKF1P to SBF1P				
SBF1P **SAF1P** **SKF1P**	0.110	0.057	0.054	0.016—0.204

Table 19 (cont'd)

SBF1P **SAF2P** **SKF1P**	0.303	0.103	0.003**	0.134—0.472
SBF1P **SAF3P** **SKF1P**	0.234	0.113	0.038*	0.048—0.420
Effects from DSKF1 to DSBF1				
DSBF1 **DSAF1** **DSKF1**	0.660	0.654	0.313	-0.415—1.735
DSBF1 **DSAF2** **DSKF1**	0.143	0.334	0.668	-0.406—0.692
DSBF1 **DSAF3** **DSKF1**	0.021	0.050	0.677	-0.062—0.104
Savings/Investing Knowledge, Attitudes, and Behavior Mediation - Hypothesis 2c **Standardized Indirect Effects** **Estimate, Standard Error, & P-Value**				
Effect	***Estimate***	***S.E.***	***P-Value***	***95% Confidence Interval***
Effects from SKF1P to SBF1P				
SBF1P **SAF1P** **SKF1P**	0.069	0.031	0.028*	0.017—0.120
SBF1P **SAF2P** **SKF1P**	0.189	0.055	0.001**	0.097—0.280
SBF1P **SAF3P** **SKF1P**	0.146	0.067	0.029*	0.036—0.256
Effects from DSKF1 to DSBF1				
DSBF1 **DSAF1** **DSKF1**	0.223	0.096	0.020*	0.066—0.381
DSBF1 **DSAF2** **DSKF1**	0.048	0.046	0.288	-0.027—0.123
DSBF1 **DSAF3** **DSKF1**	0.007	0.017	0.670	-0.020—0.034

Table 20
Hypothesis 1a, 1b, 1c, 2a, 2b, and 2c (Manuscript Two)
Unstandardized Results

Parental Financial Socialization and Experience & Credit/Debt Knowledge			
Effect	*Estimate*	*S.E.*	*p-value*
CKF1P on FEF1P	-0.089	0.077	0.249
CKF1P on FSF1P	0.054	0.053	0.308
CKF1P on FSF2P	0.155	0.068	0.023*
Parental Financial Socialization and Experience & Credit/Debt Attitudes			
Effect	*Estimate*	*S.E.*	*p-value*
CAF1P on FEF1P	-0.274	0.159	0.085
CAF1P on FSF1P	0.047	0.108	0.663
CAF1P on FSF2P	0.140	0.139	0.311
CAF2P on FEF1P	-0.025	0.065	0.695
CAF2P on FSF1P	0.003	0.048	0.947
CAF2P on FSF2P	0.358	0.056	0.000***
CAF3P on FEF1P	-0.156	0.100	0.120
CAF3P on FSF1P	-0.088	0.064	0.168
CAF3P on FSF2P	0.228	0.081	0.005**
Parental Financial Socialization and Experience & Credit/Debt Behavior			
Effect	*Estimate*	*S.E.*	*p-value*
CBF1P on FEF1P	0.520	0.139	0.000***
CBF1P on FSF1P	0.036	0.070	0.605
CBF1P on FSF2P	0.247	0.086	0.004**
CBF2P on FEF1P	-0.092	0.076	0.227
CBF2P on FSF1P	0.110	0.045	0.015*
CBF2P on FSF2P	0.215	0.059	0.000***
Parental Financial Socialization and Experience & Saving/Investing Knowledge			
Effect	*Estimate*	*S.E.*	*p-value*
SKF1P on FEF1P	-0.231	0.087	0.008**
SKF1P on FSF1P	0.080	0.048	0.100
SKF1P on FSF2P	0.011	0.061	0.861
Parental Financial Socialization and Experience & Saving/Investing Attitudes			
Effect	*Estimate*	*S.E.*	*p-value*
SAF1P on FEF1P	-0.015	0.080	0.847
SAF1P on FSF1P	0.198	0.057	0.000***
SAF1P on FSF2P	0.201	0.074	0.006**
SAF2P on FEF1P	-0.077	0.086	0.369
SAF2P on FSF1P	0.085	0.057	0.135
SAF2P on FSF2P	0.303	0.071	0.000***
SAF3P on FEF1P	-0.160	0.085	0.059
SAF3P on FSF1P	-0.005	0.052	0.930
SAF3P on FSF2P	0.267	0.069	0.000***

Table 20 (cont'd)

Parental Financial Socialization and Experience & Saving/Investing Behavior			
Effect	*Estimate*	*S.E.*	*p-value*
SBF1P on FEF1P	-0.093	0.065	0.154
SBF1P on FSF1P	0.109	0.041	0.008**
SBF1P on FSF2P	0.356	0.055	0.000***

Table 21
Hypothesis 1a, 1b, 1c, 2a, 2b, and 2c (Manuscript Two)
Standardized Results

Parental Financial Socialization and Experience & Credit/Debt Knowledge			
Effect	**Estimate**	**S.E.**	**p-value**
CKF1P on FEF1P	-0.091	0.076	0.232
CKF1P on FSF1P	0.067	0.065	0.306
CKF1P on FSF2P	0.173	0.074	0.019*
Parental Financial Socialization and Experience & Credit/Debt Attitudes			
Effect	**Estimate**	**S.E.**	**p-value**
CAF1P on FEF1P	-0.210	0.120	0.079
CAF1P on FSF1P	0.043	0.098	0.663
CAF1P on FSF2P	0.115	0.114	0.312
CAF2P on FEF1P	-0.026	0.065	0.693
CAF2P on FSF1P	0.004	0.059	0.947
CAF2P on FSF2P	0.389	0.067	0.000***
CAF3P on FEF1P	-0.110	0.070	0.118
CAF3P on FSF1P	-0.074	0.053	0.166
CAF3P on FSF2P	0.172	0.062	0.006**
Parental Financial Socialization and Experience & Credit/Debt Behavior			
Effect	**Estimate**	**S.E.**	**p-value**
CBF1P on FEF1P	0.356	0.075	0.000***
CBF1P on FSF1P	0.031	0.060	0.606
CBF1P on FSF2P	0.191	0.067	0.005**
CBF2P on FEF1P	-0.100	0.078	0.202
CBF2P on FSF1P	0.150	0.060	0.013*
CBF2P on FSF2P	0.263	0.068	0.000***
Parental Financial Socialization and Experience & Saving/Investing Knowledge			
Effect	**Estimate**	**S.E.**	**p-value**
SKF1P on FEF1P	-0.292	0.087	0.001**
SKF1P on FSF1P	0.121	0.071	0.090
SKF1P on FSF2P	0.014	0.082	0.861
Parental Financial Socialization and Experience & Saving/Investing Attitudes			
Effect	**Estimate**	**S.E.**	**p-value**
SAF1P on FEF1P	-0.015	0.080	0.847
SAF1P on FSF1P	0.198	0.057	0.000***
SAF1P on FSF2P	0.201	0.074	0.006**
SAF2P on FEF1P	-0.077	0.086	0.369
SAF2P on FSF1P	0.085	0.057	0.135
SAF2P on FSF2P	0.303	0.071	0.000***
SAF3P on FEF1P	-0.129	0.066	0.049

Table 21 (cont'd)

SAF3P on FSF1P	-0.004	0.051	0.930
SAF3P on FSF2P	0.235	0.059	0.000***

Parental Financial Socialization and Experience & Saving/Investing Behavior			
Effect	***Estimate***	***S.E.***	***p-value***
SBF1P on FEF1P	-0.088	0.059	0.132
SBF1P on FSF1P	0.129	0.048	0.007**
SBF1P on FSF2P	0.390	0.057	0.000***

Table 22
EAFCS Participant Demographics

Frequency Distribution of Demographic Data			
	Frequency	**Percent**	**Valid Percent**
Gender			
Male	475	55.6	55.7
Female	378	44.2	44.3
Age			
18-22	810	94.7	95
23-25	37	4.3	4.3
26-29	3	.4	.4
30-39	1	.1	.1
40-59	2	.2	.2
Race			
White/Caucasian	595	69.6	69.8
Black/African American	68	8.0	8.0
Hispanic	15	1.8	1.8
Asian	46	5.4	5.4
American Indian	2	.2	.2
Other	126	14.7	14.8
Raised in the US			
No	133	15.6	15.6
Yes	719	84.1	84.4
Frequency Distribution of Educational Demographics			
Class Rank			
Freshman	72	9.0	9.0
Sophomore	55	29.8	29.9
Junior	178	20.8	20.9
Senior	342	40	40.1
Graduate Student	1	.1	.1
Major			
Accounting	106	12.4	12.4
Finance	216	25.3	25.3
Education	18	2.1	2.1
Engineering	49	5.7	5.7
Psychology	44	5.1	5.2
Sociology	10	1.2	1.2
Human Development and Family Studies	36	4.2	4.2
Other	375	43.9	43.9

Table 22 (cont'd)

Class Required or Elective			
Required	109	12.7	12.8
Elective	734	85.8	86
Other	10	1.2	1.2
Education Funding			
Self	198	23.2	23.2
Parents or Other Family	406	47.5	47.7
Mostly Self (more than 50%)	48	5.6	5.6
Mostly Parents (more than 50%)	131	15.3	15.4
50% Self, 50% Parents	64	7.5	7.5
Employer	4	.5	.5
Military	1	.1	.1
Education Desired			
Associates Degree	14	1.6	1.6
Bachelors Degree	354	41.4	41.6
Masters Degree	379	44.3	44.5
Doctorate/Law/Professional	104	12.2	12.3
Future Income Expected			
Under $30,000	34	4	4
$30,000-39,999	112	13.1	13.1
$40,000-49,999	219	25.6	25.7
$50,000-74,999	358	41.9	42
$75,000 or more	130	15.2	15.2
Father's Education Level			
Less than High School	26	3	3.2
High School or Equivalent	122	14.3	14.8
Some College	89	10.4	10.8
Associates/Community College	41	4.8	5
Bachelor's Degree	289	33.8	35.1
Masters, Doctorate, or Professional	230	26.9	27.9
Trade school	18	2.1	2.2
Military School	8	.9	1
Mother's Education Level			
Less than High School	21	2.5	2.5
High School or Equivalent	120	14	14.4
Some College	116	13.6	14

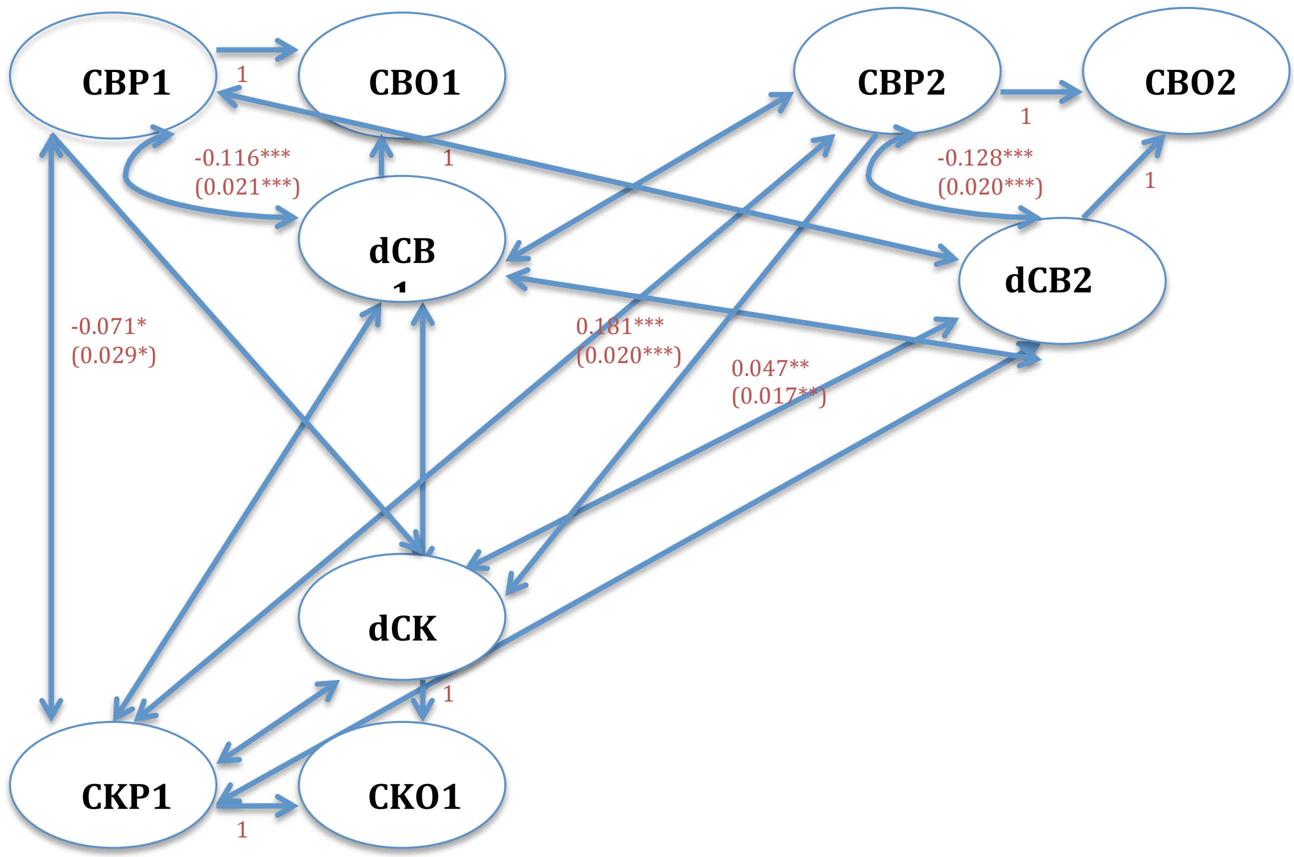
Table 22 (cont'd)

Associates/Community College	**99**	**11.6**	**11.9**
Bachelor's Degree	311	36.4	37.4
Masters, Doctorate, or Professional	159	18.6	19.1
Trade school	5	.6	.6
Military School	0	0	0
Estimated Parental Income			
Less than $20,000	28	3.3	3.3
$20,000-39,999	47	5.5	6.2
$40,000-59,999	64	7.5	8.4
$60,000-79,999	86	10.1	11.3
$80,000-149,000	273	31.9	35.9
$150,000 or more	263	30.8	34.6

Table 23
Focus Group Participant Demographics

Frequency Distribution of Demographic Data			
	Frequency	***Percent***	***Valid Percent***
Gender			
Male	7	50	50
Female	7	50	50
18-22	12	85.7	85.7
23-26	2	14.3	14.3
Race			
White/Caucasian	7	50	50
Black/African American	2	14.3	14.3
Hispanic American	1	7.1	7.1
Asian American	2	14.3	14.3
Other	2	14.3	14.3
Frequency Distribution of Educational Demographics			
Class Rank			
Freshman	1	7.1	7.1
Sophomore	3	21.4	21.4
Junior	0	0	0
Senior	10	71.4	71.4
Major			
Accounting	2	14.3	14.3
Finance	2	14.3	14.3
Engineering	1	7.1	7.1
Psychology	1	7.1	7.1
Sociology	1	7.1	7.1
Other	7	71.4	71.4
Education Desired			
Bachelors Degree	5	35.7	35.7
Masters Degree	6	42.9	42.9
Doctorate/Law/Professional	3	21.4	21.4
Course Format			
Face-to-Face	9	64.3	69.2
Online	4	28.6	30.8

Figure 1
Hypotheses 1a (Manuscript One)
Unstandardized Estimates and S.E.

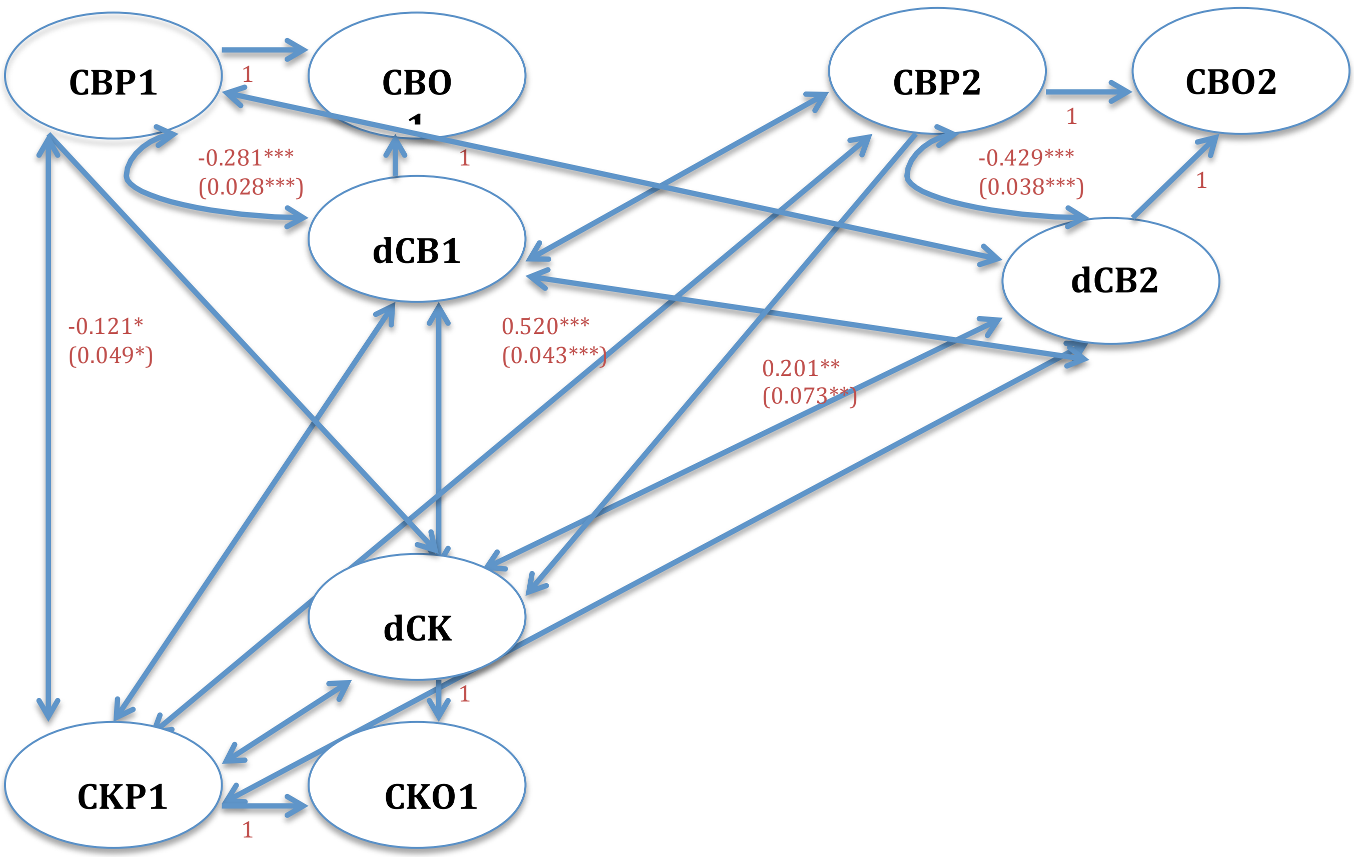


CBP1	**Time 1 Credit/Debt Behavior Factor 1**
CBO1	**Time 2 Credit/Debt Behavior Factor 1**
CBP2	**Time 1 Credit/Debt Behavior Factor 2**
CBO2	**Time 2 Credit/Debt Behavior Factor 2**
CKP1	**Time 1 Credit/Debt Knowledge Factor 1**
CKO1	**Time 2 Credit/Debt Knowledge Factor 1**
dCB1	**Change Score for Credit/Debt Behavior Factor 1**
dCB2	**Change Score for Credit/Debt Behavior Factor 2**
dCK	**Change Score for Credit/Debt Knowledge**
***Note*. All tested pathways shown, significant estimates and S.E. shown, S.E. displayed in parentheses. *p<.05. **p<.01. ***p<.001.**	

Figure 1a

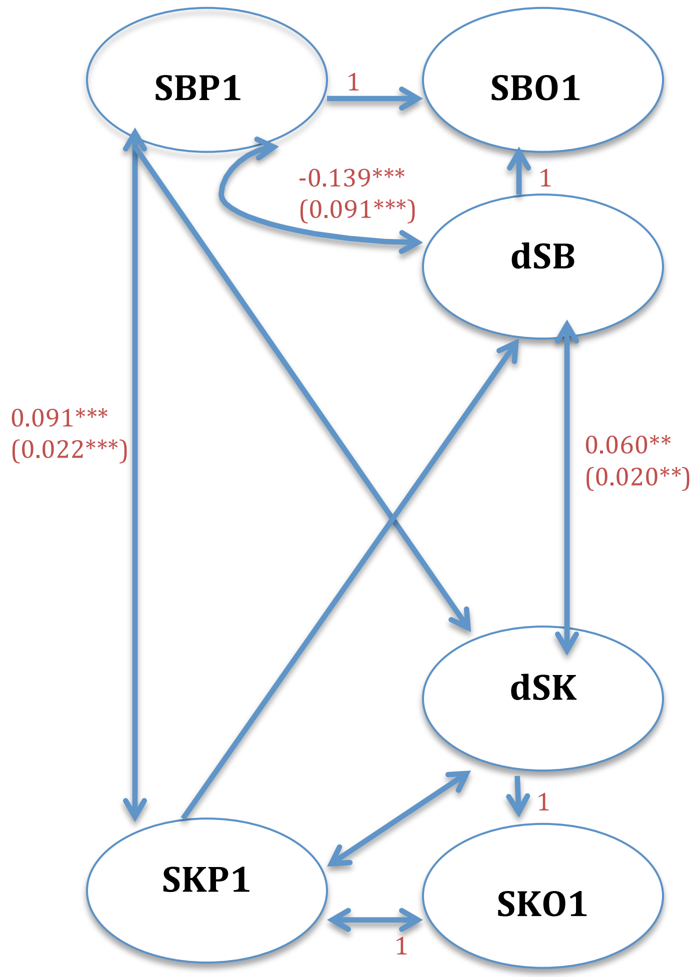
Hypotheses 1a (Manuscript One)

Standardized Estimates and S.E.



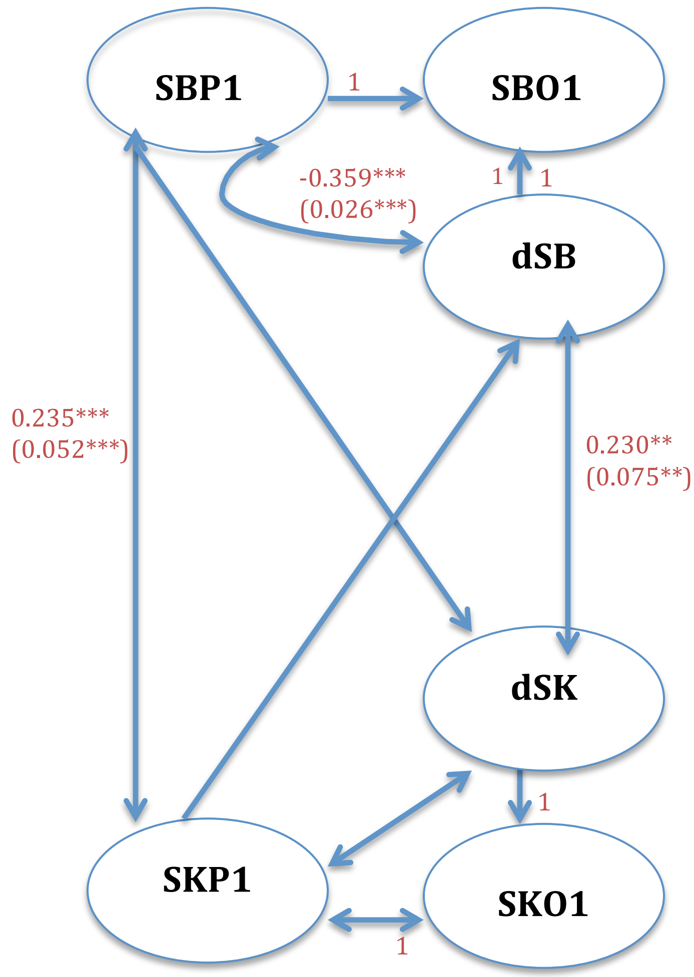
CBP1	**Time 1 Credit/Debt Behavior Factor 1**
CBO1	**Time 2 Credit/Debt Behavior Factor 1**
CBP2	**Time 1 Credit/Debt Behavior Factor 2**
CBO2	**Time 2 Credit/Debt Behavior Factor 2**
CKP1	**Time 1 Credit/Debt Knowledge Factor 1**
CKO1	**Time 2 Credit/Debt Knowledge Factor 1**
dCB1	**Change Score for Credit/Debt Behavior Factor 1**
dCB2	**Change Score for Credit/Debt Behavior Factor 2**
dCK	**Change Score for Credit/Debt Knowledge**
***Note*. All tested pathways shown, significant estimates and S.E. shown, S.E. displayed in parentheses. *p<.05. **p<.01. ***p<.001.**	

Figure 2
Hypotheses 2a (Manuscript One)
Unstandardized Estimates and S.E.



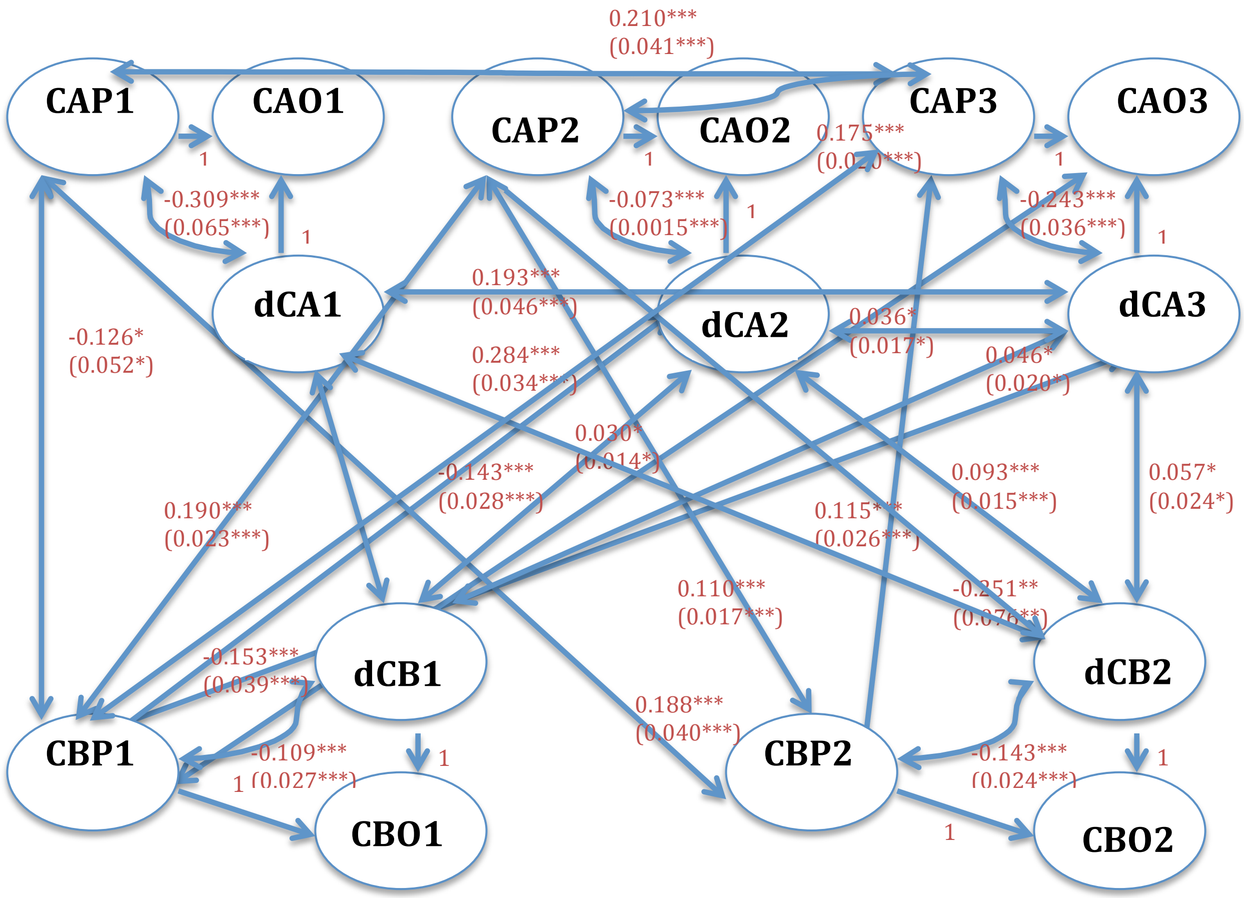
SBP1	**Time 1 Savings/Investing Behavior Factor 1**
SBO1	**Time 2 Savings/Investing Behavior Factor 1**
SKP1	**Time 1 Savings/Investing Knowledge Factor 1**
SKO1	**Time 2 Savings/Investing Knowledge Factor 1**
dCB	**Change Score for Savings/Investing Behavior**
dCK	**Change Score for Savings/Investing Knowledge**
***Note*. All tested pathways shown, significant estimates and S.E. shown, S.E. displayed in parentheses. *p<.05. **p<.01. ***p<.001.**	

Figure 2a
Hypotheses 2a (Manuscript One)
Standardized Estimates and S.E.



SBP1	**Time 1 Savings/Investing Behavior Factor 1**
SBO1	**Time 2 Savings/Investing Behavior Factor 1**
SKP1	**Time 1 Savings/Investing Knowledge Factor 1**
SKO1	**Time 2 Savings/Investing Knowledge Factor 1**
dCB	**Change Score for Savings/Investing Behavior**
dCK	**Change Score for Savings/Investing Knowledge**
***Note*. All tested pathways shown, significant estimates and S.E. shown, S.E. displayed in parentheses. *p<.05. **p<.01. ***p<.001.**	

Figure 3
Hypotheses 1b (Manuscript One)
Unstandardized Estimates and S.E.

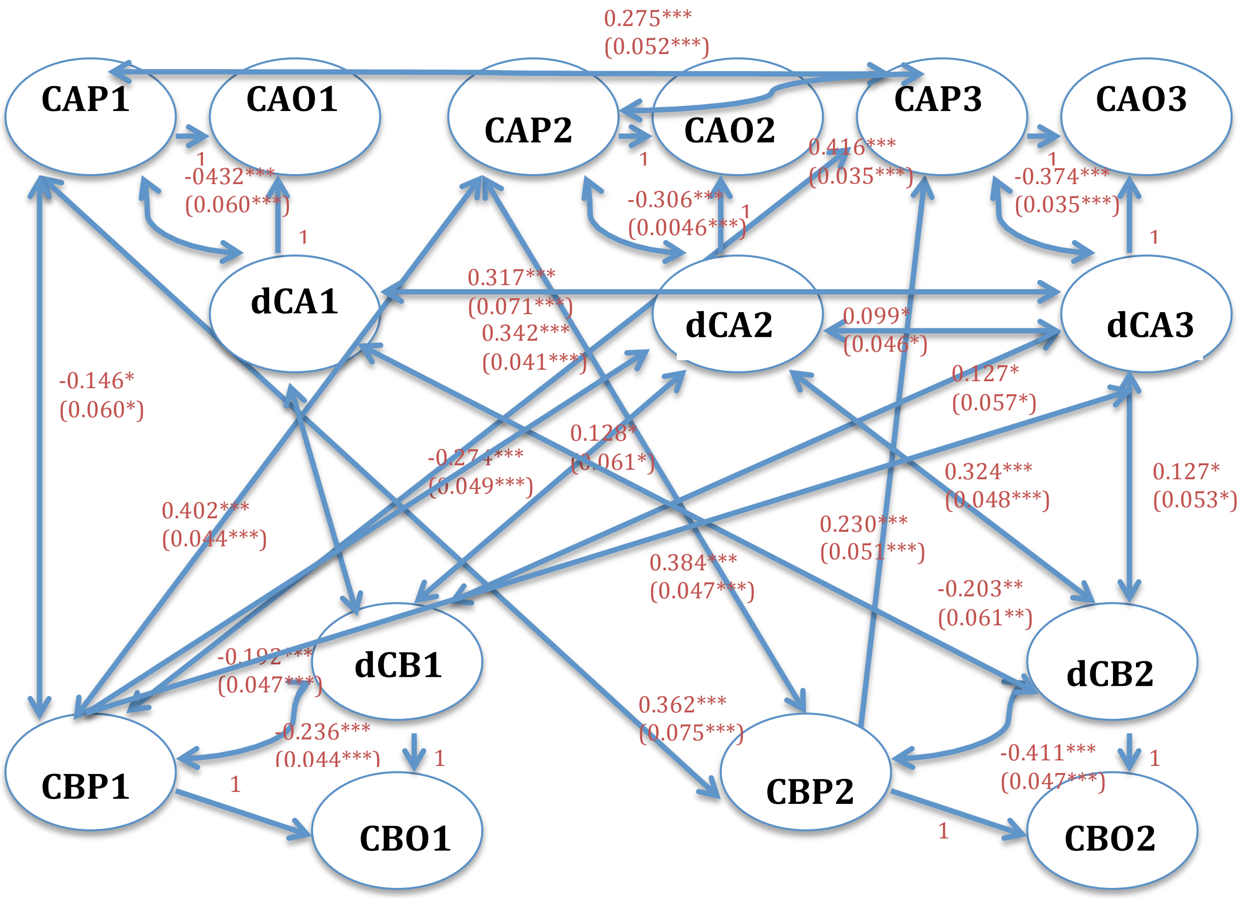


CAP1	**Time 1 Credit/Debt Attitudes Factor 1**
CAO1	**Time 2 Credit/Debt Attitudes Factor 1**
CAP2	**Time 1 Credit/Debt Attitudes Factor 2**
CAO2	**Time 2 Credit/Debt Attitudes Factor 2**
CAP3	**Time 1 Credit/Debt Attitudes Factor 3**
CAO3	**Time 2 Credit/Debt Attitudes Factor 3**
CBP1	**Time 1 Credit/Debt Behavior Factor 1**
CBO1	**Time 2 Credit/Debt Behavior Factor 1**
CBP2	**Time 1 Credit/Debt Behavior Factor 2**
CBO2	**Time 2 Credit/Debt Behavior Factor 2**
dCA1	**Change Score for Credit/Debt Attitudes Factor 1**
dCA2	**Change Score for Credit/Debt Attitudes Factor 2**
dCA3	**Change Score for Credit/Debt Attitudes Factor 3**
dCB1	**Change Score for Credit/Debt Behavior Factor 1**

Figure 3 (cont'd)

dCB2	**Change Score for Credit/Debt Behavior Factor 2**
***Note*. All tested pathways shown, significant estimates and S.E. shown, S.E. displayed in parentheses. *p<.05. **p<.01. ***p<.001.**	

Figure 3a
Hypotheses 1b (Manuscript One)
Standardized Estimates and S.E.

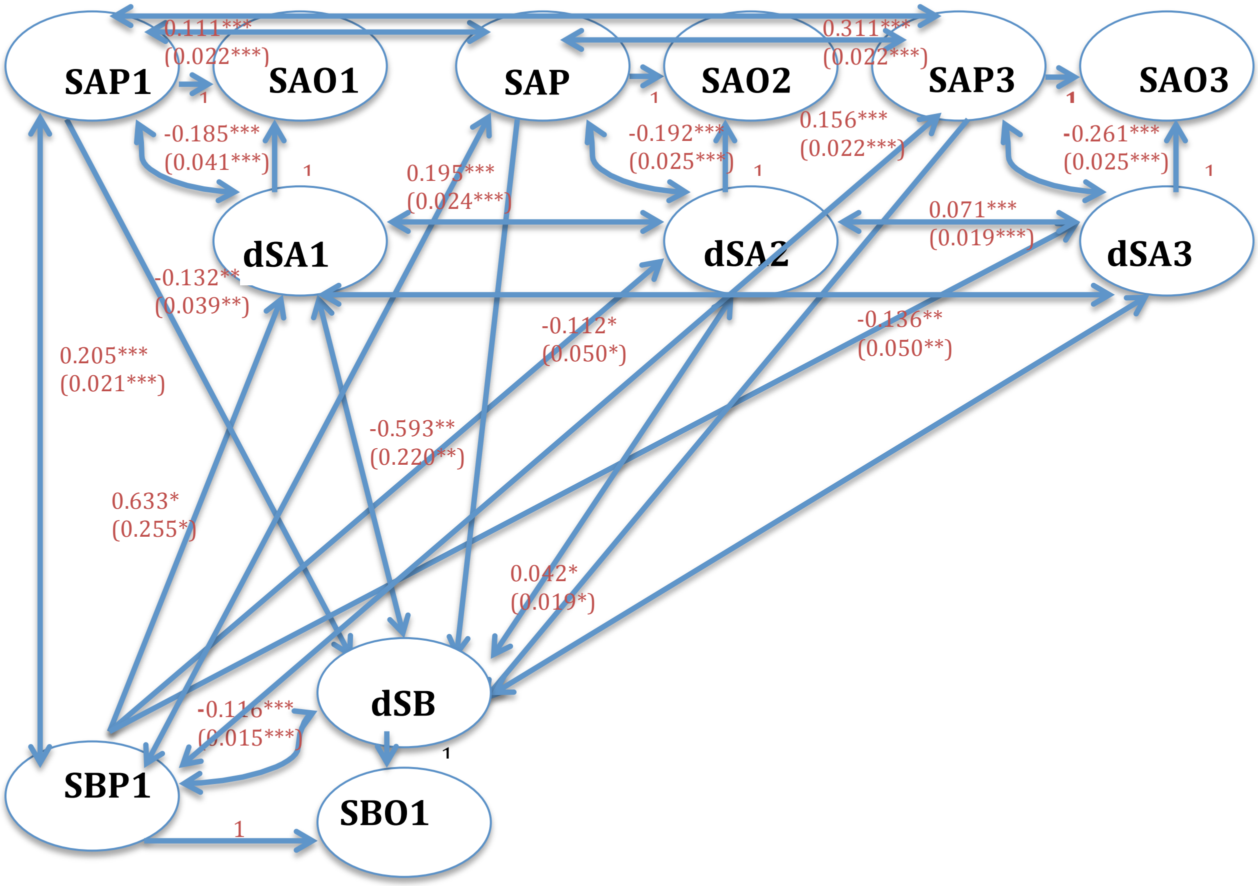


CAP1	**Time 1 Credit/Debt Attitudes Factor 1**
CAO1	**Time 2 Credit/Debt Attitudes Factor 1**
CAP2	**Time 1 Credit/Debt Attitudes Factor 2**
CAO2	**Time 2 Credit/Debt Attitudes Factor 2**
CAP3	**Time 1 Credit/Debt Attitudes Factor 3**
CAO3	**Time 2 Credit/Debt Attitudes Factor 3**
CBP1	**Time 1 Credit/Debt Behavior Factor 1**
CBO1	**Time 2 Credit/Debt Behavior Factor 1**
CBP2	**Time 1 Credit/Debt Behavior Factor 2**
CBO2	**Time 2 Credit/Debt Behavior Factor 2**
dCA1	**Change Score for Credit/Debt Attitudes Factor 1**
dCA2	**Change Score for Credit/Debt Attitudes Factor 2**

Figure 3a (cont'd)

dCA3	**Change Score for Credit/Debt Attitudes Factor 3**
dCB1	**Change Score for Credit/Debt Behavior Factor 1**
dCB2	**Change Score for Credit/Debt Behavior Factor 2**
***Note*. All tested pathways shown, significant estimates and S.E. shown, S.E. displayed in parentheses. *p<.05. **p<.01. ***p<.001.**	

Figure 4
Hypotheses 2b (Manuscript One)
Unstandardized Estimates and S.E.

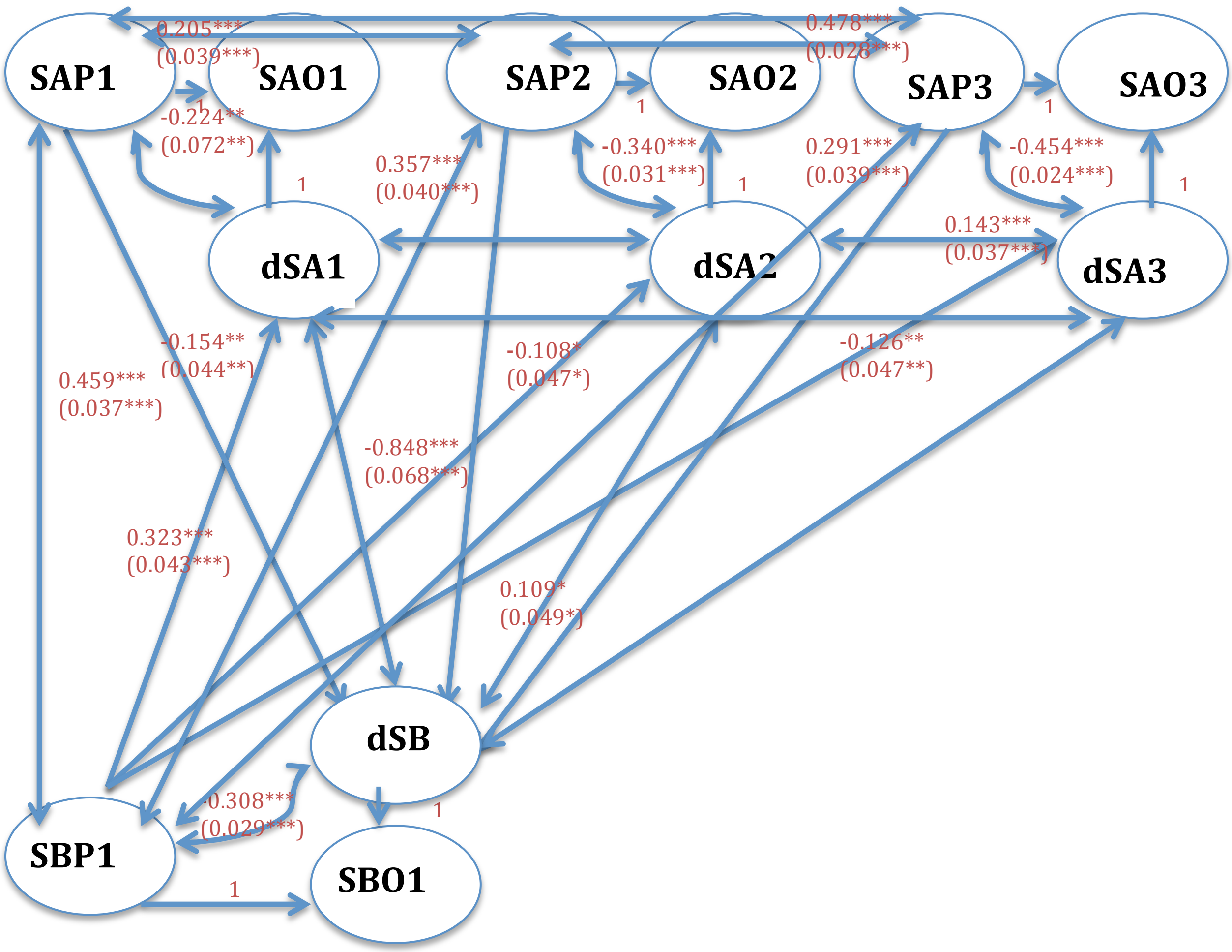


SAP1	**Time 1 Savings/Investing Attitudes Factor 1**
SAO1	**Time 2 Savings/Investing Attitudes Factor 1**
SAP2	**Time 1 Savings/Investing Attitudes Factor 2**
SAO2	**Time 2 Savings/Investing Attitudes Factor 2**
SAP3	**Time 1 Savings/Investing Attitudes Factor 3**
SAO3	**Time 2 Savings/Investing Attitudes Factor 3**
SBP1	**Time 1 Savings/Investing Behavior Factor 1**
SBO1	**Time 2 Savings/Investing Behavior Factor 1**
dSA1	**Change Score for Savings/Investing Attitudes Factor 1**
dSA2	**Change Score for Savings/Investing Attitudes Factor 2**
dSA3	**Change Score for Savings/Investing Attitudes Factor 3**
dSB	**Change Score for Savings/Investing Behavior Factor 1**

Figure 4 (cont'd)

***Note*. All tested pathways shown, significant estimates and S.E. shown, S.E. displayed in parentheses.**
***p<.05. **p<.01. ***p<.001.**

Figure 4a
Hypotheses 2b (Manuscript One)
Standardized Estimates and S.E.



SAP1	**Time 1 Savings/Investing Attitudes Factor 1**
SAO1	**Time 2 Savings/Investing Attitudes Factor 1**
SAP2	**Time 1 Savings/Investing Attitudes Factor 2**
SAO2	**Time 2 Savings/Investing Attitudes Factor 2**
SAP3	**Time 1 Savings/Investing Attitudes Factor 3**
SAO3	**Time 2 Savings/Investing Attitudes Factor 3**
SBP1	**Time 1 Savings/Investing Behavior Factor 1**
SBO1	**Time 2 Savings/Investing Behavior Factor 1**
dSA1	**Change Score for Savings/Investing Attitudes Factor 1**
dSA2	**Change Score for Savings/Investing Attitudes Factor 2**

Figure 4a (cont'd)

dSA3	**Change Score for Savings/Investing Attitudes Factor 3**
dSB	**Change Score for Savings/Investing Behavior Factor 1**
***Note*. All tested pathways shown, significant estimates and S.E. shown, S.E. displayed in parentheses. *p<.05. **p<.01. ***p<.001.**	

Figure 5

Hypotheses 1c (Manuscript One)
Unstandardized Mediation Pathways:
Time 1 Factors and Change Scores

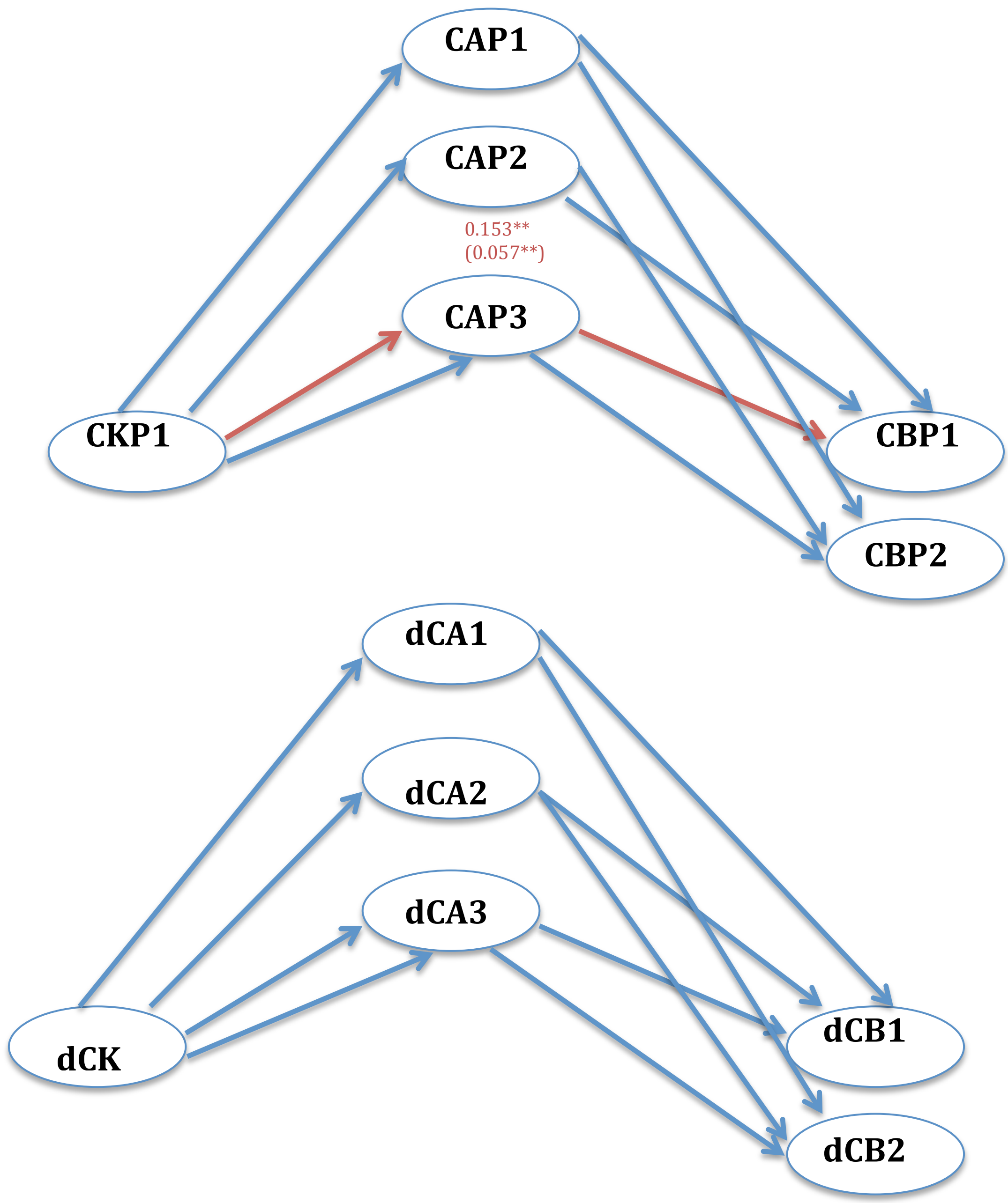


Figure 5 (cont'd)

CKP1	**Time 1 Credit/Debt Knowledge Factor 1**
CAP1	**Time 1 Credit/Debt Attitudes Factor 1**
CAP2	**Time 1 Credit/Debt Attitudes Factor 2**
CAP3	**Time 1 Credit/Debt Attitudes Factor 3**
CBP1	**Time 1 Credit/Debt Behavior Factor 1**
CBP2	**Time 1 Credit/Debt Behavior Factor 2**
dCK	**Change Score for Credit/Debt Knowledge**
dCA1	**Change Score for Credit/Debt Attitudes Factor 1**
dCA2	**Change Score for Credit/Debt Attitudes Factor 2**
dCA3	**Change Score for Credit/Debt Attitudes Factor 3**
dCB1	**Change Score for Credit/Debt Behavior Factor 1**
dCB2	**Change Score for Credit/Debt Behavior Factor 2**
***Note*. All tested pathways shown, significant estimates and S.E. shown, S.E. displayed in parentheses. *p<.05. **p<.01. ***p<.001.**	

Figure 5a
Hypotheses 1c (Manuscript One)
Standardized Mediation Pathways:
Time 1 Factors and Change Scores

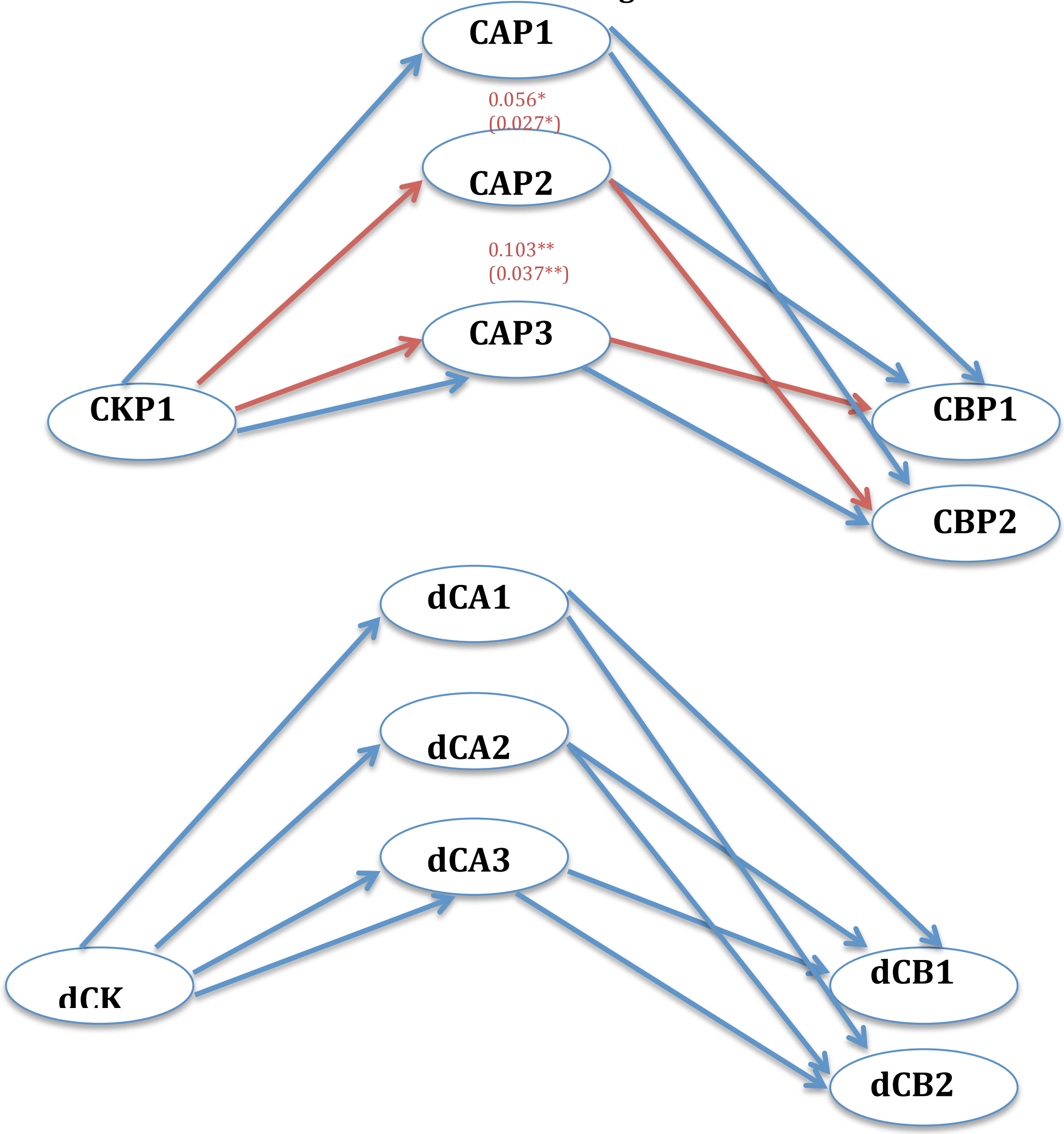


Figure 5a (cont'd)

CKP1	**Time 1 Credit/Debt Knowledge Factor 1**
CAP1	**Time 1 Credit/Debt Attitudes Factor 1**
CAP2	**Time 1 Credit/Debt Attitudes Factor 2**
CAP3	**Time 1 Credit/Debt Attitudes Factor 3**
CBP1	**Time 1 Credit/Debt Behavior Factor 1**
CBP2	**Time 1 Credit/Debt Behavior Factor 2**
dCK	**Change Score for Credit/Debt Knowledge**
dCA1	**Change Score for Credit/Debt Attitudes Factor 1**
dCA2	**Change Score for Credit/Debt Attitudes Factor 2**
dCA3	**Change Score for Credit/Debt Attitudes Factor 3**
dCB1	**Change Score for Credit/Debt Behavior Factor 1**
dCB2	**Change Score for Credit/Debt Behavior Factor 2**
***Note*. All tested pathways shown, significant estimates and S.E. shown, S.E. displayed in parentheses. *p<.05. **p<.01. ***p<.001.**	

Figure 6
Hypotheses 2c (Manuscript One)
Unstandardized Mediation Pathways:
Time 1 Factors and Change Scores

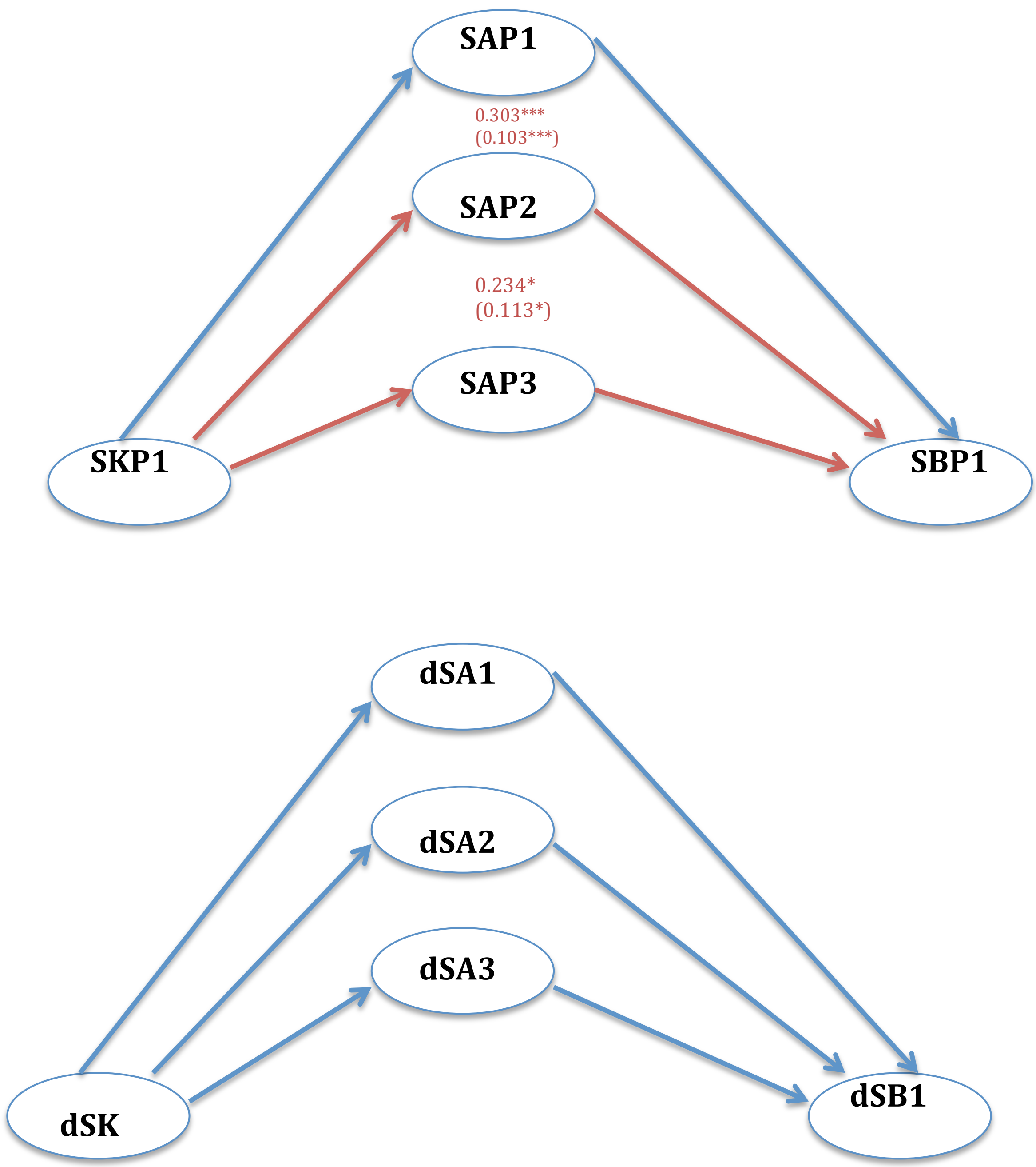


Figure 6 (cont'd)

SKP1	**Time 1 Savings/Investing Knowledge Factor 1**
SAP1	**Time 1 Savings/Investing Attitudes Factor 1**
SAP2	**Time 1 Savings/Investing Attitudes Factor 2**
SAP3	**Time 1 Savings/Investing Attitudes Factor 3**
SBP1	**Time 1 Savings/Investing Behavior Factor 1**
dSK	**Change Score for Savings/Investing Knowledge**
dSA1	**Change Score for Savings/Investing Attitudes Factor 1**
dSA2	**Change Score for Savings/Investing Attitudes Factor 2**
dSA3	**Change Score for Savings/Investing Attitudes Factor 3**
dSB1	**Change Score for Savings/Investing Behavior Factor 1**
***Note*. All tested pathways shown, significant estimates and S.E. shown, S.E. displayed in parentheses. *p<.05. **p<.01. ***p<.001.**	

Figure 6a

Hypotheses 2c (Manuscript One)
Standardized Mediation Pathways:
Time 1 Factors and Change Scores

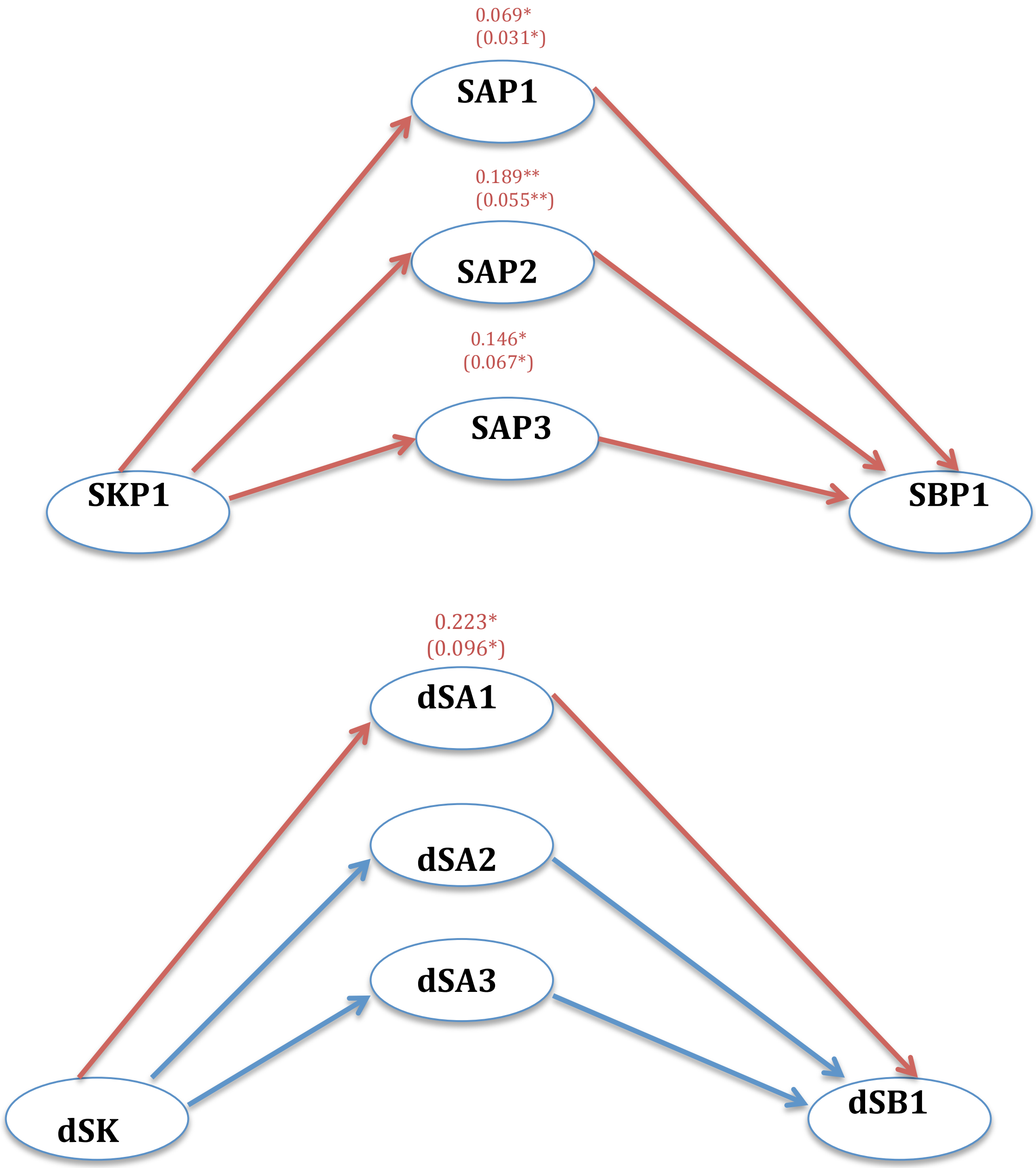
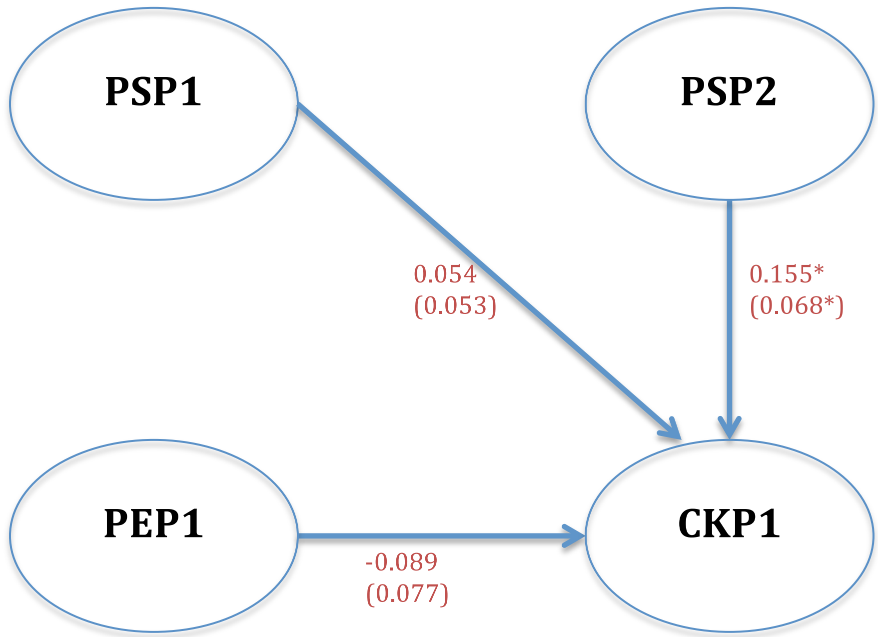


Figure 6a (cont'd)

SKP1	**Time 1 Savings/Investing Knowledge Factor 1**
SAP1	**Time 1 Savings/Investing Attitudes Factor 1**
SAP2	**Time 1 Savings/Investing Attitudes Factor 2**
SAP3	**Time 1 Savings/Investing Attitudes Factor 3**
SBP1	**Time 1 Savings/Investing Behavior Factor 1**
dSK	**Change Score for Savings/Investing Knowledge**
dSA1	**Change Score for Savings/Investing Attitudes Factor 1**
dSA2	**Change Score for Savings/Investing Attitudes Factor 2**
dSA3	**Change Score for Savings/Investing Attitudes Factor 3**
dSB1	**Change Score for Savings/Investing Behavior Factor 1**
***Note*. All tested pathways shown, significant estimates and S.E. shown, S.E. displayed in parentheses. *p<.05. **p<.01. ***p<.001.**	

Figure 7
Hypotheses 1a (Manuscript Two): Time One
Unstandardized Estimates and S.E.

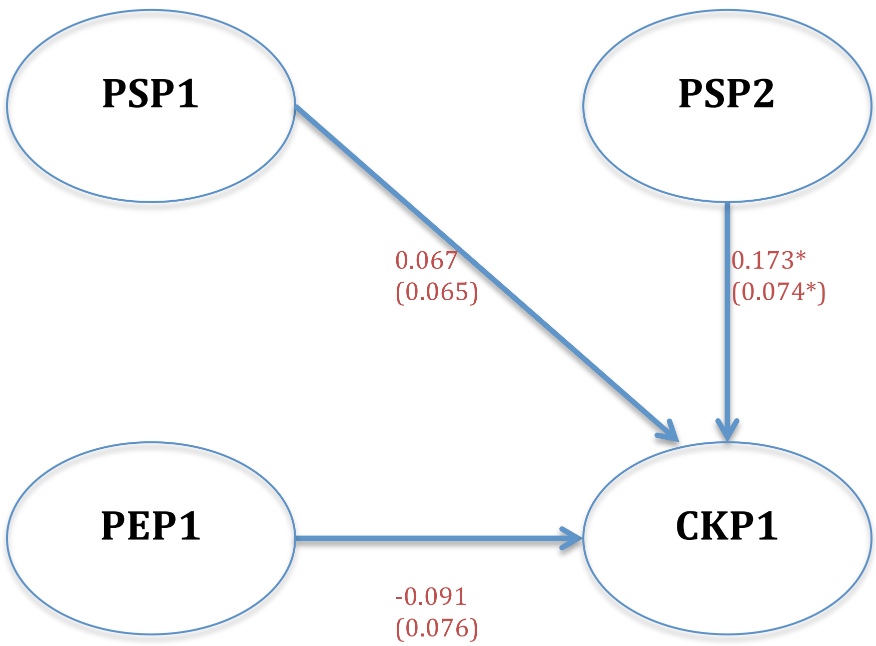


PSP1	**Time 1 Parental Financial Socialization Factor 1**
PSP2	**Time 1 Parental Financial Socialization Factor 2**
PEP1	**Time 1 Parental Financial Experience Factor 1**
CKP1	**Time 1 Credit/Debt Knowledge Factor 1**
***Note*. All tested pathways shown, significant estimates and S.E. shown, S.E. displayed in parentheses. *p<.05. **p<.01. ***p<.001.**	

Figure 7a

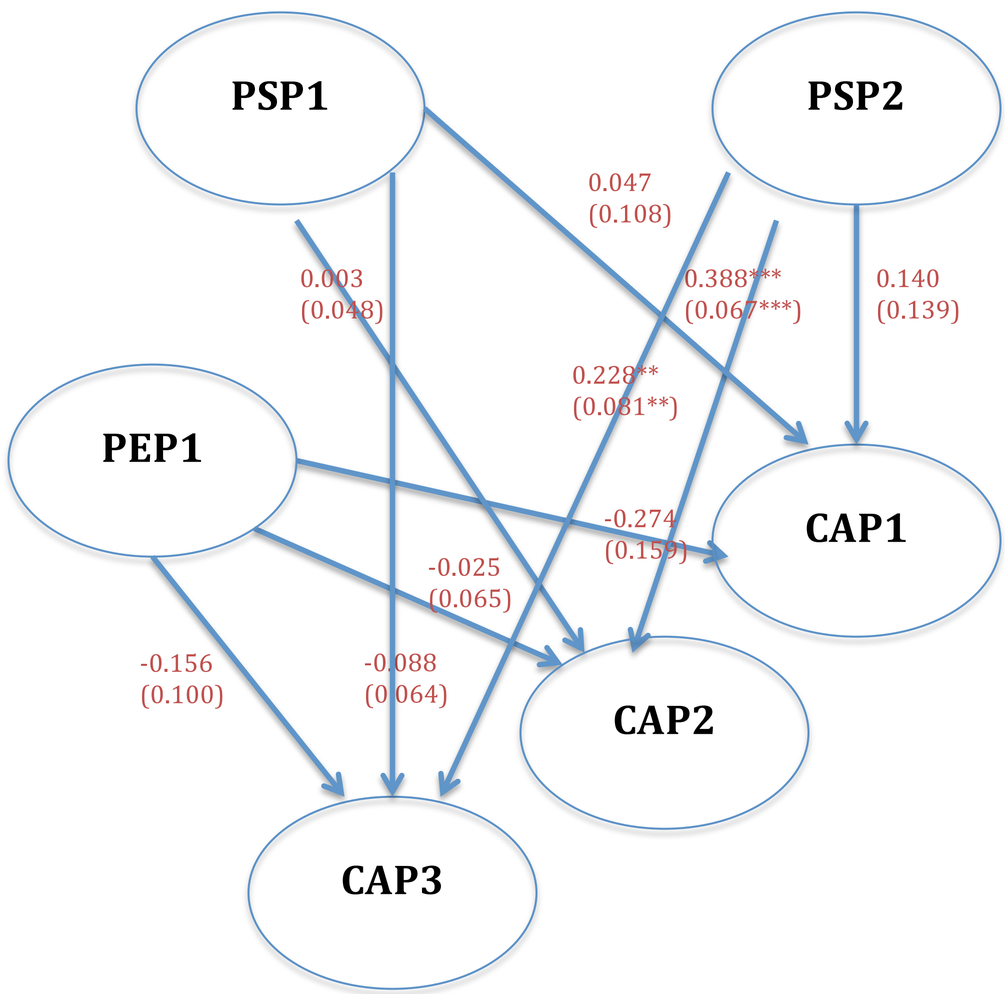
Hypotheses 1a (Manuscript Two): Time One

Standardized Estimates and S.E.



PSP1	**Time 1 Parental Financial Socialization Factor 1**
PSP2	**Time 1 Parental Financial Socialization Factor 2**
PEP1	**Time 1 Parental Financial Experience Factor 1**
CKP1	**Time 1 Credit/Debt Knowledge Factor 1**
***Note*. All tested pathways shown, significant estimates and S.E. shown, S.E. displayed in parentheses. *p<.05. **p<.01. ***p<.001.**	

Figure 8
Hypotheses 1b (Manuscript Two): Time One
Unstandardized Estimates and S.E.

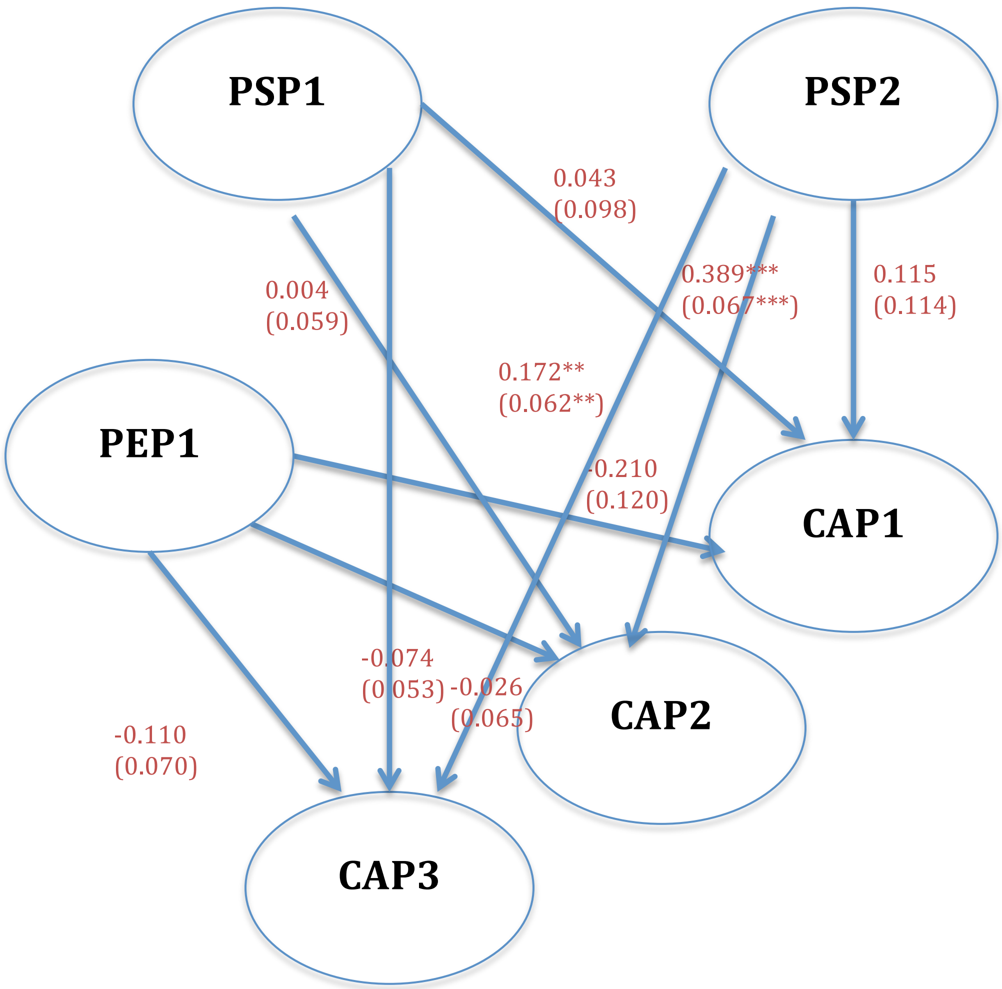


PSP1	**Time 1 Parental Financial Socialization Factor 1**
PSP2	**Time 1 Parental Financial Socialization Factor 2**
PEP1	**Time 1 Parental Financial Experience Factor 1**
CAP1	**Time 1 Credit/Debt Attitudes Factor 1**
CAP2	**Time 1 Credit/Debt Attitudes Factor 2**
CAP3	**Time 1 Credit/Debt Attitudes Factor 3**
***Note*. All tested pathways shown, significant estimates and S.E. shown, S.E. displayed in parentheses. *p<.05. **p<.01. ***p<.001.**	

Figure 8a

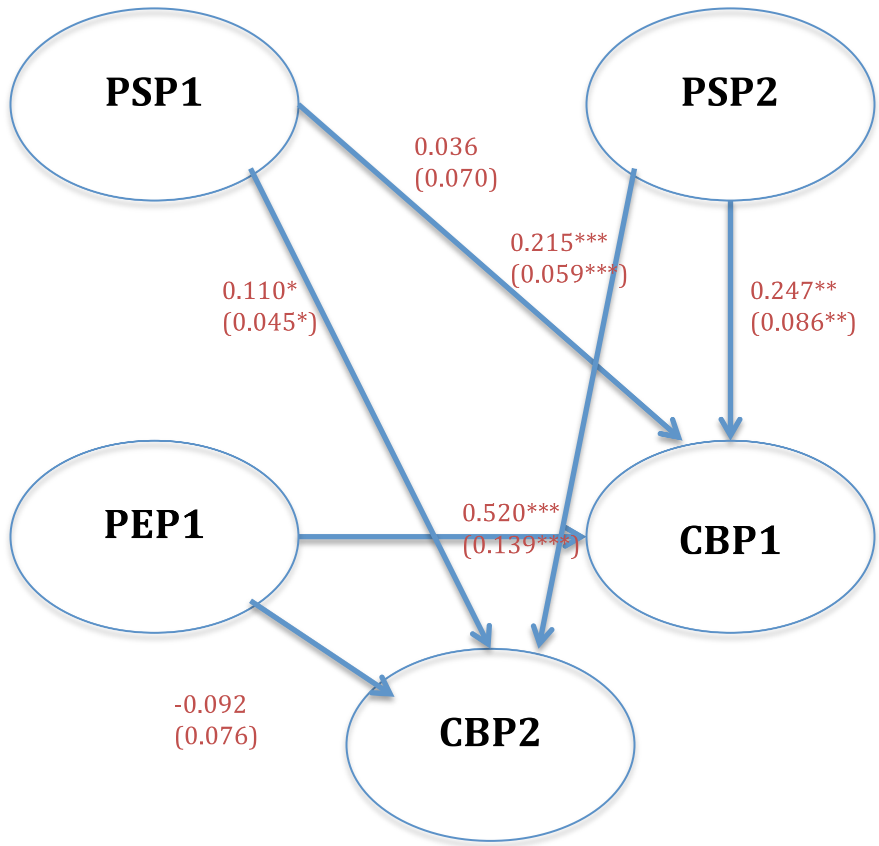
Hypotheses 1b (Manuscript Two): Time One

Standardized Estimates and S.E.



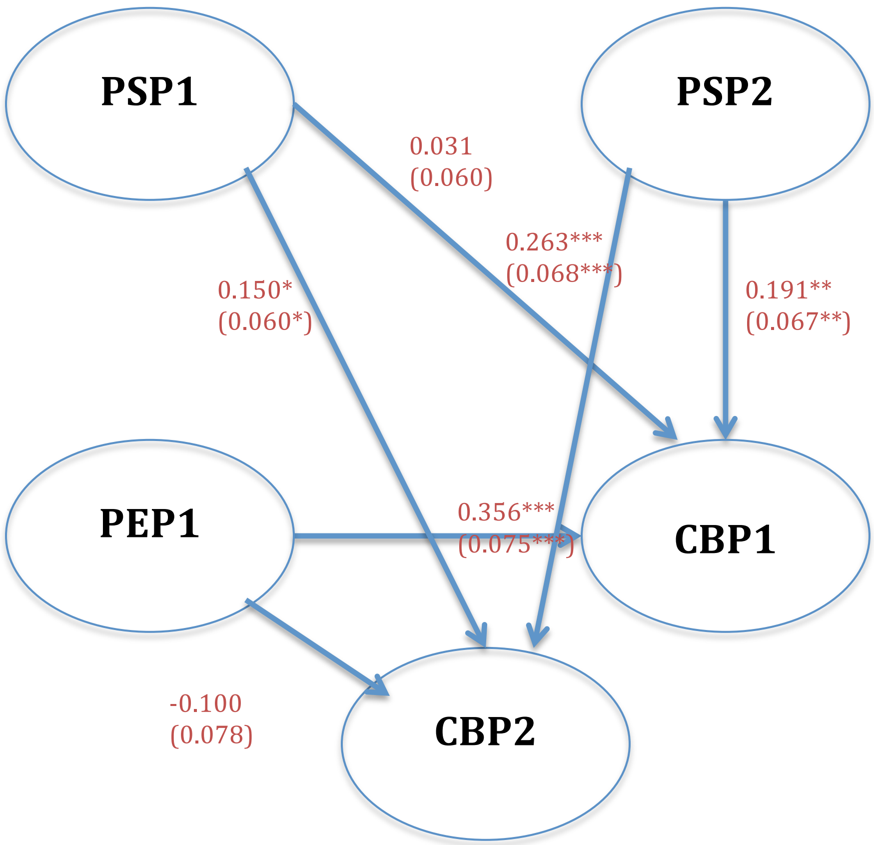
PSP1	**Time 1 Parental Financial Socialization Factor 1**
PSP2	**Time 1 Parental Financial Socialization Factor 2**
PEP1	**Time 1 Parental Financial Experience Factor 1**
CAP1	**Time 1 Credit/Debt Attitudes Factor 1**
CAP2	**Time 1 Credit/Debt Attitudes Factor 2**
CAP3	**Time 1 Credit/Debt Attitudes Factor 3**
***Note*. All tested pathways shown, significant estimates and S.E. shown, S.E. displayed in parentheses. *p<.05. **p<.01. ***p<.001.**	

Figure 9
Hypotheses 1c (Manuscript Two): Time One
Unstandardized Estimates and S.E.



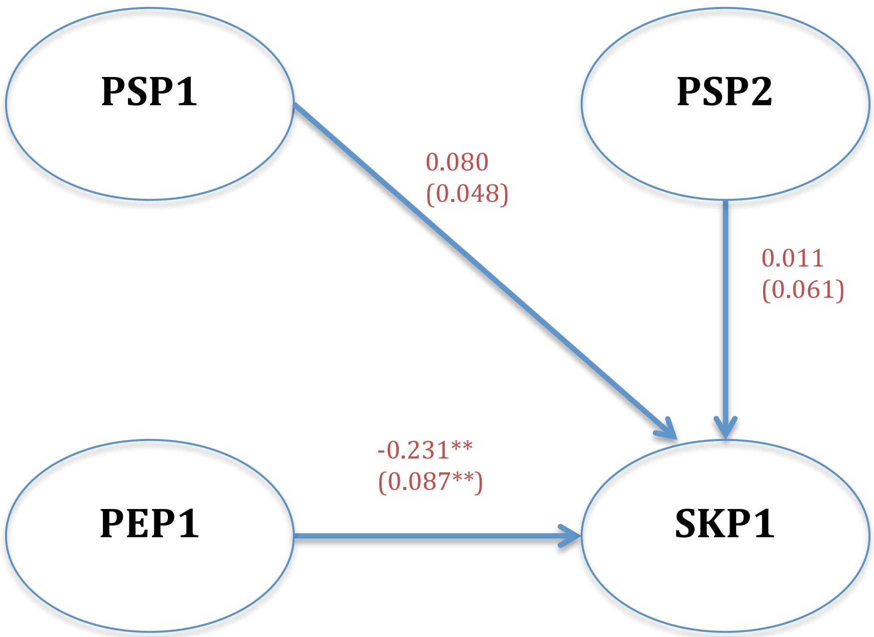
PSP1	**Time 1 Parental Financial Socialization Factor 1**
PSP2	**Time 1 Parental Financial Socialization Factor 2**
PEP1	**Time 1 Parental Financial Experience Factor 1**
CBP1	**Time 1 Credit/Debt Behavior Factor 1**
CBP2	**Time 1 Credit/Debt Behavior Factor 2**
***Note*. All tested pathways shown, significant estimates and S.E. shown, S.E. displayed in parentheses. *p<.05. **p<.01. ***p<.001.**	

Figure 9a
Hypotheses 1c (Manuscript Two): Time One
Standardized Estimates and S.E.



PSP1	**Time 1 Parental Financial Socialization Factor 1**
PSP2	**Time 1 Parental Financial Socialization Factor 2**
PEP1	**Time 1 Parental Financial Experience Factor 1**
CBP1	**Time 1 Credit/Debt Behavior Factor 1**
CBP2	**Time 1 Credit/Debt Behavior Factor 2**
***Note*. All tested pathways shown, significant estimates and S.E. shown, S.E. displayed in parentheses. *p<.05. **p<.01. ***p<.001.**	

Figure 10
Hypotheses 2a (Manuscript Two): Time One
Unstandardized Estimates and S.E.

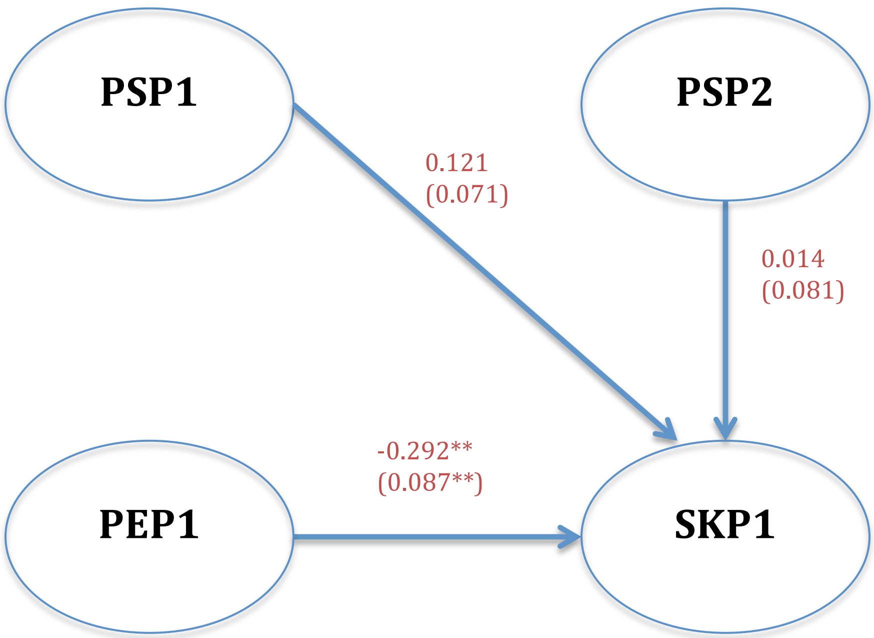


PSP1	**Time 1 Parental Financial Socialization Factor 1**
PSP2	**Time 1 Parental Financial Socialization Factor 2**
PEP1	**Time 1 Parental Financial Experience Factor 1**
SKP1	**Time 1 Savings/Investing Knowledge Factor 1**
***Note*. All tested pathways shown, significant estimates and S.E. shown, S.E. displayed in parentheses. *p<.05. **p<.01. ***p<.001.**	

Figure 10a

Hypotheses 2a (Manuscript Two): Time One

Standardized Estimates and S.E.

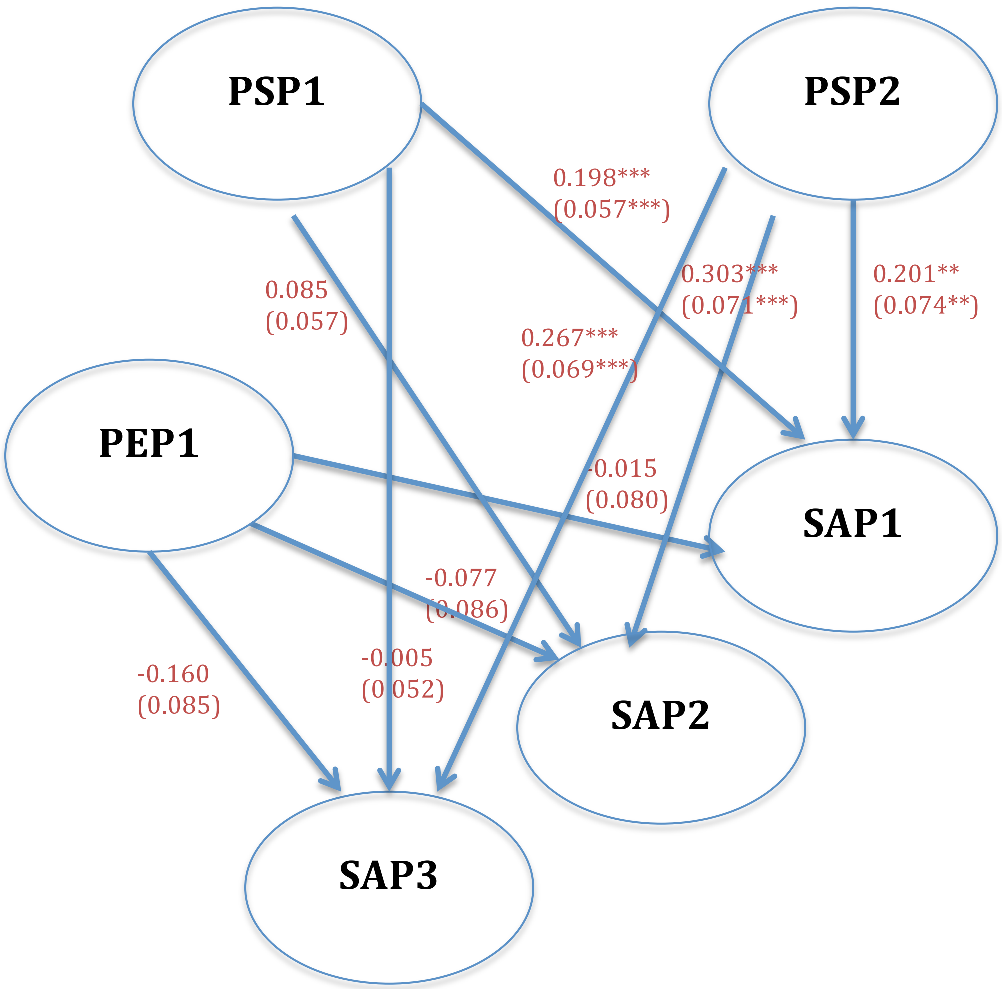


PSP1	**Time 1 Parental Financial Socialization Factor 1**
PSP2	**Time 1 Parental Financial Socialization Factor 2**
PEP1	**Time 1 Parental Financial Experience Factor 1**
SKP1	**Time 1 Savings/Investing Knowledge Factor 1**
***Note*. All tested pathways shown, significant estimates and S.E. shown, S.E. displayed in parentheses. *p<.05. **p<.01. ***p<.001.**	

Figure 11

Hypotheses 2b (Manuscript Two): Time One

Unstandardized Estimates and S.E.

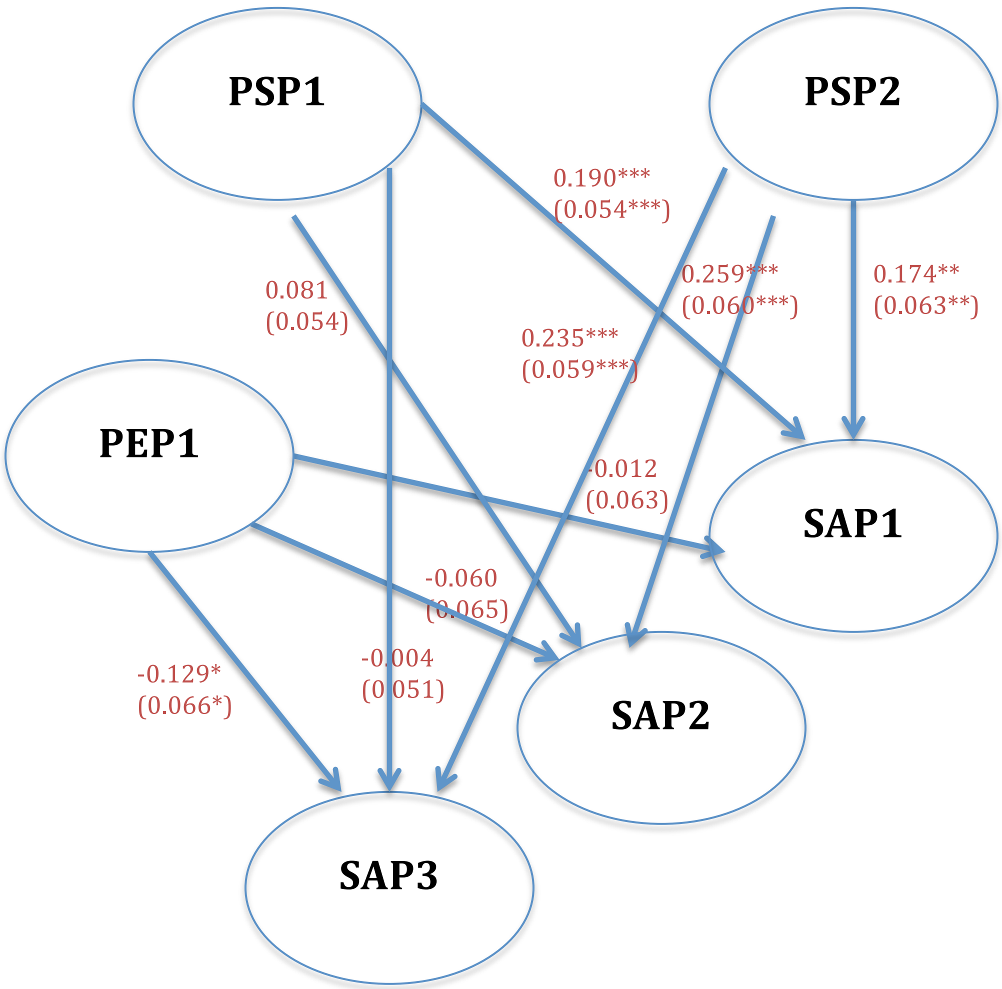


PSP1	**Time 1 Parental Financial Socialization Factor 1**
PSP2	**Time 1 Parental Financial Socialization Factor 2**
PEP1	**Time 1 Parental Financial Experience Factor 1**
SAP1	**Time 1 Savings/Investing Attitudes Factor 1**
SAP2	**Time 1 Savings/Investing Attitudes Factor 2**
SAP3	**Time 1 Savings/Investing Attitudes Factor 3**
***Note*. All tested pathways shown, significant estimates and S.E. shown, S.E. displayed in parentheses. *p<.05. **p<.01. ***p<.001.**	

Figure 11a

Hypotheses 2b (Manuscript Two): Time One

Standardized Estimates and S.E.

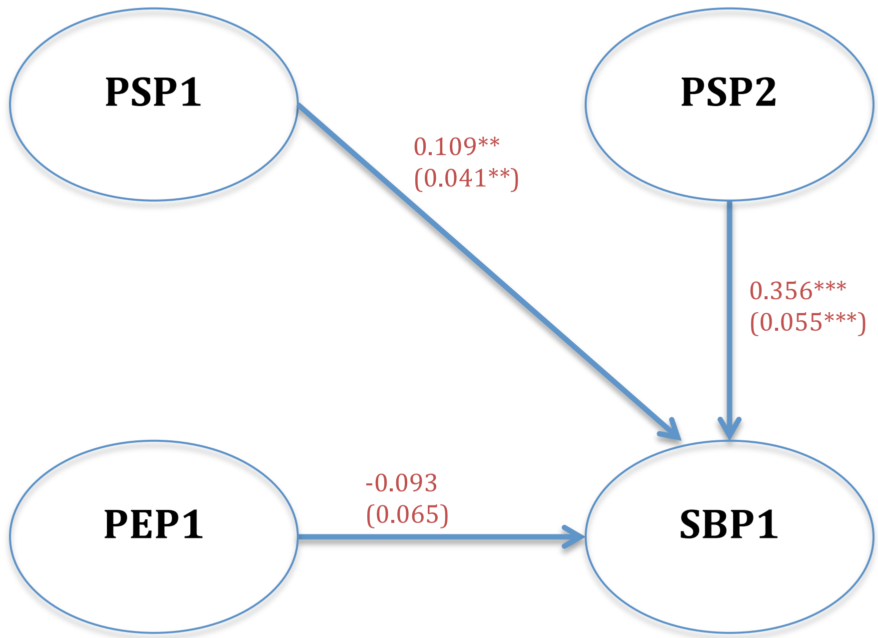


PSP1	**Time 1 Parental Financial Socialization Factor 1**
PSP2	**Time 1 Parental Financial Socialization Factor 2**
PEP1	**Time 1 Parental Financial Experience Factor 1**
SAP1	**Time 1 Savings/Investing Attitudes Factor 1**
SAP2	**Time 1 Savings/Investing Attitudes Factor 2**
SAP3	**Time 1 Savings/Investing Attitudes Factor 3**
***Note*. All tested pathways shown, significant estimates and S.E. shown, S.E. displayed in parentheses. *p<.05. **p<.01. ***p<.001.**	

Figure 12

Hypotheses 2c (Manuscript Two): Time One

Unstandardized Estimates and S.E.

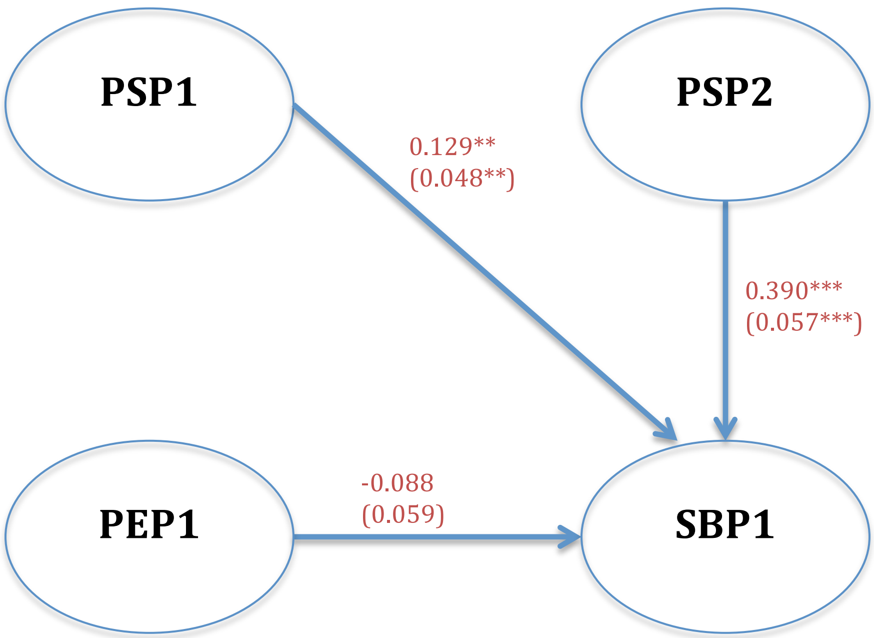


PSP1	**Time 1 Parental Financial Socialization Factor 1**
PSP2	**Time 1 Parental Financial Socialization Factor 2**
PEP1	**Time 1 Parental Financial Experience Factor 1**
SBP1	**Time 1 Savings/Investing Behavior Factor 1**
***Note*. All tested pathways shown, significant estimates and S.E. shown, S.E. displayed in parentheses. *p<.05. **p<.01. ***p<.001.**	

Figure 12a

Hypotheses 2c (Manuscript Two): Time One

Standardized Estimates and S.E.



PSP1	**Time 1 Parental Financial Socialization Factor 1**
PSP2	**Time 1 Parental Financial Socialization Factor 2**
PEP1	**Time 1 Parental Financial Experience Factor 1**
SBP1	**Time 1 Savings/Investing Behavior Factor 1**
***Note*. All tested pathways shown, significant estimates and S.E. shown, S.E. displayed in parentheses. *p<.05. **p<.01. ***p<.001.**	

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