AFCPE®

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of The Association for Financial Counseling and Planning Education®

Edited by **Anne Barton, AFC** and
Sara Croymans, MEd, AFC

2012 Annual Conference
November 14-16

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Editor's Note

Welcome to the 2012 AFCPE Conference Proceedings. The broad range of items selected by the program committees for Posters, Practitioner's Forums, Research Papers and Student Papers for the 2012 annual conference represents the expertise and commitment of our members to financial counseling, planning, and education across the lifespan in a variety of venues.

We would like to thank all who submitted and reviewed papers, practitioner forums and posters for the 2012 annual conference of AFCPE. The *Proceedings* include all of the research papers, student papers, practitioner forum summaries, and poster abstracts presented at the AFCPE Conference in St. Louis, Missouri November 14-16, 2012.

We would especially like to thank Katie Baylor, AFCPE Operations Officer, who patiently and graciously answered our many questions during the preparation of the *Proceedings*.

It has been a privilege, as well as an educational experience, to edit and format the *Proceedings* for this year's annual AFCPE conference. The opportunity to read each of the submissions prior to the conference has been invigorating. We are looking forward to attending as many of the presentations as possible. The commitment of the AFCPE membership is reflected in their submission of quality research and presentations for this year's conference.

The 2012 conference exemplifies AFCPE's mission of "providing outstanding professional development experiences for financial educators, practitioners and researchers to improve the economic wellbeing of individuals and families worldwide".

Please consider submitting your work for publication in the 2013 AFCPE Proceedings and for presentation at the conference in Greenville, SC November 20-22, 2013. Please visit the AFCPE website (www.afcpe.org) for conference details and submission guidelines.

Sara Croymans, MEd, AFC
University of Minnesota Extension
croym001@umn.edu

and

Anne Barton, AFC, CPFM
Inceptia
anneb@inceptia.org

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Additions to the Financial Behaviors Score (FBS) in Assessing Couples' Net Worth

Rachel Dorman[1], University of Florida, and Michael Gutter, University of Florida

Key Words: c*ouple households, wealth, net worth, financial behaviors*

Households are struggling to maintain their wealth in a financial setting that is becoming more disproportionate (Federal Reserve, 2011; Kennickell, 2009). Household's desire to sustain or gain more wealth in challenging economic times has shed light to the importance of financial management. For lower income households financial management becomes the cornerstone to their ability to grow their net worth. This study will used the Hayhoe and Gutter's (2012) Financial Behaviors Score, a score created with Dew and Xiao's (2011) Financial Management Behavior Scale in mind. Hayhoe and Gutter's FBS (2012) is missing financial behaviors that could be predictive of household net worth.

This purpose of this study was to expand on the current FBS by including how far into the future families plan their finances, whether spouses or partners combine their income, and if families have an emergency fund. These three new factors were predicted to have causality in the overall household's net worth. This study used the NC-1172 Data. The findings suggest that the model that included whether household had a planning horizon, combine assets, and have accessibility to an emergency fund was accepted over the model which did not, thus showing that the scope of financial management behaviors we can consider as important determinants of net worth may need to vary for couples and single households.

Reference

Dew, J., & Xiao, J. (2011). The financial management behavior scale: Development and validation. *Journal of Financial Counseling and Planning, 22*(1), 43 – 59.

Federal Reserve. (2011). *Coded tables: Balance sheet tables: December 2011*. Retrieved from: http://www.federalreserve.gov/releases/z1/Current/Coded/coded-5.pdf

Hayhoe, K., & Gutter, M. (2012). Psychometric properties of scales in the NC1172-complex nature of saving data set. *Family & Consumer Sciences Research Journal, under review*.

Kennickell, A. (2009). Ponds and streams: Wealth and income in the U.S., 1989 to 2007. Washington, D.C.: Finance and Economic Discussion Series Division of Research and Statistical and Monetary Affairs, Federal Reserve Board.

[1] Rachel Dorman, University of Florida, racheld4@ufl.edu

Adventures in Education (AIE™) website – AIE.org

Bonita Peebles[2], Assistant Director for Pre-College Success, Texas Guaranteed Student Loan Corporation (TG)

Key words: o*nline, scholarships, careers, admissions*

Description

TG is a public nonprofit organization whose vision is to be the premier provider of information, products, and services to help students and families realize their education and career dreams.

In alignment with its vision, TG provides free resources for students and parents that help connect families to institutions of higher education. These resources are also available for counselors, community and faith based organizations, and other service providers that help families navigate the transition to higher education.

TG resources include TG's public service website, Adventures in Education (AIE™) found at www.AIE.org. Most AIE website material is presented in both English and Spanish, and content includes five major sections.

Managing Your Money — This section provides information and tools that address real-world finances, such as spending plan worksheets, a credit card skills builder, interactive credit report exercises, and a credit calculator.

Planning for College — This section features an introduction to the financial aid process, motivational video presentations titled "I am College Ready," and other helpful information.

Paying for College — In this section, students and families can access a scholarship search tool, information on loans, and even a loan calculator to illustrate repayment options.

Finding a Career — This section focuses on careers, with resources such as U.S. Department of Labor statistics and career profile videos that orient students to different career choices.

Additionally, a prominently-placed "Top Questions" sidebar helps students and their families access answers to some of the most-asked questions about the college-planning process.

TG is a public nonprofit organization and does not offer third-party marketing on the AIE website.

TG showcases AIE at numerous Texas College Awareness events and in NextStepU magazine, a national publication for high school students that is distributed in over 20,000 high schools in all 50 states.

[2] Bonita Peebles, Assistant Director for Pre-college Success, Texas Guaranteed Student Loan Corporation (TG), P.O. Box 83100, Round Rock, TX, 78683-3100; Phone: 800- 845-6267; Fax: 512- 219-4989; Email: awareness@tgslc.org

Buying Motivations that Lead to Healthy versus Harmful Buying Behaviors

Ivan F. Beutler[3], Brigham Young University, Jacob P. Sybrowsky, Ph.D. CRC®, Utah Valley University
Clinton G. Gudmunson, Ph.D., Iowa State University

Key words: *buying motives, money attitudes*

The purpose of this project was to identify money attitudes and buying motivations that lead to healthy versus harmful-excessive buying behaviors. During the decades of the 80's and 90's impulsive and compulsive buying received a flurry of attention in a literature that identified *instrumental-economic* buying motives (efficiency, good value for money & convenience) that are now considered to be traditional predictors of healthy and unhealthy buying behaviors. Now this decade Dittmar and her colleagues (2007) have identified *social-psychological* buying motives that also predict healthy and harmful buying behaviors supported by their empirical analysis.

However, The Dittmar research did not include empirical measures of instrumental-economic buying motives that would indicate the empirical significance or the relative magnitude of traditional buying motivations relative to social-psychological motives. In addition to over two decades of literature that documents the importance of instrumental-economic buying motivation on buying behaviors, our review of literature and Dittmar's review supply probable support for both empirical forms of buying motives. The purpose of the project reported here was to conduct a research study that included empirical measures of *both* forms of buying motives to ascertain their relative empirical importance.

Our analysis is not yet complete, but our preliminary model draws on two social-psychological measures each of which takes the form of two well-known Yamauchy and Templar (1982) money attitudes. The first is *power–prestige* (conspicuous forms of consumption carried out in an attempt to exercise power in the marketplace thereby gaining prestige with its attendant sense of enhanced personal identity. A second social-psychological money attitude is a*nxiety* (excessive buying in an attempt to *manage or enhance emotions*). Our preliminary model also draws on the two instrumental-economic motivations associated pragmatic concern for purchase convenience. The first includes *credit card* use, a major facilitator of purchase convenience. Juxtaposed to credit card use is the frequency with which a set of *debt avoidance* behaviors are used to help control spending.

Preliminary finding indicate that the association of the two sets of buying motives are comparable in their empirical magnitude and both are statistically significant. Furthermore, both indicators of social-psychological buying behavior (power-prestige & anxiety) were associated with unhealthy or excessive buying, as was credit card use, but debt avoidance behaviors were supportive of more healthy levels of buying in a magnitude that approximately off-set the effect of credit card use.

The purpose of this research is to further develop of money attitudes that can help assess meanings associated with the use of money. Also this research ascertains the influence of social-psychological motivations to spend—in this study they are power and anxiety. Preliminary analysis indicates when it comes to excessive spending the effect of *power* and *anxiety* as social-psychological motives is about equal in their influence for unhealthy-excessive spending. Also in terms of excessive spending the influence of instrumental-economic motivation was examined—credit card use and debt avoidance had about equal effects, but the effect of *credit card use* promoted harmful-excessive spending while *debt avoidance* forestalled it.

References

Dittmar, H., Long K., & Bond R. (2007). Associations between materialistic values, emotional and identity-related buying motives, compulsive buying online, *Journal of Social and Clinical Psychology, 26*(3), 334-361.

Yamauchi, K. & Templar, D. (1982). The development of a money attitudes scale. *Journal of Personality Assessment*, *46,* 522-528.

[3] Ivan F. Beutler, Brigham Young University, School of Family Life, 2048 JFSB, Provo, UT 84602;
Phone: 801-422-6416; Email: ivan_beutler@byu.edu

Comparing the Retirement Savings of Retirement Income Satisfaction Groups

Chungwen Hsu[4] and Irene E. Leech, Ph.D., Virginia Tech

Key words: *retirement income satisfaction, retirement savings, Survey of Consumer Finances*

The purpose of the study was to examine what were the best predictors of retirement savings among three retirement income satisfaction groups using the Survey of Consumer Finances (SCF) dataset. The findings would help counselors, educators, and consumers better understand the characteristics of people who reported different retirement income satisfaction levels and to know what factors affecting their retirement savings.

The sample used in the study was drawn from the 2007 SCF. The data were analyzed in three separate groups based on the question: "Using any number from 1 to 5, where one equals totally inadequate and five equals very satisfactory, how would you rate the retirement income you (receive or expect to receive) from Social Security and job pensions? Include 401(K) accounts and all other types of pensions." Those who rated 1 or 2 were classified as the dissatisfied group (N=2,241); those who rated 3 were categorized as the enough group (N=1,312); those whose ratings were 4 or 5 were in the satisfied group (N=865).

The mean age was 47, 52, and 54 for the dissatisfied, enough, and satisfied groups. The average retirement savings was $59,500 for dissatisfied participants, $66,540 for enough participants, and $142,190 for those who were satisfied. The average income was $80,170 for dissatisfied, $70,440 for enough, and $106,875 for satisfied participants. The percentages of being a saver were 35% for dissatisfied group, 47% for the enough group, and 63% for the satisfied group. Likewise, the percentages of participants who reported saving regularly were 36% for the dissatisfied group, 45% for the enough group, and 55% for the satisfied group. The mean scores of respondents' health (1=poor to 4=excellent) were 2.91for the dissatisfied group, 2.93 for the enough group, and 3.10 for the satisfied group. Participants in all groups rated their spouse/partner's health between 1 and 2.

The results of ordinary least squares regressions showed that age, income, and education had a positive significant influence on the retirement savings for all groups. The respondent's health positively affected the enough group's retirement savings. For enough and satisfied groups, as spouse/partner's health status improved, the retirement savings increased. Having a working spouse/partner was negatively related to retirement savings for the dissatisfied and enough groups.

Based on these findings, counselors and educators may recommend affordable and tax incentive retirement saving methods to encourage younger clients with less education and less income to save earlier for later life, even starting with a small amount. Some double income households can accumulate greater savings than one earner households. The latter group should be the target audience for more financial education and advice on topics such as budgeting. Poor health is related to less productivity and more absenteeism in workplace, and higher premiums and greater medical bills. A health issue for either the client or his/her spouse/partner can be a financial burden to the household. Contemporary counselors and educators may not only provide clients financial guidance but also health information, especially for those who have relatively weak economic knowledge.

[4] Chungwen Hsu, Apparel, Housing, and Resource Management, Virginia Tech, 240 Wallace Hall, Blacksburg, VA 24061; Phone: 540- 231-4191; Fax: 540- 231- 1697; Email: chungwen@vt.edu

A Comparison Between 2009 and 2012 College Students' Financial Attitudes and Behaviors

Nancy C. Deringer[5], PhD and Colleen Robbins, Graduate Student

Key words: *Financial behaviors, debt, credit*

The media is rich with headlines such as "A College Education, At What Expense?", "Student Loan Debt Now Surpasses Credit Card Debt", "Is a College Education Worth It?", "You Can Now Take Twenty-five Years to Pay Off Your Student Loan Debt", and the list continues. Higher education costs have increased exponentially over the past two decades. And, in our American society, it is common knowledge that one earns more money over one's lifetime if they have a four-year college degree. In fact, it is often substantially more depending upon the profession. However, for many individuals, the costs of funding higher education are beginning to outweigh the benefits; and, oftentimes, it may be overwhelming.

For purposes of this poster session, two researchers (a master's student/associate director from a student financial aid office and an assistant professor in consumer studies) from a university in the Pacific Northwest, collected data in November 2009 of 2000 randomly selected undergraduate students (n=778), and in 2012 of 2000 randomly selected undergraduate student (n=539). Some of the questions the researchers asked included: "How would you describe your current financial situation?", "Do you currently have credit card debt? If so, please select the amount:", "Do you currently have student loans? If so, please select the amount:", "Do you have a consistent savings plan?", "Do you budget for monthly expenses?", "Do you currently discuss finances with your parents (or spouse if currently married)?", and "Have you discussed the issue of needs vs. wants with your parents?" Data from the two samples will be compared using crosstabs, t-tests, and ANOVAs where appropriate, to determine if there were significant differences between and within the two sample populations.

Preliminary quantitative analysis indicated differences in how respondents described their current financial situation. Current 2012 data will be reported without parentheses', and 2009 data will be in parentheses'. Respondents described their current financial situation as: Secure = 12% (8%); Comfortable = 58% (41%); Shaky = 27% (42%); and Disastrous = 3% (9%). It is interesting to note that in three years, the students are feeling more positive about their financial situation. Perhaps they are becoming more aware of their financial situation because of national economic concerns, or because of increased media attention. Questions will be compared between the two data sets related to the amount of student loan debt, amount of credit card debt, if they are saving, discussions with parents (or spouse if married) related to finances and needs vs. wants.

Open ended questions were also included in the research study related to what information the students want to see offered in a workshop. The question, "Please list specific financial issues or topics that you would like us to discuss in a workshop:" was open-ended and answered by approximately 130 individuals.

Preliminary qualitative analysis indicated that 24% of the respondents had something to suggest. The majority of the workshop requests related to: budgeting and money management (22%), costs associated with increasing tuition/books/fees (21%), scholarships/grants (16%), savings (13%), and student loans (11%). Other recommendations dealt with credit cards, debt management, how to find employment after graduation, what to do if parents do not help financially, and how to spend less for healthy food.

Comparing the preliminary analysis between the current (2012) and previous (2009) qualitative analysis, the current survey tended to have many more angry-toned responses. Most of these responses were in the costs associated with increasing tuition/books/fees, and in lack of scholarships. There were negative comments from young white males, middle class students, international students, and academically talented students.

[5] Nancy C. Deringer, PhD, University of Idaho, School of Family and Consumer Sciences, 875 Perimeter Drive MS 3183, Moscow, ID 83844-3183; Phone: 208-885-7264, Fax 208-885-5751; deringer@uidaho.edu

Financial Personalities and Relationship Quality

Amanda H. Christensen[6], Alena C. Johnson, Jeff Dew, Lucy Delgadillo, Utah State University

Key words: *money personalities, relationships, couples*

Introduction

The purpose of the current research study is to understand more about the relation between financial personalities and marital satisfaction in order to better articulate how financial issues influence marital satisfaction. Results can contribute to a gap in existing research, increase understanding and motivation to learn about financial habits and attitudes, and provide increased quality education for extension communities, financial professionals, and marriage and family counselors.

Hypothesis

Researchers were interested in finding out more about the interaction of financial attitudes and behaviors (financial habitudes) and marital satisfaction among couples. The proposed research questions are as follows: 1. Do husbands and wives have the same money habitudes? In other words, do they have similar "money personalities"? 2. Are habitudes, from an individual spouse perspective, related to marital satisfaction? 3. Are habitudes, from a couple's perspective, related to marital satisfaction?

Data Collection

Researchers surveyed 100 married couples throughout the northern half of a western state during extension workshops and marriage seminars. The Money Habitude's cards (adult edition) were used as a financial learning tool and as the main instrument for collecting data. Participants recorded their money habitudes and answered questions regarding their marital satisfaction via survey. Both husband and wife filled out separate surveys.

Data Analysis and Methodology

The classification of different money personalities of husbands and wives was investigated by doing a Latent class analysis (LCA) (Research Question 1). LCA is commonly used by the researcher in cases where it is required to perform classification of cases into a set of latent classes. LCA divides the cases into latent classes that are conditionally independent. In other words, LCA divides those cases in which the variables of interest are not correlated within any other variables in the class. For Research question 2 and 3, authors conducted regression analysis.

Summary of Results

LCA did an acceptable job at assigning wives and husbands into different groups based on their habitude score. For wives, the model yielded two classes. One group of women (about 50% of the participants) tended to have high levels of selflessness, goal orientation, and security. They scored low on spontaneous and status and moderately on free spirit. The other group (about 50%) had high scores on spontaneous and status, and free- spirit. These same women scored low on selfless, goals, and security (AIC: 402.1; ϒ Coefficient Class 1 = .49, Class 2 = .51).

For the men, the model suggests that 2 or 3 classes fit best. In the two class solution, one group of men (45% of sample) had high spontaneous, status and free-spirit. They had low to moderate selflessness and low goals and security. The other group (55% of the sample) had high goals and security, low in spontaneous, status, and free spirit. Their selflessness was split across all three levels (AIC: 423.29; ϒ Coefficient Class 1= .34, and Class 3 = .42). Essentially, both wives and husbands favor goals and security and a there is a group that favors status, spontaneity, and free-spirit. For wives, selflessness is in the first group, whereas for husbands, both groups are fairly similar on selflessness.

When habitudes from an individual spouse perspective (RQ2) were analyzed, they did not relate to marital satisfaction or conflict. Habitudes from a couple perspective (RQ3), showed class membership did predict marital satisfaction at least for husbands however, it was not statistically significant for wives. These findings need to be interpreted with caution as per our small sample size (n= 100).

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[6] Amanda H. Christensen, 48 W Young Street, PO Box 886, Morgan, UT 84050; Phone: 801-829-3472; Fax: 801-829-6176; Email: amanda.christensen@usu.edu

Findings from a Student Loan Borrower Repayment Counseling Protocol Integrated into Credit Counseling Sessions

Victoria A. Jacobson[7], M.Ed., Center of Excellence in Financial Counseling, University of Missouri-St. Louis

Key words: student loan repayment counseling, student loan repayment options/solutions

Student borrowers' debt repayment burdens have loomed ever larger in the national spotlight in recent years. Although federal student loan borrowers have rights and responsibilities in the repayment of their loans, many are unaware they may be eligible to participate in repayment options better suited to their current financial situations. Currently, student borrowers in repayment have few unbiased community service providers to turn to for help in finding solutions to their student loan repayment challenges and issues.

This poster session describes a counseling pilot program that targeted student borrowers in repayment of their student loans who sought help with their credit card debt or home foreclosure through a community service credit counseling agency. Historically, credit counseling agencies encouraged student borrowers to contact their lenders or services for any concerns or issues about their student loan repayment. Although helpful in many cases, lenders and servicers may not be aware of the borrower's special circumstance or eligibility for the various repayment options.

To assist credit counselors identify a student borrower's available repayment options and eligibility criteria, program leaders consulted with student loan law experts with the National Consumer Law Center to develop a Student Loan Borrower Repayment Counseling Protocol. The protocol addressed a range of student loan remedies from the most complete solution of loan cancellation to challenging collection action, depending on the borrower's desire to return to school, loan circumstance and eligibility criteria for the available options.

A memorandum of understanding was established with four small community service credit counseling agencies to pilot the protocol and collect data for a 12 month period. Counselor training included general information on federal and private student loans, as well as strategies to implement the protocol which outlined student loan repayment remedies and eligibility criteria.

Potential clients were asked about student loan debt when scheduling a counseling appointment and were encouraged to locate and have available student loan information for the counseling session. The data categories the project attempted to collect include: type of loan, status of loan; if delinquent or in default, number of months delinquent or in default; reason for being behind on payments, and balance owed.

Results and Conclusions

The student loan debt "intervention" within the counseling session was modest and brief in duration, but valuable and worthwhile lessons were learned. The credit counseling agency client profile was a good match for the program's target audience although data that were collected were inconsistent and often incomplete. Borrowers likely did not know or have available their student loan information or the participating counselors failed to collect and report the data. Over one third of the 300 student loan borrowers counseled during the 12 month period reported their loan payments were current although they were seeking help with credit card debt or home foreclosure. Due to credit counseling agencies' confidentiality policies, it was difficult to secure permission to contact a sufficient number of borrowers to conduct a meaningful third-party program evaluation.

Future programming will focus on comprehensive counselor training, including communication skills training, application of a successful counseling model, and rigorous data collection for program evaluation.

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[7] Victoria A. Jacobson, Director, Center for Excellence in Financial Counseling, University of Missouri-St. Louis,104 Bellerive Hall, One University Boulevard, St. Louis, MO 63121; Phone: 314- 516-5191; Email: jacobsonv@umsl.edu

Florida Master Money Mentor Program

Selena Garrison[8], University of Florida
Michael Gutter, University of Florida

Key words: f*inancial mentoring, financial counseling, extension*

Description of Content and Method:

The need for financial education in the state of Florida is apparent. It is estimated that roughly 12.1% of Floridians live below the poverty level, and 37% live below the moderate income threshold. This forum highlights a one-on-one mentoring program designed to provide support and education to low and moderate income Florida families to promote positive financial practices.

The Florida Master Money Mentor (FMMM) program is a coordinated referral network of volunteer mentors who provide basic personal finance coaching. University of Florida IFAS Extension serves to provide the infrastructure for this program throughout the state of Florida. Mentors receive approximately 20 hours of intensive training in financial mentoring, basic money management, strategies for dealing with financial problems, credit and debt management, savings, mentoring techniques, and community resources. Nine interactive training modules are presented over the three days, with opportunities provided in class to practice mentoring skills in small groups and one-on-one. In addition, mentors are supplied with resources such as budgeting and goal setting worksheets, an online debt management system, and a listing of local resources in their community where clients can be referred for additional help. Upon completion of the training, participants are awarded Florida Master Money Mentor certification. Following the training, each volunteer agrees to provide at least 50 hours of one-on-one mentoring and complete two hours of continuing education per year in order to maintain certification.

To date, over 320 mentors have been trained in 27 of Florida's 67 counties. In turn, those mentors have met one-on-one with over 900 low to moderate income clients, with issues ranging in severity from adjusting financially to an unexpected job loss to planning for retirement down the road.

Objective/Purpose:

The goal of the Florida Master Money Mentor (FMMM) program is to increase the financial capability of low- to moderate-income Floridians. Upon completion of the mentoring process, clients should have engaged in one or more of the following: created a budget that is being maintained; identified their financial goals and created a plan to reach them; opened a checking/savings account; started contributing to savings regularly; obtained their credit report, identified any issues, and created a plan to resolve those issues/rebuild credit; created a debt management plan that has them actively paying off their debt, without taking on additional debt.

Target Audience:

The program targets volunteers, social service providers, and agencies working with low to moderate income individuals and families in the state of Florida for mentor training. It then also targets low to moderate income individuals and families in the state of Florida for one-on-one mentoring.

Minimum and Maximum Time Required When Presented to Target Audience:

The Florida Master Money Mentor training requires 20 hours over 3 days. One-on-one mentoring sessions with clients can vary anywhere from one meeting to multiple meetings over several weeks or months. Suggested time guidelines for one-on-one mentoring sessions are 30 minutes to an hour.

[8] Selena Garrison, University of Florida, 3031 McCarty Hall D, Gainesville. FL 34471; Phone: 352-273-3516; Fax: 352-392-8196; selenah@ufl.edu

Going Beyond Sports Competition: College Campuses Compete to Increase Positive Saving Behaviors

Kathy Sweedler[9], University of Illinois Extension; Andrea Pellegrini, Student Money Management Center – OBFS, USFSCO, University of Illinois; Tracy Frizzell, Economic Awareness Council – Young Illinois Saves

Key words: s*avings goal, college students, social media*

Target Audience

Employees and college students at three university campuses were the target audience for this program.

Objective/Purpose

University of Illinois Saves challenged staff, faculty and students at three college campuses to set a savings goal and become America Savers. America Saves, managed by the Consumer Federation of America, is a national, research-based marketing campaign that seeks to motivate, encourage, and support individuals and families to save and build wealth.

Description

Campus and community partners concerned with financial wellness created a competition between college campuses to motivate people to assess their saving status and to either begin saving or increase their saving rate. The campus with the highest percent of students, staff, and faculty who registered their saving goal won the competition. Weekly drawings for prizes motivated people to register throughout the eight week competition. At the end of the competition, savers from the winning campus had the chance to win from a pool of prizes including an Apple iPad, cash and several gift cards. Prizes were donated by local banks and credit unions.

Participants registered their savings goal online at http://universityillinoissaves.org/. Upon registering, savers had the option to receive local financial educational newsletters from University of Illinois Extension as well as additional resources from America Saves including a quarterly newsletter and access to a Savers Tracking Tool. 32% of savers opted to receive one of the extra newsletters from University of Illinois Extension; this suggests that many participants were seeking financial education in order to improve their financial practices. Connecting to these additional resources will provide participants ongoing motivation and education to help achieve their savings goal.

The key elements that made this savings campaign unique were the element of competition, the chance to win significant prizes, the targeted audience/location (college campuses), and the reliance on social media and electronic messaging to spread the word about the campaign. This was a very low budget campaign, depending almost entirely on donations from financial institutions and the use of electronic media sources. Media sources used included internal email distribution lists, Facebook, Twitter, campus newspapers, and websites. The competition was deemed a success! Over 700 people became America Savers.

Many lessons were learned as a result of this pilot campaign. Best practices included:

- Trusted messengers to spread the word about the competition were critical. Emails sent from partners such as the university’s human resource office, the Wellness Center, and student housing made a difference.
- Weekly drawings for prizes and online updates on the competition's progress motivated people to register throughout the eight week competition.
- Images and photos drove social media impact.
- Feedback received indicates that both the competition and the chance for prizes were motivational.

The educational model provided by this pilot project could be modified to be a savings competition between rival college campuses in different states or between community workplaces.

[9] Kathy Sweedler, University of Illinois Extension, 801 N. Country Fair Dr. Suite D, Champaign, IL 61821; Phone: 217- 333-7672; Fax: 217- 333-7683; Email: sweedler@illinois.edu

Health and Wealth: A Look at Rural Low-Income Mothers

Karen P. Varcoe[10], University of California, Riverside
Frances C. Lawrence, Louisiana State University
Dorothy S. Smith, University of California Cooperative Extension

Key words: health status, hunger, finances, healthy food

Introduction

This poster provided preliminary data from the new Rural Families Speak – Health (RFS-H) NC-1011 multi-state project. The overall objectives of the project are to identify the interaction of health, finances, and hunger as it impacts well-being of rural women. Access to healthier foods and the ability to buy healthier foods can be challenging for many low-income Americans, especially those living in low-income neighborhoods or communities, or in rural areas. Low-income families who are not White also seem to have more difficulty accessing healthier foods. Eating healthier foods leads to a healthier diet overall and is linked to improvements in basic health (Treuhaft and Karpyn, 2010). Poor health also often limits job productivity. People cannot save or invest money if they cannot work; thus, good health increases the likelihood of achieving financial security. Small behavior changes can make a difference. According to the U.S. Department of Health and Human Services (HHS, 2003), even a relatively modest 10% weight loss can reduce an overweight person's life-time medical costs by as much as $5,300.

Methods

For the first phase of data collection, quantitative data were collected regarding health status as well as their financial well-being from adult primary caregivers of young children between the ages of 5 and 12 who have income for the previous year that is less that 200% of the federal poverty line. Follow-up qualitative interviews are currently being conducted. This poster concentrated on the findings from the first wave of quantitative data collected looking specifically at the connection between health and wealth of diverse rural low-income families and assessing the differences by state, income adequacy, health of the mothers and their access to health care and health insurance.

Preliminary Findings

Preliminary findings from the data collected from 324 rural women in ten states indicate that more than one-third of the mothers were food insecure. Sixty-eight percent of the mothers had household income below $25,000 annually, and two-thirds considered their income to be less than adequate for their families to live on. All of the mothers were generally dissatisfied with their current financial situations. About 25% of the mothers considered their health to be very good or excellent, and another 25% considered their health to be fair or poor. Forty-two percent were obese with another 30% overweight. Thirty percent had trouble finding a doctor who would take Medicaid patients. Only 13% were covered by private insurance.

The majority of these rural families ate less because they did not have money for food. This will ultimately impact their health. Therefore, policies need to be in place to help families maintain healthy diets and more effort needs to be given to recruiting eligible families to participate in WIC (Women's, Infants, and Children) nutrition program and SNAP (Supplemental Nutrition Assistance Program). Medicaid is the primary source of health insurance for these rural low-income families for their dental and medical care, but these rural mothers had difficulty finding doctors/dentists who accept Medicaid patients. Therefore, doctors and dentists need to have incentives to accept Medicaid patients, and the stigma associated with Medicaid needs to be addressed.

References

Treuhaft, S. and Karpyn, A. 2010. *The Grocery Gap: Who Has Access to Healthy Food and Why It Matters.* Retrieved from www.policylink.org

U.S. Department of Health and Human Services. 2003. Preventing obesity and chronic diseases through good nutrition and physical activity. *Preventing Chronic Diseases: Investing Wisely in Health.* Retrieved from www.healthierus.gov/steps/summit/prevportfolio/PA-HHS.pdf

[10] Karen P. Varcoe, PhD., 139 Highlander Hall, University of California, Riverside, CA 92521; Phone: 951-827-5241; Fax: 951-827-5607; Email: Karen.varcoe@ucr.edu

The Impact of Mortgage Interest-and-Property Tax-Deductibility on Homeownership Decision

Jorge Ruiz-Menjivar[11], University of Florida
Michael Gutter, University of Florida
Martie Gillen, University of Florida

Key words: *homeownership, tax incentives, property tax deduction, mortgage interest deduction*

Introduction

One of the most common financial aspirations of households in the United States is homeownership. Indeed, the desire to be a homeowner has historically been an integral part of the so-called "American dream." Numerous studies outline the spillover benefits of homeownership (Glaeser & Sacerdote 2000; Glaeser & Shapiro 2003). The impact is reflected at the macro and micro-level in the economy. Due to the several economic, social, and cultural implications that home ownership constitutes for households and the economy as a whole, policy makers and researchers have paid careful attention to the key determinants of homeownership, including taxation.

Literature Review

In the last decade, homeownership trends have significantly experienced several changes as a response to different socio-economical events. Nonetheless, tax incentives adjustments for the support of homeownership have been minimal. In the scope of taxation, mortgage interests and property tax deductibility, along with the refundable first-time homebuyer credit, constitute the best-known federal housing policy efforts to encourage homeownership (Gale, Gruber & Stephens-Davidowitz, 2007). Most of the existing home ownership incentives in the federal U.S. Tax system are selective in the sense that only qualifying taxpayers are able to take advantage of them.

Particularly, the deduction of interest mortgage and paid property taxes is only available to tax filers who itemize their deductions. Since the deduction is based on the amount of mortgage interest paid, lower income homeowners who likely have lower home values may face limits on the benefits of the interest deduction. Thus, several non-itemizing households, mainly those with low or moderate income, do not have the opportunity to perceive the benefits of such house policies if they were to buy a home. That is why these incentives have been subject to a constant debate and set of criticisms, questioning the real effect on the homeownership decision overall. When a home mortgage is not deductible, even initially, the cost of homeownership may be disproportionate.

Methodology

The current research study use the 2010 Consumer Expenditures Survey (CE). Specifically, we only take the following tax incentives into consideration: mortgage interest and tax property. Thus, our sample would be restrained to those itemizing households from this dataset. Logistic regression is used to estimate the likelihood of being a homeowner due to the impact of tax incentives.

Implications

This study serves to revise the influence of tax incentives on homeownership decision, and their appropriateness for encouraging homeownership in the recent economic setting. Moreover, special attention is given to the characteristics of those households who take such tax incentives; important inferences can be made about the lack of existing homeownership incentives in the tax system for middle and low-income households in the United States.

References

Gale, W, Gruber, J. & Stephens-Davidowitz, S. (2007). Encouraging homeownership through the tax code. *Tax Notes*, *115* (12), 1171-1189.

Glaeser, E. & Sacerdote, B. (2000). The social consequences of housing. *Journal of Housing Economics, 9* (1), 1-23.

Glaeser, E. & Shapiro, J. (2003). The benefits of the home mortgage interest deduction. *Tax Policy and the Economy, 17* (1), 37-82.

[11] Jorge Ruiz-Menjivar Graduate student, Family, Youth, and Community Sciences, University of Florida, Gainesville; 3002-C McCarty Hall D, PO Box 110310, Gainesville, FL 32611-0310; Phone: 352-273-3513; Email: jhruiz@ufl.edu

Integrating Solution-Focused Therapy and Financial Counseling/Planning: A Pilot Study

Kristy L. Archuleta, Mary M. Bell, Jurdene Ingram, Laura Irwin, and Fred Fernatt, Kansas State University
John E. Grable, University of Georgia
Camerin White, Kansas State University

Key words: Solution-Focused Therapy, financial counseling

Abstract

The financial counseling and planning field faces a conceptual and empirical shortfall of evidence-based research. As a result, faculty members in a personal financial planning program and graduate students in personal financial planning and marriage and family therapy teamed together to create a manual that integrated Solution-Focused principles and techniques and financial counseling skills. The manual, Solution-Focused Financial Counseling (SFFC) manual, was developed based on the *Solution Focused Therapy Treatment Manual for Working with Individuals* (Trepper, McCollum, DeJong, Korman, Gingerich, & Franklin). The manual provided an outline of Solution-Focused oriented questions and interventions as well as a standardized set of mandatory financial homework assignments along with other optional homework assignment ideas. Three counselors who received cross-discipline training implemented the manual with clients over the course of 3-5 client; flexibility was allowed by the counselor to utilize the manual in a way that benefited the client most. During each session, one of the other counselors or a supervising faculty member observed the counselors' session. Ideally and when at all possible, someone from the opposite field was observing the session (e.g., if the counselor was in Marriage and Family Therapy, the observer was in Personal Financial Planning).

As part of the implementation phase, college students (N=8) were recruited from a Midwestern university to participate in a pilot study to examine the effects of the manual on student financial behavior. Participants were asked to attend 3-5 sessions with a counselor to focus on a financial issue. Clients presented a variety of financial issues related to budgeting, investing, and debt repayment. Clients met with counselors at clients' own pace (e.g., bimonthly, monthly, etc.) and the counselor and the client mutually determined the end of treatment. Data was gathered prior to the start of treatment, after treatment ended, and three months later. Preliminary results suggest that financial behaviors improved and financial and clinical stressed decreased as a result of participation in the sessions.

References

Trepper, T. S., McCollum, E. E., DeJong, P., Korman, H., Gingerich, W., & Franklin C. (n.d.). *Solution focused therapy treatment manual for working with individuals*. Retrieved from http://www.sfbta.org/Research.pdf

Net Worth Pre and Post-Recession by Family Type

Amanda Blanco[12], University of Florida and Michael Gutter, Ph.D., University of Florida

Key words: *net worth, great recession, family type and households*

During the most recent recession, 60% of American families saw a decline in their wealth or net worth (Bricker, Bucks, Kennickell, Mach, & Moore, 2011). Net worth is defined as total assets minus total liabilities. Net Worth may be positive, zero or negative. According to DeVaney (1994) families that have a net worth less than zero, or more liabilities than assets, are insolvent in the equity sense and lack adequate financial planning. Life-cycle patterns can be used to explain the assets and liabilities held by families (Kennickell & Starr-McCluer, 1997). Life-cycle and related theories suggest that households will use resources to smooth over changes in transitory income, especially in the event of resource shock (Ando & Modigliani, 1963). A recession creates a shock to financial resources for many families, which may interfere in the planned intertemporal resource allocation of financial assets this includes income and net worth.

Female headed households, when compared to other types of household, are most disadvantaged in terms of net worth (Ozawa & Yongwoo, 2006). This study will explore if similar patterns, by family type, exist in net worth pre and post-recession in the most recent recessionary period. Family types will include nuclear family, single parent family, extended family, and childless family. This study will use the 2007-2009 panel data from the Survey of Consumer Finances to examine percent change in net worth by family type. The structure of debt and assets will also be examined to gain insight into the factors that may have influenced change in net worth. Generally, changes in net worth during the recession can be attributed to changes in assets rather than changes in debt (Bricker et al., 2011). An OLS regression will be used to compare family type to change in net worth from 2007 through 2009 controlling for other factors.

References

Ando, A. & Modigliani, F. (1963). The "life cycle" hypothesis of saving: Aggregate Implications and Test. *The American Economic Review 53*: 55-84.

Bricker, J., Bucks, B., Kennickell, A. B., Mach, T., & Moore, K. B. (2011). *Surveying the aftermath of the storm: Changes in family finances from 2007 to 2009.* (No. 2011-17). Washington, D.C.: Federal Reserve Board.

DeVaney, S. (1994). The usefulness of financial ratios as predictors of household insolvency: Two perspectives. *Financial Counseling and Planning 5*:5-24.

Kennickell, B., & Starr-McCluer M. (1997). Household saving and portfolio change: Evidence from the 1893-89 SCF panel. *The Review of Income and Wealth 43*: 381-399.

National Bureau of Economic Research. (2010). The NBER's Business Cycle Dating Committee. Retrieved from http://www.nber.org/cycles/recessions.html

Ozawa, M.N., &Yongwoo, L. (2006). The net worth of female-headed households: A comparison to other types of households. *Family Relations 55*:132-145.

[12] Amanda Blanco, University of Florida, PO Box 110310, Gainesville, FL 32611; Phone: 352-273-3513; Email: anblanco@ufl.edu

Planning for Financial Success, Smart About Spending, and College Portfolio

Sarah Schedler[13], Missouri Department of Higher Education

Key words: *financial literacy publication, post-secondary education, high school personal finance*

Planning for Financial Success, *Smart about Spending*, and the *College Portfolio* are all financial literacy tools developed for either high school students or college students. Photographs and biographies of Missouri students are featured throughout the publications. These tools are offered free of charge to Missouri schools and residents and are presented here to generate ideas for how others can develop their own similar offerings.

Planning for Financial Success

Planning for Financial Success is a school-year calendar running August through July. The first page asks, "Do you have a plan?" Then, there is a list of statements for students to check to see how knowledgeable they are about their finances; e.g., "I have a budget that works for me"; "I am aware of the consequences of defaulting on my student loans"; "I understand my credit report"; etc. The calendar guides them to reference the financial literacy topics in the second section of the planner for more information. Various important dates and suggestions are pre-printed in the calendar, such as: state financial aid application deadline; tax filing date; "Are you keeping track of your debit or student account transactions?"; "How much money will you make after you graduate?"; etc. Counselors or faculty are encouraged to use this calendar during orientation or in the "College 101-type" class at their school. Other reminder stickers are provided to customize the calendar for a particular institution. They remind students of the end of term, institutional FAFSA deadline, spring break, add/drop deadlines, and so on.

Smart About Spending

The *Smart About Spending* portfolio and teacher's guide are designed to help the high school teacher teach personal finance. Missouri students are required to have a half-credit in personal finance for high school graduation. The four personal finance areas (Income, Money Management, Spending and Credit, and Saving and Investing) and the competencies for each one are listed on the outside of the folder as well as on four index dividers inside. Color coded sheets with information about each competency are included behind the index dividers. The teacher's guide provides suggested activities and worksheets in the four personal finance areas. These tools help the teacher ensure all the competencies in each area of personal finance are covered.

College Portfolio

The *College Portfolio* is a tool for Financial Aid Counselors to disburse to student loan borrowers so they are able to keep all of their loan information organized in one place. The portfolio is sturdy and can be utilized through their college career, adding each year's paperwork to the file. The portfolio has five tabs to make filing their paperwork easy: Tab 1 – FAFSA; Tab 2 – Institutional Records; Tab 3 – Student Loans; Tab 4 – Correspondence & Forms; and Tab 5 – Publications & Resources. Student loan borrowers are encouraged to file copies of their FAFSAs, Student Aid Reports, award letters, scholarship letters, Master Promissory Note, correspondence regarding their loans and/or from their school, and any publications they may want to keep in their *College Portfolio.* The tabs are listed along with suggestions as to what they may want to file behind each tab on the outside of the portfolio. Counselors have reported that students bring these back with them the following year. *College Portfolios* can also be distributed by high school counselors to those students getting ready to start their post-secondary education. The outside of the portfolio lists the "Top 10 Ways to Graduate Debt Free"; the Missouri Department of Higher Education's Facebook page, "Journey to College," maintained by Missouri students; and "FAFSA Frenzy," Missouri's version of *College Goal Sunday*[SM]*,* where students can get help completing their FAFSA.

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[13] Sarah Schedler, Default Prevention, Missouri Department of Higher Education, 205 Jefferson St., Jefferson City, MO 65101; Phone: 573-462-6343; Fax: 573-751-6635; Email: sarah.schedler@dhe.mo.gov

Playing With Debt: Using Video Games to Teach Teens about Student Loans

Michael S. Gutter[14], Ben DeVane, and Jonathan Yuhas, University of Florida

Key words: *gaming, financial literacy, student loans, pedagogy*

Introduction

This poster describes principles for game-based financial education and proposes possible game scenarios. Targeted marketing forces teenagers to make choices about their money management (Johnson & Sherraden, 2007). Credit card companies have aggressively pursued college students (Hayhoe, Leach, Turner, Bruin, & Lawrence, 2000). Student loan debt continues to be an issue for many, with recent estimates putting the average at $20,000 per student. Teens and emerging adults need financial literacy skills to navigate these tough economic times. Gaming represents an important frontier in reaching out to youth, teens, emerging adults and others; they can help teach concepts provide a mechanism to practice decision-making.

There are many platforms for helping teens learn various skills and concepts regarding money management. However, gaming has been an underutilized strategy, even though video games are an increasingly important component of life for the recent generation of American teens. Lenhart et al. (2008) found that some 97% of American teens reported that they play games and that gaming was a social experience for most teens.

Games can be used to help learners build specific knowledge and skills, because they a) use rewards to motivate players to use knowledge to accomplish goals; and b) help players visualize new concepts solve increasingly-difficult problems or decisions (Gee, 2006). Playing digital games can help learners link information visualizations to concrete choices and experiences, while providing them with timely feedback about their actions (Shaffer et al., 2005). Given the challenge of teaching teens about the impact of their financial practices over time, games seem like a compelling instruction tool for helping students visualize and experience the impact of their student loan choices.

The standards of the Jumpstart coalition consists of six major components of personal finance which include: Financial Responsibility and Decision Making, Income and Careers, Planning and Money Management, Credit and Debt, Risk Management and Insurance and Saving and Investing (National Standards, 2007 p. 3). This proposal suggests that these objectives can be achieved through gaming.

While educational games are often thought of as resource-intensive creations, this paper describes a student debt literacy game that is being prototyped in a tight two-week agile development cycle (Highsmith & Cockburn, 2002). In this short resource-management game, students play through the financial choices in the six years surrounding undergraduate education, making decisions about their spending, saving, and borrowing that impacts their social and love lives. The game will be marketed through social media, Florida Jump$tart and other partners. The gaming experience will be evaluated through use of web-based survey linked to the gaming site.

References

Gee, J. (2005). Learning by design: Good video games as learning machines. *E-learning*, *2*(1), 5–16.

Hayhoe, C., Leach, L. J., Turner, P. R., Bruin, M. J., & Lawrence, F. C. (2000). Differences in Spending Habits and Credit Use of College Students. Journal Of Consumer Affairs, 34(1), 113.

Highsmith, J., & Cockburn, A. (2002). Agile software development: The business of innovation. *Computer*, *34*(9), 120–127.

Johnson, E., & Sherraden, M. S. (2007). From Financial Literacy to Financial Capability among Youth. Journal Of Sociology & Social Welfare, 34(3), 119-146.

Lenhart, A., Kahne, J., Middaugh, E., Macgill, A., Evans, C., & Vitak, J. (2008). *Teens, video games, and civic engagement*. Pew Internet & American Life Project. Washington, D.C.

National Standards in K–12 Personal Finance Education. (3rd ed.). (2007). Washington, D.C.: Jumpstart Coalition for Personal Financial Literacy

Shaffer, D., Squire, K., Halverson, R., Gee, J., & Academic Advanced Distributed Learning Co-Laboratory. (2005). Video Games and the Future of Learning. *Phi Delta Kappan*, *87*(2), 104.

[14] Michael S. Gutter, PO Box 110310, Gainesville, Florida, 32611; Phone: 352-273-2529. Email: msgutter@ufl.edu

Practical Application of the Department of the Navy 8-Step Counseling Cycle, the Financial Planning Worksheet, and Supplementary Personal Finance Formats

Jim Murphy[15], Marine & Family Programs; Headquarters & Service Battalion; Headquarters, U.S. Marine Corps

Key words: *counseling, counseling cycle, financial planning worksheet, money management*

Abstract

At the time of their initial hiring, the majority of personal financial management counselors employed by the Marine Corps have not taken college-level courses in counseling. Most come into the community from a background in personal finance. They acquire insights and skills into the counseling art both on the job and while attending a U.S. Navy sponsored "Command Financial Specialist (CFS)" course. Interestingly, the week-long CFS course is intended primarily for active duty service members who are assigned by their unit commanders, as an additional duty, to be "first-level" financial counselors within their units. The CFS course, in addition to providing additional knowledge in personal finance, is intended to orient the active duty member to the basics of counseling. To frame the counseling activity, the instructional manual describes an immensely helpful 8-step counseling cycle. The steps are: (1) prepare for the session, (2) build the relationship, (3) gather data, (4) prioritize concerns, (5) explore options, (6) construct solutions, (7) implement plan, and (8) monitor & follow-up. With this as background, the purpose of the Post Session is to present practical challenges of applying the 8-step process while using a service-prescribed Financial Planning Worksheet and while attempting to close the session at a logical stop point within a reasonable time, two to three hours.

In practice, the counseling session is a tension between (1) the very logical 8-steps, (2) the necessity to teach as well as counsel, (3) the design the "prescribed" Financial Planning Worksheet, and (4) the attention span of the almost-always-young-service member (and spouse) who is being supported. The Poster Session displays the structure of the 8-Step Counseling Cycle and the Financial Planning Worksheet and introduces supplementary personal finance formats and worksheets (also handouts) that are intended to facilitate the action plan that is a major outcome of the session. Included is a "wolves at the door" debit-credit-balance sheet intended for cash-strapped clients to plan and record day-by-day expenditures in order to make it to the next payday without incurring an overdraft. During most counseling sessions, the necessity to teach is equal to the obligation to counsel, and for this reason, the presenter supplements the focused content of the financial planning worksheet with other materials helpful in teaching money management and credit management to the client and providing alternative tools, to include materials available on the Internet, e.g., Mint.com, FICO Score Estimator, etc. Finally, the presenter acknowledges that no two counseling sessions are the same, no two counselors approach their sessions the same, and many counselors have far greater experience and insight than the presenter, and thus the Post Session is structured to get feedback & recommendations from the visitor. The presenter provides handouts with copies of the formats and a DVD with a large collection folders and files with personal financial management resources.

References

Department of the Navy. Commander, U.S. Navy Installations Command. *Command financial specialist instructor guide.* Published under contract, 2011. [Diagram and discussion of the 8-step counseling cycle on p. 18.19].

[15] Jim Murphy, Marine & Family Services; H&S Battalion, HQMC, Henderson Hall; 1555 Southgate Road, Arlington, VA 22214-5000; Phone: 703-614-6950; Email: james.murphy2@usmc.mil

Reverse Mortgages: The Saver Option

Eileen St. Pierre[16], Ph.D., CFA, CFP®, Oklahoma State University

Key words: *reverse mortgage, saver, older adults, retirement*

In October 2010, HUD introduced a new reverse mortgage, the HECM Saver option. This option significantly lowers a borrower's upfront cost. The upfront premium is only .01% of the property's value as opposed to 2% for the original HECM Standard option. The monthly mortgage insurance premium remains the same as that of the Standard option, 1.25% of the outstanding balance. However, the maximum amount that can be borrowed, known as the principal limit, is a lot lower. According to HUD's principal limit factor tables (HUD, 2012), the difference increases the older the applicant. For example, at a 5% interest rate, the maximum amount of a HECM loan would be 18.36% less for someone age 62, but 25.76% less for someone aged 85 under the Saver option.

This study examines the market for HECM Savers since data become available in January 2011. Data is currently publicly available from HUD through June 2012 (HUD, 2012). At the start of this program, only 2.55% of HECM loans in January 2011 were Savers. Demand peaked at 9.63% of the total in September 2011, fell to 6.43% in January 2012 and rose to 8.18% in June 2012. On average, Savers accounted for 7.11% of all HECM loans. Over the sample period, the top three states in the number of Savers were consistently California, New York and New Jersey. These states rank #1, #7, and #3, respectively in the highest cost of living states according to CNBC.

Interest rates on Saver loans are typically set about 50 basis points higher than Standard loans. At first glance, this does not make sense. Since less money can be borrowed with the Saver, more equity will be left in the house, reducing the risk to the lender and the FHA Mutual Mortgage Insurance Fund. However, research conducted by the Consumer Financial Protection Bureau (CFPB, 2012) shows that lenders incur more risk in the secondary market. The secondary market premium is much lower for Savers because investors are worried Saver borrowers may pay their loans off more quickly. Therefore, lenders typically set interest rates on Savers a little higher so they can earn a similar amount to Standards in the secondary market. The CFPB finds that most Savers are monthly adjustable rate loans and are taken out by older borrowers. The older the borrower, the less benefit the borrower will derive from the Standard because the borrower has fewer years of life expectancy over which to spread the higher upfront fees.

There is virtually no mention of the Saver option in the public web pages of HUD-approved HECM counselors. One explanation for the lack of information is that not all lenders offer the Saver option due to the immature reverse mortgage secondary market. The CFPB reports that this has led to fixed rate, lump sum loans now accounting for 70% of the HECM market. Since the exits of Wells Fargo and Bank of America in early 2011 and Met Life in April 2012, the HECM market is now heavily dependent on mortgage brokers and small corresponding lenders.

The Saver is a viable option for older consumers who need funds for a major expense like a home repair so it is considered an alternative to a home equity line of credit (HELOC). Unlike a HELOC, the Saver does not require monthly payments and offers nonrecourse protection. The CFPB reports declining lender fees make the Saver a more competitive option to a HELOC. Because the overwhelming majority of Savers are adjustable rate loans, they offer borrowers better protection against tax and insurance defaults than the most common type of HECM, namely the fixed rate, lump sum Standard loan. If a borrower fails to pay taxes and insurance, HUD allows the servicer to pay these charges directly, add them to the loan balance, and notify the borrower. This option is not available for fixed rate HECM loans. The CFPB reports that 9.4% of active HECM loans (54,000 borrowers) were in default on taxes or insurance as of the end of February 2012 and it expects this number to rise in the future.

References

Consumer Financial Protection Bureau. (2012, June 28). Reverse mortgages: Report to Congress. Retrieved August 9, 2012, from http://files.consumerfinance.gov/a/assets/documents/201206_cfpb_Reverse_Mortgage_Report.pdf

U.S. Department of Housing and Urban Development (2012). Home equity conversion mortgages for lenders. Retrieved August 9, 2012, from http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/sfh/hecm/hecmhomelenders

[16] Dr. Eileen St. Pierre, 233 Human Sciences, Oklahoma State University, Stillwater, OK 74078; 223 Human Science, Stillwater, OK 74078; Phone: 405-744-8072; Fax: 405-744-6344; Email: eileen.stpierre@okstate.edu

Role of Knowledge and Risk Tolerance in Young Adults' Financial Planning Behavior

JeongHee Yeo[17], Lorna Saboe-Wounded Head, and Soo Hyun Cho, South Dakota State University

Key words: *financial knowledge, risk tolerance, financial planning*

Abstract:

This study aims to identify how risk tolerance and knowledge level of young adults age 25-34 influence financial planning behavior. Data for this study were drawn from the Financial Capability Study conducted by the Financial Industry Regulatory Authority (FINRA) Investor Education Foundation. The results show that an increase in subjective and objective financial knowledge correlated with the likelihood of a young adult engaging in an identified financial planning behavior. When young adults have accurate financial knowledge about investing, saving, retirement planning, debt management and accumulation of real and personal property at a time when the information becomes relevant decision will positively impact long-term financial security.

[17] JeongHee Yeo, SWG 311, Box 2275A, South Dakota State University, Brookings, SD, 57007: Phone: 605-688-5932; Fax: 605-688-5578; Email: jeonghee.yeo@sdstate.edu

SaveUp Pilot Program for Credit Unions

Kelli Jo Anthon[18], AFC, CHC, Belvoir Federal Credit Union

Key words: *free rewards program, saving money, reducing debt, financial education*

Target Audience
Credit unions, financial institutions, financial counselors, educators, consumers, financial counseling clients

Objective/Purpose
The purpose of the SaveUp Pilot Program for Credit Unions is to evaluate the impact of using a free rewards program to promote positive financial behavior in credit union members. The pilot runs for a period of 6 months. Belvoir Federal Credit Union is among 20 credit unions with different asset sizes participating from across the nation.

Description
This pilot program is being facilitated by Filene Research Institute. Filene's research shows that when financial institutions find ways to make saving fun, consumers save.

SaveUp (www.saveup.com) is a free online rewards program that aims to help Americans become more financially secure by encouraging them to adopt good financial behaviors, such as saving money and paying down debt. By rewarding people with the chance to win valuable or life-changing prizes, SaveUp hopes to motivate consumers to become savers instead of spenders.

After registering savings and debt-bearing accounts with SaveUp, users earn credits by making deposits into their savings account or paying down debt. Credits can be redeemed for a chance to win prizes and users can earn additional credits by participating in daily challenges, engaging with educational content on the site or participating in social actions to help others save.

[18] Kelli Jo Anthon, Belvoir Federal Credit Union, 14040 Central Loop, Woodbridge, VA 22193; Phone: (703) 730-1800 ext 5303; Email: kanthon@belvoirfcu.org

Show Me the Money: The Effectiveness of Emergency Loan Programs on Minority Students

Danielle Champagne[19], M.B.A., Assistant Director, Student Money Management Center, University of North Texas

Key words: *money, emergency loans, minorities, underserved populations*

Target Audience
Higher education professionals, educators

Abstract
In the challenges of college student retention, "making ends meet" in a climate of cost increases to both tuition and living expenses forces many students to alter their academic schedules and work excess hours, becoming more likely to drop out. Often, financial emergencies push students beyond the limits of their financial aid and wages, making withdrawal from higher education to cut costs or pursue full-time employment more likely. As colleges and universities enroll increasing numbers of first-generation and minority students, we must all take responsibility for their financial education to reverse the trends of increasing debt obligations and traditionally lower socioeconomic status. Students utilizing University of North Texas Student Money Management Center (SMMC) services represent a higher percentage of first-generation and minority students than the UNT general population, reflecting an increased awareness and need to manage money while in school and as new graduates.

Short-term, non-credit based emergency loans offered at affordable rates and fees for students can be a method to help deal with emergencies and unexpected costs that threaten continued enrollment in higher education. The SMMC, in its mission of financial empowerment, has assisted thousands of students through its emergency loan programs. Though the SMMC offers a variety of educational and consultative services, the emergency loan programs receive the greatest numbers in terms of usage among students, especially students of underrepresented populations. These loan programs have been effective in assisting students dealing with life hurdles and barriers that threaten student success and enrollment.

Using data collected in the UNT card swipe system, the SMMC organized its data under a variety of demographic factors and found competitive success in serving Hispanic students and phenomenal usage by African American students. In comparison of percentages, the SMMC experienced usage by African-American students that was near three times the percentage of their representation in the UNT community. This success is made even more imperative with the understanding that African American students are particularly vulnerable to financial challenges, but experience a disproportionate benefit from institutional provisions – compared to other minorities and majority students, African-American students benefit much more from the same experiences in terms of retention. This report illustrates SMMC's successes with African American students and also illustrates how we can better serve other minorities with our loan programs through thoughtful analysis and intentional programming.

This poster session will illustrate how the SMMC has met the emergency needs of UNT's minority student population and assisted in the continued enrollment and retention efforts of this financially vulnerable group. The retention efforts of the SMMC through its emergency loan programs has made a difference in the lives of the students it has funded and allowed them to remain enrolled at UNT despite financial hardships and setbacks.

[19] Danielle Champagne, Student Money Management Center, University of North Texas, 1155 Union Circle #305237, Denton, TX 76201-5017; Phone: 940-369-7761; Email: champagne@unt.edu; Website: http://moneymanagement.unt.edu

A Study of Undergraduate Student Financial Satisfaction

Oscar J. Solis[20], Ph.D., Texas Tech University

Key words: c*ollege student, financial satisfaction, student loans, debt*

The cost of higher education is increasing at an alarming rate, particularly at four-year public institutions. According to the College Board (2009), public colleges' costs are rising faster than private institutions, and undergraduate students are facing new pressure to pay educational expenses. While college students have faced financial pressures in the past to pay for college, the financial burden to acquire a college degree is now likely driving students to become dependent on unconventional financial means. As federal aid (grants) decreases and student loan and credit use increases, the financial pressure is increasing to an all-time high for students. In order to accommodate growing tuition rates and other educational expenses, college students are seeking alternative financial remedies such as credit cards and working on or off-campus while enrolled. The current status of the economy and higher education cost trends should prompt students across the nation to evaluate and be mindful of their present and future financial situation.

The purpose of this study was to identify the relationship between undergraduate students' financial satisfaction, student demographic characteristics, and financial support. The study also explored the relationship between financial satisfaction and debt: student loan and credit card. The assessment of undergraduate students' financial situation contributes to the body of knowledge of financial satisfaction from a subjective (satisfaction with one's financial situation) and objective (e.g., debt) approach.

The sample used in this study was drawn from an institutional dataset called *Financial Survey of Students 2006* conducted during the Fall 2006 semester in one of the largest public universities in the southwestern United States. Descriptive statistics were used to determine the demographic characteristics of the sample (n=1498). Demographic characteristics included gender, race/ethnicity, academic level, academic college, student employment, parental education level (completion of graduate or undergraduate degree), grade point average (GPA), and credit hours taken for the Fall 2006 semester. Logistic regression was used to determine the impact of the demographic characteristics, financial support, and debt on financial satisfaction.

The findings suggest that undergraduate students are dissatisfied with their financial situation. The results of the study indicate that students with loan debt are more likely to be financially dissatisfied. Furthermore, the analysis indicates the probability for dissatisfaction among undergraduate students declined when they received scholarships and grants. These findings highlight the need for providing more helpful strategies for undergraduate students to manage and minimize education debt and improve their present and future financial situation.

Reference

College Board. (2009). *Economic challenges lead to lower non-tuition revenues and higher prices at colleges and universities.* Retrieved from http://www.collegeboard.com/press/releases/208962.html

[20] Oscar J. Solis, Apparel, Housing and Resource Management, Virginia Tech, 240 Wallace Hall, Blacksburg, VA 24061; Phone: 540- 231-6164; Fax: 540- 231-1697; Email: ojsolis@vt.edu

Teaching Index Mutual Funds to Persons Who Wish to Begin Investing, Revisited

Jim Murphy[21], Marine & Family Programs; Headquarters & Service Battalion; Headquarters, U.S. Marine Corps

Key words: *index mutual fund, actively managed fund, business cycle, risk*

Abstract
This Poster Session is the outline a significantly updated and simplified follow-on to a Practitioner's Forum presentation made in 2009 titled "Teach Mutual Funds to Persons Who Wish to Begin Investing"—"index" was not in the 2009 title. The presenter is three years more experienced in teaching investments to persons who have almost no knowledge of any aspect of the world of stocks, bond, and mutual funds, and the myriad other aspects of investing to achieve near, intermediate and long range financial goals. Understanding that military counselors teach under time constrained conditions, the presenter has had to distill a 6-hour class to approximately 2-hours without omitting information that is key to the client(s) understanding the essential risks in investments as well as the possibility of acceptable returns. The purpose of this Poster Session is to highlight the presenter's current approach to teaching this subject under time-constrained conditions.

In the three years, the presenter has successively refined his presentation to demonstrate that an investor can achieve relative "safety" in his or her investment(s) IF they understand, at a minimum, a dozen major concepts:

1. differences between saving (no risk of losing money) and investing (risk of losing money);
2. basics of stocks and bonds in order to appreciate mutual funds;
3. composition of stock & bond indexes;
4. differences between an index fund and an actively managed fund and the sources of risk in each type;
5. the nature of the business cycle and the behavior of stocks and bonds at points along the business cycle;
6. time value of money and compound interest but differentiated from rate of return;
7. historical rates of return for the S&P 500 Index (50, 40, 30, 20, and 10 year returns),
8. investor time horizons and investor risk tolerance,
9. related to (8), the wisdom of bonds/bond index funds for short term goals; balanced index funds for intermediate goals; stock index funds for long-term goals; OR various combinations of life-cycle,/target date funds;
10. the relationship of long time horizons to the rhythm of the business cycles to the impact of growth in GDP to rising prices of stocks in the major indexes (admittedly, a little esoteric, but powerful to the young person who grasps it),
11. "history" of investing in America (six graphics to highlight the evolution of capital gains taxes and the emergence and types of retirement accounts and their tax structures); and
12. how to purchase and manage index mutual funds. All in two hours.

For this reason, the Poster Session highlights the twelve major topics. For most in the audience, the topics will be familiar and the value is to see the logic trail from one topic to the next. The presenter provides handouts with copies of the presentation and a DVD with a large collection folders and files with personal finance resources.

References
Gitman, L. J., & Joehnk, M. D. (2010). *Fundamentals of Investing*. Boston & Others: Pearson-Addison Wesley (Original work published in 1985)

[21] Jim Murphy, Marine & Family Services; H&S Battalion, HQMC, Henderson Hall; 1555 Southgate Road, Arlington, VA 22214-5000; Phone: 703-614-6950; Email: james.murphy2@usmc.mil

TG College Access and Affordability Telethons

Richard Sapp[22], Director for Pre-College Success, Texas Guaranteed Student Loan Corporation (TG)

Key words: *FAFSA, awareness, telethon, financial aid*

Description

TG is a public nonprofit organization whose vision is to be the premier provider of information, products, and services to help students and families realize their education and career dreams.

In alignment with its vision, TG partners with the Texas Higher Education Coordinating Board to present telethons scheduled during February, Financial Aid Awareness Month, the critical month to submit the Free Application for Federal Student Aid (FAFSA) application. The purpose of the telethons is to encourage students and their families to apply for federal financial aid, direct them to the FAFSA, answer questions about the financial aid process, and provide resources to assist them with successful submission of the form.

The telethon target audience includes students (pre-college, college, and their parents), adult learners, schools, community and faith-based organizations, and counselors and other community service providers.

TG uses television to cast a wide net throughout the state of Texas in major media markets. The message that college is accessible and can be affordable by completing and submitting the financial aid application accurately and on time is received by millions of Texans yearly via the telethons. Many of these viewers will be first generation and underrepresented college students.

For the last seven years, TG has promoted our involvement at this event within Texas through local news stations. During this period, we served an average of nine Texas areas per year, with 65 separate events.

[22] Richard Sapp, Director for Pre-College Success, Texas Guaranteed Student Loan Corporation (TG), P.O. Box 83100, Round Rock, TX 78683-3100; Phone: 800-845-6267; Fax: 512-219-4989; Email: awareness@tgslc.org

Why do some consistently choose a conventional mortgage even when an Adjustable Rate Mortgage (ARM) is appropriate?

So-Ye You, Chonbuk National University
Michael S. Gutter[23], University of Florida

Key words: *mortgage, decision-making, financial education, information*

Introduction

As a result of the recent mortgage crisis many have asked whether people made prudent decision in their mortgage selection. For instance, Mori, Diaz, and Ziobrowski (2009) explored the behavioral influences on mortgage selection. The found the framing of the mortgage decision as a positive choice might lead to consumers not fully considering the associated risks. This poster focuses on the issue of whether or not consumers were able to select mortgages in given scenarios and whether they had a bias in their mortgage selection to "conventional mortgages" versus "Adjustable Rate Mortgages (ARM)."

Methods

The target sample for this group was lower to middle income US families obtained by employing Survey Sampling International (SSI). The research team created two versions of the survey. One that contained a financial education resource as a treatment, and one that did not. SSI was given the links to both versions of the survey. They, then, randomly assigned participants to one of the two groups, and sent them the appropriate link.

In order to determine mortgage choice, participants were given scenarios in which they were asked to pick the best mortgage for the situation. Those families who chose a "conventional mortgage" in both scenarios were possibly influenced by their risk tolerance or of a limited understanding about personal finances in general and mortgages specifically. Thus, the dependent variable is 0 if the family gives different answers to each question, 1 if the family consistently chooses ARM and 2 if the family is consistently choosing the "conventional mortgage."

Independent variables in this research study included demographics, financial position, Truth in lending Act related knowledge, financial literacy, consideration of future consequences, risk aversion, and social learning experiences related to housing.

Heckman procedure for sample selection bias was employed using STATA. In this case, self-selection bias was due to households "being not sure" about mortgage selected in both questions. This group was omitted in the mortgage selection model. The dependent variable in stage 1 was an indicator for whether the respondent was sure about mortgage selection in our scenarios or unsure in both.

Results

As a result, in the first stage by using probit analysis, risk tolerance (+), financial knowledge (+) and experience of housing mortgage (+) were found to be significantly influence to the informed choice of mortgage. Then, in the second stage by using probit analysis, and omitting households of being "not sure" to both questions, mortgage information as a treatment (+), experience of installment loan (-) and housing mortgage (-) were found to be significantly influence to the inconsistent mortgage choice to both situations. Finally, lambda was found to be significant in the model, which confirmed the presence of self-selection bias.

References:

Mori, M., Diaz III, J., & Ziobrowski, A.J. (2009). Why do borrowers choose adjustable rate mortgages over fixed rate mortgages: a behavioral investigation. *International real estate review*, 12(2), 98-120.

[23] Michael S. Gutter, 3002-C McCarty Hall D, PO Box 110310, Gainesville, Florida, 32611; Phone: 352-273-2529; Email: msgutter@ufl.edu

Broken Promises: 10 Financial Coping Strategies for Future Financial Security

Barbara O'Neill[24], Rutgers University

Introduction

Millions of Americans have experienced "broken promises" that negatively impact their financial security. These broken promises include pay freezes, pay cuts, furloughs resulting in pay cuts, reduced pension benefits, frozen or reduced pension cost of living adjustments (COLAs), reduced 401(k) plan employer matching, and increased health insurance plan cost sharing (e.g., premiums, deductibles, and co-payments). Workers are increasingly learning they can't even count on benefits in their current labor contract, not to mention promises that were made years ago when they were originally hired. Income and benefit packages are increasingly subject to change. While recent media reports have covered angry protests directed toward public employees whose pension and benefit packages lasted longer than most in the private sector, the real issue is that workers in both public *and* private sector jobs have lost critical pillars of financial support that they once thought they could count on (O'Neill, 2011). Proactive planning is necessary to mitigate the negative effects of broken promises.

If workers don't adjust to their new economic realities, they run the risk of accumulating debt (i.e., by not reducing expenses with reduced take-home pay), setting aside inadequate savings, and/or outliving retirement assets. Take the case of a suspension of defined benefit pension COLAs. Inflation is an especially serious risk for recent retirees and those about to retire who will experience its most corrosive impacts. Without a COLA, pension benefits steadily decrease in real dollars. Financial counselors and educators need a "tool kit" of viable options for clients to consider in the increasingly likely event that their promised raises and/or employer benefits are reduced or rescinded.

Objective/Purpose

1. Participants will learn about trends in "broken promises" affecting employee income and benefits.
2. Participants will learn about the impact of "broken promises" on workers' financial security.
3. Participants will learn about how people handle "bad news" (e.g., income and benefit reductions).
4. Participants will learn ten strategies to mitigate the financial impact of "broken promises."

Description of Content and Method

This workshop will include part of the content of a 36-slide PowerPoint presentation that was delivered to two groups of employees in response to "broken promises" that they experienced in their workplace. The program was later packaged as a 90-minute webinar for a professional association. One of the work sites where the program was delivered was experiencing a pay freeze and increased employee health insurance cost-sharing requirements. The other was experiencing termination of their defined benefit plan and enactment of a less lucrative cash balance plan. At the beginning of each program, participants were told to "check their anger at the door" because the focus of the program was on proactive financial planning and not "venting" about the unfairness of employer benefit changes that could not be reversed. The full program includes an overview of recent employment trends, types of employee income and benefit losses, and specific proactive financial planning strategies. The planning strategies are the focus of this Practitioner's Forum workshop and will provide a menu of options for clients of financial practitioners.

This presentation will include three sections. It will begin with a brief overview of recent economic trends with respect to "broken promises" being made by employers. In the second section, the Kubler-Ross grief model will be briefly introduced as a "lens" for financial counselors and educators to understand the impact of "broken promises." The remainder of the presentation will describe a "menu" of ten financial planning strategies to cope with income losses and benefit reductions. These strategies are: work longer, "retire" while working, accelerate debt repayment, save the shortfall, consider career changes and "moonlighting," invest more aggressively, spend less and shop savvy, investigate new benefit alternatives, define "success' differently, and control what's possible. Since many AFCPE members have probably experienced "broken promises" personally in recent years (e.g., lower pension benefits and increased health insurance costs), the content should prove useful for personal, as well as professional, application.

Reference

O'Neill, B. (2011, November). Helping grieving clients navigate the postfinancial crisis "new normal." *Journal of Financial Services Professionals*, 65(6), 40-49.

[24] Barbara O'Neill, Rutgers Cooperative Extension, Cook Office Building, 55 Dudley Road, Room 107, New Brunswick, NJ 08901; Phone: 848.932.9126; Fax: 732.932.8887; Email: oneill@aesop.rutgers.edu

Budgeting from the Heart: Addressing Emotional Decisions in Money Management

Danielle Champagne[25], M.B.A., Assistant Director, Student Money Management Center, University of North Texas

Key words: *money, budgeting, financial decisions, psychology*

Target Audience
Higher education professionals, educators, practitioners, and counselors

Objectives/Purpose
Program participants will:
- Learn about the psychological issues affecting money and financial decision-making
- Understand how to address the root causes of financial decisions based in emotional actions and relationships
- Learn how to counteract the coping mechanisms used when clients make poor financial decisions
- Learn how to better use financial management tools to help clients address their financial decisions with greater clarity
- Learn how to guide clients to stronger decision-making skills

Description
There's continued anxiety about the U.S. economy. Fueling this is the news of consumers' purchasing power being sapped by high energy and food prices. Salaries remain stagnant with many higher education institutions facing significant funding challenges. According to public opinion polls, almost 6 out of 10 people were not prepared for a recession. How do financial educators and counselors address these emotional issues their clients are facing? With compassion and understanding, educators and counselors can address the emotional ties to money and financial decisions of their clients.

Financial counselors and educators can teach their clients hard and fast rules to manage their money – from setting goals to creating a budget to repairing their credit. But these rules and procedures will not always work to their clients' success if we as counselors and educators do not address the root causes of our clients' mismanagement of money. We must identify the emotional side of money management and decision-making to help our clients better for the short and long term.

The session will provide attendees with solid information regarding decision-making, emotional ties to money management, and how to guide clients to understand the 'why' behind their decisions (both past and future). The session will include information and instruction on how they can provide a more innovative approach to serving their clientele. Interaction and a case study will be included.

[25]Danielle Champagne, Student Money Management Center, University of North Texas, 1155 Union Circle #305237, Denton, TX 76201-5017; Phone: 940-369-7761; Email: champagne@unt.edu; Website: http://moneymanagement.unt.edu

Building a Healthy Wealthy Future: Design, Implementation, and Evaluation

Jennifer L. Hunter[26]. Ph.D. and Nichole L. Huff M.S., University of Kentucky

Key words: *financial education, health education, behavior change, youth*

Target Audience

The *Building a Healthy Wealthy Future* Curriculum targets adolescents in 6th through 8th grade. The supporting extension publications are designed as way to foster communication specifically focused on financial and household topics between parents and youth (age 10 to 15).

Objective/Purpose

The purpose of this practitioners' forum is to introduce the new curriculum and supporting extension publication series to the audience as an "idea that works." An example case study of the program that is being implemented in a Kentucky middle school will be highlighted, and outcome evaluations will be discussed.

Description

The *Building a Healthy, Wealthy Future: Youth (BHWF)* curriculum, designed as the youth component of the *Small Steps to Health and Wealth* program, is a new and innovative approach to assist youth in understanding the relationship between personal behaviors and health and financial success.

The *BHWF* curriculum is designed as a six-week series to promote both financial literacy and the adoption of healthy lifestyle behaviors. The peer-reviewed curriculum and supplemental extension publication series has been made publically available for use on the *Small Steps to Health and Wealth* internal website and through the University of Kentucky at http://www.ca.uky.edu/hes/index.php?p=206.

The program is a series of *Learning Lessons*. Each *Learning Lesson* offers a variety of activities. Instructors can choose the activities that reflect specific learning objectives, time requirements, or available materials. The *Building a Healthy, Wealthy Future: Youth* program offers a mix of traditional and non-traditional lessons to appeal to different settings and styles of learning. A sample *Learning Lesson* is presented below:

Lesson 2: Getting the Right Message: Students will develop an understanding that the environment around us affects how we think about money and health. It is important for youth to realize that they receive daily messages from family members, teachers, friends, media, and pop culture that affect the way they think and feel about financial choices and health decisions. Many advertising companies use different forms of media to target their marketing materials specifically toward adolescents. The objectives of this lesson are to assist participants in identifying environmental factors that influence how they think, feel, and act, and to recognize the differences between positive and negative financial and health messages.

[26] Jennifer L. Hunter, Ph.D., University of Kentucky, 319A Funkhouser Building, Lexington, KY 40506; Phone: 859- 257-3290; Fax: 859- 257-3212; Email: jhunter@uky.edu

Cluttered Lives, Empty Souls: The Financial Costs of Hoarding Disorder

Terrence Daryl Shulman[27], JD, LMSW, ACSW, CAADC, CPC,
Founder/Director, The Shulman Center for Compulsive Theft, Spending & Hoarding

Key words: *hoarding, financial, costs, treatment*

Target Audience: All
(Financial Planners, Advisors and Therapists)

Objectives/Purpose:
- Define hoarding disorder and describe different kinds of hoarding (things, food, animals, digital)
- Recite the prevalence of hoarding disorder in the U.S.
- Cite and explain the financial costs of hoarding to the hoarder, his/her family, his/her community, and others

Description:
Hoarding Disorder affects an estimated 15 million Americans (or 5% of the U.S. population). Time Magazine 2010.

"There could be countless people involved when it comes to a single hoarder and as it was explained it was broken down as to who is all involved and this is what a single city's involvement with a hoarder consists of: Mayors and police officials; adult protective services and social service agencies, mental health counselors, psychologists and psychiatrists; police and law enforcement agencies; judges and attorneys; foster care systems; hospital and health care facilities; court-appointed guardians and advocates; and animal welfare agencies and organizations; This cost could run upwards of $500,000 to well over a million dollars that comes out of the pockets of tax payers just to deal with one hoarder. That's not something anyone wants to hear about where their tax dollars are going to and knowing that many cities are having to foot this bill at the expense of tax payers is crazy. Hoarders have no idea as to the cost that a single city has to foot to do everything from removing a person to legal prosecution when a citation is issued. The fact that this woman has no regards for her family or anyone around her and as her daughter stated she's choosing to live like this and going to jail isn't having much effect on her." (Yahoo Consumer Network Aug. 1, 2010 http://voices.yahoo.com/the-heavy-toll-hoarding-has-major-cities-6405130.html?cat=

54% of hoarders have trouble paying their bills. This is due in part because a majority of their funds are spent on shopping and expanding the hoard. The hoard itself also prevents them from staying organized enough to pay the bills. Bills, checkbooks and financial records are often lost in the hoard. 22% of hoarders avoided paying taxes for one of the last five years. Again, this is likely due to missing paperwork. It is not unusual for hoarders to have their power and gas shut off. It may start with an unpaid bill, but escalates because a repairman can't get into the home to make the necessary repairs. 75% of hoarders excessively buy unneeded items. Hoarders tend to have high credit card debt. Shopping is a major problem for people with this condition. They continue to spend money they don't have to expand their collection or hoard items them deem valuable. There are also associated costs of storage units and digital hoarding on TVs, computes, and other electronic equipment. Home Management Suite 101 and various sources June 27, 2012 http://suite101.com/article/the-economic-impact-of-hoarding-a409277

The financial costs of hoarding also include the costs of health-related, relationship related (divorce), and lost time (as time = money).

[27] Terrence Shulman, JD, LMSW, ACSW, CAADC, CPC, The Shulman Center for Compulsive Theft, Spending & Hoarding, PO Box 250008 Franklin, Michigan 48025; Phone: 248-358-8508; Email: terrenceshulman@theshulmancenter.com; Website: www.theshulmancenter.com

Effective Communication and Counseling Skills for Financial Counselors

Staci Mintz[28], 1st Choice Counseling & Education

Key words*: financial counseling, counseling skills, communication skills*

Abstract

There is a strong need for person centered communication skills and counseling strategies in financial and housing counseling today. With so many of our clients being in crisis and dire financial and housing situations, they are not only in need of sound financial advice and direction but also in compassionate and supportive counseling.. Using solid counseling and communication skills is imperative in helping clients gain trust and confidence in us as financial counselors. This workshop will teach counselors how to effectively use counseling skills as a financial counseling professional. Too often we focus our interaction with clients on only the financial part of what we know and focus our continuing education on what the newest laws and financial products and trends are. Actual counseling is the least taught subject in our financial counselor training and continuing education. As financial counseling professionals, we see people in various degrees of both crisis and asset building. These new counseling skills will allow counselors to feel more confident with their toolkit of different counseling strategies and techniques. Counseling skills to be covered are:

- Facilitating Clear Positive Intention
- Giving Effective Feedback
- Seeing the Essence
- Prizing
- Compassionate Self-forgiveness
- Receiving Effective Feedback
- Facilitating Freedom from Limiting Interpretations of Reality
- Facilitating Carefrontation

An example and description of Prizing:

No matter what the interaction, there is a way we can respond to each other with respect for who we and they are. Prizing involves focusing on the essential wholeness that is at the core of each individual. It involves moving into a place of unconditional acceptance inside and seeing the "heart and soul" of another. From that place we can reinforce who the client is as a person rather than their behavior or what they are saying. No matter what you are told, regardless of how it is said, positively reinforce the person with statements such as: "That may be and I know trying to find a job has been tough. You are really demonstrating courage. You seem like you really want this, you have been staying on a budget now for x amount of time and that is such an accomplishment".

Objective/Purpose

There is a growing need for a new type of "person centered" financial counseling that can help people with both the practical and emotional side of financial counseling. There is a need for counselors to learn how to "be" with clients and how to build rapport and support clients in an authentic and powerful way. The objective is to provide counselors with additional communication skills that are heart centered and work very effectively with clients

[28] Staci Mintz, 1st Choice Counseling & Education, 2049 Marco Drive, Camarillo, CA 93010; Phone: 818-428-1045; Email: staci@my1stchoice.org

Connecting Behavioral Finance and Common Financial Blunders For Young Adults

Kimberlee Davis[29], Texas State University at San Marcos and Ryan Halley, George Fox University

Key words: *behavioral finance, behavioral economics, personal finance, financial counseling*

Description of Content and Method

During the past two decades, behavioral finance (mental accounting, bigness bias, anchoring, prospect theory, etc.) has become a topic of major interest because it helps explain the "why" and "how" underlying individuals' financial behaviors (Belskey & Gilovich, 1999; Shafir, Diamond & Tversky, 1997; Thaler, 1999). Unsuccessful personal financial management, often termed "financial blunders" in the behavioral finance literature, occurs for various reasons. Frequently, financial blunders are caused by recognized or unrecognized bad habits that are natural to the human condition. Avoiding repeating the same financial blunder requires recognizing the blunder, careful consideration and sustained effort to change ways of thinking and an attempt to understand the underlying reason for the financial error. This presentation will provide specific ways to help young adults make the connection between behavioral finance and their personal financial decisions that sometimes result in financial blunders.

First, session participants will participate in a pre-test, which identifies current financial blunders. Second, the presentation focus is on typical financial blunders that young adults might experience that result in the mismanagement of personal finances and the development of more effective financial behaviors that the young adult might implement to remedy these negative habits.

Objective/Purpose

The objective of this presentation is to provide a method for personal finance educators and financial counselors to help young adults recognize common financial blunders made when managing personal finances. Through the creative use of scenarios, common problematic financial behaviors impacting young adults will be illustrated and analyzed. The presenters will highlight the role that behavioral finance plays in the financial counseling process.

A recent article in the USA Today (Malcolm, 2012) concerning Millennials' use of alternative financial services highlights a financial blunder that can largely be explained by examining the underlying behavioral finance topics. This presentation will focus on similar topics and help equip financial counselors and educators by focusing on root causes.

Target Audience

The content of this forum will be of particular interest to personal finance educators and financial counselors working with younger adults and members of any segment of the American population who struggle to meet their financial goals.

Minimum and maximum time required

35 – 40 Minutes

References

Belskey, G. & Gilovich, T. (1999). *Why smart people make big money mistakes and how to correct them.* New York, NY: Simon & Schuster.

Malcolm, H. (2012, May 16). Millennials use alternative financial services. *USA Today*. Retrieved from http://www.usatoday.com/money/perfi/credit/story/2012-05-15/alternative-financial-services-underbanked-millennials/55028830/1

Shafir, E., Diamond, P., & Tversky, A. (1997). Money illusion. *The Quarterly Journal of Economics, 112*(2), 341-374.

[29] Kimberlee Davis, Dept. of Family & Consumer Sciences, Texas State University, 601 University Drive, San Marcos, TX 78666; Phone: 512- 245-8489; Fax: 512- 245-3829; E-mail: kim.davis@txstate.edu

From Diapers to Dorms: Helping Parents Create A Realistic Financial Plan for College Costs

Rachel Grimes[30], M.A. Program Coordinator, Student Money Management Center, University of North Texas

Key words: *parents, money, planning, college costs*

Target audience

Higher education professionals, practitioners and counselors serving college students, college-bound students, and their families, as well as other financial literacy counselors looking to develop outreach programs

Objectives/Purpose

Program participants will:

- Ability to counsel parents on college planning
- Locate and provide up-to-date resources on college costs
- Understand how financial aid, 529 plans, and scholarships aid in addressing college costs

Description

With college costs continuing their current trend of three to four percent increase per year, parents and families are facing greater challenges and sacrifices to plan for their child's higher education costs. Understanding the importance of balancing a child's expectations with the financial realities of an institution's cost of attendance can better prepare parents to guide their child from diapers to dorms. Today, achieving college savings goals takes a combination of knowledge and commitment. From 529 savings plans to understanding the ins and outs of Financial Aid this workshop will assist financial practitioners in advising parents on how to best plan for their child's educational future.

[30] Rachel Grimes, University of North Texas, 1155 Union Circle #305237, Denton, TX 76203-5071; Phone: 940-369-7761; Email: Rachel.grimes@unt.edu; http://moneymanagement.unt.edu/

Getting Smarter About Managing Money: *Money* & *Time* Surveys' Findings

Paul F. Goebel[31], M.B.A., Senior Director,
Student Money Management Center, University of North Texas

Key words: *money, managing, survey*

Target Audience
Campus-based and community-based practitioners

Objectives/Purpose
Program participants will:

- Understand the importance of educating individuals through community partnerships.
- Identify key perspectives families have of their finances today compared to a year ago.
- Describe respondents' feelings about the country's economic prospects.
- Define new habits and respondents' willingness to remain committed to the new behaviors.
- Understand key financial priorities families can adopt today.

Description
Have Americans learned anything or changed their money management habits since the dark days of this decade's Great Recession? The findings of two surveys conducted in the summer of 2011 by *MONEY* and *Time* magazines may surprise you. This second set of surveys follows-up with surveys collected in the months immediately before and after the financial crisis of 2008. The findings reveal that the financial slump may have had a silver lining – Americans are getting smarter about managing their money. Discussion will include perceptions, anxieties, and new behaviors in addition to identifying financial moves clients can make now for brighter financial futures.

[31] Paul Goebel, University of North Texas, Student Money Management Center, 1155 Union Circle #30523, Denton, TX 76203; Phone: 940.369.7761; Email: paul.goebel@unt.edu

Ideas that Ignite Financial Learning

Vivian Mason, Ph.D.[32] and Cynthia Crawford, Ph.D., University of Missouri Extension

Key words: *personal finance, attention getters, ice breakers, financial education, adult education*

Target Audience
This session was designed for AFCPE members who lead financial education workshops and seminars.

Objectives/Purpose
As an educator prepares for any financial education workshop, it's easy to focus on the main points of the presentation and overlook the importance of getting participants involved. Too often adult financial education is passive rather than active. Incorporate "edutainment" into financial learning. Step away from the PowerPoint!

Description
Let's quit doing "death by PowerPoint" and work to energize the learning environment with memorable object lessons. In the time allotted they will demonstrate some of their favorite, time-tested object lessons that participants can immediately begin using in their work.

Description of Content and Method:
As many techniques as time allows were modeled to workshop attendees by the presenters as they selected from the following:

- What rhymes with funny (workshop kick off)
- Mutual fund trail mix (investment education)
- How does 552% APR stack up? (predatory lending education)
- Measure your time frames! (retirement planning education)
- Financial fouls (basic financial planning)
- Score financially! (basic financial planning)
- Quilts and money (estate planning education)
- How to move tax deferred retirement dollars right (retirement planning education)
- Don't get bucked off your financial plans (basic financial planning)

Facilitating learning is about getting and holding the learner's attention. There are many right answers in addition to PowerPoint that are more engaging for the presenter and the learners.

[32] Dr. Vivian Mason, Extension Family Financial Education Specialist, University of Missouri Extension, 2436 Tanner Bridge Road, Jefferson City MO 6510; Phone: 573-634-2824; Fax: 573-634-5463; Email: masonv@missouri.edu

Implementing and Evaluating a Financial Education Social Media Project: Two Case Studies

Barbara O'Neill[33], Rutgers University

Introduction

Many financial practitioners are using social media tools to deliver educational content to new and existing clientele. Advantages of social media include timely dissemination of information, expanded outreach, access to diverse audiences, and no cost. Kinsey (2010) notes that social media tools are an increasingly popular way for people to access information outside the constraints of time and place. She also states that community educators need to keep abreast of new technology applications and make time in their busy schedules for training and experimentation.

Social media is an asynchronous teaching method, which means that information is available anytime, anywhere. Thus, it improves availability of content compared to traditional methods of disseminating information (e.g., face-to-face classes). Another reason to use social media is its low cost. In tough economic times when operating budgets are constrained, social media tools provide excellent value because they are free of charge and readily available. Their biggest "cost" is the time required for daily information dissemination and for an initial "learning curve."

Financial educators are beginning to explore the evaluation of social media programs. One of the first efforts (O'Neill, Zumwalt, Gutter, & Bechman, 2011) used a triangulated (multiple methods) approach involving a Twitter hashtag; online surveys for social media project participants (educators) and their followers; bit.ly analytics; and pre- and post-project Twitter "influence metrics" using Klout and PeerIndex scores. This workshop expands upon that work by presenting the methodology and impact evaluation data of a 2012 replication of the study cited above and a financial social media project involving the preparation of social media messages by high school students.

Objective/Purpose

1. Participants will learn about trends in social media use in general and for financial education.
2. Participants will learn about metrics that can be used to measure the impact of social media tools.
3. Participants will learn about the impact of two financial education social media programs.

Description of Content and Method

This workshop will begin with an overview of social media and social media evaluation metrics. Most of the workshop will focus on the methodology and impact of two financial education social media projects. The first financial education social media project was a month-long social media campaign to promote *America Saves Week* 2012. The methodology was similar to that described in O'Neill et al. (2011) with 97 educators participating and reaching 5,966 friends/followers. Klout scores of 22 participants who reported them on an online evaluation survey increased from before to after the project and respondents' total average Klout scores increased from 20.3 to 29.3.

The second project involved student-created social media messages as a financial education learning activity. Pre- and post-test knowledge scores were compared to measure knowledge gains following this activity. The social media messages were subsequently reviewed and edited and workshop participants will receive a free CD-ROM that contains "ready to cut and paste" Twitter and Facebook messages and other financial education resources.

The workshop will conclude with a discussion of how to use social media effectively when time is limited and how to keep content useful, inviting, and current. A 15-15 Twitter strategy will be suggested: 15 minutes daily to read messages for professional development and 15 minutes to share useful information with followers. If time is limited, cut back to 10 minutes for each activity. Educators should also write a mission statement to guide their content.

References

Kinsey, J. (2010, October). Five social media tools for the Extension toolbox. *Journal of Extension*, 48(5). Retrieved May 2, 2012, from http://www.joe.org/joe/2010october/tt7.php

O'Neill, B., Zumwalt, A., Gutter, M., & Bechman, J. (2011). Financial education through social media: Can you evaluate its impact? *The Forum for Family and Consumer Sciences*. Retrieved May 2, 2012, from http://ncsu.edu/ffci/publications/2011/v16-n1-2011-spring/oneil-zumwalt-gutter-bechman.php

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[33] Barbara O'Neill, Rutgers Cooperative Extension, Cook Office Building, 55 Dudley Road, Room 107, New Brunswick, NJ 08901; Phone: 848.932.9126; Fax: 732.932.8887; Email: oneill@aesop.rutgers.edu

Instructor Resources for Teen Personal Finance Programs

Susan Sharkey[34], Director, High School Financial Planning Program
National Endowment for Financial Education (NEFE)

Key words: *teen, financial literacy, resources*

Target Audience

This workshop is targeted to any individual or community group interested in delivering personal finance instruction to teens directly or by supporting local educators and parents.

Objectives/Purpose

NEFE is committed to inspiring empowered financial decision making for individuals and families through every stage of life. The purpose of this workshop is to provide AFCPE members with instructional resources to equip teens in their communities with fundamental personal finance skills as they start their journeys to financial independence.

Description

Participants in this interactive workshop will examine instructional resources and strategies for integrating quality personal finance resources into local school and community youth programs. Participants will leave the workshop with instructional materials and strategies to support youth financial education programs in their own communities.

During this workshop, participants will:

- Outline strategies for AFCPE members to partner with local school educators and community youth leaders to establish and sustain quality financial literacy programs for teens and young adults.
- Examine the status of youth financial literacy and teacher preparedness.
- View a demonstration of non-commercial print and online resources available to deliver relevant financial literacy programs for teens:
  - NEFE High School Financial Planning Program (www.hsfpp.org) features instructional materials and expanded web resources (updated in 2012) designed for classroom or workshop settings.
  - NEFE Spendster (www.spendster.org) allows users to upload and view videos about how much money they have wasted and provides a forum to consider how that money could have been put to better use.
  - NEFE CashCourse (www.cashcourse.org) provides students with financial education information for every stage of college life. Versions are available for high school students and young adult community programs.
  - NEFE Personal Finance Consumer Information (www.smartaboutmoney.org) provides individuals and families with noncommercial, reliable information to confront small and large financial challenges; and provides financial planners, counselors, and advisors with prepared resources to support teens and young adults dealing with a variety of money management issues.

The National Endowment for Financial Education's resources are designed to be used by financial educators and community volunteers who deliver personal finance instruction in the schools or facilitate financial education workshops in their communities. NEFE continually revises and creates numerous free, noncommercial resources to use in the classroom and in workshop settings. All of NEFE’s resources focus on important foundational personal finance principles including budgeting, saving, banking, managing credit, building wealth, protecting assets, and avoiding money traps.

[34] Susan Sharkey, National Endowment for Financial Education, 1331 - 17 Street, Suite 1200, Denver, CO 80202; Phone: 303-224-3516; Email: ssharkey@nefe.org

Is Web-Based Financial Education for Adults Effective? An Analysis of the *Solid Finances Series*

Joel B. Schumacher[35], Montana State University Extension

Key words: o*nline education, financial education, adult education, workplace education*

Target Audience:
Financial Educators, Human Resource Professionals

Objectives/Purpose:
The presenter will share the results of the evaluation of the effectiveness of the web-based delivery model used for the 2011-2012 Solid Finances adult financial education program. Two main objectives will be addressed: 1) Did online participants learn from the series? 2) What best practices were identified for use in future programming?

Description:
Solid Finances was comprised of 16 one-hour educational sessions that were divided into four topic areas: Money Management, Investments, Retirement and Estate Planning. Individuals could participate in one of three ways. Participants could register (at no cost) and log-in to the webinar from their own computer. Individuals could attend one of the 11 hosted webinar viewing locations. These locations were hosted by a mix of Montana State University County Extension Agents and Human Resources' personal of other University campuses. Finally, each session was offered as an in-person session at the Bozeman campus. The combined average attendance at each session was 120 with over 85% participating via webinar technology.

Surveys were collected prior to and immediately following each topic area. This provided four sets of pre and post survey data. The surveys collected demographic data, a self-assessment of knowledge and confidence in each area, specific knowledge questions (post surveys only) and action questions (post surveys only). The survey also provided participants the opportunity to comment on the best parts of the program and areas that needed improvement.

The survey data indicated that the self-assessment of a participant's knowledge and confidence showed gains for all topics and participant groups. Participants also reported gains on specific knowledge items. Webinar technology often prevents the instructor from interacting effectively with the audience thus leading to a poor educational experience. To address this issue, a polling feature was extensively utilized. From the instructor's point of view this was a valuable tool for measuring the audiences' knowledge, interest and/or preconceptions about a topic. Very positive comments about the polling feature were provided by the individual webinar participants.

Survey results also contained many comments about how nice it was to participate in the webinar from the privacy of their own office. Participating in the series somewhat anonymously appears to be a great asset to the program. The negative stigma associated with needing financial education is mitigated to a large extent by the webinar technology while still addressing the participant's educational needs.

The hosted sites also provided several interesting lessons. One was that Human Resources' hosted sites tended to have better attendance than Extension hosted sites. The endorsement or connection to the employer appears to lend validity to the program. Another finding was that each host site created its own culture. Some sites were very talkative with discussions that lasted after the webinar had ended and the polling was a group effort with participants shouting out their answer. Other locations reported there was little interaction among participants and the group as a whole was unengaged during polling. For many of the participants this was their first experience attending a program using a web-based delivery model. Survey results indicated that participants generally liked the web-based delivery model. This format allowed Solid Finances to truly be available to a state wide audience. Time and travel constraints presented by other delivery models would have prevented such a statewide program from being offered.

[35] Joel B. Schumacher, Montana State University Extension, P.O. Box 172920, Bozeman, MT 59717-2920; Phone: 406- 994-6637; Email: jschumacher@montana.edu

Making Money Count

Janet LaFon[36], M.S., C.F.C.S., University of Missouri Extension

Curriculum Authors: Carole Bozworth, Ph.D.; Suzanne Gellman, M.S., J.D.; Janet LaFon, M.S., C.F.C.S.
University of Missouri Extension

Key words: *personal finance, financial education, adult education*

Target Audience

Making Money Count is a very flexible curriculum that can be used in multiple ways with a wide variety of audiences. The practitioner's forum session is designed for AFCPE members who are working to improve the financial well-being of their clients.

Objectives/Purpose

Programming utilizing the curriculum will benefit participants and communities by:

1. Reducing financial stress
2. Making better informed financial decisions
3. Reducing household debt
4. Increasing financial stability

Description

This practitioners' forum presentation will provide an introduction to the new Making Money Count curriculum. It is a comprehensive, richly illustrated curriculum, containing over 600 pages and an accompanying CD. The curriculum has been extensively reviewed by personal financial management professionals and educators nationwide. It is designed to assist those using it to improve overall economic well-being, both personally and for the clients they serve. It is a flexible curriculum that can be used one-on-one or in group settings. Units can stand alone or can be combined with other units to provide a money management program or course.

The curriculum can be used for multiple purposes:

- To serve as a reference for individuals who need information about a specific topic related to financial management.
- To help individual clients with specific financial needs or challenges not addressed in the handouts and activities.
- To supplement current programs.
- To support the creation of targeted programs.
- To aid volunteer presenters/subject matter experts with presentation materials that help support consistent program content.

Making Money Count has eight units: Making Decisions and Communicating About Money, Spending Plan, Credit, Consumer Skills and Contracts, Record Keeping and Taxes, Banking Services, Insurance and Saving and Investing. Each unit contains basic background information, as well as a multitude of activities and handouts to supplement learning, offer real life examples and reinforce the curriculum's text. Power point presentations with various time frames have been developed for each unit. The presentations include ready-made teaching guides and detailed speaker notes for the instructor which can save preparation time. Additional resources and materials are available on the curriculum website. Evaluation instruments are available for use at the end of each unit, as well as for 3-6 months after the class sessions have been completed.

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[36] Janet LaFon, M.S., C.F.C.S., University of Missouri Extension, Courthouse Basement, 302 S. Main, Carthage, MO 64836; Phone: 417-358-2158; Fax: 417-358-2159; Email: lafonj@missouri.edu

Master Financial Education Volunteers: Leveraging the impact of financial education programs

Jennifer Abel[37], Virginia Cooperative Extension

Key words: v*olunteers, financial education, financial literacy, impacts*

Target Audience

This volunteer training program lends itself well to extension educators, military professionals, and others who are providing financial education and counseling and would like to utilize volunteers to enhance that work. The volunteers themselves can come from a variety of backgrounds. Many of the volunteers who have been trained are financial or counseling professionals but many come from completely different professions and simply have a passion for helping people to reach their financial goals. Due to the comprehensive nature of the training, previous experience conducting financial education programs is not a prerequisite.

Objective/Purpose

The objective of the Master Financial Education Volunteer program is to leverage the impact of financial education efforts in communities by extending the work of organizations with small staffs through the use of volunteers. The volunteer training curriculum was developed by Dr. Celia Hayhoe, Family Financial Education specialist for Virginia Cooperative Extension (who passed away suddenly in March 2012), in collaboration with a group of extension agents on the state Family Financial Management Leadership Team. The curriculum was developed in order to give extension agents around the state of Virginia one training manual to use and to inspire more agents to train financial education volunteers. Prior to its creation the few agents who had been training these volunteers used a variety of curricula and training resources.

Description

The centerpiece of the Master Financial Education Volunteer program is a 24-module manual used to train volunteers in topics such as spending plans, credit and debt management, credit reports, one-on-one counseling techniques, mortgages and home equity loans, saving and investing, financial record keeping, preventing identity theft, and many other financial topics. After completing a minimum of 20 hours of training, volunteers assist extension agents by teaching financial classes and conducting one-on-one financial counseling with low-income clients.

The Practitioner's Forum presentation will feature an overview of the volunteer training curriculum, recommendations for how to recruit, retain, utilize, recognize, and evaluate the effectiveness of volunteers, and lessons learned from an extension agent with 12 years of experience training financial education volunteers. All attendees to this presentation will receive a CD with the training modules. Attendees to the presentation will also learn ways that they can adapt the training manual to their particular situations and conditions.

The minimum time recommended for training volunteers is 20 hours and the maximum is 48 hours if all 24 modules are presented. Most trainers select the modules that they feel are most important and relevant for their volunteers to learn and present those, with the remainder serving as reference materials.

In return for their training, volunteers are asked to contribute a minimum of 40 hours over the course of the next twelve months. Volunteers help to teach financial classes, provide one-on-one financial counseling, and help to publicize upcoming programs. They are supervised by the extension agent who also keeps track of their volunteer hours, evaluates their performance, and records and reports the impacts of their service.

[37] Jennifer Abel, Virginia Cooperative Extension, 3308 S Stafford Street, Arlington, VA 22206; Phone: 703.228.6417; Email; jabel@vt.edu

Military Family Learning Network's Online Professional Development for Personal Finance Managers (PFMs): Divorce and Military Families

Michael S. Gutter[38], University of Florida, Barbara O'Neill, Rutgers Cooperative Extension, and
Carolyn Bird, North Carolina State University

Keywords: *military, web conference, military families, extension, divorce*

Target Audience

The targets military Personal Financial Management Program professionals stationed across the United States and Abroad, the reservist community, and Extension Agents who work with military clientele.

Objective/Purpose:

1. Share our experience using online web conferences to reach Military Personal Finance Managers and educators working with military families. This includes results of the evaluation and follow-up activities.
2. Discuss the complex issue of divorce and important issues that were meaningful to the PFMs.
3. Create a forum for other practitioners to share how they have used web conferences to build capacity and to reach clients

Description of Content and Method

Changes in family composition can have a significant impact upon the long-term financial stability of all involved parties. Divorce, in particular, can prove to be especially traumatic emotionally, financially, and of course logistically when there are children involved. These effects are perhaps even more severe for military families. For one thing, one or both spouses may be deployed, making decisions and communication challenging. Additionally, military families have unique considerations relating to benefits, pensions, living arrangements, and child placement.

The military employs Personal Financial Management Program (PFMP) managers to provide financial education and counseling to service members and their families. PFMP professionals have in-depth knowledge of service member experiences and their family's financial education and financial information needs. It is important for Cooperative Extension professionals and other financial educators to partner with PFMs as they are the critical link to reaching our military families, who represent a unique culture with unique personal finance concerns.

The Financial Security for All (FSA) Community of Practice (CoP) of eXtension is part of a shared learning model that has been developed, which includes Land Grant campus and county faculty, the Community of Interest (both new and experienced PFMP professionals), and a Social Media Strategist/Concentration Leader. With Department of Defense funding, the FSA CoP developed personal finance training materials for PFMs. Thus, two of AFCPE's largest membership constituencies, military and Extension, have worked closely together.

This session will begin with a brief overview of the FSA CoP and will then describe a recent web conference hosted by the eXtension FSA Military Family Learning Network. The topic of this Web conference was the Financial Implications of Divorce. The program described divorce finances in general and included specific topics applicable to military families (e.g., division of a military pension and continuation of health insurance and commissary privileges to an ex-spouse). The presenter was an experienced Extension educator and a CFP® Practitioner.
The web conference attracted PFMP professionals, partners, and others who work with military families. The presenter shared a great deal of information and joined the audience in meaningful dialogue on financial issues of divorce and logistical concerns military families face when a marriage ends. Many participants shared resources.

As the evaluation data to be presented will show, most participants learned a lot in this session and planned to share the information that was provided with their clientele. The event was well attended with 166 at the live broadcast and107 viewing the archive within a month of the webinar. The vast majority (97%) indicated they would apply this knowledge in their job. Additional evaluation results will be shared in the session.

[38] Dr. Michael S. Gutter, University of Florida, 3002-C McCarty Hall D, PO Box 110310, Gainesville, Florida, 32611; Phone: 352-273-3529; Fax: 352-392-8196; Email: msgutter@ufl.edu

NEFE's Financial Education Evaluation Toolkit®

Billy J Hensley[39], Ph.D., National Endowment for Financial Education

Key words: e*valuation, program evaluation, assessment, measurement*

Target Audience

This session is targeted to any financial educator or program administrator seeking help to evaluate and document the impact of their educational programs and methods. The session is ideal for those seeking to create evaluations utilizing a user-friendly tool. Also, those familiar with the Toolkit will learn about recent and upcoming improvements.

Objective/Purpose

NEFE is committed to inspiring empowered financial decision making for individuals and families through every stage of life. The purpose of this workshop is to provide AFCPE members with an understanding of evaluation concepts and efficiently apply them to their educational programs so they can document the impact their programs have on students.

Description of Content and Method

Participants in this informative workshop will receive an overview of the importance of program evaluation, and instruction on how they can utilize NEFE's Evaluation Toolkit to improve or build upon success in their financial literacy programs. Participants will leave the workshop with resources and strategies to evaluate their educational programs.

During this workshop, participants will:

- Receive an overview of effective financial education programming and tips for effective delivery;
- View a demonstration of NEFE's Financial Education Evaluation Toolkit resource; and
- Discuss how to use the data drawn from evaluation and the importance of this data in demonstrating program success and improvement to stakeholders.

The National Endowment for Financial Education's resources are designed to be used by financial educators and community volunteers who deliver personal finance instruction in the schools or facilitate financial education workshops in their communities. NEFE continually revises and creates numerous free, noncommercial resources to use in the classroom and in workshop settings. All of NEFE's resources focus on important foundational personal finance principles including budgeting, saving, banking, managing credit, building wealth, protecting assets, and avoiding money traps.

[39] Billy J Hensley, Ph.D., Director of Education, National Endowment for Financial Education, 1331 17th St., Ste. 1200, Denver, CO, 80202; Phone:(303- 224-3505; Fax: 303-220-0838; Email: bjh@nefe.org

Prepaid Cards and the Go Direct Campaign

Bobbie Shaffett[40], Mississippi State University Extension Service; Charlestien Harris, Southern Bancorp Community Partners; Jeannette Bennett, Federal Reserve Bank of St. Louis, Memphis Branch; Susan Cosgrove, Mississippi State University Extension Service; Teresa Lyle, Mississippi State University Extension Service; Rita Green, Mississippi State University Extension Service; Mary Linda Moore, Mississippi State University Extension Service

Target Audience

Financial Education and Counseling Practitioners--information for sharing with clients.

Objectives/Purpose

Participants of this practitioner's forum will:

- Become familiar with Go Direct, a campaign encouraging those receiving Social Security benefits to enroll in direct deposit before the deadline date March 1, 2013, when there will be no more paper checks.
- Be introduced to the prepaid card contracted by the Federal Government to provide benefits for those who do not make another choice.
- Learn how to compare and choose prepaid cards.
- Become familiar with resources provided by the Federal Reserve for financial education.

Description

The U.S. Department of the Treasury is requiring everyone who gets federal benefit payments by paper checks to switch to an electronic payment method. People who do not choose an electronic payment option by March 1, 2013, or at the time they apply for federal benefits, will receive their payments via Direct Express (a MasterCard Debit Card offered by Comerica Bank). Go Direct Campaign is a nationwide project to provide information to consumers and assist them in choosing an electronic payment method.

Prepaid cards, like Direct Express, Green Dot, and the many others offered by online and by local financial institutions, are commonly used as an alternative to bank accounts by the unbanked or under-banked, as well as those who have had difficulty managing bank accounts. Consumers who use traditional accounts at local financial institutions may also use prepaid cards as an alternative to credit cards.

Terms and costs of prepaid cards vary widely. Consumers should learn to shop around and compare prepaid cards, and consider how costs and safety compare to debit, checking, or savings accounts at local banks and credit unions. For example, prepaid cards may charge fees for reloading money, ATM withdrawals, balance inquiries, or making a purchase without enough money on the card, in addition to a small regular monthly fee. Prepaid cards are not covered by the CARD Act which regulates credit cards either, although some cards do offer their own forms of protection against loss.

Information about the Direct Express Card which will be offered by default to consumers who do not choose an electronic deposit account on their own may be found online at the Go Direct Campaign website: www.godirect.gov Videos, brochures, and other facts for consumers and those who may assist them at home or at local banks may also be found at Go Direct webpages.

Several organizations offer consumer education programs and resources to inform consumers, including the Federal Reserve Bank of St. Louis. Online information is also available at websites of the Consumer Financial Protection Bureau, FCIC, and Consumer Action.

[40] Bobbie D. Shaffett, Ph.D., Extension Professor, Mississippi State University School of Human Sciences, Box 9745, Mississippi State, MS 39762; Phone: 662- 325-3080; Fax: 662-325-8188; Email: bobbies@ext.msstate.edu

Resources to Inform Students about Higher Education Accessibility and Financial Aid Options

Bonita Peebles[41], Assistant Director for Pre-college Success, Texas Guaranteed Student Loan Corporation (TG)

Key words: *financial aid counseling, college access, free resources, resources in English and Spanish*

Abstract
TG is a public nonprofit organization whose vision is to be the premier provider of information, products, and services to help students and families realize their education and career dreams.

In alignment with its vision, TG provides free resources for students and parents that help connect families to institutions of higher education. These resources are also available for counselors, community and faith based organizations, and other service providers that help families navigate the transition to higher education.

Brochures, booklets, handouts, and posters are available in English and Spanish at no charge. Resources also include TG's public service website, *Adventures in Education* (AIE™), found at www.AIE.org. AIE features a scholarship search engine, college cost calculators, budget worksheets, various money management tools, and inspiring educational videos that include 250 career profiles and financial aid application completion guidelines.
TG showcases AIE at numerous Texas College Awareness events and in NextStepU magazine, a national publication for high school students that is distributed in over 20,000 high schools in all 50 states.

[41] Bonita Peebles, Assistant Director for Pre-College Success, Texas Guaranteed Student Loan Corporation (TG), P.O. Box 83100, Round Rock, TX, 78683-3100; Phone: 800- 845-6267; Fax: 512- 219-4989; Email: awareness@tgslc.org

Reverse Mortgages: A Blessing or Pitfall for Seniors in Financial Distress

Cindy R. Stokes[42], M.S., AFC and Alena C. Johnson, M.S., AFC, Utah State University

Key words*: reverse mortgage (RM), Home Equity Conversion Mortgage (HECM), housing counseling*

Target Audience

Private practitioners; educators; financial counseling agencies; housing counseling agencies

Objective/Purpose

Because the elderly are consistently (and almost exclusively) receiving information about the benefits of a reverse mortgage (Twomey & Jurgens, 2009), it is crucial that counselors and educators increase their understanding of not only the advantages of RMs; but also the disadvantages, trends, and requirements, in order to effectively evaluate options and successfully assist clients to make the best decisions possible. Included will be data from a research study at the Utah State University Family Life Center - Housing and Financial Counseling Services (FLC-HFC), a HUD-approved counseling agency. The study included clients who decided to obtain a RM and those who did not.

Description of Content and Method

Reverse mortgages (RM) can be a means of dealing with financial problems seniors are currently experiencing. Lenders, realtors, celebrities alike praise and promote the benefits of a (RM). For those 62 years and older, a RM can help solve financial issues such as foreclosure, increased medical costs, surviving on a fixed income, etc. But it is not perfect, nor is it always the best option. Financial counselors and educators need to be aware of and have a knowledgeable understanding of RMs in order to help clients make wise decisions. This forum will explore the requirements, trends, advantages, and disadvantages of RMs, and discuss how and when a RM can be a useful tool.

Tens of thousands obtain RMs every year. As of April 2012, a total of 758,775 Home Equity Conversion Mortgages (HECMs), the FHA insured and most popular version of the RM, had been originated since program inception in FY 1989-90 (National Reverse Mortgage Lenders Association [NRMLA], 2012). An average of 77,182 HECMs were originated annually over the past six years with 33,515 originated thus far in FY 2011-12 from October 1, 2011 through April 30, 2012 (NRMLA, 2012). There is a need for qualified, well trained, and unbiased RM counselors.

The average age of a RM borrower is on the decline (Szymanoski, Enriquez, & DiVenti, 2007); a concerning trend given the younger a senior begins to extract their home equity, the less equity they will have later in retirement. Another unsettling trend is the increasing percentage of couple borrowers (Szymanoski, et al., 2007). When couples tap into home equity, during a time of typically two retirement incomes, again there will be less equity later. With little or no equity left, it is particularly troubling for widows or widowers living on a single retirement income.

Reverse mortgages are complicated having been called a "complex financial instrument poorly understood by those who embrace it" (AARP, 2008; Weber & Chang, 2006, p. 38). In addition, seniors are often trusting and vulnerable with increasing health, vision, hearing, memory, and sometimes cognitive difficulties. Discussing a RM with an approved counselor is recommended for all reverse mortgage applicants and required for federally insured HECMs.

References

AARP Foundation (AARP). (2008). Reverse *mortgage loans: Borrowing against your home*. Washington, DC: National Center for Home Equity Conversion.

National Reverse Mortgage Lenders Association (NRMLA). (2012). Annual *HECM production chart*. Retrieved from http://www.nrmlaonline.org/rms/statistics/default.aspx?article_id=601

Szymanoski, E. J., Enriquez, J. C., & DiVenti, T. R. (2007). Home equity conversion mortgage terminations: Information to enhance the developing secondary market. *Cityscape: A Journal of Policy Development and Research*, *9*(1), 4-46.

Twomey, T., & Jurgens, R. (2009, October). Subprime revisited: How reverse mortgage lenders put older homeowners' equity at risk. *National Consumer Law Center*, 1-21.

Weber, J. A., & Chang, E. (2006). The reverse mortgage and its ethical concerns [Electronic version]. *Journal of Personal Finance*, *5*(1), 37-52.

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[42] Cindy R. Stokes, Utah State University, 2700 Old Main Hill, Logan, Utah 84322-2700; Phone: (435) 797-8997; Fax: (435) 797-7432; Email: cindy.s@aggiemail.usu.edu

Helping Student Loan Borrowers Meet Their Repayment Responsibilities

Marilyn Landrum[43], Student Assistance Associate-Default Prevention
Missouri Department of Higher Education

Key words: s*tudent loans, repayment plans, deferment/forbearance, rehabilitation*

Student loans are an investment in one's future. Student loans are considered a "good" debt because education can improve your standard of living. It has been my experience that financial counselors shy away from the subject of student loan repayment and are unsure how to help a student loan borrower once they become delinquent or even default. Student loan borrowers have a six month grace period after they have graduated or are no longer enrolled at least half time. There are several repayment options and the borrower may choose the repayment plan that suits their budget; however, if they do not make a choice, they will be automatically put into the Standard Repayment Plan.

If along the way they have trouble meeting their repayment obligations, borrowers may be eligible for either a deferment or forbearance. The borrower must stay in touch with their loan holder or the servicer of their student loans. If the borrower becomes totally and permanently disabled, their student loan may be forgiven.

Even if the borrower defaults on their student loan, there is still hope. Rehabilitation of defaulted student loans is available, but it is up to the borrower to pursue this option. After making nine on time, consecutive, satisfactory payments within a 10 month period, the loan is considered rehabilitated. The default even comes off of the borrower's credit report.

The student loan industry is very complex and is constantly changing. Guaranty agencies are a good resource for financial counselors with clients who have student loans. This session will provide information on each of the key words and websites that can be used as resources.

[43] Marilyn Landrum, Student Assistance Associate-Default Prevention, Missouri Department of Higher Education, 205 Jefferson Street, P.O. Box 1469, Jefferson City, MO 65102-1469; Phone: 573-522-6285; Blackberry: 573-680-0471; Fax: 573-751-6635; marilyn.landrum@dhe.mo.gov

The Village Philosophy: Creating a Financial Literacy Program Town & Gown Collaboration

Jacki Brossman-Ashorn[44], M.B.A., CPFC® Director, Student Money Management Center, Sam Houston State University
Andrea Rabon, CPFC® Program Coordinator, Sam Houston State University
Paul F. Goebel, M.B.A., Senior Director, Office of Campus Life, Student Money Management Center, University of North Texas

Key words: *students, money, programming*

Target Audience
Higher education professionals, practitioners and counselors serving college students, college-bound students, and their families, as well as other financial literacy counselors looking to develop outreach programs.

Objectives/Purpose
Program participants will:

- Understand the importance of educating individuals through community partnerships.
- Learn how effectively using community partnerships can increase your output even with limited internal resources (i.e. short on staffing, reduced budgets, etc.)
- See working examples of sharing of successful campus and community collaborations and best practices.
- Learn to identify potential community partners in the audience's communities.
- Get an action plan to develop a campus and community partnership.

Description
An increasing number of colleges and universities have developed strategies for community engagement. The engagement, however, has often been one-sided in that colleges and universities send students, faculty, and staff members out into the community. This workshop presents two university financial literacy programs that are broadening the definition of community engagement by tapping into the benefits of successful town and gown collaborations and partnerships. The Student Money Management Centers at Sam Houston State University and the University of North Texas have built award winning programs by connecting community partners to their programs and campus communities. Engaging a village philosophy to serve students can also provide an additional benefit to a campus. A recent survey has shown that community members who have attended a campus event in the past six months had a significantly more favorable impression of the university than those who had not attended an event.

[44] Jacki Brossman-Ashorn, Sam Houston State University, Box 2538, Huntsville, TX 77341-2538; Phone: 936-294-2601; Email: jmb016@shsu.edu; Website: http://www.shsu.edu/~smmc

Unfinished Business:
Putting Your Affairs in Order with Meaning and Purpose

Ron E. Dunn[45], Carpets Plus – Color Tile and Fred Fernatt, Kansas State University

Key words: *estate planning, organization, legacy*

Simply put *Unfinished Business* provides a step by step framework for understanding the how and why of bringing organization to important parts of life. Everyone has a one in one chance of dying and as such we will all leave a legacy. With a little bit of the right planning now, yours can be much richer than simply "dividing the stuff" that you leave behind. *Unfinished Business* specifically addresses end of life issues, but this systematic yet simple process results in much better efficiency and use of resources in our present life as well. This is something we should all seek to accomplish and is based on a logical principle that one should not prepare for an unavoidable crisis when they are already in the crisis.

To begin the process a group of men asked their spouse or other loved ones four simple questions regarding what information he/she would like to know and how it should be organized.

(a) If I was gone what would you not know, that you wish I had explained?
(b) What type of information would you want to have readily available?
(c) What could I get ready now, that would help you get through?
(d) What would you wish I had included is a filing system for easy reference?

The next steps deal with making order out of chaos (where is it?) and turning order into meaning (what exactly is our financial condition?). A template is given and forms provided for establishing an easy-access system of files. Assets, liabilities and cash flow are all clarified.

The process continues with very practical aspects of legacy planning. This ranges from the seemingly mundane but important tasks such as recording an inventory of safe deposit box contents, to key passwords needed, to preparing a list of key advisors. Disposition of personal assets and instructions for funeral arrangements are addressed. These instructions are greatly appreciated by those left behind.

The concluding tasks in *Unfinished Business* go well beyond the scope of most financial counselors. The benefits of recording the family tree, personal history, and fondest memories are considered. Also, personal letters of encouragement to close survivors framed up by a unique perspective on why to do this.

More information can be obtained at: www.MyUnfinishedBusiness.net.

Reference

Dunn, R. (2010). *Unfinished business: Putting your affairs in order with meaning and purpose*. Atlanta, GA: Ron Dunn. ISBN: 978-1-6123-640-3

[45] Ron E. Dunn, 1455 Londonderry Drive, Woodstock, GA 30188; Phone: 800-261-6456; E-mail: rondunn@carpetsplus.com

Debt Burden of Young Adults in the United States

Jinhee Kim[46], University of Maryland and Swarn Chatterjee, University of Georgia

Key words: young adults, credit, financial management

Abstract

Young adults in the United States are struggling to establish their financial future. With the rising cost of higher education and high unemployment rates among young adults, growing debt continues to be an issue for young adults in the United States. According to the Consumer Financial Protection Bureau, student loan debts have surpassed the $1 trillion mark. Young adults graduate college with an average of $25,000 in loans in 2010. In addition to student loans, undergraduates are carrying record high credit card balances with the average balance of $3,173 (Sallie Mae, 2009).

The purpose of this study is to identify factors associated with credit card and student loan borrowing behavior of young adults aged 18-25 who are in the life cycle stage of transitioning from financial dependence to financial independence.

Data used were from the 2009 Transition to Adulthood and its parental companion data set, Panel Studies of Income Dynamics.

Results indicate that age, gender, and work status are associated with credit card debt holdings of young adults. Conversely, closeness to mother, parental resources, and human capital attainment are negatively associated with credit card borrowing behavior of young adults. Similarly, being white, parental education and resources are negatively associated with student loan borrowing of young adults. Financial independence was positively associated with both credit card borrowings and student loan debt of college going young adults.

This paper provides a discussion of the factors associated with young adults' debt that will be of interest to policy makers, economists, and financial counselors. The primary findings of our study indicate that there exists tremendous heterogeneity in the borrowing behavior of this group.

References

Sallie Mae (2009). Study finds rising number of college students using credit cards for tuition. Retrieved May 23, 2012 from https://www1.salliemae.com/about/news_info/newsreleases/041309.htm.

[46]Jinhee Kim, University of Maryland, 1142 School of Public Health, Bldg. 255 Department of Family Science University of Maryland, College Park, MD 20742; Phone: 301- 405-3500; Email: jinkim@umd.edu

Do You Know What You Owe? Students' Understanding of Their Student Loans

Emily A. Andruska and Jeanne M. Hogarth,[47] Federal Reserve Board; Cynthia Needles Fletcher, Gregory R. Forbes, Darin R. Wohlgemuth, Iowa State University

Using student survey data augmented with administrative data, we pose two questions: Do students know whether they have student loans? Do students know how much they owe on any outstanding student loans? Twelve percent of students do not know that they owe on students loans when, in fact, they actually have a loan. More than one-fouth underestimate the amount they owe by less than $10,000 and another nine percent underestimate the amount they owe by more than $10,000. We discuss the roles that counselors, educators, and policy makers can play in improving students' understanding of their student loan debt.

Key words: *student loans, student debt, financial literacy*

Introduction and Purpose

Student loans have been in the media spotlight, although they have long drawn the attention of student financial aid professionals, policy makers, parents, and the students themselves. Rising debt levels and default rates, coupled with a vigorous policy debate about access and affordability of higher education have made student loans front page news. In October 2011, President Obama was on the University of Colorado Denver campus when he announced amendments to income-based repayment plans for student loans. The "Pay as You Earn" proposal allows student loan borrowers to cap their monthly payments at 10% of their discretionary income starting in 2012. "For example, a nurse who is earning $45,000 and has $60,000 in federal student loans [could have monthly repayment amounts decline from $690 to] a more manageable $239 – a total reduction of $451 a month" (White House, 2011).

In fact, there are probably few financial products that are as complicated as student loans:

- The decision about how much to borrow is often bundled with the choice of college or university.
- The decision may be a joint negotiation between parents and students as to who will do the borrowing and who will do the paying.
- Interest on student loans may or may not be deferrable and deferment periods can vary depending on the student's enrollment status and post-graduate or job situation.
- Students often take out a series of loans from a variety of providers, but rarely see any comprehensive picture of their total student loan obligations and virtually never see an estimate of the total monthly payment obligations for all of their federal and private loans.
- Borrowers entering repayment face many hurdles including multiple, complex repayment schemes and multiple options for troubled borrowers (Loonin & McLaughlin, 2012).
- Many lenders offer borrowers the option of forbearance, a temporary lapse in payments, as a tool for financially distressed individuals (Office of Federal Student Aid, 2012a). Of those borrowers who exhaust forbearance options or are unaware or unable to modify loan terms in order to make payments, default likely will occur, creating serious consequences for delinquent borrowers, such as wage garnishment or damage to consumer credit records (Office of Federal Student Aid, 2012b).

Given unemployment and underemployment levels in 2012, the issue of student loan delinquency and default looms large. Default on student loan debt is especially problematic because federal student loans are not dischargeable in bankruptcy. The Cohort Default Rate (CDR), a two year snap-shot of defaulters immediately after graduation, stood at 8.8% in 2009, up from 7% in 2008 (Department of Education, 2011). The CDR may underestimate the number of recent graduates who are unable to pay their loans because it does not take into account the number of consumers using up allotted forbearance instead of defaulting (Office of the Inspector General, 2003). Similarly, many student

[47] Jeanne M. Hogarth, Division of Consumer and Community Affairs, Federal Reserve Board, 20th & C Streets, N.W., Mail Stop 805, Washington DC 20551; Phone: (202) 785-6024; Fax: (202) 785-6032; Email: jeanne.m.hogarth@frb.gov. The analysis and conclusions set forth in this presentation represent the work of the authors and do not indicate concurrence of the Federal Reserve Board, the Federal Reserve Banks, or their staff. Mention or display of a trademark, proprietary product, or firm in the presentation by the authors does not constitute an endorsement or criticism by the Federal Reserve System and does not imply approval to the exclusion of other suitable products or firms.

loan borrowers facing hardship become delinquent at various points in time, without actually defaulting; and these are not reflected in official rates (Cunningham & Kienzl, 2011). As of third-quarter 2011, 14.4% of consumers with student loans had at least one past due student loan account (Brown et al., 2012).

Using a unique data set of student survey data matched with administrative data from the Student Financial Aid and Registrar's office at Iowa State University, this paper explores undergraduate students' understanding of their financial obligations for student loans and suggests some policy responses. Specifically, the goal is to identify some of the determinants of students' knowing if they have student loan debt obligations and knowing how much they own in student loan debt.

Student Debt Context
In the 2010-11 academic year, federal student loans totaled almost $104 billion, up about 2% over the previous year, but up about 21% from the 2008-09 academic year. For the 2010-11 academic year, private loans were projected to be about $6 billion, down 13% from the previous year and down 42% from the 2008-09 academic year (Baum & Payea, 2011). Aggregate student loan debt has grown from about $200 billion in 1997 to estimates between $870 billion and one trillion dollars in 2011 – an implicit growth rate of approximately 23% per year (Brown, et al., 2012; Consumer Financial Protection Bureau, 2012a; Kantrowicz, 2012). At a more micro level, among students graduating with a bachelor's degree from four-year public institutions in 2009, 40% had no student loan debt. Of those with debt, the median level of debt was $17,288, and 25% of students with debt had student loan debt of more than $27,978 (Baum & Payea, 2011).

According to the Project on Student Debt (2011), the average indebtedness of college graduates had reached $25,250 for the 2009-2010 graduating class (Reed, 2010). In that same year, graduates of four year institutions in Iowa reported an average indebtedness of $29,598 and graduates of Iowa State University that borrowed for their education had an average indebtedness of $30,062.

The student debt picture for Iowa State University graduates is improving, but is still higher than average. While the average debt nationally and at other Iowa public universities has continued to increase, the average loan debt at Iowa State has seen a decreasing trend for 5 years. The two-year cohort default rate of Iowa State graduates remains below average at 2.6% compared with 5.2% for four year public institutions. Finally, private student loan borrowing has decreased from 29.9% of enrolled students in 2003-2004 to 8.2% in 2010-2011 (Consumer Financial Protection Bureau, 2012b). The decrease in private borrowing at this institution has been offset in part by parent borrowing, with use of the Federal Direct PLUS loan increasing from 3.7% to 11.4% over the same period.

Previous Research

There are a number of studies that document consumer misinformation about postsecondary cost and financial aid, but there is little academic research which documents how students understand college costs and aid (Long 2004). Some studies indicate that students err on the side of caution when making the decision to borrow for college. For example, a study by Cadena and Keys indicates that one in six students reject student loan offers; furthermore, those students who receive loans in cash are significantly more likely to decline an interest free Stafford loan from financial aid (Cadena & Keys, 2010). In a world of perfect information, this could be attributable to risk aversion for students wary of defaulting on loan payment after college (Chatterjee & Ionescu 2010). These studies indicate that students are well informed about the consequences of borrowing student loans, but the degree to which they *understand* their debt is another matter. Similarly, although students may expect higher future earnings upon graduation, there is little evidence that suggests that students fully understand their own personal earnings potential with a given degree (Rothstein & Rouse, 2011). That is to say, they may expect the average rate of return to education but fail to account for their own unique situation such as their chosen career path or how their set of abilities will allow them to be successful in that particular career (Avery & Turner, 2012).

Information is sometimes scarce and even with appropriate information, debt aversion is not always in the student's best interest. In fact, there is evidence to suggest that some students under-borrow (Avery & Turner, 2012). Moreover, complexity in the student financial aid system may hinder healthy financial decision making and as a result, many aid-eligible students fail to file a Free Application for Federal Student Aid (FAFSA) that uses student characteristics, student income, and parental income to determine a student's eligibility for federal student aid (Dynarski & Weiderspan, 2012). While studies have shown that individuals who get help in filling out the FAFSA form from a financial coach are more likely to complete and submit the form (Bettinger et al. 2009), there is little research that shows the relationship between filing a FAFSA and how well a student *understands* their debt obligations after borrowing. This study hopes to add to this body of literature by taking a closer look at whether the act of a student filing or not filing a FAFSA has implications for debt awareness.

Another way to pay for college is to work while enrolled. Those students that work (and forgo borrowing) are more likely to be low-to-moderate income, minorities, undergraduates, and married students (Christou & Haliassos, 2006). For the students who chose to work, academic performance may fall (Stinebrickner & Stinebrickner, 2003). Furthermore, a general lack of resources for financing education overall has implications for college completion rates (Monks, 2001; Tumen & Shulruf, 2008). Those unable to meet tuition obligations without borrowing may be more likely to drop out (Bound, Lovenheim, & Turner, 2010). For these students, if they cannot borrow, they cannot enroll.

For students who use student loans, financial stress may pose impediments to academic progress (Carew 2012). In fact credit card studies have shown that concern with credit card debt was associated with financial stress and may play a role in financial decision-making (Joireman, Kees, & Sprott, 2010). In our study, we would expect students who are more concerned with impending demands for repayment of student loan debt to be similarly stressed. Our study explores how work and financial stress factor into students' debt awareness.

Finally, our study looks at whether financial knowledge affects students' debt perceptions. Previous studies on the financial knowledge of younger populations show that, in general, college students are less financial literate relative to the general population (Lusardi, Mitchell, & Curto, 2010). Research also indicates that those students lacking in financial knowledge do indeed seek out financial counseling on campuses where it is available (Cumbie et al., 2011). The effects of information on utilization rates of student loans is still understudied, but it appears there is not necessarily a causal relationship between knowledge and utilization (Booij, Leuven, and Oosterbeek 2008).

Data and Methods

A random sample of 6,000 undergraduate students at Iowa State University (all U.S. students, no international students) was emailed the link to an online voluntary survey in the fall of 2010; 801 valid responses were received. Given missing values and non-responses, 524 observations are used in this analysis. A comparison of the demographic characteristics of the respondents and university undergraduates suggests that the respondents are representative of that population with some exceptions. Students who completed the survey appear to have fewer financial resources relative to the student population; 22% have not taken out student loans (vs. 24% of the population) and a higher proportion was eligible for the need-based Pell grants (34% of the sample compared with 30% of the population). More women completed the survey; 60% of the respondents are female compared with 45% of the population. Given the marked difference in the gender distribution of the study sample, descriptive statistics are weighted to account for the higher female response rate; regressions are not weighted.

First, we explored a descriptive analysis of whether students knew whether or not they had any student loans; we called this characteristic, "loan confused." Then, we investigated whether students knew *how much* they owed on student loans and called this "debt confused." These became the dependent variables in probit and logit regressions. To capture whether students knew whether they had debt and how much they owed on student loans, we compared their self-reported estimate with their loans on record with the Office of Student Financial Aid. We created ranges of amounts borrowed and developed a cross-tabulation of students' estimates and Financial Aid records of borrowing. Observations on the "diagonal" were matches – students who reported they owed as much as the Financial Aid office numbers (Figure 1). Some "off the diagonal" students indicated that they owed more than the Financial Aid office figures, but we surmise that this may be due to additional informal lending by family members, formal lending from sources not captured in Financial Aid records, or arrangements between students and parents for the student to repay education debt borrowed on the student's behalf – all of which can make some sense. However, other "off the diagonal" students report that they owed less money than the Office of Student Financial Aid records indicated. This misperception is undesirable and it is this group that we code as "debt confused."

Figure 1.
Comparison of Self-Reported Student Loan Debt with Loan Figures from the Office of Financial Aid

Self-Reported	Office of Student Financial Aid								
	$0	$1-9,999	$10,000 – 19,999	$20,000 - $29,999	$30,000 - $39,999	$40,000 - $49,999	$50,000 – 59,999	$60,000 or more	Total
$0	103	62	0	0	0	0	0	0	165
$1 – 9,999	2	86	41	2	1	0	0	1	133
$10,000 – 19,999	2	24	46	29	4	0	1	0	106
$20,000 – 29,999	1	2	10	22	6	2	0	0	43
$30,000 – 39,999	0	2	4	7	7	2	0	1	23
$40,000 – 49,999	0	0	2	0	1	0	2	0	5
$50,000 – 59,999	0	1	1	1	1	3	0	0	7
$60,000 or more	0	0	1	1	1	0	0	1	4
Total	113	189	117	69	22	8	3	3	524

Cells shaded in black on the diagonal are observations in which students' self-report and Office of Student Financial Aid records match. Cells shaded in medium grey are observations in which students' self-report is less than Office of Student Financial Aid records, but within $10,000. Cells shaded in light grey are observations in which students' self-report is off by $10,000 or more from the figure provided by the Office of Student Financial Aid.

Next, we conducted multivariate analyses to investigate the association between respondent characteristics and their knowledge of student debt. Independent variables included gender, race, classification (year in school, see Table 1), GPA, in-state resident, transfer student status, college enrolled in, whether the student was financially independent from their parents, employment, and financial stress. For the financial need status variable, we combined measures of whether a student filed a FAFSA and whether the expected family contribution was greater than, equal to, or less than the expected college expenses. We created a set of dummy variables that captured 1) students who did not file a FAFSA, 2) students who filed a FAFSA, but whose expected family contributions were equal to or greater than expected expenses, and 3) students who filed a FAFSA and whose expected family contributions were less than expected expenses (i.e. they were likely to qualify for need-based financial aid programs).

Table 1.
Summary Statistics for Loan Confused Students
(Numbers are weighted proportions unless otherwise noted; standard deviation in parenthesis)

	Full Sample	**Loan Confused**	**Not Loan Confused**
Number of observations	525	61	464
Dependent Variable			
Student reports they don't owe anything in student loans while Financial Aid Office records indicate they do (=1; else 0)	0.13	1.00	0.00
	(0.33)	0.00	0.00
Independent Variables			
Female	0.48	0.35	0.50
	(0.50)	(0.48)	(0.50)
Minority	0.08	0.07	0.08
	(0.27)	(0.25)	(0.28)
Classification			
Freshman (base)	0.26	0.46	0.23
	(0.44)	(0.50)	(0.42)
Sophomore	0.18	0.20	0.18
	(0.38)	(0.40)	(0.38)
Junior	0.25	0.18	0.26
	(0.44)	(0.39)	(0.44)
Senior	0.31	0.17	0.33
	(0.46)	(0.38)	(0.47)
Grade point average			
3.50 or higher (base)	0.32	0.46	0.30
	(0.47)	(0.50)	(0.46)
3.00-3.49	0.39	0.40	0.39
	(0.49)	(0.49)	(0.49)
Less than 3.00	0.29	0.14	0.31
	(0.46)	(0.35)	(0.46)
State resident	0.78	0.87	0.76
	(0.42)	(0.34)	(0.43)
Transfer student	0.20	0.13	0.20
	(0.40)	(0.34)	(0.40)
Need (expected contribution is less than expected expenses)	0.62	0.43	0.64
	(0.49)	(0.50)	(0.48)
College	0.00	0.00	0.00
Agriculture & Life Sciences	0.17	0.22	0.16
	(0.37)	(0.42)	(0.37)
Design	0.06	0.03	0.06
	(0.23)	(0.19)	(0.24)
Engineering (base)	0.27	0.35	0.26
	(0.44)	(0.48)	(0.44)
Human Sciences	0.13	0.11	0.14
	(0.34)	(0.32)	(0.34)
Business	0.12	0.12	0.12
	(0.32)	(0.32)	(0.32)
Liberal Arts & Sciences	0.26	0.17	0.27
	(0.44)	(0.38)	(0.45)
Student feels responsible for loan payments	0.69	0.15	0.77
	(0.46)	(0.36)	(0.42)
Financial education			
Had financial ed in high school	0.62	0.70	0.61
	(0.49)	(0.46)	(0.49)
Did not have economic constraints growing up (financial environment)	0.39	0.43	0.38
	(0.49)	(0.50)	(0.49)
Parents taught financial management skills	0.62	0.76	0.60
	(0.49)	(0.43)	(0.49)
Had financial ed in college	0.23	0.15	0.24
	(0.42)	(0.36)	(0.43)
Student is financially independent (FAFSA)	0.19	0.01	0.22
	(0.39)	(0.11)	(0.41)
Employment			
Not employed (base)	0.41	0.47	0.40
	(0.49)	(0.50)	(0.49)
Works part time	0.51	0.52	0.50
	(0.50)	(0.50)	(0.50)
Works full time	0.09	0.01	0.10
	(0.28)	(0.11)	(0.30)
Working to pay for cost of attendance	0.37	0.24	0.39
	(0.48)	(0.43)	(0.49)
Financial stress			
Indicated financial stress (psychological)	0.59	0.49	0.61
	(0.49)	(0.50)	(0.49)
Indicated financial stress affects enrollment/credit hours (behavioral)	0.39	0.21	0.42
	(0.49)	(0.41)	(0.49)

Financial literacy was measured by four variables: 1) whether the student reported receiving financial or consumer education in high school; 2) whether the student grew up in an environment with substantial economic constraints (parents were able to meet their monthly financial needs; parents able to pay monthly bills; whether the family was better, the same, or worse off than others); 3) whether parents taught the student any financial management skills (e.g. budgeting, saving, spending, credit cards, etc.); and 4) whether the student had any financial education in college (either at this university or at another school if a transfer student)

Employment was measured as a series of dummy variables that captured whether the student worked, and if so, whether they worked full time or part time. This variable is taken from the student survey and includes both on-campus and off-campus employment. Furthermore we included an indicator variable for whether the student reported working to pay for school. Financial stress measures included a self-reported measure of feeling stressed and an indicator variable if the student reported financial stress affected their enrollment or the number of credit hours taken.

We explored both a probit and a logit specification for the loan confused analysis. While results from both specifications are similar, there are small differences in goodness-of-fit measures; the logit fit the data better. We estimated marginal effects for the probit specification.

For the debt confused analysis, we created a dependent variable with three levels: not debt confused (knew how much they owed), somewhat debt confused (was within $10,000 of estimating the amount owed), and more debt confused (underestimated the amount owed by more than $10,000). Here we used an ordered logit analysis to capture these three levels. Furthermore, since the coefficients of the ordered logit regressions are difficult to interpret, we calculated the probabilities that students are not, somewhat, or more debt confused.

Results

Loan Confused

About 13% of students reported that they did not owe any money, when in fact they did (Table 1). Females were less likely to be loan confused than males; this finding is interesting in that many other studies point to lower levels of financial literacy among females (Hung, Parker, & Yoong, 2009). Seniors were less likely to be confused about whether they owed student loans, although this difference did not hold in the multivariate analysis (Table 2). Additionally, the odds-ratio in Table 2 indicates that compared with out-of-state students, in-state residents were nearly twice as likely to misunderstand whether they owed on student loans (odds ratio of 1.96). The higher cost of out-of-state tuition may be highly salient to non-residents. Students with financial need were less likely to be loan confused than those without need. Students who knew they were responsible for their loans were 34 percentage points less likely to be loan confused, as might be expected. Students who do not know if they are responsible may be assuming that their parents will pay or they may be unaware of who is ultimately responsible for paying back their loans. Finally, as might be expected, students who are deemed “financially independent” by the Office of Student Financial Aid, meaning they do not have financial support from a parent or other legal guardian, were 17 percentage points less likely to be confused about whether they owed any money.

Table 2.
Probit and Logit Regression Coefficients for Loan Confused Students
(standard errors in parenthesis)

Dependent variable = do they know whether they have student loans/debt (1=student reports they don't owe anything while Financial Aid Office records indicate they do)	Probit	Marginal Effects	Logit	Odds Ratio
Female	-0.33	-0.04	-0.96**	0.38**
	(0.23)	(0.03)	(0.47)	
Minority	-0.13	-0.01	-0.18	0.83
	(0.44)	(0.05)	(0.77)	
Classification				
sophomore	-0.10	-0.01	-0.07	0.93
	(0.29)	(0.03)	(0.55)	
junior	-0.24	-0.03	-0.36	0.70
	(0.30)	(0.03)	(0.58)	
senior	-0.29	-0.03	-0.52	0.60
	(0.28)	(0.03)	(0.53)	
Grade point average				
GPA 3.00 to 3.49	-0.20	-0.02	-0.31	0.73
	(0.23)	(0.02)	(0.43)	
GPA less than 3.0	-0.37	-0.04	-0.77	0.46
	(0.285)	(0.03)	(0.585)	
State resident	0.47*	0.05*	0.68	1.96
	(0.284)	(0.03)	(0.540)	
Transfer student	0.10	0.01	0.25	1.28
	(0.30)	(0.03)	(0.61)	
Need (expected contribution is less than expected expenses)	-0.40*	-0.05*	-0.84**	0.43**
	(0.22)	(0.03)	(0.43)	
Colleges				
Agriculture & Life Sciences	-0.17	-0.02	-0.07	0.93
	(0.32)	(0.03)	(0.62)	
Design	0.18	0.02	0.06	1.07
	(0.43)	(0.05)	(0.91)	
Human Sciences	-0.30	-0.03	-0.29	0.75
	(0.36)	(0.03)	(0.70)	
Business	-0.19	-0.02	-0.14	0.87
	(0.38)	(0.04)	(0.77)	
Liberal Arts & Sciences	-0.42	-0.04	-0.56	0.57
	(0.31)	(0.03)	(0.60)	
Student feels responsible for loan payments	-1.89***	-0.34***	-3.67***	0.03***
	(0.23)	(0.05)	(0.47)	
Financial education				
Had financial ed in high school	0.16	0.02	0.49	1.64
	(0.21)	(0.02)	(0.41)	
Did not have economic constraints growing up (financial environment)	-0.28	-0.03	-0.51	0.60
	(0.23)	(0.02)	(0.45)	
Parents taught financial management skills	0.07	0.01	0.06	1.06
	(0.23)	(0.03)	(0.45)	
Had financial ed in college	-0.32	-0.03	-0.37	0.69
	(0.28)	(0.03)	(0.52)	
Student is financially independent (FAFSA)	-2.10***	-0.17***	-4.62***	0.01***
	(0.42)	(0.02)	(1.10)	
Employment				
Works part-time	0.35	0.04	0.71	2.03
	(0.26)	(0.03)	(0.50)	
Works full-time	-0.20	-0.02	0.03	1.03
	(0.68)	(0.07)	(1.30)	
Works to pay for cost of attendance	0.15	0.02	0.19	1.21
	(0.28)	(0.03)	(0.54)	
Financial stress				
Indicated financial stress (psychological)	0.28	0.03	0.53	1.70
	(0.23)	(0.03)	(0.45)	
Indicated financial stress affects enrollment/credit hours (behavioral)	-0.42*	-0.05*	-0.75	0.47
	(0.25)	(0.03)	(0.49)	
Constant	0.30		0.71	2.03
	(0.45)		(0.87)	
Observations	525	525	525	525
Pseudo R-squared	0.45	0.45	0.46	0.46
LR chi2(20)	168.2	168.2	174.3	174.3

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Debt Confused
Nearly two-fifths (37% (28% + 9%)) of students underestimated the amount of student loan debt they owed (i.e. they were debt confused; Table 3). Furthermore, nearly one out of 10 (9%) underestimated their debt by more than $10,000. Classification, GPA, being a transfer student, filing a FAFSA, college of enrollment, feeling responsible for payments, and having parents who taught them financial management skills were all associated with the levels of debt confusion (Table 4).

Table 3.
Summary Statistics for Debt Confused Students
(Numbers are weighted proportions unless otherwise noted; standard deviation in parenthesis)

	Full Sample	**Not Debt Confused**	**Somewhat Debt Confused**	**More Debt Confused**
Number of observations	524	332	142	50
Dependent Variable				
Proportion of students underestimating amount owed in student loans compared with Financial Aid by less than $10,000 (Somewhat) or more than $10,000 (More)	100%	62.6%	28.3%	9.1%
Independent Variables				
Female	0.48	0.51	0.39	0.52
	(0.50)	(0.50)	(0.49)	(0.51)
Minority	0.08	0.07	0.10	0.10
	(0.27)	(0.25)	(0.30)	(0.30)
Classification				
Freshman (base)	0.26	0.27	0.26	0.21
	(0.44)	(0.45)	(0.44)	(0.41)
Sophomore	0.18	0.15	0.23	0.18
	(0.38)	(0.36)	(0.42)	(0.39)
Junior	0.25	0.28	0.18	0.31
	(0.44)	(0.45)	(0.39)	(0.47)
Senior	0.31	0.30	0.34	0.30
	(0.46)	(0.46)	(0.47)	(0.46)
Grade point average				
3.50 or higher (base)	0.32	0.33	0.32	0.23
	(0.47)	(0.47)	(0.47)	(0.43)
3.00-3.49	0.39	0.37	0.41	0.44
	(0.49)	(0.49)	(0.49)	(0.50)
Less than 3.00	0.29	0.30	0.27	0.33
	(0.46)	(0.46)	(0.45)	(0.47)
State resident	0.78	0.76	0.84	0.65
	(0.42)	(0.43)	(0.37)	(0.48)
Transfer student	0.20	0.23	0.15	0.12
	(0.40)	(0.42)	(0.36)	(0.33)
FAFSA and financial need			0.00	0.00
Did not file a FAFSA (base)	0.15	0.23	0.00	0.05
	(0.36)	(0.42)	0.00	(0.21)
Filed a FAFSA but no financial need (expected family contribution is equal to or greater than cost of attendance)	0.24	0.18	0.35	0.26
	(0.43)	(0.39)	(0.48)	(0.44)
Filed a FAFSA and have financial need (expected family contribution is less than expected expenses)	0.61	0.58	0.66	0.70
	(0.49)	(0.49)	(0.48)	(0.46)
College				
Agriculture & Life Sciences	0.17	0.18	0.19	0.03
	(0.37)	(0.38)	(0.39)	(0.18)
Design	0.06	0.05	0.04	0.12
	(0.23)	(0.22)	(0.20)	(0.33)
Engineering (base)	0.27	0.25	0.35	0.19
	(0.44)	(0.43)	(0.48)	(0.40)
Human Sciences	0.13	0.12	0.11	0.28
	(0.34)	(0.33)	(0.31)	(0.45)
Business	0.12	0.12	0.11	0.09
	(0.32)	(0.33)	(0.32)	(0.28)
Liberal Arts & Sciences	0.26	0.28	0.21	0.30
	(0.44)	(0.45)	(0.41)	(0.46)
Student feels responsible for loan payments	0.69	0.70	0.61	0.88
	(0.46)	(0.46)	(0.49)	(0.33)
Financial education			0.00	0.00
Had financial ed in high school	0.62	0.64	0.61	0.54
	(0.49)	(0.48)	(0.49)	(0.50)
Did not have economic constraints growing up (financial environment)	0.39	0.40	0.41	0.25
	(0.49)	(0.49)	(0.49)	(0.44)
Parents taught financial management skills	0.62	0.64	0.63	0.48
	(0.49)	(0.48)	(0.48)	(0.51)
Had financial ed in college	0.23	0.23	0.23	0.22
	(0.42)	(0.42)	(0.42)	(0.42)
Student is financially independent (FAFSA)	0.19	0.27	0.05	0.06
	(0.39)	(0.45)	(0.22)	(0.25)
Employment	0.00	0.00	0.00	0.00
Not employed (base)	0.41	0.41	0.38	0.49
	(0.49)	(0.49)	(0.49)	(0.51)
Works part time	0.50	0.48	0.59	0.41
	(0.50)	(0.50)	(0.49)	(0.50)
Works full time	0.09	0.11	0.03	0.10
	(0.28)	(0.31)	(0.18)	(0.31)
Working to pay for cost of attendance	0.37	0.39	0.36	0.25
	(0.48)	(0.49)	(0.48)	(0.44)
Financial stress	0.00	0.00	0.00	0.00
Indicated financial stress (psychological)	0.59	0.59	0.56	0.76
	(0.49)	(0.49)	(0.50)	(0.43)
Indicated financial stress affects enrollment/credit hours (behavioral)	0.39	0.42	0.32	0.41
	(0.49)	(0.50)	(0.47)	(0.50)

Table 4.
Ordered Logit Regression Coefficients and Probabilities
(standard errors in parenthesis; significant differences highlighted in bold)
Dependent variable = Do they know how much they owe (= 0 if student knew their debt or overestimated; = 1 if student was off by $10,000 or less; = 2 if student was off by more than $10,000)

		Estimated Probabilities		
	Ordered Logit	**Not Debt Confused**	**Somewhat Debt Confused**	**More Debt Confused**
Total share of respondents (weighted)		0.63	0.28	0.09
Male (base)		0.65	0.28	0.07
Female	-0.32	0.72	0.23	0.05
	(0.23)			
Non-minority (base)		0.69	0.25	0.06
Minority	-0.215	0.73	0.22	0.05
	(0.35)			
Classification				
Freshman (base)		**0.64**	**0.28**	**0.07**
sophomore	0.58*	**0.58**	**0.32**	**0.09**
	(0.30)			
junior	0.26	0.65	0.28	0.07
	(0.30)			
senior	0.62**	**0.60**	**0.31**	**0.09**
	(0.29)			
Grade point average				
GPA 3.50 or higher (base)		**0.67**	**0.26**	**0.07**
GPA 3.00 to 3.49	0.43*	**0.64**	**0.29**	**0.08**
	(0.24)			
GPA less than 3.0	0.56**	**0.60**	**0.31**	**0.09**
	(0.28)			
Non-resident (base)		0.67	0.26	0.07
State resident	-0.13	0.70	0.24	0.06
	(0.25)			
Non-transfer student (base)		**0.66**	**0.27**	**0.07**
Transfer student	-0.86***	**0.82**	**0.15**	**0.03**
	(0.29)			
FAFSA and financial need				
Did not file a FAFSA (base)		**0.53**	**0.36**	**0.11**
Filed a FAFSA but no financial need (expected family contribution is equal to or greater than cost of attendance)	3.88***	**0.10**	**0.34**	**0.55**
	(0.82)			
Filed a FAFSA and have financial need (expected family contribution is less than expected expenses)	3.68***	**0.36**	**0.44**	**0.21**
	(0.81)			
College				
Engineering (base)		**0.77**	**0.19**	**0.04**
Agriculture & Life Sciences	-0.31	0.74	0.21	0.05
	(0.33)			
Design	0.75*	**0.53**	**0.36**	**0.12**
	(0.46)			
Human Sciences	0.54	0.59	0.32	0.09
	(0.34)			
Business	-0.13	0.72	0.23	0.05
	(0.38)			
Liberal Arts & Sciences	0.06	0.68	0.25	0.06
	(0.30)			
Did not feel personal responsibility for loans (base)		**0.58**	**0.33**	**0.10**
Student feels responsible for loan payments	-0.73***	**0.74**	**0.21**	**0.05**
	(0.25)			
Financial education				
No financial ed in high school (base)		0.66	0.27	0.07
Had financial ed in high school	-0.24	0.71	0.23	0.06
	(0.20)			
Had economic constraints growing up (base)		0.70	0.24	0.06
Did not have economic constraints growing up (financial environment)	0.072	0.68	0.25	0.06
	(0.22)			
Parents did not teach financial management skills (base)		**0.63**	**0.29**	**0.08**
Parents taught financial management skills	-0.43**	**0.73**	**0.22**	**0.05**
	(0.21)			
Did not have financial ed in college (base)		0.69	0.25	0.06
Had financial ed in college	-0.08	0.71	0.24	0.06
	(0.23)			
Student is financially dependent (FAFSA; base)		0.70	0.24	0.06
Student is financially independent (FAFSA)	0.14	0.67	0.26	0.07
	(0.49)			
Employment				
Does not work (base)		0.65	0.28	0.07
Works part-time	0.36	0.66	0.27	0.07
	(0.26)			
Works full-time	-0.37	0.76	0.20	0.04
	(0.46)			
Does not work to pay cost of attendance (base)		0.66	0.27	0.07
Works to pay for cost of attendance	-0.38	0.74	0.21	0.05
	(0.26)			
Financial stress				
Did not indicate financial stress (base)		0.73	0.22	0.05
Indicated financial stress (psychological)	0.33	0.67	0.27	0.07
	(0.24)			
Did not indicate financial stress affects enrollment/credit hours (base)		0.67	0.26	0.07
Indicated financial stress affects enrollment/credit hours (behavioral)	-0.29	0.73	0.22	0.05
	(0.24)			
Constant cut1 (ordered logit)	3.47***			
	(0.88)			
Constant cut2 (ordered logit)	5.39***			
	(0.89)			
Observations	524			
Pseudo R-squared	0.12			
LR chi2(20)	107.1			

*** p<0.01, ** p<0.05, * p<0.1

Freshmen had a 0.64 probability (that is, a 64% chance) of accurately knowing how much they owed, compared with 0.58 for sophomores and 0.60 for seniors. In part, this may be because freshmen only have one year of loans to estimate. Students with GPAs of 3.5 or higher had a 0.67 probability of knowing how much they owed, compared with 0.64 for those with GPAs of 3.0 to 3.49 and with 0.60 for those with GPAs less than 3.0. Also, students with GPAs of 3.5 or higher had the lowest probability of being in the more debt confused category (0.07 probability compared with 0.08 and 0.09, respectively).

Transfer students were less likely to be debt confused (0.82 vs. 0.66); this is as expected, because transfer students may start out at a 2-year college to save money and may be more sensitized to levels of debt. It may also be that in the process of transferring, there might be an exit interview with the financial aid office that may serve as a reminder of how much the student borrowed.

Students who filed a FAFSA, regardless of their need category, were less likely to know how much they owe. This result seems counterintuitive, although it is interesting to note that those students who had no financial need were less likely to know how much they owed. Students who do not file a FAFSA but who take out private loans generally request a specific amount on the loan application; thus they should know how much they owe. Also, the act of applying for the loan and interacting with the loan officer may make students more engaged with their loan status.

Compared with Engineering students, students studying in the College of Design were less likely to know how much they owed (0.77 in engineering compared with 0.53 in design). The difference is particularly notable in the more debt confused category: students in the Design College had a 0.12 probability of being in the more debt confused category, compared with 0.04 for those in Engineering.

Students who felt they were personally responsible for their loans had a higher probability of not being debt confused, 0.74 compared with 0.58 for those who did not feel responsible for their loans. Also, students whose parents taught them some money management skills were more likely to know how much they owed (0.73 compared with 0.63 for those whose parents did not teach any money management skills); moreover these students were less likely to be in the more debt confused category (0.05 vs. 0.08).

Discussion and Conclusions

Summary

Nearly one out of eight university students reports no student loans when in fact loans are on record. We find that females, those defined as having financial need, those who feel responsible for loan payments, those who are defined as financially independent, and those indicating that financial stress affects their enrollment are more likely to know whether they have student debt obligations (that is, they are less likely to be "loan confused"). In comparison, in-state residents are more likely to be loan confused.

There is some evidence to suggest that the more financially constrained a student is, the more likely they are to know they have debt. For example, students whose expected family contribution was less than the cost of attendance (see Need, Table 2) were 5 percentage points less likely to be loan confused than those without financial need. Perhaps students who are on the financial margin for college attendance are more sensitive to debt burdens than other students, because they would otherwise not be able to afford the cost of college. Similar explanations may also apply to the finding that financially independent students are 17 percentage points less likely to be loan confused.

The association of financial need with debt awareness can also be found in the debt confused cases. For example, FAFSA filers with no financial need were the most likely to be in the "more confused" category. It is possible that the very act of filing the FAFSA form may increase a student's financial awareness, and in this way parents who file a FAFSA for their child may be increasing their child's chances of being loan confused. However, those students who personally fill out and file the FAFSA may be more likely to know they have debt because they themselves completed the application.

Nearly two fifths (37%) of students cannot accurately estimate the amounts they owe. Of more concern, nearly 1 in 10 underestimated their loans by more than $10,000. Feeling responsible for loan payments and learning money management at home were strongly associated with knowing how much is owed. Additionally, classification, GPA, transfer status, filing a FAFSA, and college of enrollment were factors important in explaining the differences in understanding how much was owed.

Given that seniors are closer to student loan repayment than freshmen, it is interesting to note that seniors were more likely to be "somewhat confused" and "more" confused about their debt than freshman. It may be that freshmen only have to recall one year of borrowing whereas seniors need to account for multiple years of borrowing as well as accrued interest. When interest is capitalized before repayment begins, as is typical with private loans, students may lack the financial skills necessary to properly account for all of their debt.

Limitations
These data come from current students at a single university at a single point in time; they are not nationally representative nor do they represent other cohorts of students. Instead, the data present a case study of how recent students relate to their student loans. Because these are current students, the data do not address issues of student loan delinquency or defaults, which are currently important issues in the policy arena. Also, because these are current students, the data do not address problems related to dropping out before completion and how understanding and knowledge about student loans may be related to completion of the degree.

Discussion
These findings speak to the need to have on-going financial counseling available to students as well as some type of exit counseling so that students can make adjustments in their expectations for both current and future lifestyles. Our findings suggest that annual reviews of financial aid should not only focus on a student's current year aid package, but also emphasize cumulative debt. Freshmen appear to be as aware of how much they owe as upper classmen and the salience of debt repayment may foster greater awareness of total indebtedness.

In addition to knowing how much they owe, students need to understand what their outstanding loan balance means in terms of monthly payments. Knowing you owe $30,000 at 5% interest is one thing; realizing that this means a monthly payment of about $320 a month for the next 10 years is another. The Consumer Financial Protection Bureau and the Department of Education have posted a prototype notice that includes an estimated monthly payment for all loans that might be expected for a 4-year Bachelor's degree (Date, 2011). Policies that could help students frame and benchmark their student loan debt may help students and their families make better decisions about student loans.

Currently, schools are limited in their ability to track private loans. Schools may know the amount of private debt a student acquires in a particular term, but cannot track the debt after the initial disbursement. So for example, if a student receives a private loan disbursement in August then decides to return a portion of the loan in November, the school would not be aware of the reduction in principal. Additionally, a school would not be aware of the original or current balances on any private education loan a student borrowed while attending another institution.

Schools report federal student loans to the National Student Loan Data System (NSLDS), and students can get information on all their federal loans with a single call. Thus, one policy option would be to require private lenders to also report loans to the NSLDS or require all loans to be reported to credit agencies. This would allow students to get information on all their loans in one location.

The NSLDS is not without problems, however. There can be a multiple month lag in posting federal student loans to the database and even longer lag in correcting NSLDS records. Thus, while the NSLDS may be very helpful to most students once they are out of school and are beginning to pay back their loans, it may be less helpful to currently-enrolled students and financial aid officers who are trying to track student loans in real time. Another policy option would be to work with the Department of Education and federal loan servicers to increase the accuracy and timeliness of posting federal student loans to the NSLDS.

Although only one measure of financial literacy was significant in this analysis, there may still be a role for financial education. If students better understand the opportunity costs of an education, the time value of money, interest, credit, and budgeting before borrowing, they may become more frugal consumers and make better spending choices throughout college. Similarly, a more informed consumer may choose to forgo additional borrowing, and live with less while in school. If students see the importance of making wise borrowing decisions and effectively tracking the debt they choose to take on, borrowing may decrease, default rates may fall, students might decrease their time to graduation, and thus have more disposable income after graduation.

It may be worth considering "intake" counseling as well. Helping students and their families select the right institution may be as important as selecting the right financial aid package and set of student loans. The joint decisions of the choice of university, and choice of major, along with college financing choices clearly require more study.

References

Avery, C., & Turner, S. (2012). Student loans: do college students borrow too much-or not enough? *Journal of Economic Perspectives*, 26(1), 165-192.

Baum, S., & Payea, K. (2011). Trends in Student Aid 2011. New York: College Board. Retrieved from http://trends.collegeboard.org/student_aid/

Bettinger, E.P., Long, B. T., Oreopoulos, P., & Sanbonmatsu, L. (2009). (2009). The role of simplification and information in college decisions: results from the H&R Block FAFSA experiment. NBER Working Paper No. 15361. Cambridge, MA: National Bureau of Economic Retrieved from http://www.nber.org/papers/w15361

Booij, A., Leuven, E., & Oosterbeek, H. (2008). The role of information in the take-up of student loans. Tinbergen Institute Discussion Papers No. TI 2008-039/3. Amsterdam: University of Amsterdam and Tinbergen Institute. Retrieved from http://www.tinbergen.nl/discussionpapers/08039.pdf

Bound, J., Lovenheim, M. F., & Turner, S. (2010). Why have college completion rates declined? An analysis of changing student preparation and collegiate resources. *American Economic Journal: Applied Economics*, 2(3), 129-157.

Brown, M., Haughwout, A., Lee, D., Mabutas, M., & Van der Klaauw, K. (2012). *Grading student loans*. New York: Federal Reserve Bank of New York, Liberty Street Economics Blog Entry March 5. Retrieved from http://libertystreeteconomics.newyorkfed.org/2012/03/grading-student-loans.html

Cadena, B. C., & Keys, B. J. (2010). *Can self-control explain avoiding free money? Evidence from interest-free loans*. Manuscript submitted for publication. Revision Requested, *Review of Economics and Statistics*. Retrieved from http://spot.colorado.edu/~cadenab/ Research_files/cadenakeys_loans_resub.pdf

Carew, D. (2012) . The payback stress indicator: a new way to measure the pain of student debt. Washington D.C.: Progressive Policy Institute. Retrieved from http://progressivepolicy.org/wp-content/uploads/2012/01/1.2011-Carew_The-Payback-Stress-Index_A-New-Way-to-Measure-the-Pain-of-Student-Debt.pdf

Chatterjee, S., & Ionescu, F. (2010). Insuring student loans against the risk of college failure. Philadelphia: Federal Reserve Bank of Philadelphia Working Paper No. 10-31). Retrieved from http://www.philadelphiafed.org/research-and-data/publications/working-papers/2010/wp10-31.pdf

Christou, C., & Haliassos, M. (2006). How do students finance human capital accumulation? The choice between borrowing and work. *Journal of Policy Modeling*, 28(1), 39-51.

Consumer Financial Protection Bureau. (2012a). Too big to fail: student debt hits a trillion. Austin, TX: Conference remarks at Consumer Bankers Association. March 21, 2012. Retrieved at http://www.consumerfinance.gov/blog/too-big-to-fail-student-debt-hits-a-trillion/

Consumer Financial Protection Bureau. (2012b). Private student loans. Report to Congress. Washington D.C.: Consumer Financial Protection Bureau. Retrieved from http://files.consumerfinance.gov/f/201207_cfpb_Reports_Private-Student-Loans.pdf

Cumbie, J., Cupples, S., Henegar, J., Schindler, K., Archuleta, K., Britt, S., & Grable, J. (2011, April). *Student financial counseling: an analysis of a clinical and non-clinical sample*. In I. Leech (Chair), American Counsel on Consumer Interests 2011 Annual Conference. Symposium conducted at the meeting of American Council on Consumer Interests, Washington, D.C. Retrieved from http://www.consumerinterests.org/2011Proceedings.html

Cunningham, A. F., & Kienzl, G. F. (2011) Delinquency: the untold story of student loan borrowing. Washington D.C.: Institute for Higher Education Policy. Retrieved from http://www.ihep.org/Publications/publications-detail.cfm?id=142

Date, R. (2011). Know before you owe: student loans. Washington, D.C.: Consumer Financial Protection Bureau. Retrieved from www.consumerfinance.gov/speech/know-before-you-owe-student-loans/

Department of Education. (2011). Default rates rise for federal student loans. Press release, September 12. Retrieved from http://www.ed.gov/news/press-releases/default-rates-rise-federal-student-loans.

Dynarski, S., & Wiederspan, M. (2012). Student aid simplification: looking back and looking ahead. NBER Working Paper No. 17834. Cambridge, MA: National Bureau of Economic Research Retrieved from http://www.nber.org/papers/w17834

Hung, A. A., Parker, A. M., & Yoong, J. K. (2009). Defining and measuring financial literacy. RAND Working Paper No. WR-708. Santa Monica, CA: RAND Corp. Retrieved from http://www.rand.org/pubs/working_papers/WR708

Joireman, J., Kees, J., & Sprott (2010). Concern with immediate consequences magnifies the impact of compulsive buying tendencies on college students' credit card debt. *Journal of Consumer Affairs*, 44, 155-178. Retrieved from Wiley Database: http://onlinelibrary.wiley.com/doi/10.1111/j.1745-6606.2010.01161.x/pdf

Kantrowitz, M. (2012). *Student loan debt clock*, 2011. Cranberry Township, PA: FinAid Page, LLC. Retrieved from http://www.finaid.org/loans/studentloandebtclock.phtml.

Long, B.T. (2004) *The role of perceptions and infromation in college access: an exploratory review of the literature and possible data sources*. Boston, MA: Educational Resources Institute. Retrieved from http://174.133.199.34/pdf/research-studies/ReseachReport_Long.pdf

Loonin, D. & McLaughlin, J. (2012). The student loan default trap: why borrowers default and what can be done. Boston, MA: National Consumer Law Center Retrieved from http://www.studentloanborrowerassistance.org/uploads/File/student-loan-default-trap-report.pdf

Lusardi, A., Mitchell, O. S., & Curto, V. (2010). Financial literacy among the young. *Journal of Consumer Affairs*, 44(2), 358-380.

Monks, J. (2001). Loan burdens and educational outcomes. *Economics of Education Review*, 20(6), 545-550.

Office of Federal Student Aid, Department of Education. (2012a). *Deferment and forbearance.* Retrieved from http://studentaid.ed.gov/repay-loans/deferment-forbearance

Office of Federal Student Aid, Department of Education. (2012b). *What are the consequences of default?* Retrieved from http://studentaid.ed.gov/repay-loans/default#what-are-the

Office of the Inspector General, Department of Education. (2003). *Audit to determine if cohort default rates provide sufficient information on defaults in the title IV loan programs*. (Audit Report A03-C0017). Retrieved from http://www2.ed.gov/about/offices/list/oig/auditreports/a03c0017.pdf

Reed, M. (2010). Student debt and the class of 2010. Oakland, CA: Project on Student Debt at Institute for College Access & Success. (November). Retrieved from http://projectonstudentdebt.org/pub_view.php?idx=791

Rothstein, J., & Rouse, C. E. (2011). Constrained after college: Student loans and early-career occupational choices. *Journal of Public Economics*, 95(1–2), 149-163.

Stinebrickner, R., & Stinebrickner, T. R. (2003). Working during school and academic performance. *Journal of Labor Economics*, 21(2), 473-491.

Tumen, S., & Shulruf, B. (2008). The effect of student loan schemes on students returning to study. *Journal of Higher Education Policy and Management*, 30(4), 401-414.

White House (2011, October). Fact sheet: help Americans manage student loan debt. Washington D.C.: The White House. Retrieved from http://www.whitehouse.gov/the-press-office/2011/10/25/fact-sheet-help-americans-manage-student-loan-debt

The Importance of Trust when Purchasing Financial Advice

Danielle D. Winchester[48], Ph.D., North Carolina A&T State University &
Sandra J. Huston, Ph.D., Texas Tech University

Abstract
This study examines the role of trust in the financial service provider-client relationship within an agency-theory framework. This study is one of the first to explicitly investigate the impact of trust on agency cost within a principal-agent relationship. Findings suggest that trust aligns the planner's incentives with the goals of the client and reduces opportunistic behaviors by the planner. Although relationship benefits increase the overall value of the relationship, the impact is less than that of measures that result in a reduction in the agency costs of the relationship.

Key words: t*rust, financial advice, agency cost*

Introduction
Because of the complexities that often accompany financial decision making, consumers may choose to hire financial service professionals to help improve the quality of their decisions (Cox, 2007; Johnson & Grayson, 2005; Kramer, 2009; Sunikka, Kapanen-Peura, & Raijas, 2010). Financial advice is a credence service. Consumers cannot adequately evaluate the quality of the advice prior to, or even after, its purchase since most consumers do not have either the technical knowledge or experience to do so (Guenzi & George, 2010; Mitra, Reiss, & Capella, 1999). Because of information asymmetry, the potential for opportunism exists because consumers must rely on the service provider's financial expertise and proclaimed advice quality (Dulleck & Kerschbamer, 2006; Pesendorfer & Wolinsky, 2003).

According to Finke, Huston, and Waller (2009), the client-financial advisor relationship can be modeled as an agent-principal exchange, where the client is the principal and the financial advisor the agent. Individuals will enter into a relationship with a financial advisor when they perceive the net benefit will be positive. Financial advice provides both measurable and immeasurable benefits ranging from earning higher returns on investments, receiving assistance with financial goals (Christiansen & DeVaney, 1998), saving more (Bergstresser, Chalmers, & Tufano, 2009), and expressing greater levels of financial confidence (Gwinner, Gremier, & Bitner, 1998). The agency costs associated with entering into a professional relationship with a financial advisor include contracting (i.e. payment in the form of fees and/or commissions), search, monitoring costs, and other residual losses resulting from the divergence in objective functions of the consumer and the advisor (Jensen & Meckling, 1976).

Singh and Sirdeshmukh (2000) conceptualize trust as a multi-dimensional construct that, along with agency costs, relational factors, and encounter-specific evaluations, impacts long-term relationship loyalty. The overall value of a consumer-provider relationship can be increased through the development of trust. Distribution channel literature shows that channel members that trust their suppliers exhibit higher levels of cooperation and exert more effort on behalf of the principal, and firms that trust their suppliers are more committed to continuing the relationship (Doney & Cannon, 1997). Trustworthy suppliers are also considered more credible sources and are successful in generating buy-in from the principal regarding recommendations (Doney & Cannon, 1997). Conversely, financial advisors not perceived as trustworthy have difficulty selling risk based products (Cox, 2007), and physicians with low trust levels receive lower satisfaction ratings from patients (Thom, Kravitz, Bell, Krupat, & Azari, 2002).

This study examines the impact of trust on the net value of the financial advisor-client relationship by modeling the construct of trust as a means of mitigating residual loss in a principal-agent relationship. The purpose of this paper is to examine the importance of trust when assessing the overall value attained from hiring a financial advisor.

[48] Danielle D. Winchester, Ph.D., Assistant Professor of Finance, North Carolina A&T State University, 1601 East Market Street, Greensboro, NC 27411; Phone: 336-285-3361; Fax: 336-256-2055; Email: ddwinche@ncat.edu

Theoretical Framework

Agency Theory
Agency theory involves two parties, the agent and the principal, in an exchange relationship. The agent is hired to act on behalf of the principal in the performance of a task that involves the delegation of decision making in exchange for compensation (Jensen & Meckling, 1976; Kurland, 1991; Whitener, Brodt, Korsgaard, & Werner, 1998). The objective of agency theory is to make the goals of the principal and the agent harmonious (Kurland, 1991).

Conflicts of interest occur in the principal-agent relationship because both parties seek to maximize utility. Typically the agent has a higher level of expertise and/or experience, this leads to adverse selection and moral hazard (Jensen & Meckling, 1976; Singh & Sirdeshmukh, 2000). Adverse selection refers to the agent's ability to misrepresent his or her abilities because the principal lacks the knowledge or expertise to judge the optimality of the agent's behavior (Kurland, 1991; Singh & Sirdeshmukh, 2000). Moral hazard refers to the possible lack of effort by the agent to act responsibly on behalf of the principal (Eisenhardt, 1989). The principal can mitigate these possible opportunistic behaviors by offering the agent appropriate incentives and by incurring monitoring costs.

Conceptual Framework
The client's net value received from purchasing financial advice can be analyzed using agency theory (Jensen & Meckling, 1976; Singh & Sirdeshmukh, 2000). Perceived value is a consumer's overall assessment of the value of a product or service based on perceptions of the trade-off between received benefits and cost (Chiou, 2004). Perceived net value for the principal (client) is the difference between the perceived benefits and costs resulting from engaging in a relationship with an agent (the advisor). Prior research shows that perceived value is an important antecedent for overall relationship satisfaction and future purchase intention (Chiou, 2004; Cronin, Brady, & Hult, 2000). The conceptual framework for this study is:

Relationship Value = f (agency costs, relationship benefits; other contributing factors) *(1)*

Data

This study uses proprietary data co-sponsored by a large independent financial services company and a financial planning professional association. A third party research company collected the data in the summer of 2008. The survey is designed to provide data that describe consumer attitudes and behavior in a changing economy. To be included in the study, respondents had to meet a threshold of having at least $50,000 in annual income or a minimum of $50,000 of investable assets. The sample contains data for 3,022 respondents. The individual is the unit of measure for nearly all of the questions asked. Two variables, income and investable assets, are household level variables. Because this study focuses on trust within the advisor-client relationship, data were censored to those who purchase financial advice. This selection process resulted in a total sample size of 1,507 respondents for this study.

Results

Results from the ordinary least squares (OLS) regression model show that trust has the greatest impact in explaining variation in the dependent variable, value of net value received from financial advice (parameter estimate = 0.375 and standardized estimate = 0.215). Financial knowledge is also a statistically significant predictor (parameter estimate = 0.093, p-value <0.0001). The compensation variables did not produce statistically significant results.

Among the relationship benefits, overall financial preparedness offers the highest explained variance in net value (standardized estimate = 0.152), followed by having peace of mind and/or the ability to sleep at night (standardized estimate = 0.088). The relationship benefit of increased ability to save is not a statistically significant predictor of net value.

Of the other contributing factors to net value, homeownership, race, gender, and one age category (35-44) are statistically significant. Two of these predictor variables, race and age have a negative relation with net value, with parameter estimates of -0.175, and -0.190, respectively. Gender and homeownership have a positive relation with net value as represented by a parameter estimate of 0.081 and 0.148, respectively.

Discussion

This study uses an agency theory framework to model affect of trust on a financial advisor-client relationship. This approach is a unique addition to the literature and shows that trust leads to a higher net value from purchasing financial advice. Using a sample of 1507 respondents with either an income or investable assets exceeding $50,000 and who purchase financial advice, we find that trust increases the value of a client-financial advisor relationship by reducing monitoring cost and residual loss.

This study offers a way for financial advisors to create a sustainable competitive advantage in the marketplace that is not easily replicated or transferable - the development of trust in client relationships. Trust can ensure economically viable and long-term relationships. Trust within a financial advisor-client relationship increases client value by aligning the advisor's behaviors with the client's goal and reducing the advisor's incentive to act opportunistically. The client's need to monitor the advisor's behavior is also reduced. Trusting relationships are more likely to continue over time, further reducing an advisor's incentive to make recommendations that are not in the client's best long-term interest as well as generating a long-term income stream for the advisor. Advisors may also consider offering incentives to clients who are willing and serve as referrals. By serving as a reference for an advisor not only is the client's commitment and loyalty to the advisor increased but the advisor's client base is also increased at no to little cost. This is especially important in financial service where financial advice is a credence service and individuals oftentimes do not know where to or how to find quality financial advice. It is even more so important to increase the likelihood of referrals among non-typical clients who may not have access to affordable quality financial advice in their social networks or who may have more experience with negative word-of-mouth communications at it pertains to financial advice.

The impact of financial knowledge on the reduction of monitoring cost suggests that advisors can add value by offering "education" during their client sessions. Offering financial education is a positive signal of the advisor's credibility and increases the client's ability to access the quality of the advisor and the recommendations as well as increase buy-in (Doney & Cannon, 1997).

Clients also value the emotional assurances offered by financial advisors. Clients use financial advisors as a way to transfer the stress of managing their own finances to an expert. Financial advisors who are able to relieve this stress and make their clients feel prepared and at peace add value to their relationships. Advisors who show a genuine interest in and concern about their clients' conditions and are prompt and honest in their communications are more likely to generate these feelings (Sharma & Patterson, 1999). However, financial advisors should be aware that these relationship benefits seem to have a smaller impact on the overall value of the relationship than cost reductions.

Consumers who perceive that they have received a service of high value tend to become more committed with a lesser propensity to switch providers to the organization and encourage others to use and become loyal to the same provider.

While trust may create a more valuable and beneficial outcomes, trust also creates conditions of vulnerability that increase the ability of the agent to act opportunistically. Recent Ponzi schemes in the financial services industry illustrate this occurrence. To safeguard against this challenge, financial advisors should offer relevant third-party information to clientele that allow them to "trust but verify." This can be done so by freely sharing information regarding skills, strategies, and performance outcomes as well as part II of Form ADV, a form filed with the Securities and Exchange Commission that contains information regarding disciplinary information, conflicts of interest, and types of advisory services offered. Additionally, an affiliation with an industry regulatory association that creates and enforces uniform standards of competency, practice, and ethics such as the Certified Financial Planner Board of Standards for financial planners should be maintained.

Results from this study do not indicate that payment policies impact the value attained from using a financial profession. This result presents an area for future research; it is hypothesized that this lack of impact is a result of consumers not understanding the true cost of the varying payment schemes used by financial advisors nor their subsequent impact on the type and quality of advice received. For example, a consumer may pay a smaller direct cost for commissioned-based advice; however, the long-run consequences and residual loss associated with the less than optimal decision may be more substantial. Our findings suggest that the average consumer may fail to understand this tradeoff; further illustrating the importance of a fiduciary duty in the financial services profession.

References

Bergstresser, D., Chalmers, J., & Tufano, P. (2009). Assessing the costs and benefits of brokers in the mutual fund industry. *Review of Financial Studies*.

Chiou, J. (2004). The antecedents of consumers' loyalty toward internet service providers. *Information & Management, 41*(6), 685-695.

Christiansen, T., & DeVaney, S. (1998). Antecedents of trust and commitment in the financial planner-client relationship. *Financial Counseling and Planning, 9*(2), 1-10.

Cox, P. (2007). Should a financial service provider care about trust? An empirical study of retail saving and investment allocations. *Journal of Financial Services Marketing, 12*(1), 75-87.

Cronin, J., Brady, M., & Hult, G. (2000). Assessing the effects of quality, value, and customer satisfaction on consumer behavioral intentions in service environments. *Journal of retailing, 76*(2), 193-218.

Doney, P., & Cannon, J. (1997). An examination of the nature of trust in buyer-seller relationships. *The Journal of Marketing, 61*(2), 35-51.

Dulleck, U., & Kerschbamer, R. (2006). On doctors, mechanics, and computer specialists: The economics of credence goods. *Journal of Economic Literature, 44*(1), 5-42.

Eisenhardt, K. (1989). Agency theory: An assessment and review. *Academy of management review, 14*(1), 57-74.

Finke, M., Huston, S., & Waller, W. (2009). Do contracts influence comprehensive financial advice? *Financial Services Review, 18*(2), 177-193.

Guenzi, P., & George, L. (2010). Interpersonal trust in commercial relationships. *European Journal of Marketing, 44*(2), 1-4-138.

Gwinner, K., Gremier, D., & Bitner, M. (1998). Relational benefits in service industries: The customer's perspective. *Journal of the Academy of Marketing Science, 26*(2), 101-114.

Jensen, M., & Meckling, W. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial economics, 3*(4), 305-360.

Johnson, D., & Grayson, K. (2005). Cognitive and affective trust in service relationships. *Journal of Business Research, 58*(4), 500-507.

Kramer, M. (2009). Investment Advice and Individual Investor Portfolio Performance (January 12, 2009). Available at SSRN: http://ssrn.com/abstract=1144702.

Kurland, N. (1991). The ethical implications of the straight-commission compensation system: An agency perspective. *Journal of Business Ethics, 10*(10), 757-766.

Mitra, K., Reiss, M., & Capella, L. (1999). An examination of perceived risk, information search and behavioral intentions in search, experience and credence services. *Journal of Services Marketing, 13*(3), 208-228.

Pesendorfer, W., & Wolinsky, A. (2003). Second opinions and price competition: Inefficiency in the market for expert advice. *Review of Economic Studies, 70*(2), 417-437.

Sharma, N., & Patterson, P. (1999). The impact of communication effectiveness and service quality on relationship commitment in consumer, professional services. *Journal of Services Marketing, 13*(2), 151-170.

Singh, J., & Sirdeshmukh, D. (2000). Agency and trust mechanisms in consumer satisfaction and loyalty judgments. *Journal of the Academy of Marketing Science, 28*(1), 150-167.

Sunikka, A., Kapanen-Peura, L., & Raijas, A. (2010). Empirical investigation into the multi-faceted trust in the wealth management context. *International Journal of Bank Marketing, 28*(1), 16.

Thom, D., Kravitz, R., Bell, R., Krupat, E., & Azari, R. (2002). Patient trust in the physician: Relationship to patient requests. *Family practice, 19*(5), 476.

Whitener, E., Brodt, S., Korsgaard, M., & Werner, J. (1998). Managers as initiators of trust: An exchange relationship framework for understanding managerial trustworthy behavior. *Academy of Management Review, 23*(3), 513-530.

Online Talk about Money: An Investigation of Interactions around Personal Finance in Social Media

Wendy L. Way[49] and Nancy Wong, University of Wisconsin-Madison

Use of social media has grown exponentially in recent years and is an important trend for those interested in building financial capacity. This study examined a sample of blogs and Internet discussion forums to extend understanding of the nature of online personal finance-related interactions. Findings suggest that while people are addressing topics online that are considered 'core' to building financial capacity, they are also discussing other topics that are not so easily classified and which contradict dominant personal finance models. Results also reveal that online communities have characteristics with the potential to support personal finance behavior change in important ways.

Key words: *personal finance, social media, online learning*

Introduction

The number of Americans who use the Internet has grown from about half of the population (52% in 2000) to the vast majority (77%) during the past decade (Pew Research Center, 2011). Corresponding with Internet use trends, access to and use of social media is also growing exponentially among all ages and groups. Participation in social networks using social media now accounts for 22% of all time spent online in the United States (Social Networks, 2010). According to Kaplan and Haenlein (2010) social media is "A group of Internet-based applications that build on the ideological and technological foundations of Web 2.0 and allow the creation and exchange of User Generated Content (p. 61). Examples of social media are online spaces such as blogs, Internet forums, and social networking sites such as Facebook, Twitter, and YouTube.

Such trends are significant for those interested in building financial capacity since researchers have found that close associates are an important source of financial information (Hilgert, Hobarth, & Beverly, 2003) and likely serve as key sources of informal learning (Merriam, Caffarella & Baumgartner, 2007). Investigations have also shown that peer influence on economic behavior is especially important when other socialization contexts, particularly the family, are weak (John, 1999). However, little information is yet available concerning how people communicate with each other about personal finance topics using social media.

Purpose and Objectives

This study was designed to address current limitations in the literature by investigating how individuals interact about personal finances using social media. Specifically, the study sought to:

1. Identify types of opportunities to interact about personal finance online
2. Determine the personal finance topics and nature of social support reflected in online spaces
3. Examine the cultural models surrounding personal finance that are reflected online, particularly among vulnerable populations
4. Develop recommendations for leveraging online discussion patterns to expand access to and use of personal finance education
5. Project future research needed to better understand and harness the potential contributions of social media to the development of financial capacity.

Related Literature

Way and Wong (2010) and others (Glanz, Rimer, & Viswanath, 2008) have underscored the importance of considering the role of more than just individual factors such as knowledge and skills as determinants of behavior, but to also consider the influence of interpersonal interactions, community and organization factors, and system or

[49] Wendy L. Way, University of Wisconsin-Madison, School of Human Ecology, 4151 Nancy Nicholas Hall, 1300 Linden Drive, Madison, WI 53706; Phone: 608-262-1963; Fax: wlway@wisc.edu

policy determinants. And social media provide an expanding number of contexts – albeit online - that can support development in these ecologically important ways. Frameworks that seem particularly helpful in understanding the role of online processes in nurturing positive financial behavior are outlined below.

Transtheoretical Model of Change
The transtheoretical model (TTM) of change (Prochaska, DeClemente, & Norcross, 1992) posits that behavior change emerges over time rather than as a discrete event. TTM outlines six stages of change and 10 associated processes, and posits a role for three other constructs: decisional balance (how a person weighs the pros and cons of changing), self-efficacy (ability to cope with risky situations involving the behavior), and temptation (the intensity of the urge to engage in converse behavior). An important attribute of the theory is the idea that people engage in a number of kinds of activities as they move toward and into new behaviors. Social media have several characteristics that research has shown can be useful in facilitating change processes, including self-reevaluation and securing social support for changed behavior (Prochaska, Redding, & Evers, 2008).

Social Cognitive Theory
Social cognitive theory (SCT), attributed to Albert Bandura (1986), posits that behavior is a function of the reciprocal interaction between and among personal, behavioral, and environmental factors. Bandura originally termed the framework 'social learning theory' (1977) to reflect its focus on learning within the social context, then later refined it to incorporate concepts from cognitive psychology and renamed it SCT (1986).

Key elements of the theory are that people learn by observing others, both in person and vicariously; people are more likely to imitate behavior exhibited by others who are like themselves; and beliefs about such things as the likely consequences of behavior and ability to carry out behavior(s) have an important role in determining behavior. More recently, Bandura has emphasized the central role of agency or self-efficacy in the theory; identifying methods for increasing self-efficacy (1997), and including a role for collective as well as direct personal agency in people's ability to gain greater control over their destinies (2001). Social media provide opportunities for people to interact in self-selected groups, learn from others' described experiences, and gain ideas for enhancing personal and collective agency.

Another way to think about the role of interpersonal interactions in human behavior is to consider the nature of the social networks within which people live. One important function that social networks serve is providing assistance to members in the form of social support. In a now classic work, House (1981) theorized, for example, that social relationships may yield one or more of four types of social support: emotional (love, trust, caring), instrumental (tangible aid), informational (advice, information), or appraisal (information useful for self-evaluation).

Social Support
Social media offer opportunities for individuals to gain access to potentially more extensive and more salient forms of social support as well as for service providers such as educators and community agencies to establish social network linkages targeted to specific purposes, locations, and/or populations. While little is known about the kinds of social support related to personal financial matters that are now being provided and accessed via social media, prior research related to health and parenting issues has revealed that social support provides a number of benefits. Bambina (2007) found that social support can not only help buffer stresses that negatively affect well-being but also serves as a protective factor to reduce the occurrence of stressful events. Moreover, White and Dorman (2001) have found that social support which is provided online helps people overcome barriers to well-being associated with time, place, stigma, fatigue, and social isolation.

Concepts of social support are interesting to consider in relation to various advice models which have been used by personal finance service providers to nurture personal financial capacity. Advice models, which include the technical expert, transactional guide, counseling, and coaching approaches (Collins, 2010), are based on the professional-to-client delivery of services and do not consider the potential role of peers in providing financial advice. Empirical research suggests that using a financial advisor or entering financial counseling typically has weak or no effects on financial behavior, and that only those with higher incomes, levels of education and financial literacy are likely to receive financial advice according to the traditional models. In contrast to professional providers who typically practice in face-to-face settings and in episodic time periods, and who may also have a strong self-interest presenting trust issues, social media offer opportunities for individuals to receive advice from (and perhaps imitate) individuals viewed as peers, to receive support over an extended period of time at flexible locations, and from people who have 'no dog in the fight.'

Shared Interests and Self-directed Learning
There is a good deal of evidence that people are coming together in different ways online; a trend that has been termed the 'new demographics' (Blakely, 2011). Blakely, for example, argues that shared interests are more powerful aggregators online than traditional demographics, and suggests that social media have the potential to overcome some of the traditional and restrictive ways in which women and other groups are defined and treated. Figuring out what people are passionate about could be important in understanding how people are thinking about and learning about their personal finances online.

Studies conducted in the 1970's (Tough 1979) revealed that more than one-third of adults' intentional learning occurred outside formal contexts in places such as the home and workplace. And in a study of Canadian adults, Livingstone (1999) found that adults' participation in nonformal learning activities outpaced participation in instructor-led activities by a ratio of more than five to one. Livingstone's research also revealed that 80 percent of study participants engaged in five hours per week in informal learning related to household matters, including budgeting. This is consistent with what Hira and Loibl (2008) discovered in a national study of investment behavior which revealed that adults preferred to learn about investing by either talking with 'knowledgeable others' one on one (87%) or by doing their own research (75%).

A growing number of online tools and resources related to personal finances are available to support documented adult preferences for self-directed learning. For example, government resources such as MyMoney.gov and FederalReserveEducation.org offer rich collections of information, and tools for decision-making. Online games such as Bad Credit Hotel (developed by the US Treasury) and Celebrity Calamity (developed by the nonprofit Doorways to Dreams) are designed to provide personal finance-related learning opportunities in a fun and engaging format. And while these resources do not permit users to interact with each other about personal finance matters, a growing number of online personal financial management services, such as Mint.com and HelloWallet.com, are beginning to do so. Both Hello Wallet and Mint, for example, post blogs on which readers may comment.

There are a number of websites designed specifically to promote conversations around personal finance. But many would be surprised to also see such discussions within online groups focused on other interests, such as punk rock (AbsolutePunk.com). Discussions in such contexts have the potential to support learning in ways outlined in constructivist and situated learning theories (Mayes & De Freitas, 2004), by providing opportunities for people to address ill-structured problems, explore alternate identities, acquire attitudes, values, and skills in context, and reflect on the meaning and relevance of new ideas.

An interesting aspect of social media is that the lines between personal and commercial uses are blurring (Kaplan & Haenlein, 2010; Kozinets, de Valck, Wojnicki, & Wilner, 2010). A growing number of businesses are urging people to 'like' them on Facebook and/or join a discussion forum. In addition, Internet observers are seeing an increase in the number of online start-up businesses, such as blogs and Internet forums, based specifically on disseminating advice, including financial advice. Efforts to use social media specifically as vehicles for marketing products and services are also expanding. For example, blog sites may display targeted ads alongside their online content and generate revenue for the blog owner through services such as Google AdSense (https://www.google.com/adsense/static/en/Publishertools.html), which brokers such ads. Marketing practitioners may also use social media for word-of-mouth campaigns in which products and/or services are seeded among prominent social media users (such as bloggers) in hopes they will in turn disseminate product information to others (Kozinets, et al., 2010).

Methodology

A qualitative approach was used to address the research questions posed for the study. This consisted of collecting data holistically from online sources and analyzing the data to categorize the topics discussed (and not discussed) and illuminate the nature of the discourse related to the topics under discussion.

Data Sources
Two categories of publicly available social media sites that permit interactions around personal financial issues were selected for examination in the study - blogs and Internet forums. Blogs are websites maintained by individuals or

groups and contain regular entries consisting of text, photos/graphics/video/audio, and/or other links. They usually allow people to leave comments in reaction to the original poster and/or other commenters. The Neilson Company estimated there were over 165 million in existence in August of 2011 (http://www.blogpulse.com/). Forums are online discussion sites that archive messages at least temporarily. Some require posters to register prior to entering content, and they may also give participants a rank or status based on frequency of participation. There are no definitive data on the number of forums in existence. However, in August of 2011, the Big Boards forum directory listed 2337 forums with over 500,000 posts.

A sample of four websites was selected to represent key variations in the blogs and Internet forums: websites hosted by both corporate entities and smaller entrepreneurs, personal financial content as the primary and secondary interest, and websites likely to be of interest to persons who are more and less financially secure. All text visible during the months of November 2010 through January 2011 was included in the dataset. The researchers hypothesized that the months spanning the holiday season would include heightened discussions around spending and saving.

The websites selected for the study were Daily Worth, Healthboards, My Kmart, and Wisebread. **DailyWorth.com** is a self-described "community of women who talk about money" (http://dailyworth.com/about-dailyworth). It is based on the notion that women need specialized knowledge about personal finance in the areas of budgeting, saving, investing, earning, and spending. The site consists mainly of blog posts authored by the Editorial Director, the DailyWorth Team, and other independent contributors. Visitors may also sign up to receive daily emails. **HealthBoards.com** offers over 150 message boards on diseases, conditions, and health topics. Affiliated with WebMD, one of the main medical reference databases on the web, it has over 600,000 registered members and over 4 million posted messages (http://www.healthboards.com/about.php). Although the main focus is health matters, financial issues are often discussed in relation to those topics. **MyKmart.com** is the online presence for the retail operation of the same name. Discussion forums relate to general shopping topics and merchandise types. All posts can be accessed publicly, but people must construct profiles to post messages, respond to one another and/or Kmart employees, and gain access to perks such as special offers and ability to create one's own blog. **Wisebread.com** is a community of bloggers that strives to help readers 'live large without sacrificing … financial independence." The self-described focus of the site is to help readers look at personal finance from a positive perspective rather than emphasizing negative financial advice such as 'sacrifice' and 'responsibility.' It contains both blogs and discussion forums.

Data Collection
Data for the study were collected using a web data extraction tool (web scraper) known as Mozenda (Mozenda.com). Mozenda is a subscription service with a point-and-click interface that includes an "Agent Builder" to specify (and edit as needed) the information to be collected and a "Web Console" to schedule and run the agents, view and export the information collected. While Mozenda was an efficient way to collect a large amount of data, it was sometimes necessary to add additional html codes in building the agents and to limit the number of pages collected at one time to avoid overloading the system. The data files produced and exported by Mozenda as Excel (.csv) files also had to be further conditioned before they could be analyzed (e.g., deleting duplicate information, ordering posts by original post dates, and saving data as text files). In all, 1987 pages of text were generated for analysis through this process.

Data Analysis
Both content analysis and discourse analysis were used to analyze the data. During the content analysis, the authors coded a sample of approximately 20% of the text pages to identify the personal finance topics reflected in the data according to the core financial education concepts proposed by the Financial Literacy and Education Commission ("Commission") (Department of the Treasury, 2010) as well as simultaneously, the well-known categories of social support House (1981) has elaborated. Commission topics included earning, spending, saving, borrowing, and protecting (other and no code were also used for this coding). Categories of social support were informational, emotional, instrumental, appraisal, other support, request for support, and no support. The descriptive statistics were generated by examining each post (blog posts, thread starters, and comments) in the discussions and indicating whether or not it reflected one or more of the Commission's core concepts and/or House's forms of social support. Multiple codes could be entered for each post. Absence of content was as important as presence. Inter-rater reliability of 88.3% agreement was established with a sub-sample of text pages prior to actual coding.

The entire set of online communications was then examined using discourse analysis, a set of approaches focused on uncovering the meanings that are understood by groups of people about given topics (Gee, 2005, 2011). For the present study, this involved identifying cultural models (Gee, 2005, 2008) which are people's "first thoughts" or taken-for-granted assumptions about the way things are or should be (Gee, 2008). Cultural models are shaped by the sociocultural groups to which we belong, are typically partial and inconsistent and sometimes contradictory since we belong to different groups concurrently. Cultural models are, moreover, political in that those espoused by dominant social groups are often used to marginalize members of less dominant ones (Gee, 2005). Gee contends that we conventionally take these simplified worlds to be the 'real' world and make our choices accordingly (Gee, 2008). Since cultural models can be identified through language use, the researchers used an inductive process of reading, re-reading, and sharing examples from within the text samples. The goal was to identify models which emerged prominently in the online discussions and could be supported through extensive and/or particularly articulate dialogue.

Findings

As can be seen in Table 1, the content analysis revealed that people discussed matters related to each of the five core personal finance concepts (Department of the Treasury, 2010) in the sample of websites examined. The majority of posts coded dealt with issues related to spending while the fewest posts addressed matters concerning borrowing. The topics of earning, saving, and protecting were well represented but notably not equally across websites (note 0's in table). In addition, the online conversations involved a number of 'other' topics that could not be characterized as clearly reflecting one of the five core Treasury concept areas. The posts observed on the DailyWorth blogs related to spending, for example, included many that were coded as 'other' because they dealt with such topics as etiquette around gifting and re-gifting, borrowing items from others, and impact of money on relationships with friends and family.

The data in Table 1 also suggest that online spaces are providing important opportunities for people to request and receive various forms of social support related to personal financial matters. Informational support represented the kind of support most often given in the discussions coded. Besides the 'other' category, which included comments that contributed to community building as well as ambiguous support-related posts, the next form of support most often observed was appraisal support, which consisted of providing constructive feedback and information useful for self-evaluation. People who participated in the online spaces also received emotional support or expressions of empathy and caring, posted specific requests for support (usually posing questions), and even received instrumental support which consisted of offers of tangible aid and services.

Table 1

Coding Summary

	Topic (% of Total)							Total Topic N	Sup-port (% of Total)							Total Sup-port N
Sites	**Earn**	**Spend**	**Save**	**Bor-row**	**Pro-tect**	**Other**	**NC**		**Infor-ma-tional**	**Emo-tional**	**Instru men-tal**	**Appr-aisal**	**Other**	**Re-quest**	**NS**	
KM1	0	0.987	0	0	0	0	0.013	76	0.137	0.098	0.069	0.255	0.275	0.078	0.088	178
KM2	0	1	0	0	0	0	0	23	0.24	0.04	0.04	0	0.4	0.16	0.12	48
HB1	0.01	0.01	0	0	0.976	0.005	0	207	0.195	0.184	0.071	0.096	0.358	0.085	0.011	489
HB2	0	0	0	0	0.848	0.13	0.022	46	0.413	0.048	0	0.238	0.032	0.254	0.016	109
WB1	0.084	0.888	0.014	0	0.007	0	0.007	143	0.923	0.007	0	0	0.042	0.028	0	286
WB2	0.132	0.019	0.698	0.132	0.019	0	0	53	0.673	0	0	0.135	0.038	0.096	0.058	105
DW1	0	0.319	0.092	0.005	0	0.562	0.022	185	0.485	0	0	0.304	0.088	0.057	0.067	379
DW2	0.086	0.791	0.017	0.022	0	0.072	0.011	359	0.129	0.081	0.014	0.27	0.444	0.037	0.025	877
DW3	0.107	0	0.607	0	0.286	0	0	84	0.292	0.071	0.027	0.142	0.327	0.124	0.018	197
DW4	0.988	0	0	0	0.012	0	0	82	0.189	0.174	0.015	0.288	0.288	0.045	0	214

Notes:
KM1 – Kmart Layaway, KM2 – Gift Card, HB1- HealthBoards Disability, HB2 – HealthBoards Insurance, WB1 – Wisebread Blogs, WB2 – Wisebread Personal Finance Forum, DW1 – DailyWorth Spending, DW2 – DailyWorth Budgeting, DW3 – DailyWorth Investing, DW4 – DailyWorth Earning

Six personal finance issues, and the cultural models that seem to frame thinking about them, were identified through the subsequent discourse analysis. Neither the issues identified, nor the divergent views about them, are typically addressed explicitly in sets of core personal finance competencies.

Control over Money
A dominant model among personal finance professionals is that developing financial capacity involves gaining control over one's finances. This can be seen, for example, in the Financial Literacy and Education Commission core concepts (Department of the Treasury, 2010) listing of desirable financial behaviors including 'live within your means,' 'start saving early,' 'comparison shop,' 'track savings and monitor what you own.' But the online discussions observed illustrate that there are actually two distinctive versions of how people think about the issue of control over money. One agrees that *financial futures can readily be controlled* based on one's abilities and persistence, regardless of level of resources, while another sees *financial control as REALLY hard and perpetually elusive* because of self- and other-imposed pressures, and lack of resources. The first of these views is represented by a post by Jen on DailyWorth-Budget who said "You can make anything work [in terms of money] if you consider all the angles and are DILIGENT about it" and by SpineAZ on HealthBoards who said you should "keep on appealing [for disability benefits] as long as you can." The alternate view is illustrated in by PDP on DailyWorth-Spending who told about being afraid to return items to the store, "I thought that somehow, people would judge me and say that I couldn't make decisions, couldn't make up my mind or that I was just plain fickle…," by Connie on DailyWorth-Budget, who talked about the importance of her religious convictions and obligations – "Regardless of what else had to be cut [from the budget because of unemployment] we would not take from our tithe [because] "it would strongly affect our faith to take away from our giving," and by starbucks32 on Kmart SmartAssist who wrote about how many among the unemployed can't bring themselves to "swallow their pride" to take lower paying jobs when laid off. The insights are interesting in light of other studies that have shown that people behave according to their core self-perceptions (Sirgy, 1982) and that one's perceptions of control, including control over one's financial future, is related to sociocultural background (Henry, 2005).

Knowledge about Money
The discussions viewed in the present study illustrate that people use very distinctive models to think about what personal finance knowledge is useful and where it should comes from. One model suggests that you should *gain as much factual information about personal finance as possible, and preferably from expert sources.* An alternate view is that the usual *expert-provided information is not only typically boring, but not sufficient and/or useful.* Cheryl, who posted on Wisebread, reflected the first view when she wrote, "They really need to teach the basics of personal finance in high school…If everyone knew a little more about the market, we can boost the economy with some investing." The second model is illustrated by Carmen on DailyWorth-Spending who stated "I loathe most personal finance books. Typically they're dull and preachy and they all seem to cover the same ground." Jennifer talked about the importance of self-directed education on Wisebread; "I need to take the time to educate *myself* more about life insurance products." And Clem1 emphasized the need for self-advocacy skills on HealthBoards; "You got to use the same things that the SSA uses [in seeking disability payments] just like the RFC forms and use it against them…"

Generic versus Specific Money Rules
The online discussions reflect contrasting models of thinking about just what kinds of personal finance tools and approaches will be most helpful; a common set of generic resources and approaches for everyone, or special insights and strategies for certain groups. The first model, reflected in financial education guidelines such as the "Commission" core competencies (Department of the Treasury, 2010) and the Jump$tart Coalition Standards (2007), is well represented in online postings. Carrie S, for example, noted she "personally like[d] that DailyWorth speaks to people of all economic backgrounds." Alternately, many online discussants emphasized the disadvantages of not having access to more demographically nuanced financial guidelines, particularly with respect to gender, social class, and age. Rachel, posting on DailyWorth-Earning warned "…the style of salary negotiation used by men does not always work for women…they are seen as pushy, bitchy and the ones who will rock the boat." Other conversations acknowledge that guidelines for assessing financial capability, such as credit scores, are not always appropriate and when not recognized, serve to disadvantage low-income populations. Torres, on WiseBread, described how waiving credit scores in FDIC's Small-Dollar Loan Pilot Program was a step in the right direction: "When we looked at clients who had run into problems, and looked at their credit scores, we found that the credit scores were not predictive of their performance." Nancy H, on DailyWorth-Earning, offered: "But even more [than

addressing things like sexism in employment laws] we need anti-ageism laws. The Constitution doesn't do squat! Older women are paid nothing IF they're hired (and usually they're not hired).

Frugality and Money

Standards, such as Wisconsin's Model Academic Standards for Personal Financial Literacy (Burmaster, Mahaffey, George, & Ellibee, 2006) point to the importance of assessing one's values. However, little guidance is typically given regarding the nature of divergent values that might be explored. Further, they usually do not address the concept of personal identity, or one's sense of self, which is at least in part grounded on one's set of core values (Hitlin, 2003). Beliefs about the value of behavioral choices are posited to be a main determinant of behavior in social cognitive theory (Bandura, 1977). And personal identity is thought to play a key role in self-reevaluation, one of the processes hypothesized to mediate progression between stages of change in Prochaska's (1992) transtheoretical model of change.

Two contrasting models of thinking about frugality provide insights into the values being discussed online that may be at play in financial decision-making. One is that it is good to be frugal, even if not financially imposed or "necessary." An alternate is that it is not always possible to practice frugality, and may not even be desirable when possible. The first model is reflected in posts about how practicing frugality can help one achieve more important philanthropic, religious, or environmental goals. Trisha, in DailyWorth-Budget for example, notes that "We live in a world where children are dying from lack of clean water, lack of food, preventable diseases…I don't feel guilty at all for saying a resounding No Way to the overly commercial and materialistic pressures of this time of year [holiday season]". An alternate model is reflected in posts that point out that frugality is based on a classist assumption that people have discretionary income. Cy, for example, writes in DailyWorth-Spending that "It seems like a lot of the advice I get…is for people with a lot more money than me…spend less on luxuries and save more. Well, that is not an option for a lot of people." Guest, in Wisebread asks, "What good is money saved if we can't spend it on things that make our lives pleasant?"

Relationships and Money

Financial literacy efforts arguably give less attention to the 'personal' than to the 'finance' part of the concept. Yet personal relationships are featured prominently in online posts and discussions about money. Understanding such perspectives is important given that social networks are thought to play an important role in initiating and maintaining human behavior according to the theory of reasoned action/theory of planned behavior (Ajzen, 1991), and social capital theory (e.g., Bordieu, 1986; Coleman, 1988; Putnam, 2000), in addition to social support theory reviewed earlier (House, 1981). Study findings suggest that people use two divergent models (sometimes at once) to think about the connection between their finances and the important relationships in their lives. One model is that personal relationships can interfere with financial management and security and should be monitored to ensure they do not. Another is that financial resources should be handled in ways that support, or at least do not damage, relationships with significant others. The first of these models is reflected in The Get out of Debt Guide (DailyWorth-Budget) (G.O.O.D) introduced in a DailyWorth blog as a "vital component of building net worth." It directs users to "Get a piece of paper and break down elements of the In-Debt Lifestyle" including "people that lead you to overspend." The alternate model of handling financial resources to support relationships is reflected in a post by Polli who wrote on DailyWorth-Budget, "I have 6 kids, 2 daughters-in-law and a grandbaby. How to NOT be that mom who piled the Christmas presents around the entire living room?" Online discussants also talked about the risks associated with borrowing from friends. TNTCoach offered this advice (DailyWorth-Spending), "Avoid lending things you can't afford to lose-especially when a friendship might be one of them."

Honesty and Money

The importance of being open and honest about money with self and others is typically assumed by financial educators. Online conversations reflect this model, but in highly nuanced ways. The discussions alternatively point to a model of thinking in which people feel it is not only okay, but sometimes necessary, to lie about money (and not because they have a spending compulsion to hide). In terms of the first model, online discussants talked about how honesty was important for avoiding legal trouble and maintaining friendships. Spine AZ, posted on HealthBoards that "If they find a condition/doctor/medication you did have but did not disclose you are at great risk of losing this insurance and being pursued for insurance fraud. Monica wrote how a friend had filed an insurance claim for $2000 after slipping on the ice at her house, despite being unharmed: "It's just not the same [between us] and everyone in our circle knows to watch out [for her] (DailyWorth-Spending). But online discussants also relayed how not being totally truthful was also necessary to keep one's job, protect friendships and friends' financial security, and protect one's own financial security. Paul M wrote on WiseBread, "I have never lied [for my job, but] I have often had to use phrases and headlines that stretch the truth a little. Sometimes, a lot. " Jona told (DailyWorth-Spending) about being invited to a "celebratory dinner at a restaurant" [she knew she couldn't afford so she] …finally decided to go and just said I wasn't feeling well enough to eat." DG (DailyWorth-Earning) related how she has herself "set financially separate" from her husband who "makes twice what I make and spends every bit." She is following the advice of her grandmother, who "God rest her soul, told me as a young child, past [sic] down a message from her mother, you can love a person till the day you die but always have a little something set aside to protect yourself….And don't forget, he doesn't always have to know what or how much you have put aside."

Nature of the Online Communities Supporting Personal Finance-Focused Conversations

In addition to examining the cultural models participants used to frame the topics discussed, we explored the nature of the online communities themselves. In particular, we were interested in the model(s) participants used to inform their decision to participate and also structure the interactions they had around personal finance while online. This analysis revealed that *online communities make people feel less alone*. Posting on DailyWorth-Budget, for example, Lori, who tries to be frugal and seeks to be debt free, but worries she never will be because her husband "likes his toys," writes, "I love DailyWorth! And, I love the COMMENTS because it lets me know I am not alone with my struggles." The online participants seem *to believe the discussions should be open to anyone and that they should reflect diverse perspectives.* Jodi (DailyWorth) posts "Who wants to read only what they agree with over and over and over? B.O.R.I.N.G! Bring on the discussions, the many points of view. I already know what I think. I want…to stretch my head, give me something new to think about." Online postings appear to be based on the *expectation that participants will correct each others as needed, but handle exchanges respectfully*. After a blogger made a factual error about taxes for the jobless (DailyWorth-Budget) one commenter offered a pointed retort: "I would be happy to write the article for next year, seriously. Do not give tax advice if you have not done the research." The blog owner then acknowledged the mistake: "To those of you who called us out on our error – YOU WERE RIGHT! WE WERE WRONG! …We're revisiting our fact checking processes to ensure this doesn't happen again." Other participants followed with positive emotional support for the person who made (and corrected) the error. PDP adds, "It's all good at the end of the day. Blessings." *Community building is an important part of the online sharing* and is accomplished by such strategies as welcoming 'newbies,' sharing how personal stories turn out, flirting, using familiar rather than formal language, and using humor. Yobarps (Kmart Deals), for example writes, "Welcome in, Shucky!" After describing an extremely frustrating experience with trying to place an order online, Qscreations (Kmart Customer Feedback) is able to say "I am very happy to report that my dilemma has a happy ending with the help of some very kind Kmart team members." Yobarps tells dannirose37 on Kmart Deals h/she'd welcome "a picture of you in those 'Totally Slimming Mid-rise Jeans!!!" Leila expresses gratitude to other adult women on the DailyWorth-Earning site by saying, "Thanks Girls!" Welsh4family posted (Kmart Customer Feedback) s/he thought "Somebody in corporate needs a free ride on the end of Santa's BOOT. Ho Ho Hoooo." *Being an expert is seen as both knowing where to find information and directing information to those who can use it.* Many of the personal finance questions discussed online are quite technical and sharing often consists of providing specific links and quotes to assist members of the community. When Cate asked whether moving expenses were tax deductible, for example (DailyWorth-Budget), Petunia posted, "You can read the particulars here: http://www.irs.gov/publications/p521/index.html." Finally, *participants seem to accept a fluid mixture of marketing products and providing information*. This takes place within the text of the conversation as well as through advertisements that are posted apart from the main text. After MP Dunleavey (DailyWorth-Budget) blogged about HelloWallet, and some commenters criticized the fact that it is a fee-based service that could be gained elsewhere for free, Geraldine offered…"full disclaimer: I work at HelloWallet but thought I'd jump in on the discussion."

Implications

Given recent trends toward greater use of social media among all groups, it is not surprising that study findings reveal people are embracing social media to participate in a rich array of discussions about personal finance online. Such interactions have important implications for both practice and further research focused on developing financial capacity.

Recommendations for Practice

Social media provide an added resource for personal finance practitioners because they can address unique personal finance information needs as well as factors besides knowledge and skills that are theorized to affect behavior such as opportunities to reflect on beliefs in a 'safe' environment, learn about the consequences of behavioral choices, and learn to control personal behavior through self-monitoring, self-instruction, and social support. Practitioners should, therefore, make information literacy a prominent part of personal finance education efforts by focusing on the nature of blogs and Internet forums, how to evaluate the accuracy of information shared on them, and how to recognize the interests (e.g., commercial versus individual) and power relations (e.g., marginalization) reflected. Professional development efforts focused on using and even designing social media tools should be stepped up for personal finance practitioners so these resources can be employed and expanded as supplements to face-to-face and/or online personal finance instruction. One outstanding online resource that could inform future personal finance efforts is WebMD.com. Finally, personal finance practitioners should become acquainted with the cultural models people are using to think about personal finance issues, especially those that are inconsistent with dominant patterns of thinking. Such viewpoints can serve as barriers to behavior change, but more importantly, as starting points for promoting positive financial behavior.

Recommendations for Further Research
Results of the study point to the need for much further research in this area. One important question is whether and how personal finance issues are being addressed in web communities that have greater privacy controls such as the social networking sites Facebook, Twitter, or LinkedIn. Such communities may focus on different personal finance issues and foster different kinds of interactions with important implications for learning and behavior. Future research should also investigate interactions around personal finance in social media sponsored by other entities such as nonprofit organizations (e.g., American Association of Retired Persons), avocational interest groups (e.g., Absolutepunk.net), and religious communities which address personal finance matters secondarily. Lusardi, Clark, Fox, Grable, and Taylor (2010), recently pointed out that financial literacy programs have typically been developed with a lack of attention to adult learning theory and using a learner deficit perspective, giving little attention to the strengths that learners bring to the learning process. Investigations are needed to understand the personal finance learning strategies that are used and supported, and perhaps thwarted, among population sub-groups such as youth, adults, and financially vulnerable populations in online communities. Additional research is needed to examine how, if at all, personal finance practitioners are currently using social media tools and the goals associated with such uses. Perhaps most importantly, there is a need to investigate the efficacy of adding various kinds of online peer-provided support to professional-to-client personal finance services. Such studies would undoubtedly reveal highly relevant and scalable options for building financial capacity and structuring related continuing professional education opportunities for practitioners.

References

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50,* 179–211.

Bambina, A. (2007). *Online social support: The interplay of social networks and computer-mediated communication.* Youngstown, NY: Cambria Press.

Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. (1997). *Self-efficacy: The exercise of control.* New York: W.H. Freeman.

Bandura, A. (2001). Social cognitive theory: An agentic perspective,' *Annual Reviews of Psychology, 52*, 1–26.

Blakely, J. (February, 2011). Social media and the end of gender. TED (Technology, Entertainment, Design) Ideas Worth Spreading. Retrieved 8/1/2011 at: http://www.ted.com/talks/johanna_blakley_social_media_and_the_end_of_gender.html.

Bourdieu, P. (1986). The forms of capital. In J.G. Richardson, *Handbook of theory and research for the sociology of education* (pp. 241– 258). Westport, CT: Greenwood Press.

Burmaster, E.**,** D. Mahaffey, George, M., & Ellibee, M. (2006). *Wisconsin's model academic standards for personal financial literacy.* Madison, WI: Department of Public Instruction.

Coleman, J. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, *94 (Issue Supplement)*, S95–120.

Collins, M. (2010). A review of financial advice models and the take-up of financial advice. Final report. Madison, WI: Center for Financial Security.

Department of the Treasury (August 26, 2010). Financial education core competencies. *Federal Register, 75*(156), 52596-52597.

Gee, J. P. (2005). *An introduction to discourse analysis: Theory and method* (2nd Ed.). New York: Routledge.

Gee, J. P. (2008). *Social linguistics and literacies: Ideology in discourses* (3rd Ed.). London: Routledge.

Gee, J. P. (2011). How *to do discourse analysis: A toolkit.* New York: Routledge.
Glanz, K., Rimer, B. K., & Viswanath, K. (Eds.) (2008). *Health behavior and health education: Theory, research, and practice.* San Francisco: Jossey-Bass.
Henry, P. C. (2005). Social class, market situation, and consumers' metaphors of (dis)empowerment. *Journal of Consumer Research, 31* (March), 766-778.
Hilgert, M. A., Hogarth, J. M., &.Beverly, S. G. (2003). Household financial management: The connection between knowledge and behavior. *Federal Reserve Bulletin, 89,* 309-322.
Hira, T., &. Loibl, C. (2008). Gender differences in investment behavior. In J. J. Xiao, H*andbook of consumer finance behavior* (pp. 253-270). New York: Springer Science+Business Media.
Hitlin, S. (2003). Values as the core of personal identity: Drawing links between two theories of self. *Social Psychology Quarterly, 66(2),* 118-137.
House, J. S. (1981). *Work stress and social support.* Reading, MA: Addison-Wesley.
John, D. R. (1999). Consumer socialization of children: A retrospective look at twenty-five years of research,' *The Journal of Consumer Research,* 26(3): 183–213.
Jump$tart Coalition for Personal Financial Literacy (2007). *National standards in K-12 personal finance education: with benchmarks, knowledge statements, and glossary.* Retrieved 8/15/2011 at: http://jumpstart.org/assets/files/standard_book-ALL.pdf.
Kaplan, A. M. & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. *Business Horizons*, *53*, 59-68.
Kozinets, R. B., de Valck, K., Wojnicki, A. C.& Wilner, S. J. S. (2010). Networked narratives: Understanding word-of-mouth marketing in online communities. *Journal of Marketing, 74*, 71-89.
Livingstone, D. W. (1999). Exploring the icebergs of adult learning: Findings of the first Canadian survey of information learning practices. *Canadian Journal for the Study of Adult Education, 13*(2): 49–72.
Lusardi, A, Clark, R. L., Fox, J., Grable, J., & Taylor, E. (2010). *Promising learning strategies ,interventions, and delivery methods in financial literacy education: A report of the quarter century project.* Denver, CO: National Endowment for Financial Education.
Mayes, T. & De Freitas, S. (2004). *Review of e-learning theories, frameworks and models. Stage 2 of the e-learning models desk study.* Bristol: Joint Information Systems Committee (JISC).
Merriam, S. B., Cafarella, R. S. & Baumgartner , L. M. (2007). *Learning in adulthood: A comprehensive guide*. San Francisco, CA: Jossey-Bass.
Pew Research Center (2011). *Who's on what: Social media trends among communities of color.* Retrieved 8/17/2012 at: http://www.slideshare.net/PewInternet/whos-on-what-social-media-trends-among-communities-of-color.
Prochaska, J. O., DiClemente, C. C., & Norcross, J. C. (1992). In search of how people change: Applications to addictive behaviors,' *American Psychologist, 47*:1102–1114.
Prochaska, J. O., Redding, C. A., &. Evers, K. E. (2008). The transtheoretical model and stages of change. In K. Glanz, B. K. Rimer, & K. Viswanath (Eds.). *Health behavior and health education: Theory, research, and practice* (pp. 97-121). San Francisco, CA: Jossey-Bass.
Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community.* New York: Simon and Schuster.
Sirgy, M J. (1982). Self-concept in consumer behavior: A critical review. *Journal of Consumer Research, 9,* 287-301.
Social networks/blogs now account for one in every four and a half minutes online. (June, 15, 2010). *Nielsenwire*. Retrieved 7/26/2011 at: http::blog.nielsen.com/nielsenwire/global/social-media-accounts-for-22-percent-of-time-online/.
Tough, A. (1979). *The adult's learning projects: A fresh approach to theory and practice in adult learning.* Toronto, Canada: OISE Press.
Way, W. L. & Wong, N. (2010). *Harnessing the power of technology to enhance financial literacy education and Personal financial well-being: A review of the literature, proposed model, and action agenda. Final Report.* Madison, WI: Center for Financial Security.
White, M. & Dorman , S. M. (2001). Receiving social support online: Implications for health education. *Health Education Research, 16*(6), 693-707.

Overindulgence: Financial Implications for Young Adults

Stephanie M. Heuring[50], M.A., Catherine A. Solheim, Ph.D., and Virginia Solis Zuiker, Ph.D.,
University of Minnesota

Abstract
This study examined the link between overindulgence and buying impulsiveness and the link between buying impulsiveness and credit card misuse among undergraduate students from two Midwestern universities. Hierarchical multiple regression was used to determine the relationship between overindulgence and buying impulsiveness. Overindulgence predicted buying impulsiveness over and above the demographics of gender, age, and race. Hierarchical regression was also used to assess the relationship between buying impulsiveness and credit card misuse. Buying impulsiveness predicted credit card misuse over and above the demographics of gender, age, and race. Overindulgence was not found to predict credit card misuse.

Key words: *overindulgence, buying impulsiveness, credit card misuse, emerging adulthood*

Introduction
In today's current economic climate, parents are especially interested in preparing their children for future financial success. Recent studies of young adults' financial behaviors have demonstrated that they are falling short of that goal. In a study completed by Sallie Mae (2009), 60% of college students were surprised by the high balance on their credit cards and 40% reported purchasing items despite the fact that they did not have suffient funds to pay for the items. The median debt of these students grew from $946 in 2004 to $1,645 in 2009; on average, college seniors in the study graduated with over $4,100 in credit card debt (Sallie Mae, 2009).

Young or emerging adulthood describes a developmental stage between ages 18 and 25 in which people transition from adolescence to adulthood (Arnett, 1997, 1998, 2000, 2001, 2002). Emerging adults are transitioning in many aspects of their lives- interpersonally, cognitively, emotionally, spiritually, and financially. Arnett (2004) posited that emerging adulthood involves three goals: greater self responsibility, independent decision-making, and financial independence. The majortity of college students, generally between age 18 and 25, fall into the category of emerging adulthood (Arnett, 1997, 1998, 2000, 2001, 2002). This study focused on financial independence, an important milestone for emerging adults and their parents. During this time period, young adults rely increasingly less on their parents for financial support and begin to make financial decisions that have long-term economic ramifications. However, they may be ill-prepared to make good choices.

Popular media have likened overindulgence to the act of "spoiling" children with gifts, toys, and other material goods. Bredehoft, Mennicke, Potter, and Clarke (1998) defined overindulgence as the act of showering children with family resources, including material wealth, time, and experiences. Overindulgent parents, "give children too much of what looks good, too soon, too long and at developmentally inappropriate times" (Bredehoft, Mennicke, Potter, & Clarke, 1998, p. 7).

Bredehoft et al. (1998) suggested adults who were overindulged as children may experience trouble managing their money. If children were overindulged, perhaps they did not develop the ability to delay gratification, a key tenet of sound financial management (Wood, 1998). As an emerging framework, overindulgence is still an underdeveloped construct. However, some research that has focused on the ramifications of overindulgence for adults who were overindulged as children (Bredehoft et al., 1998) suggests that being overindulged as a child may indeed contribute to poor financial management practices in adulthood.

Bredehoft et al. (1998) contended that overindulgent parents represent a particular parenting rationale characterized by "misguided nurture and inadequate structure" (p. 12). It could be considered an ineffective form of socialization; overindulgent parents socialize their children in a way of life that is contrary to reality. As a result, children do not learn necessary life skills such as limit-setting, decision-making, and management of relationships, self, and money

[50] Stephanie M. Heuring, 13635 Seward Street, Omaha, NE 68154; Phone: 402- 333-6006; Email: heuri004@umn.edu

(Bredehoft et al., 1998). Little empirical research has examined how specific parenting styles, in this case, overindulgence, impacts financial behaviors in young adulthood. This study aims to fill that gap. Social learning theory (Bandura, 1986), which has been used to understand financial socialization (see Hira, 1997; Jorgensen & Salva, 2010), provided the conceptual lens through which the relationship between parental influence and financial literacy of emerging adults was examined. Specifically, answering the primary research question for this study, 'Do young adults' perceptions of being overindulged as children relate to their current financial skills and behaviors?' will contribute to understanding the connection between parental influence in childhood and financial behaviors in young adulthood.

Review of the Literature

Conceptual Framework

The theory of consumer socialization (Moschis, 1987), grounded in social learning theory (Bandura, 1986), proposes that children and adolescents develop consumer skills through interaction with socialization agents, namely their parents. This leads to the formation of knowledge, behaviors, and values that impact consumer behaviors (Moschis, 1987).

Financial socialization of children represents a specific application of social learning theory. Parents play a large role in the socialization of children and adolescents through the opportunities they provide for their children to observe and imitate their behaviors (Ward, Wackman, & Wartella, 1977). The process of financial socialization continues through the transition into adulthood, when young adults practice and solidify financial habits (Shim, Barber, Card, Xiao, & Serido, 2010). The first year of college is a particularly important time for young adults as they learn to manage money on their own, yet they are most likely still financially dependent on their parents (Shim et al., 2010).

Parenting Style

Since parents play a vital role in the socialization of their children, parenting style represents an important factor to consider as children move through developmental phases. Baumrind (1966, 1983, 1991, 1996) and Rohner (1986, 1994) classified four parenting styles: authoritarian, authoritative, rejecting-neglecting, and permissive. The permissive parenting style is most commonly linked with overindulgence (Bulkey, 2001; Feinman, 2001; Gordon, 2000; Palmer, 2001; Tavoulareas-Karahalios, 2000).

Overindulgence of Children

Empirically, little research was found that examined overindulgence. Only one study has sought to better understand this emerging framework in the context of the outpouring of resources from parent to child (Bredehoft et al., 1998). Overindulgence is defined as the act of flooding children with family resources, including material wealth, time, experiences, and lack of responsibility (Bredehoft et al., 1998). Bredehoft et al. (1998) identified three types of overindulgence: material, relational, and structural.

The argument may be made for the categorization of overindulgent parenting as a parenting style. Overindulgent parents socialize their children in ways that fit the needs of the parents, while neglecting the developmental needs of the children (Bredehoft et al., 1998). Overindulgent parenting goes beyond permissive parenting to include the outpouring of resources (e.g., money, time, help) that prevent the learning of skill sets necessary for adulthood (Bredehoft et al., 1998). Overindulged children are not given the chance to complete tasks that are integral to their development and fail to learn necessary life lessons (Bredehoft et al., 1998). Overindulgent parenting also impacts the financial socialization of children. Bredehoft et al. (1998) asserted that overindulgent parents are likely to provide too much help in certain instances, and it is our belief that these parents inhibit the financial socialization of their children by not allowing them to experience resource scarcity which prompts them to develop the skills needed to differentiate between needs and wants, make spending and saving decisions, etc.

Emerging Adulthood

Arnett's research (1997, 1998, 2000, 2001, 2002) has called attention to the proposed developmental stage of emerging adulthood, between the ages of 18 and 25 years. Since most college students fall into this developmental stage, this paper employed a sample of college students to examine the impact of overindulgence on financial behaviors. Arnett (2000) conceptualized the period of emerging adulthood as, "conceptually, theoretically, and empirically different" from both adolescence and adulthood, and labeled this stage as "emerging adulthood" (p. 463).

Impulsive Buying Behavior
Rook and Fisher (1995) defined impulsive buying behavior as, "a consumer's tendency to buy spontaneously, unreflectively, immediately, and kinetically" (p. 306). The attraction to a product, or stimuli, may be so strong as to necessitate the immediate gratification of purchase (Rook & Fisher, 1995). Highly impulsive buyers have been found to desire immediate gratification (Hoch & Loewenstein, 1991; Thompson, Locander, & Pollio, 1990). Rook (1987) and Rook and Fisher (1995) found that credit cards make it easier to make impulsive purchases and therefore attain immediate gratification. Moreover, impulsive individuals are more likely to misuse credit cards (Pirog & Roberts, 2007).

Adequate management of credit, particularly the use of credit cards is vital for financial well-being. Today, young adults are quite familiar with credit cards. Roberts and Jones (2001) claimed college students represent a cohort of young adults raised in a "credit card society" (p. 204). These students are also accustomed to using credit cards, a habit that leads to overspending (Schor, 1998).

Credit card in hand, college students may be especially prone to impulsive buying (Wang & Xiao, 2009; Hira, 1997). The money involved in credit card transactions is "abstract" or "unreal" to college students (Roberts & Jones, 2001). This dissonance may be partly caused by the lack of requirement for writing down amounts of purchases, a practice that makes the use of credit cards as payment mechanisms more enticing (Soman, 2001).

Students typically report their parents as their primary source of information regarding credit cards and information from parents regarding credit cards was related to decreased credit card debt (Pinto, Parente, & Mansfield, 2005). While this fact seems promising, one third of college students reported that they rarely talked about credit cards with their parents (Sallie Mae, 2009). Thus, a better understanding of the ways in which parents impact the credit card acquisition and usage of their children must be attained.

Method

Recruitment
Participants were recruited from one undergraduate course at a small, private university and five undergraduate courses at a large, public university located in a large metropolitan area in the Midwest. All six undergraduate courses were social science courses. One of the courses was delivered in a fully on-line format.

For the face-to-face courses, the first author made classroom visits on regularly scheduled sessions on days specified by the course instructors. During these visits, a two-minute presentation was made that included a description of the study, information about voluntary participation, details about the incentive, and the personal contact information of the first author. After each classroom visit, a follow-up email was sent to invite students to participate in the study. Approval for the email was garnered from course instructors prior to sending. A similar procedure was followed for online students, using email instead of in-class presentations.

Due to different starts of the semester at the two universities, the period of data collection was slightly longer for the public than the private university, four and a half weeks and three weeks, respectively. Because the majority of the surveys, 88.3%, were completed within the first two weeks after initial recruitment at both universities, the time variation did not significantly affect the final sample.

A slight variation in recruiting procedure was used for the online-only course. Given that an in-person introduction of the study was not possible, an email message that included the same information that was used for the in-class presentations was sent to the instructor who then forwarded this message to her students. On the day the email was forwarded to the students, a follow-up email was sent to invite students to participate in the survey.

Follow-up emails were sent to 517 students at the public university and 89 students at the private university for a total of 606 potential participants. The survey tool provided information regarding which students had not yet completed the survey. Using this information, two identical reminder emails were sent to the students who had not yet completed the survey. The first reminder email was sent one week after the initial recruitment email was sent; the second reminder email was sent two weeks after the initial recruitment email was sent. Survey responses could not be linked to email addresses, which insured the anonymity of the students' responses.

To encourage participation, students were offered the incentive of a chance to win one of ten $20 iTunes gift cards via a drawing. Students who completed the survey were eligible and were given the chance to enter by providing a valid email address on the thank-you page following the survey. They could opt into the drawing regardless of whether or not they completed all survey questions. Electronic gift card winners received them two weeks after data collection was finished. The instructor of the course at the private university was provided with the email addresses of the students in her course who took the survey and those students received two extra credit points.

Data Collection
A 70-item on-line survey was created; the link to the survey was embedded in the email invitation to participate. The landing page of the survey contained the consent information, which described the survey and stated that participation in the survey implied consent. The survey took approximately 10-15 minutes to complete. Participants were asked to provide demographic information and answer a series of questions regarding their relationship with their parent(s) when they were growing up, what they learned from their parent(s) about financial management, how their parent(s) influenced their current financial management activities, their use of credit cards, and their financial management activities.

Participants
The final sample was 209 undergraduates who met the criterion of being in the emerging adulthood stage of development between the ages of 18 and 25 (M = 19.76, SD = 1.38). Approximately 87% of participants were women and 13% were men. Over seventy eight percent (78.5%) of the sample was Caucasian and 21.5% were in other racial/ethnic categories (no one category exceeding 2.5%). A significant majority of the sample, 97%, was unmarried.

Sixty-six and a half percent of the final sample attended the public university and 33.5% attended the private university. Over a third of the participants were freshmen (33.5%), 32.5% were sophomores, 17.7% were juniors, 15.8% were seniors, and <1% were "other." Diverse majors were represented, including engineering, journalism, art, anthropology, and family social science.

Approximately 70% of the sample was employed and 30% were unemployed. Approximately 50% of the sample (n = 104) had credit cards. Thirty-one percent had one credit card, 11.5% had two credit cards, 4.8% had three credit cards, 1% had four credit cards, and 1% had five or more credit cards.

Measures
A 9-item scale, measured buying impulsiveness (α = .88) (Rook & Fisher, 1995). Participants responded with a five-point Likert scale- strongly disagree to strongly agree. Responses were summed yielding a possible range of 9 to 45. Item eight was reverse-coded. The measurement showed good internal consistency in this study (α = .92).

A 12-item scale measured college students' tendency to misuse credit cards (α = .81) (Roberts & Jones, 2001). Participants responded using a five-point Likert scale- strongly agree to strongly disagree, yielding a range from 12 to 60. Responses were summed across the twelve items. The higher the score, the more irresponsible the credit card behavior. The measurement of credit card misuse was limited to the subset of participants who had credit cards, reducing the sample size in some analyses to 104, approximately half of the overall sample. The measurement showed good internal consistency in this study (α = .80).

A 14-item instrument developed by Bredehoft (2007) measured parental overindulgence from the point of view of the child (of any age). Participants responded with a five-point Likert-type scale- never or almost never to always or almost always. This measure utilizes a weighted scoring system to produce an aggregate score over the 14 items (α = .81). In this study, reliability was good (α = .71).

Data Analysis Plan
To answer the research question: Do young adults' perceptions of being overindulged as children relate to their current financial skills and behaviors? the following hypotheses were tested: a) There is a positive association between overindulgence and buying impulsiveness; b) There is a positive association between buying impulsiveness and credit card misuse; c) There is a positive association between overindulgence and credit card misuse; and d) Overindulgence and buying impulsiveness will be linked to credit card misuse when controlling for age, gender, and

race. Hierarchical multiple regression was employed using SPSS version 18.0. The assumptions of hierarchical multiple regression were tested and met.

Results

Correlations were examined and found to be in the expected direction. See Table 1 for correlations. Missing data (less than 2%) were accounted for through listwise deletion.

Table 1

Correlations: Overindulgence, Buying Impulsiveness and Credit Card Misuse

Variables	*M* (*SD*)	Buying Impulsiveness	Credit Card Misuse	Overindulgence
Buying Impulsiveness	2.56 (.88)	--	.47***	.26**
Credit Card Misuse	1.99 (.64)	.47***	--	.12
Overindulgence	36.10 (6.47)	.26**	.12	--

Note. *$p < .05$. **$p < .01$. ***$p < .001$.

A two-step hierarchical multiple regression was conducted to assess whether overindulgence predicted buying impulsiveness over and above the demographics of age, gender, and race. The first step tested the predictive power of age, gender, and race, $F(3, 204) = 2.59$, $p < .05$. The second step added overindulgence to this model resulting in greater predictive power over and above the demographics alone, $F(4, 203) = 11.19$, $p < .001$. Together, the demographics and overindulgence significantly contributed to buying impulsiveness over and above the joint contribution of the demographics, $\Delta F(3, 4, 198) = 35.68$, $p < .001$, $\Delta R^2 = .23$. Here, the R^2 change represents a medium effect size (Cohen, 1992). See Table 2 for further information.

Table 2

Hierarchical Regression Predicting Buying Impulsiveness (*N = 198*)

	Step 1			Step 2		
Predictor	*B*	*SEB*	β	*B*	*SEB*	β
Age	.03	.04	.06	.05	.04	.09
Race	-.27	.14	-.13	-.31	.13	-.16
Gender	.31	.17	.13	.29	.16	.12
Overindulgence				.05	.01	.38**
Total R^2		.04			.18	
ΔR^2		.04			.14	

Note. **$p <. 001$.

Next, a two-step hierarchical multiple regression was conducted to assess whether buying impulsiveness predicted credit card misuse over and above the demographics, age, race, and gender. This analysis was conducted using a smaller sample of participants who had credit cards ($n = 104$). The first step tested the predictive power of age, gender, and race, $F(3, 99) = .48$, $p = < .699$. The second step added buying impulsiveness to this model and together, these predictors showed greater predictive power over and above the demographics alone, $F(4, 98) = 7.58$, $p < .001$. Together the demographics and buying impulsiveness significantly contributed to credit card misuse over and above the joint contribution of the demographics, $\Delta F(3, 4, 104) = 28.51$, $p < .001$, $\Delta R^2 = .22$. Here, the R^2 change represents a medium effect size (Cohen, 1992). See Table 3 for further information.

Table 3

Hierarchical Regression Predicting Credit Card Misuse (*n = 104*)

	Step 1			Step 2		
Predictor	*B*	*SEB*	β	*B*	*SEB*	β
Age	-.02	.04	-.06	-.01	.04	-.03
Race	-.18	.15	-.06	-.15	.14	-.20
Gender	-.03	.20	-.02	-.12	.17	-.06
Buying Impulsiveness				.35	.07	.48**
Total R^2		.01			.24	
ΔR^2		.01			.22	

Note. ***p* <. 001.

Discussion

This study is the first to examine the association between overindulgence and impulsive buying behavior. Results indicated that after accounting for age, gender, and race, overindulgence predicted impulsive buying behavior. This finding supports the claim that overindulged children struggle with impulse control and delay of gratification (Bredehoft et al., 1998). Although impulsive buying behavior is but one possible outcome of overindulgence, this finding reflects the potential connection between overindulgence and less-then-optimal financial behaviors. This connection may highlight a socialization issue; it is plausible that young adults who were overindulged as children may simply have not learned or needed to learn the skills necessary for financial responsibility. As Bredehoft el al. (1998) contended, overindulgence is a parent-driven practice and this finding links this practice with an outcome that may forecast future financial troubles.

In particular, buying impulsiveness has implications for poor financial control and use of credit. This study found a connection between impulsive buying behavior and credit card misuse, which supports the argument that credit cards promote spending (Roberts & Jones, 2001). In effect, impulsive buying may encourage credit care misuse, given the ease with which purchases can be made with credit cards. Credit cards may serve to enable impulsive spending, but future research will be needed to determine the connections between impulsive buying behavior and credit card misuse, specifically.

Even with the findings of this study, overindulgence remains a deeply underdeveloped construct. The work of Bredehoft et al. (1998) began the formation of a scholarly definition of overindulgence by defining it as the act of showering children with family resources, but this broad definition fails to shape a clear understanding of overindulgence. Specifically, this definition provides no parameters for the scope of such behavior. Thus overindulgence remains a highly subjective phenomenon. Continued work to narrow the definition of overindulgence is needed before a theoretical base may be established.

The topic of overindulgence would benefit greatly from qualitative research that aims to better understand overindulgence as a lived experience that varies across parents and children. This type of research would likely uncover the broad understanding of overindulgence as well as the varying lived experiences of overindulgence for both parents and children. One approach may be to compare interviews of parents with those of their children to examine potential differences in perceptions of overindulgence. At this time, qualitative research may be the next necessary step toward a deeper understanding of overindulgence.

Limitations and future research

This study has several limitations. To date, only one empirical study has examined overindulgence as a construct (Bredehoft et al., 1998). More research is needed to establish overindulgence as a construct worthy of continued empirical study. Specifically, additional research will be necessary to further elucidate the actions of overindulgent parents, including research directed toward answering questions related to parents' motivations for overindulgence and parental awareness of this behavior. Furthermore, future research will help to clarify classifications of overindulgence and determine the mediating factors of participant demographics, including socioeconomic status.

The small sample limits the scope of this study. The sample was not random, therefore, it is likely that some results might be unique to the particular characteristics of this sample. Selection bias may have contributed to this non-random sample. Though six undergraduate courses were sampled, some members of the undergraduate population at each university may have been less likely to be included than others based on the limited number of courses used for recruitment. Thus, the results of this study cannot be generalized to the population of undergraduate students. Recruitment from a larger variety of courses at both universities may have negated this bias.

The survey used for this study failed to include several important demographics pertaining to financial management, including ownership of debit cards, parental assistance in paying credit card bills, parental involvement in credit card acquisition and reasons for credit card acquisition. This survey also failed to include demographics related to participants' families of origin, including number of siblings and birth order for participants with siblings.

The measures used in this study may have negatively biased participants through the inclusion of several items that could be considered leading questions. All the data collected were self-reported which could introduce problems with social desirability. The predominantly female, Caucasian sample limits the generalizability of this study. Moreover, approximately half of the final sample did not have a credit card and therefore could not speak to credit card use or misuse.

This study employed hierarchical multiple regression, but structural equation modeling may serve well for future analyses based on the research questions of this study. Specifically, the ability to perform path analyses using structural equation modeling may add greater clarity to the strength of overindulgence in predicting buying impulsiveness. Future studies of the adult perceptions of overindulgence may include overindulgence as an observable variable and rely on theoretical constructs related to overindulgence as latent variables.

Even with these shortcomings, this study provided important initial findings about the link between overindulgence and buying impulsiveness that may be important to incorporate into parent education programs. Overindulgent parents truly diminish their children’s chances of learning the skills necessary for effectively managing money in adulthood. Additional research is needed to increase our understanding of the financial consequences of overindulgence, which will in turn, lead to educational programs that help parents socialize their children to become financially capable young adults.

References

Arnett, J. J. (1997). Young people’s conceptions of the transition to adulthood. *Youth & Society*, *29*, 1-23.

Arnett, J. J. (1998). Learning to stand alone: The contemporary American transition to adulthood in cultural and historical context. *Human Development*, *41*, 295-315.

Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, *55*, 469-480.

Arnett, J. J. (2001). Conceptions of the transition to adulthood: Perspectives from adolescence to midlife. *Journal of Adult Development*, *8*, 133-143.

Arnett, J. J. (2002). A congregation of one: Individual religious beliefs among emerging adults. *Journal of Adolescent Research*, *17*, 451-467.

Arnett, J. J. (2004). *Emerging adulthood: The winding road from late teens through the twenties*. New York: Oxford Press.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory.* Englewood Cliffs, NJ: Prentice-Hall.

Baumrind, D. (1966). Effects of Authoritative Parental Control on Child Behavior. *Child Development, 37,* 887-907.

Baumrind, D. (1983). Rejoinder to Lewis’s reinterpretation of parental firm control effects: Are authoritative families really harmonious? *Psychological Bulletin*, *94*, 132-142.

Baumrind, D. (1991). Parenting styles and adolescent development. In J. Brooks-Gunn, R. Lerner, & A. C. Petersen (Eds.), The Encyclopedia of Adolescence (pp. 758-772). New York: Garland.

Baumrind, D. (1996). The discipline controversy revisited. *Family Relations*, *45*, 405-414.

Bredehoft, D. J. (2007). *Overindulged (2.1): Indicators of overindulgence scale* [Pamphlet].

Bredehoft, D. J., Mennicke, S. A., Potter, A. M., & Clarke, J. I. (1998). Perceptions attributed by adults to parental overindulgence during childhood. *Journal of Marriage and Family Consumer Sciences Education, 16*, 3-17.

Bulkley, J. (2001). Culture’s influence on parents and children: The role of ethnicity in parenting and child competence in African-American and European-American families. *Dissertation Abstracts International, 61*, 5025B (Publication No. AAT 9986737).

Cohen, J. (1992) A power primer. *Psychological Bulletin*, *112*, 155-159.

Feinman, J. (2001). Church attendance, family structure, parenting style and antisocial behavior of Black and Latino urban adolescents. Dissertation Abstracts International, l62(3), 1615B (Publication No. AAT3009306).

Gordon, L. C. (2000). Linking gender differences in parenting to a typology of family parenting styles and adolescent developmental outcomes. Dissertation Abstracts International, 60(11), 4196A (Publication No. AAT 9950089).

Hira, T. K. (1997). Financial attitudes, beliefs, and behaviors: Differences by age. *Journal of Consumer Studies and Home Economics, 21,* 271-290.

Hoch, S. J., & Loewenstein, G. F. (1991). Time-inconsistent preferences and consumer self-control. *Journal of Consumer Research, 17*, 492-507.

Jorgensen, B. L., & Salva, J. (2010). Financial literacy of young adults: The importance of parental socialization. *Family Relations*, *59*, 465-478. doi: 10.1111/j.1741-3729.2010.00616.x

Moschis, G. P. (1987). *Consumer Socialization: A Life-Cycle Perspective*. Lexington, MA: Lexington Books.

Palmer, B. G. (2001). Co-parenting relationships and parenting styles after divorce or separation: Factors predicting adolescents' adjustment. Dissertation Abstracts International, 61(12), 6717B (Publication No. AAT 9999875).

Pinto, M. B., Parente, D. H., & Mansfield, P. M. (2005). Information learned from socialization agents: Its relationship to credit card use. *Family and Consumer Sciences Research Journal, 33*, 357-367. doi: 10.1177/1077727X04274113

Pirog III, S. F., & Roberts, J. A. (2007). Personality and credit card misuse among college students: The mediating role of impulsiveness. *Journal of Marketing Theory and Practice, 15*, 65-77. doi: 10.2753/MTP1069-6679150105

Roberts, J. A., & Jones, E. (2001). Money attitudes, credit card use, and compulsive buying among American college students. *Journal of Consumer Affairs, 35*, 213-241. doi: 0022-0078/0002-1

Rohner, R. P. (1986). The warmth dimension: Foundations of parental acceptance-rejection theory. Newbury Park, CA: Sage.

Rohner, R. P. (1994). Patterns of parenting: The warmth dimension in worldwide perspective . In W. J. Lonner & Malpass (Eds.) Psychology and Culture. Boston: Allyn & Bacon.

Rook, D. W. (1987). The buying impulsive. *Journal of Consumer Research, 14*, 189-199.

Rook, D. W., & Fisher, R. J. (1995). Normative influences on impulsive buying behavior. *Journal of Consumer Research, 22*, 305-313

Sallie Mae (2009, April 13). Study finds rising number of college students using credit cards for tuition. Retrieved from Sallie Mae website: http://www1.salliemae.com/about/news_info/newsreleases/ 041309.htm

Schor, J. (1998). *The Overspent American: Upscaling, Downshifting and the New Consumer*. New York: Basic Books.

Shim, S., Barber, B. L., Card, N. A., Xiao, J. J., & Serido, J. (2010). Financial socialization of first-year college students: The roles of parents, work, and education. *Journal of Youth and Adolescence*, *39*, 1457-1470. doi: 10.1007/s10964-009-9432-x.

Soman, D. (2001). Effects of payment mechanism on spending behavior: The role of rehearsal and immediacy of payments. *Journal of Consumer Research, 27*, 460-474.

Tavoulareas-Karahalios, M. (2000). The relationship among parenting styles, level of maternal depressive symptomotology and adjustment of preadolescent boys. Dissertation Abstracts International, 60(12), 6386B (Publication No. AAT 9954842).

Thompson, C. J., Locander, W. B., & Pollio, H. R. (1990). The lived experience of free choice: An existential-phenomenological description of everyday consumer experiences of contemporary married women. *Journal of Consumer Research, 17*, 346-361.

Wang, J., & Xiao, J. J. (2009). Buying behavior, social support, and credit card indebtedness of college students. *International Journal of Consumer Studies*, *33*, 2-10. doi: 10.1111/j.1470-6431.2008.00719.x

Ward, S. L., Wackman, D. B., & Wartella, E. (1977). *How children learn to buy: The development of consumer information processing skills*. Beverly Hills, CA: Sage.

Wood, M. (1998). Socio-economic status, delay of gratification, and impulse buying. *Journal of Economic Psychology, 19*, 295-320.

Program Evaluation of a Retirement Seminar

Jean M. Lown[51] and Diana Burk, Utah State University

Abstract

Financial education is a process that empowers consumers to improve their understanding of financial fundamentals and become more aware of financial opportunities and risks (Lusardi, 2006). While the growth in financial education programs is laudable, it is essential to rigorously evaluate the programs and logic models are easily implemented effective tools.

The purpose of this study was to evaluate the effectiveness of a *Retirement Seminar* as measured by participant satisfaction, financial knowledge, confidence, and behavior change compared to a similar control group of non-participants. The free *Seminar* was offered to university employees and their spouses/partners. The six week seminar (one hour per weekly session) was taught by a retired university finance professor. Topics included investment time horizon, time value of money, investment types, asset classes and allocation, diversification, risk tolerance, mutual funds, pensions and annuitization.

The program evaluation was guided by a logic model (see Appendix). A logic model, also called a program theory, is a conceptual framework of how an educational program is expected to lead to the intended outcomes (Bamberger, Rugh, & Mabry, 2006). It can depict the problem and goal statement for a program (University of Wisconsin Extension, 2002). The following research questions guided the study:

1. How satisfied were participants with the *Retirement Seminar*?
2. Did financial knowledge increase more for participants in the *Seminar* than for the control group?
3. Did financial confidence increase more for participants in the *Seminar* than for the control group?
4. Two months afterwards, did financial behavior change more for participants than for control group?

This study evaluated the effectiveness of a *Retirement Seminar.* The six week, one hour per session *Seminar* was advertised to employees via fliers and email. The convenience sample consisted of university employees who self-selected to attend. Employees who matched registrants' gender and employment category were recruited via email to participate in the comparison group. The research design was a pretest, posttest, comparison group design with a two month follow-up. The pretest survey was emailed prior to the *Seminar*, the posttest was emailed after the final session, and the follow-up was sent two months later. Email addresses were used to track responses across the three surveys but were not linked to responses.

A logic model was developed to identify how outputs and impacts were achieved. Four researchers and financial professionals offered expertise in the subject matter, research procedures, and aspects of financial educational programs to determine face and content validity of the survey questions. A comparison group was essential to determine if *Seminar* participants improved more than non-participants.

Satisfaction, financial knowledge, financial confidence, and financial behavior change were the dependent variables. Measures from previous studies were used to ensure reliability. *Satisfaction* with the *Seminar* was measured from 1 = not at all satisfied to 5 = very satisfied. Three open-ended questions assessed the implementation and quality of the *Seminar*. *Financial knowledge* was assessed using two measures: a self-rated measure of perceived financial knowledge and a second measure consisting of 12 multiple choice financial knowledge questions ($\alpha = .69$). Scores were computed by adding the number of correct responses. Individuals who did not answer at least 11 of the 12 questions were excluded from the analysis. *Financial confidence* was assessed using an 11-item scale that combined three measures. One question assessed retirement planning confidence. Four questions assessed respondents' ability to perform retirement planning basics (AARP/ACLI, 2007). A 6-item financial self-efficacy scale was adapted from a health behavior self-efficacy measure. Because each of these measures used a different response scale, raw scores of each were normalized using z-scores and then summed to generate an overall financial confidence score questions ($\alpha = .92$). *Financial behavior change* ($\alpha = .92$) was measured using the 10 question Financial Preparedness for Retirement (FPR) scale (Ross & Willis, 2009).

[51] Jean M. Lown, 2905 Old Main Hill, USU, Logan, UT 84322-2905; Phone: 435-797-1569; Fax: 435-797-3845; Email: jean.lown@usu.edu

The independent variables were: gender, marital status, university employment category, education, race, age, total household income, current retirement assets, and projected retirement assets. Total household income was measured with five categories ranging from less than $50,000 to $150,000 or more. Current retirement assets (excluding value of home) and projected retirement assets were measured in six categories. Group membership (participant vs. control) was dummy coded.

Frequencies and distributions of demographics were summarized along with percentages, means, and medians of the independent and dependent variables. A regression analysis was used to determine if financial knowledge of the treatment group differed from the comparison group. Regression analysis also examined changes in the treatment and comparison groups' financial confidence scores. A one-way repeated measures ANOVA was used to determine if retirement preparation, as measured by the FPR scale, changed across time for the two groups.

Responses were received from 47 of the 74 *Seminar* participants on the pretest (63.5%), 37 (49.3%) on the posttest, and 31 (41.3%) on the follow-up. Approximately 550 employees were recruited for the comparison group with 134 responses received on the pretest **(**24.4%), 90 on the posttest (16.4%), and 91 (16.5%) on the follow-up. Women represented 62.2% of the treatment group and 57.4% of the comparison group. Most respondents were married, Caucasian, and had a university education. Chi-square analyses revealed significant differences between the treatment and comparison groups on income and current retirement assets. An independent samples *t* test revealed that the treatment group was significantly older than the comparison group, reported significantly higher household incomes and retirement assets than the comparison group. The two groups were similar on other demographics.

Approximately three-fourths of the treatment group rated themselves as having fair or good financial knowledge on the pretest with this number increasing to 89% on the posttest. Similarly, about 70% of the comparison group indicated their financial knowledge was fair or good increasing to 84% of respondents on the posttest. On the 12-item financial knowledge scale, the average treatment group financial knowledge score increased from 9.5 (SD = 2.40) on the pretest to 10.5 (SD = .94) on the posttest. The average comparison group financial knowledge score increased from 9.2 (SD = 2.41) on the pretest to 9.6 (SD = 2.22) on the posttest. Using standardized z-scores, results from the 11-item financial confidence scale indicated that the treatment group improved their financial confidence scores from the pretest (M = -.4, SD = 7.84) to the posttest (M = 1.8, SD = 6.91). Conversely, the comparison group scores decreased from the pretest (M = .2, SD = 8.38) to the posttest (M = -.7, SD = 8.64).

The average Financial Preparedness for Retirement (FPR) score increased for the treatment group from the pretest to the posttest, and from the posttest to follow-up. For the comparison group, the average FPR score increased from pretest to posttest but then decreased from the posttest to follow-up. Correlations among the dependent variables (i.e., financial knowledge, financial confidence, and financial behavior) and the between group differences (i.e., age, total household income, and current retirement assets) were examined. Age and total household income were positively related to the dependent variables and thus were included as covariates in each regression and ANOVA. The value of current retirement assets was excluded from these analyses to avoid multicollinearity with income.

The majority of respondents was either satisfied (43.2%) or very satisfied (48.6%). Two open-ended qualitative questions asked what participants liked most and least about the *Seminar*. The laddering strategy—a method of managing diverse investments that will liquidate at different time frames during retirement—was the favorite topic.

To determine if the improvement in treatment group financial knowledge scores resulted from the *Seminar*, a hierarchical regression was performed. Since age and total household income were positively related to financial knowledge, these two covariates were included in the regression analysis. The dependent variable was posttest financial knowledge. The first step in the regression included pretest financial knowledge, age, and total household income; the second step included the group variable (treatment = 0, comparison = 1). Pretest financial knowledge (β = .65, $p < .001$) and group assignment (β = -.19, $p < .01$) were both significant predictors of posttest financial knowledge, indicating that while pretest financial knowledge predicted posttest financial knowledge scores, participating in the *Seminar* contributed to posttest financial knowledge above and beyond pretest knowledge, age, and income accounting for an additional 4% of the variance.

Hierarchical regression was used to determine if participating in the *Seminar* predicted an increase in financial confidence above and beyond the contributions of pretest financial confidence, age, and total household income.

Because total household income was correlated with financial confidence and was higher in the treatment group than the comparison group, it was included in the model as a covariate. Age was also included as a covariate. The first step of the regression included pretest financial confidence, age, and total household income; group was included in the second step. The regression results revealed group as a significant predictor variable ($\beta = -.17$, $p < .001$) indicating the *Seminar* contributed to financial confidence above and beyond age, total household income, and pretest financial confidence, accounting for an additional 3% of the variance.

A one-way repeated measures ANOVA was used to determine if participants' planning behaviors increased over time. Age and total household income were included as covariates. The ANOVA revealed a significant interaction effect between time and group, $F(2, 119) = 10.19$, $p < .001$, $\eta = .137$, indicating that the treatment group's behavior changed from the pretest to the follow-up. No other significant between-subjects main effects were found. The treatment group FPR pretest scores were lower than the comparison group pretest scores but increased over time, whereas the comparison group's financial behaviors remained relatively unchanged from pretest to follow-up.

Overall, participants were very satisfied with the *Seminar* and would recommend it. Both financial knowledge and financial confidence improved more for treatment group participants than for the comparison group, even when accounting for differences in age, household income, and pretest scores. Most importantly, two months after the *Seminar*, financial planning actions increased more for the treatment group than the comparison group.
Seminar participants performed significantly better on the posttest than the pretest in regards to financial confidence in planning and preparing for retirement. Additionally, the treatment group increased their financial confidence scores above and beyond group differences in age, total household income, and pretest confidence scores. These results indicate that *Seminar* participants gained confidence to improve their future financial security. The *Seminar* was also effective in helping participants improve their financial behaviors in preparation for retirement. A significant time by group interaction effect was revealed. Based on this result, it appears that *Seminar* participants' positively changed their financial behaviors. Despite these positive outcomes, it is important to acknowledge that treatment group participants were likely already motivated to learn about retirement planning. However, comparison group members were also likely to be more interested in retirement planning than the average employee.

Because it was assumed that *Seminar* participants were most likely to take action soon after completing the *Seminar*, a two month follow-up period was used. However, the follow-up itself may have prompted additional behavior change as individuals were reminded about their retirement goals. Thus, it is recommended that future research include a second brief follow-up to capture additional behavior change prompted by the first follow-up. The use of multiple follow-ups may also reveal a better timeline for follow-up observations in future program evaluations.

The results of the program evaluation provide evidence that the *Seminar* was effective in increasing participants' financial knowledge, financial confidence, and financial behaviors as well as receiving high satisfaction scores. The main contribution of this study is to illustrate the process and importance of rigorous program evaluation based on a logic model using the NEFE (2012) *Financial Education Evaluation Online Toolkit* and The University of Wisconsin's (2002) logic model tutorial.

References

AARP/ACLI (2007). *What now? How retirees manage money to make it last through retirement*. Retrieved from http://assets.aarp.org/rgcenter/econ/guaranteed_income.pdf

Bamberger, M., Rugh, J. & Mabry, L. (2006). *RealWorld Evaluation*. Thousand Oaks, CA: Sage Publications.

Collins, J.M. & O'Rourke, C.M. (2010). Financial education and counseling – still holding promise. *The Journal of Consumer Affairs, 44*, 483-498.

Lusardi, A. (2006). *Financial literacy and financial education: Review and policy implications*. Networks Financial Institute at Indiana State University, Policy Brief 2006-PB-11. Retrieved from http://www.networksfinancialinstitute.org/Lists/Publication%20Library/Attachments/27/2006-PB-11_Lusardi.pdf

Lusardi, A. (2010). *Americans' financial capability*. Retrieved from http://www.astrid-online.it/Dossier--d1/United-Sta/FINANCIAL-1/Forum-to-E/Lusardi_Forum_02_10.pdf

National Endowment for Financial Education. (2012). *Financial education evaluation online toolkit*. Retrieved from http://toolkit.nefe.org

Ross, D. & Willis, L. (2009). Measuring financial preparation for retirement: A new scale using Australian evidence. *Financial Services Review, 18*, 381-399.

University of Wisconsin Extension. (2002). *Enhancing program performance with logic models.* Retrieved fromhttp://www.uwex.edu/ces/lmcourse/#

Appendix. Logic Model: Retirement Seminar

Problem Statement
▪ Insufficient financial knowledge and preparation for retirement
Goal Statement
▪ Increase financial knowledge to improve retirement security
Assumptions
▪ Resources are adequate and available ▪ Participants (and spouses/partners) are willing and able to attend all sessions ▪ Knowledge leads to behavior change
External Factors
▪ Participants' personal preferences and experiences ▪ University employee benefits and retirement options
Inputs
▪ Instructor ▪ Room ▪ Time ▪ Materials ▪ Equipment ▪ Technology
Outputs
▪ Number of university employees (and their spouses/partners) who attend ▪ Number of sessions provided
Activities
▪ Develop curriculum ▪ Schedule meeting time and place ▪ Conduct sessions on retirement planning topics ▪ Facilitate retirement preparation ▪ Provide education and advising
Short-term Impacts
▪ Increase in participants' financial knowledge ▪ Improvement in participants' financial confidence ▪ Overall participant satisfaction ▪ Employees are aided in setting financial goals
Long-term Impacts
▪ Participants improve (or maintain) retirement planning financial behaviors
Overall Impacts
▪ Financially secure retirement for participants ▪ Participants achieve retirement goals ▪ Greater economic stability

Responding to the Teacher Training Challenge: Constructing a Research-based Professional Development Model

Billy J Hensley[52], Ph.D., National Endowment for Financial Education, Kristin V. Richards, MSW, Florida State University, and William T. Hansell, M.S., University of Cincinnati

Abstract
Responding to the research of Way & Holden (2009), utilizing the framework of teacher as learner, an alliance of financial education experts constructed a professional development model that sought to train teachers on the concepts of personal finance. Using topic-specific experts, presenters taught financial subjects from a framework that encouraged teachers to personalize topics, which allows for transformative learning (Mezirow, 1997; Taylor, 2008) and goes deeper than a pedagogical focus. Consequently, teachers reported increased confidence about teaching the subject, reported improved fiscal behaviors, and conveyed that they were much more likely to integrate the subject into the classroom.

Key words: *professional development, teacher training, transformative learning, financial education*

Introduction to the Professional Development Model
Background
Educators, both school and community based, have been the source of financial literacy interventions for many years. Those that have taken an interest in the topic and sought out training have been the most impactful and most visible in schools and communities. However, based on the research of Way & Holden (2009) the vast majority of school-based educators, teacher education faculty, and pre-service teachers know very little about financial education and topics related to personal finance. With the ever increasing number of states and districts adding personal finance to mandated education curricula (CEE, 2011; Gutter, Copur, & Garrison, 2010), more and more teachers are being asked to teach the topic. Financial education criteria are being added to K-12 standards, usually in mathematics and social studies, with very little or no professional development provided; trainings covering financial concepts can offer teachers an opportunity to "catch up" on the content before or after they are asked to include the topic in their classes. In addition to these points, the evaluation of financial literacy education has been highlighted as an area in need of deeper examination (Hira, 2010; Schuchardt, Hanna, Hira, Lyons, Palmer, & Xiao, 2009).

Consumer science, business, and Extension educators have great familiarity with the topic, but many districts have eliminated these subjects or greatly scaled back the corresponding departments (many to half-time positions). So, initiated by the National Endowment for Financial Education (NEFE) and coordinated via the Jump$tart Coalition for Personal Financial Literacy, a team of national financial education experts (NEFE, the Jump$tart Coalition, the Council for Economic Education, the Federal Deposit Insurance Corporation (FDIC), the Take Charge America Institute at the University of Arizona, Junior Achievement, the U.S. Department of Education, and the U.S. Department of the Treasury) crafted an approach to provide training to K-12 teachers where they are viewed as learners and individual consumers. This approach built upon key strategies already identified in teacher professional development research. Since many organizations train teachers, a number of which are deeply involved in the initiative (the Jump$tart Teacher Training Alliance), the initial conversations centered on how to address the gap between what teachers know and what they are expected to teach. Way & Holden's (2009) research clearly showed that despite the well-intentioned efforts of many credible financial education organizations, there was still much work to be done to help teachers become ready to meet the standards rapidly being implemented across the country. To do this, the coalition began to design and pilot a financial education professional development model that is based on best practices identified in the research literature (Duckworth, 2001; Kegan, 1994; Kegan & Lahey, 2001; Raider-Roth, Stieha, & Hensley, 2012). This strategy implemented the creation of learning objectives, an orientation process for all presenters, the collaboration of several organizations, and the careful evaluation of teacher feedback, attitudes, confidence levels, and personal behaviors.

[52]Billy J Hensley, Ph.D., Director of Education, National Endowment for Financial Education, 1331 17th St., Ste. 1200, Denver, CO, 80202; Phone: (303) 224-3505; Fax: (303) 220-0838; Email: bjh@nefe.org

Description of Model
The model of teacher professional development, upon which this research is based, has been piloted at five locations in the states of Illinois, Colorado, Vermont, South Carolina, and Arizona between 2010 and 2012. To date, the pilot sites, each finding local funding support, have reached over 500 educators. One location recruited teachers from a single, large, urban school district, while the remaining locations recruited teachers from all across their respective states. The locally-based planning teams, with assistance and guidance from the alliance of national partners, brought together numerous nonprofits, educators, state agencies, business owners, financial planners, and university partners to plan and implement the events, which were attended by teachers from numerous teaching disciplines and from all grade levels. Each of the pilots incorporated a locally-appropriate educational credential (e.g., graduate credit, continuing education credit, etc.) to not only incentivize participation but also to legitimize the curriculum. In two locations, university faculty evaluated the content, learning objectives, and assessment tools to assign appropriate graduate credit to the workshop.

The first pilot (IL) implemented learning objectives to a newly offered professional development opportunity and highlighted the need for additional content (e.g., presenter orientation) as well as allowed the planning team to see where further content improvements needed to be made. Another pilot (AZ) implemented the learning objectives to a teacher training initiative already in place and provided qualitative feedback from teachers, which informed the other pilots. The remaining locations (CO, VT, and SC) implemented all aspects of the content into their respective trainings (learning objectives, presenter orientation, assessments, credential/course credit, and classroom activities). Again, the multi-day, hands-on workshop series covered personal finance topics that sought to increase teachers' competency with financial capability inside and outside the classroom. In these three locations, teachers had the opportunity, via three-hour classes, to:

1. Examine how economic trends impact personal financial situations;
2. Develop personal finance strategies;
3. Identify ways to build wealth through saving and investing;
4. Assess how career planning impacts earning power;
5. Compare and contrast financial services and products;
6. Specify strategies to protect from fraud;
7. Consider options when using credit and managing debt;
8. Devise plans to minimize financial risk; and
9. Explore personal finance resources.

By broadening their own knowledge base around these financial topics, teachers applied what they learned to their own lives and have rapidly incorporated strategies into classroom learning experiences and addressed the concern teachers have about their own financial well-being (Way & Holden, 2009).

Literature Review

Teacher professional development has been thoroughly discussed among educators, nonprofits, and within the academic literature (Ball & Cohen, 1999; Duckworth, 2001; Fessler, 1995; Fullan, 1995; Raider-Roth & Holzer, 2009; Raider-Roth, Stieha, & Hensley, 2012). Professional development is essential in addressing the gap in teacher training, educational standards and accountability; basically, effective teacher training can significantly build the capacity of teachers (Darling-Hammond, 1995). Most of the debate and assessment of professional development initiatives of teachers has focused on conventional approaches that seek to "update" teachers (how to teach new curricula) for change (Ball & Cohen, 1999; Fullan, 1995). These approaches emulate a model that asks teachers, via half or one-day workshops, to also deliver the information by worksheets, handouts, and lectures (Ball & Cohen, 1999; Garet, Porter, Desimone, Birman, & Yoon, 2001).

Because quality professional development (which ideally takes place over extended periods of time) is costly, most school systems and professional development organizations opt for one time, one day, or one session trainings (Garet, et al., 2001). In addition, there is no single definition of what it means to host effective development nor is there a clear definition of the types of contextual factors that lead to variability in professional development programming (Guskey, 2003). However, more is known about the opportunities to position teachers as learners. For example, when teachers are positioned as learners, they are allowed to reconnect with learning by utilizing their own ways of knowing that can lead to meaningful knowledge gain (Duckworth, 2001).

Since human development extends through life, it stands to reason that professional development is most effective when teachers are also seen as learners (Duckworth, 2001; Kegan, 1994; Kegan & Lahey, 2001; Raider-Roth, Stieha, & Hensley, 2012). As Duckworth (2001) explains, adults develop ideas "through construction on the basis of currently held ideas" (p. 185). To go further, adults work to make meaning of their daily lives (Mezirow, 1997; Taylor, 2008). This implies that if adults are able to draw on their own knowledge, and are taught to use concepts to impact their own life, then their learning of the subject matter is applied more readily. While an evaluation of financial education professional development has shown traditional development as moderately effective in increasing knowledge and attitude (Baron-Donovan, Wiener, Gross, & Block-Lieb, 2005), using adult learning models that allow for the individual to interact with the content (Raider-Roth & Holzer, 2009; Raider-Roth, Stieha, & Hensley, 2012) to enhance teacher professional development indicate the most promise for increasing teachers' confidence and the prevalence of positive behaviors. With this insight, the teacher training model was built focusing on content-driven professional development that intends to dually benefit teachers—to increase their confidence in the classroom and to improve the financial acumen of their personal fiscal lives. This model is meant to augment what is already available to teachers (mostly pedagogical), not replace it. The purpose of this style of professional development is to fill the knowledge gap identified by Way & Holden (2009), and in turn, increase overall demand for the pedagogy training which is available from numerous respected associations, universities, and nonprofits.

Methodology

Since the data for the project as a whole are still being collected, the results listed here focus on a single site that has implemented the content-focused training for a second year. Data for the study were gathered from K-12 teachers in Colorado via paper and online surveys (all assessments were aligned to the topic areas and learning objectives) and focus groups. Teachers who attended the trainings in 2011 (N=142) and 2012 (N=173) were invited to take an 18 question attitudinal pre/post survey at the workshop. After the workshop, teachers were asked to provide feedback via survey about which sessions were most impactful; likert scales, polar questions, and open ended qualitative inquiries were used to assess their feedback. All teachers (N=315) were asked to answer 25 behavioral questions two days after the training about their actions in the six months prior to the workshop and then again six months later. These questions were asked after the workshop about their previous financial behaviors to assure all teachers had a common personal finance vocabulary and to assure the teachers fully understood the questions (Davis, 2003; Rockwell & Kohn, 1989). Six weeks after the 2011 workshop, two semi-structured focus groups were conducted (FG1: N=5; FG2: N=10) to better understand the impact of the training and to also gain insight into the strategies teachers used to integrate the concepts into their own lives as well as into the classroom.

During year one, the focus was on the qualitative research data as a means to inform the continued evolution of the design of the training model. The surveys were given in both years; year one was to assess the clarity and length of the surveys and year two included a more robust statistical assessment of the results of the surveys. As such, year one provided a thorough understanding of what worked well, what needed improvement, where changes could be implemented, and how teachers utilized the information; year two more methodically measured the impact on teachers' attitudes, confidence, and personal behaviors. Of note, survey data were analyzed in both years and the outcomes were remarkably consistent. Lessons learned in year one afforded the opportunity to improve data collection which allowed year two statistical data to be more rigorously evaluated as detailed in the findings.

Lastly, audio taped post-session interviews were transcribed prior to their analysis. Researchers independently examined transcribed interviews in order to understand teachers' experiences in incorporating personal finance topics into the classroom. Differences were discussed and consensus reached on the perceived meaning of teacher statements.

Respondent Characteristics

Over the course of the two years of data collection, the K-12 teachers represented every region of Colorado and just under half (47.8%) have been teaching ten years or less, while most (61.7%) taught high school. Over half (54.3%) had never had any training in personal finance, while others had a course in high school (11.3%), had taken a college course (17.8%), and/or attended a professional development hosted by an association or nonprofit organization (24.7%). This sample had a much lower percentage of teachers that had taken a college course that included financial education-related content than that of the Way & Holden (2009) sample (37%). Most of the participants (72.6%) have a master's degree and are female (68.6%). There were also a wide array of subjects taught by participants, highlighting the varying subject areas interested (or required) to integrate the topic into their classrooms; those in attendance taught courses including, but not limited to, math (33.1%), social studies (60.7%), and/or business (22.8%). Of note, Colorado has recently-implemented personal finance standards in every grade level (preK-12) and they reside in the mathematics and social studies competencies.

Findings

Teacher as Learner

Of all the teachers in attendance, N=230 (73%) volunteered to participate in the surveys. Practically all teachers (99.1%) in both 2011 and 2012 reported that they learned something new. This is encouraging considering several teachers had previously attended training or taken a class (56.4% of those from 2011 and 38.2% of those from 2012); this infers that despite previous exposure and training, participants learned new information and that the framework of teacher as learner, where life experience can be drawn upon to supplement learning, had a positive impact. Similarly, nearly all (99.1%) of participants in both years indicated that they think other teachers would find a similar training opportunity helpful and went on to specify that they believe the training and the contacts they made would have a positive impact on their own personal finances (93%) and also on their classroom instruction (94.7%). When asked the week following the workshop "what strategies or actions have you already adopted or put into place for your personal use as a result of what you learned," N=191 participants listed specific strategies. One teacher indicated that she plans "to diversify my financial portfolio." She goes on, "I will begin with a ROTH IRA at the end of this month. I also am taking steps to ensure that I have an emergency fund within the next 18 to 24 months." Another teacher said, "I got a copy of my credit report, I have contacted a lawyer to get my will set up, I have removed myself from automatic 'pre-approved' lists, I have made a meeting with [retirement management firm] to discuss my retirement and buying service years, [and] I have made a spending plan." In addition, a different teacher said, "I sat down with all of my bills, policies, and paychecks to check for accuracy and started to research alternative policies (insurance, student loans) for better deals." It is evident, as articulated in teachers' own words, that the learning experience was transformative.

While these behaviors are not part of the pre/post behavior survey, they are nonetheless encouraging and demonstrate an immediate impact on the lives of several teachers. Distinctly, by the end of the 2010-2011 academic year (the 2011 professional development was conducted over three days during the last week of January) most (86%) of the teacher-participants had integrated personal finance topics into their classrooms, up from (35%) just prior to the training. Likewise, six months after the 2011 training, nearly all (93%) had reviewed their financial goals, most (75%) had reviewed their credit score, and a large proportion (75.4%) had considered when they would like to retire and had taken steps to achieve their financial goal.

The level of enthusiasm was equally elevated when considering the classroom implications. One teacher said, "I really liked that the workshop was geared towards our personal finances rather than how to teach them. I think if teachers are excited about a subject from their personal view they become better teachers." Another added, "This was truly a life-changing experience for me! … My family and I THANK YOU for this opportunity!" Further, a teacher stated that she wanted "immediately to get going in [the] classroom" after she was energized by all that she had learned.

Teachers' responses to the questions posed during the focus group sessions are presented to demonstrate a few key themes that describe the relevance of the professional development in and out of the classroom. Editing of responses was minimized to assist readers in understanding how enthusiasm for and recognition of the importance of incorporating personal finance content into the classroom has increased as a result of the teacher trainings.

Enthusiasm

Some teachers demonstrated initial resistance towards incorporating personal finance concepts into the classroom. Through time, familiarity, and the development of resources, teachers have become more enthusiastic. One teacher responded, "I hated it at first because I've always taught technology, but I love it now." Another teacher stated, "Now, it makes sense to me. It's easy. It's fun. I've got lots of materials for it. It's cool! My motivation now is that. My motivation prior was that it was my job."

Demonstrating excitement after attending the personal finance workshop, some teachers have spent time encouraging their colleagues to attend trainings in order to incorporate personal finance concepts into the classroom:

> I keep going, 'Okay you guys I took this awesome class…' and now more people are starting [to say], *'Oh Wow!'* And the way everything that has been set up through the funding, [conference participation] is a no-

> brainer; these are free things. [We're given] credit [for participating], and we're learning all this current stuff that we can take right back.

Due to teacher enthusiasm, other teachers have expressed interest in learning personal finance concepts:

> We have a lot of young teachers at our school who are in their first, second or third year of teaching, and when I came back from the conference, I started chatting with them about [it…Many have said,] 'Next time we do [in-service], you should do a personal finance [training] for the teachers, because we don't know this stuff.' I said, 'That's a good idea.'

Some administrators are also demonstrating interest and teachers are appreciative of their support. As noted by one teacher, "I have full support from my principal. He is so excited that we're doing this…He's always asking about the different personal finance [activities] that I'm doing in my classes. So, he's very, very supportive."

Importance

When asked about their motivation to include personal finance learning opportunities into the classroom, one teacher highlighted its necessity in order to prepare responsible citizens:

> I think that it is the most important thing that we can teach our students. One of our instatements in Douglas County is to be preparing responsible citizens. I think that if we ignore the whole finance piece and we don't talk about it, we are failing in that mission because we have seen what happens when a generation like mine goes to school and we don't get any personal financial education. Luckily, my parents taught me about finances and about investing, about paying yourself first from my dad, when I use to work for him in the summers. He would always give me my paycheck, and then he would take me to the bank, and I had to put part of it in my savings account before I was allowed to spend it and you didn't even ask. Unfortunately, a lot of our kids, especially at my school, it seems like lately that their parents are in major debt or credit card troubles or whatever, and so I think that it's so important because we need them to be responsible citizens when they are out of school. Otherwise, we don't know what is going to happen.

When asked what it takes to get buy-in from educators, one teacher expressed interest in more personal finance training. This training could help teachers to understand the benefits of incorporating personal finance education into the curriculum:

> I wish there could be more education for actual teachers, though. I was talking with our special education teacher a couple days ago. She said, 'Well, I don't understand why we need to be teaching this, like one more thing on our plate. Why are not the parents teaching this? I don't have credit cards and you have to be stupid to use them.' I think that she was just raised differently, and I think there is some ignorance for sure with educators and the importance of this. But, even just looking at our economy and credit card debt problems, I wish everyone could be as open-minded. I think that it's our job to be advocates for our kids and our future and for the education of them.

As demonstrated here, the enthusiasm that resulted from the professional development model not only spread within the school, but also in the home. Also, the feelings generated by the training also helped the teachers articulate their feelings about the importance of the subject of financial education in the home and in the school.

Increased Confidence and Changing Attitudes

While the qualitative data provide some intriguing insight, there are also data that measure quantitative change. Study participants were asked to create a unique identifier for the purposes of linking their pre and post survey results. Of the 173 training participants in 2012, 168 submitted a pre-training survey and 158 submitted a post-training survey. In the end, 142 surveys were able to be matched by their unique identifiers, representing 82% of the training participants.

A *t*-test for repeated-measures design was used to analyze the effect that the training had on the participant's attitudes towards personal finance. Specifically, the research hypothesis under investigation states that the financial education training module *does* alter the participants attitudes towards their personal finance, or

$H_1: \mu_D \neq 0$ (The mean difference between pre and post test scores measuring attitudes is significantly different than zero.)

The null hypothesis states that the financial education training module *does not* alter the participants attitudes towards their personal finance, or

$H_0: \mu_D = 0$ (The mean difference between pre and post test scores measuring attitudes is not significantly different than zero.)

The 18 item attitudinal survey has a total possible score of 90 points. Each participant's pre and post training scores were calculated and then averaged, providing a mean score of 66.86 on the pre-training survey and mean score of 74.85 on the post-training survey. The mean difference in scores showed an improvement of 7.99 points or 8.9%. Descriptive statistics are presented in Table 1.

Table 1: Descriptive Statistics

Statistic	Pre-Training (N = 142)	Post-Training (N = 142)
Mean Score (*M*)	66.86	74.85
Std. Deviation (SD)	7.59	5.76
Range	37.00	31.00
Minimum	46.00	58.00
Maximum	83.00	89.00

Participating in the financial education training module increased confidence and attitudinal scores by an average of $M = 7.99$ points or 8.9% with $SD = 9.3$. Results of the t-test for repeated measures are presented in Table 2.

Table 1: Descriptive Statistics

Statistic	Pre-Training (N = 142)	Post-Training (N = 142)
Mean Score (*M*)	66.86	74.85
Std. Deviation (SD)	7.59	5.76
Range	37.00	31.00
Minimum	46.00	58.00
Maximum	83.00	89.00

Therefore, we can reject the null hypothesis and conclude that the effect of the financial education training was statistically significant, *t* (141) = 10.24, *p* < .001, $r^2 = 0.3976$. For these data, the r^2 value of 0.3976 indicates that 39.76% of the variance in the scores is explained by the effect of the financial education training. The calculations for variance explained r2 are presented in Table 3.

Table 3: Percentage of Variance Explained (r^2)

	Explained Variance
$r^2 = \frac{t^2}{t^2 + df} = \frac{10.24^2}{10.24^2 + 141} = \frac{104.8576}{245.8576} = .4265$	42.65%

More specifically, the increase in confidence and positive attitudinal change is attributable to participating in the training module, as indicated by the consistently positive mean difference scores and that positive difference in scores is largely explained by the financial education training.

Conclusions and Implications

This approach, which allows teachers to learn the concepts for their own use first, is shown to have greater impact for those working to "catch up" to the plethora of new and changing content standards. If, by way of effective teacher training models, personal finance topics are presented in a way to increase teacher knowledge for personal use, it is demonstrated here that educators will become more comfortable with the subject area and begin to teach the topics more frequently and hopefully effectively.

While this approach is not the single answer to address the gaps identified by Way & Holden (2009), it is an effective step forward. Building a research-based, replicable model of teacher professional development has the potential to touch individual lives (both teachers and students—and even parents) at the state, district, community, and school-level. While further examination of this research is forthcoming and is expected to document more insight into effective professional development practices, it is apparent that attitudes and confidence levels were increased significantly. A teacher-participant said it best, "This was one of the best conferences I've ever been to. I wish I had learned some of this 20 years ago when I was just starting my career." As research-based financial education professional development training is replicated to reach all in-service and pre-service teachers, great strides can be made that have implications far beyond the Colorado sample. Many individuals and families can be served, especially if this style of training is proposed with the other excellent programs and preparation tools already available to teachers, students, and consumers.

References

Ball, D. L., & Cohen, D. K. (1999). Developing practice, developing practitioners: Toward a practice-based theory of professional education. In L. Darling-Hammond & G. Sykes (Eds.), *Teaching as the learning profession: Handbook of policy and practice.* San Francisco: Josey-Bass.

Baron-Donovan, C., Wiener, R. L., Gross, K., & Block-Lieb, S. (2005). Financial literacy teacher training: A multiple-measure evaluation. *Journal of Financial Counseling and Planning 16*(2), 63-75.

Darling-Hammond, L. (1995). Changing conceptions of teaching and teacher development. *Teacher Education Quarterly, 22*(4), 9-26.

Davis, G. (2003). Using retrospective pre-post questionnaire to determine program impact. *Journal of Extension, 41*(4), 501-517.

Duckworth, E. (2001a). Teaching/learning research. In E. Duckworth (Ed.), *"Tell me more": Listening to learners explain* (pp. 181-187). New York: Teachers College Press.

Fessler, R. (1995). Dynamics of teacher career stages. In T. R. Guskey & M. A. Huberman (Eds.), *Professional development in education: New paradigms and practices* (pp. 171- 192). New York: Teachers College Press.

Fullan, M. (1995). The limits of the potential of professional development. In T. R. Guskey & M. A. Huberman (Eds.), *Professional development in education: New paradigms and practices* (pp. 253-267). New York: Teachers College Press.

Garet, M. S., Porter, A. C., Desimone, L., Birman, B. F., & Yoon, K. S. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal, 38*(4), 915-945.

Guskey, T. R. (2003). What makes professional development effective? Phi Delta Kappan, 84(10), 748.

Gutter, M. S., Copur, Z., & Garrison, S. (2010). *Financial capabilities of college students from states with varying financial education policies*. Denver: National Endowment for Financial Education.

Hira, T. K. (2010). *The NEFE quarter century project: Implications for researchers, educators, and policy makers from a quarter century of financial education*. Denver: National Endowment for Financial Education.

Kegan, R. (1994). *In over our heads: The mental demands of modern life.* Cambridge, MA: Harvard University Press.

Kegan, R., & Lahey, L. (2001). *How the way we talk can change the way we work: Seven languages for transformation.* San Francisco: Jossey-Bass.

Mezirow, J. (1997). Transformative learning: Theory to practice. *New Directions for Adult and Continuing Education*, *74,* 5-12.

Rockwell, S. K., & Kohn, H. (1989). Post-then-pre evaluation: Measuring behavior change more accurately. *Journal of Extension, 27,* 19-21.

Schuchardt, J., Hanna, S, D., Hira, T. K., Lyons, A. C., Palmer, L., & Xiao, J. J. (2009). *Financial literacy and education research priorities. Journal of Financial Counseling and Planning (20)*1, 84-95.

Survey of the states 2011: The state of economic and personal finance education in our nation's schools (2011). New York: Council for Economic Education. Accessed 5/15/2012 at: http://www.councilforeconed.org/news-information/survey-of-the-states/

Taylor, E. (2008). Transformative learning theory. *New Directions for Adult and Continuing Education, (119)* 5-15.

Raider-Roth, M. B., & Holzer, E. (2009). Learning to be present: How hevruta learning can activate teachers' relationships to self, other and text. *Journal of Jewish Education, 75*(3), 216-239.

Raider-Roth, M. B., Stieha, V., & Hensley, B. (2012). Rupture and repair: Episodes of resistance and resilience in teachers' learning. *Teaching and Teacher Education, 28*(4), 493-502.

Way, W. L., & Holden, K. C. (2009). Teachers' background and capacity to teach personal finance: Results of a national study. *Journal of Financial Counseling and Planning (20)*2, 64-78.

Student Loan Debt and Personal Bankruptcy

Tom C. O'Malley[53], Texas Tech and Sandra J. Huston, Texas Tech

Abstract

The effect of student debt on bankruptcy is analyzed using the NLSY79. This study investigates potential links between student debt and personal bankruptcy and simultaneously tests for the effects of education and adverse events. We find a positive relation between education debt and bankruptcy. Relative to high school graduates, college dropouts and those with associate degrees are more likely to file. Households subject to divorce, job loss and health shocks are significantly more likely to seek bankruptcy protection. Results suggest that debt, human capital and adverse event hypotheses may serve as complementary explanations for the bankruptcy decision.

Introduction

Personal bankruptcy has increased dramatically in recent decades. In the twenty years from 1985 to 2005, bankruptcy filings increased 4.75 times. Today, bankruptcy is common. In 2010 1.55 million households filed for either Chapter 7 or 13 protection, compared to 343 thousand households in 1985 (U.S. Department of Commerce, The 2012 Statistical Abstract, Table 776).

The costs of personal bankruptcy can be substantial. Court fees range from $246 to $1046 depending on the type of filing (United States Courts, 2011). Charges for legal advice can exceed several thousand dollars. Non-pecuniary costs can also be considerable. Filers must acquire knowledge about the bankruptcy process and procedures. The emotional toll resulting from bankruptcy can also be significant, as many filers feel social stigma.

Repercussions can be long-lasting and dramatic. Credit reports can be flagged for up to ten years. Filers have greater chances of being denied a mortgage and face substantial borrowing constraints (Fisher, Filer & Lyons, 2004). Employment is often affected as more employers run routine credit checks (Warren & Tyagi, 2003). Those with poor credit scores may pay higher insurance premiums, make additional security deposits on utility or other accounts, or may have difficulty getting an apartment lease or a cell phone service contract. These households pay higher interest on all forms of debt, accumulate less wealth and are more likely to use payday loans and other expensive sources of credit (Han & Li, 2009).

The remarkable increase in the household bankruptcies has spurred academic interest. In the early 1990s, economists became intrigued by increases in the bankruptcy rate, the simultaneous expansion of credit and growing levels of personal debt. Mismatches between unsecured credit and income may offer the best explanation for the household bankruptcy decision. Several influential papers suggest that the increase in the bankruptcy rate is caused by increases in credit card debt (Ellis, 1998; Domowitz & Sartain, 1999).

The expansion in credit card debt in the 1980s and 1990s occurred before the explosion in student debt. For decades tuition increases have outpaced general inflation and wage growth. Education grants peaked in the 1990s. Since then college students have increasingly relied on student loans to finance their education. Loan balances expanded rapidly in the 2000s, impacting the balance sheets of college graduates and dropouts alike.

The economic and social benefits of a college education have long been recognized. While real wages for high school graduates have fallen in recent years, income for those with college diplomas has held stable. Other benefits are associated with college diplomas. Graduates tend to have fewer layoffs and work-related disabilities and lower unemployment rates. They have more labor flexibility, are able to work longer careers, and tend to have higher work satisfaction. Education is also positively correlated with savings rates, voting, good health, life expectancies, law-abidingness, marital stability and success of children (Becker, 2007).

College attendance can be exceptionally risky though. Half of those who attend college fail to graduate (Restuccia & Urrutia, 2004). College dropouts receive modest wage benefits. For those that do graduate, financial success is not certain either. Many college graduates work for low pay in occupations that require a college diploma but pay

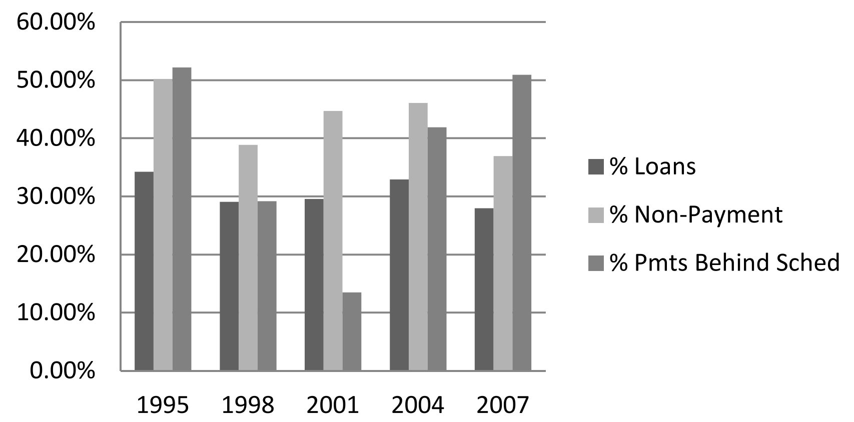
[53] Tom O'Malley, 2371 Pine Valley View, Colorado Springs, CO 80920; Cell: 719-459-9385 Work: 719-333-8259 Fax: 719-333-9715; E-mail: thomas.omalley@usafa.edu

meager salaries. Graduates are increasingly are also working entry level jobs. More than a third of college graduates work at jobs that do not require a college degree (Vedder, Denhart, Denhart, Matgouranis, & Robe, 2010).

Evidence of these risks is beginning to surface as borrowers increasingly struggle to pay these loans off. The 'official' default rate provided by the Department of Education measures the proportion of defaults in the first two years of repayment. The Higher Education Opportunity Act of 2008 recently extended this to three years. According to unpublished data acquired by *The Chronicle of Higher Education,* either threshold captures only a slice of defaults (Field, 2010). Default rates double in the years following the 'official' two or three year window. Fifteen years into repayment, 20 percent of government loans are in default and among borrowers attending community college and for-profit institutions, long-term default rates exceed 30 and 40 percent, respectively (Field, 2010). Among class of 2005 graduates, more than forty percent of borrowers have become delinquent on one or more loans within a five year repayment period (Cunningham & Kienzl, 2011).

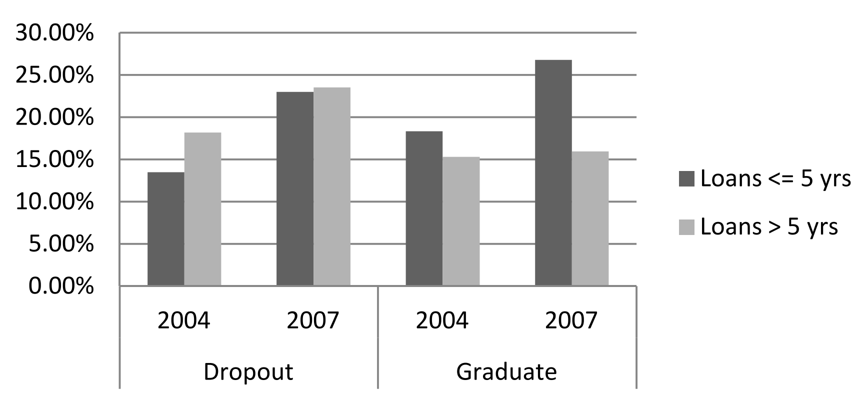
Repayment risk may be especially pronounced for those who fail to graduate. Relative to college graduates, college dropouts may have difficulty paying off student loans. Approximately 30 percent of outstanding loans are owned by college dropouts (see figure 1). Dropouts disproportionately report loans in 'non-payment' or 'behind schedule'.

Figure 1 - College Dropout Proportion of Loan, Non-Payments & Payments Behind Schedule



When the age of the loan is considered, it appears that college dropouts wrestle with repayment. Among those with new loans, debt to income is smaller than for college dropouts than for graduates. This pattern then reverses. The debt loads for college dropouts appear to get worse with time. In contrast, college graduates appear better able to pay off their loan balances over time (see Figure 2).

Figure 2 - Median Loan Balance to Median Income



Literature Review

While the empirical research regarding personal bankruptcy is extensive, few studies consider potential links between education debt and financial distress. No study looks directly at the role played by student debt *among* different levels of educational attainment. Insight here may be critical in evaluating debt financing.

Personal Bankruptcy

The bankruptcy system is intended to assist households that struggle with high levels of debt. Bankruptcy law provides the means by which individuals can eliminate some or all of their personal debts. Households mired in debt are able to obtain a new financial beginning. There are two primary methods by which a household can file for bankruptcy: Chapter 7 or Chapter 13.

A Chapter 7 filing permits a household to completely discharge all unsecured debts, such as credit card debt, medical bills and installment loans. This is commonly referred to as a 'straight' bankruptcy. Filers are not required to use future earnings to repay discharged debts, but they are obligated to surrender assets that exceed state-specific exemption levels. These exemptions generally shield retirement assets, provide a limited homestead exemption, and allow exemptions for automobiles and certain personal belongings (Gropp, Scholz & White, 1997). Non-exempt assets are then sold and the proceeds are distributed to creditors. Some types of debt cannot be discharged, including alimony, child support, income tax liabilities, and government-supported educational loans. Chapter 7 filers are not allowed to file again for eight years. About two-thirds of filing occurs under these rules.

Chapter 13 allows reorganization of debts. This permits debtors with regular income to discharge debts after paying off a portion of their debts. The debtor maintains ownership of his or her assets but must propose a repayment plan that is acceptable to the court. A plan typically spans three to five years. There is no discharge if the filer does not fulfill the repayment plan. Approximately two-thirds of Chapter 13 filers do not successfully execute the repayment plan and most of these filings then transition to Chapter 7.

Potential Explanations for Bankruptcy

One group of hypotheses links financial distress to high levels of 'uncertainty.' Unanticipated income and expense shocks lead to bankruptcy. Households exposed to certain 'adverse events' are more likely to suffer financial distress. Job loss, divorce and unpaid medical bills have been studied. Two-thirds of bankruptcies stem from job loss (Sullivan, Warren & Westbrook, 2000). Bankruptcy is more likely if the head of household had been recently divorced (White, 2007). The increase in the bankruptcy rate corresponds with an increase in the proportion of households that lack health insurance (Warren & Tyagi, 2003).

Bankruptcy may be the product of strategic choice. States vary in the amount of personal assets that may be legally sheltered from bankruptcy. As exemption levels increase, the benefit of filing increases. Opportunistic households consider the generosity of state bankruptcy law and file when the financial benefit is high. State exemption levels and filing rates are positively related (White, 1987). A $1,000 increase in the financial benefit of bankruptcy results in a 7 percent increase in the probability of filing (Fay, Hurst & White, 2002).

A reduction in the stigma associated with bankruptcy has also been studied. Stigma is the emotional penalty imposed by oneself or other persons in response to filing. As bankruptcy activity increases, filing for bankruptcy may become socially acceptable. Buckley and Brinig (1998) find that changes in social norms help explain the tripling of the bankruptcy rate from 1984 to 1991. As local filing rates increase, consumers are more likely to file for bankruptcy (Fay, Hurst & White, 2002). Gross and Souleles (2002) find that increasing bankruptcy rates among credit card holders are consistent with reductions in stigma.

These hypotheses have difficulty explaining the large increase in filing rates that started in the 1980s however. While adverse events are positively related to individual bankruptcy decisions in cross-sectional analyses, they fail to explain the time-series increase. Divorce rates actually declined during the 1980s and 1990s when bankruptcy rates tripled (White, 2009). Job loss and health shock explanations are also contentious. The national unemployment rate fell from 7.2% in 1985 to 5.1% in 2005, although there were significant fluctuations during this twenty year period (U.S. Department of Labor, Current Population Survey, *Household Data Annual Averages,* Table 1). Uninsured health care costs grew during this period, but only slightly as a percent of median household income (White, 2009). The 'reductions in stigma' hypothesis is equally controversial. There is scant direct evidence that social stigma declined during this period. On the contrary, stigma may have actually increased as bankruptcy information has become increasingly available to the public and accessible online (Sullivan, Warren & Westbrook, 2006). The 'strategic choice' alternative also seems an implausible explanation. There is no evidence that state exemption levels have systematically increased during this period.

Debt and Bankruptcy
The dramatic rise in personal bankruptcy coincided with an increase in credit availability. Credit cards were introduced in the mid 1960s. Initial credit card adoption rates were modest. Credit was extended to only the most creditworthy individuals as state usury laws limited the maximum interest rates that could be charged. This all changed in the 1980s and in short time, credit card lending pervaded much of society. The proportion of consumers with bank-type credit cards increased from 16 percent in 1970 to 67 percent by 1995 and while only 6 percent of households carried a balance in 1970, 37 percent carried a balance by 1995 (Durkin, 2000).

Changes in the credit market offer the best explanation for the upsurge in the personal bankruptcy. Deregulation of consumer interest rates led to lower underwriting standards, expanded credit availability and more personal bankruptcy (Ellis, 1998). Innovations in the credit market reduced transactions costs and lowered the cost of bankruptcy (Livshits, MacGee & Tertilt, 2010). At least 10 percent of the increase in bankruptcy rates is explained by the expansion of credit that followed banking deregulation in the 1980s and 1990s (Dick & Lehnert, 2010). An increase in the credit card debt from the population average to bankruptcy filer average increases the conditional probability of filing six times (Domowitz & Sartain, 1999).

While credit card debt expanded rapidly in the 1980s and 1990s, educational debt ballooned in the 2000s. Over the last twenty years, the nature of financial aid packages slowly morphed from need-based grants to loans. Two-thirds of college graduates now finish school with accumulated debt, compared to less than half in 1993 (Lewin, 2011). In 2003 cumulative student debt was approximately 240 billion dollars, or 10.5 percent of all non-mortgage consumer debt. By 2012, total debt rose to 914 billion dollars, or 28.2 percent of all non-mortgage debt (FRBNY, 2012).

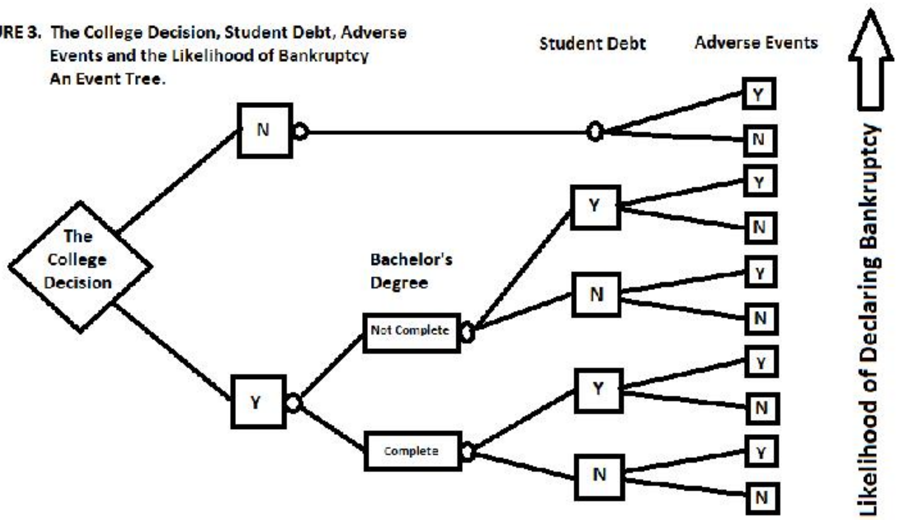
Student debt and credit card debt is different in many respects. Student loan underwriting is limited or non-existent. Risk factors that are known to be associated with successful loan repayment are not evaluated during the loan origination process. This alone may explain why the bulk of student loans are in default, deferment or forbearance. Only 40 percent of student debt is in active repayment (Pilon, 2010). In addition to large aggregate size of the market and the lack of risk management, the clientele of student loans may be more predisposed to financial distress. Education debt is concentrated among young adults who lack experience making financial decisions. The experience deficit among the young households leads to poor financial decisions relative to that found with older more experienced consumers (Agarwal, Driscoll, Gabaix & Laibson, 2007).

Student debt may be just as toxic as credit card debt given the size of this market, the lack of underwriting and the inexperience of higher education consumers. Few studies address student debt however. Research that considers education levels tends to be of summary form and does not jointly consider education debt. Domowitz and Sartain (1999) identify and compare the determinants of Chapter 7 and Chapter 13 filings and find that relative to income, higher student debt promotes higher Chapter 13 filings. The authors also find that Chapter 13 filers have three times the amount of education debt as Chapter 7 filers. This is consistent with the reality that student debt cannot be fully discharged in Chapter 7. Bankruptcy filers are more likely to report having "some college" but less likely to have obtained a college or advanced degree (Sullivan, Warren & Westbrook, 2000). While filers are about half as likely as non-filers to hold a bachelor degree, they are 25 percent more likely to be a high school graduate and 35 percent more likely to have attained 'some college' (Wang, 2007).

Theoretical Framework
All else equal, student debt should be positively related to bankruptcy. The reality though is that college graduates tend to acquire more student debt and have better employment outcomes. We therefore test for student loan and education effects jointly. To our knowledge, prior research does not take this approach. We hypothesize that student debt and bankruptcy are positively related, particularly for those who have not acquired a bachelor's degree. After controlling credit card debt, adverse events, cognitive ability, family resources and other household characteristics, we expect student debt to be positively related to personal bankruptcy.

The bankruptcy decision can be modeled as a function of education and debt. Figure 3 presents an event tree that illustrates bankruptcy as a function of the college decision, student debt, and adverse events. Prospective college students anticipate that graduating from college is not guaranteed and that loans must be repaid under any scenario. Debt results in more bankruptcy filings, all else equal. Adverse events, such as divorce, layoff, and health shocks, also lead to more bankruptcies.

FIGURE 3. The College Decision, Student Debt, Adverse Events and the Likelihood of Bankruptcy An Event Tree.



A two period model is developed in which the likelihood of a household declaring bankruptcy during period t is a function of characteristics during period t-1. The primary variables of interest are a set of dummy variables that represent educational attainment and the presence of student loans. Credit card debt and adverse events are in the model. A vector of family resource and household variables is also included. Equation 1 provides the conceptual framework used here.

Bankruptcy = f (student debt by education, credit card debt, adverse events, ability, family, household) (1)

This model incorporates existing 'adverse events' and 'credit card' hypotheses. This model also tests whether some family factors are relevant to the bankruptcy decision. Households are often viewed as independent economic units isolated from the influence of other households. In reality, households often receive financial and other support from other sources. The parental relationship provides perhaps the most common case of where resources flow between established households. The availability of these resources may mitigate financial distress.

Data

Data used to test the conceptual framework in Equation 1 come from the National Longitudinal Survey of Youth (NLSY79). The NLSY has annual information for the variables necessary to study the determinants and timing of bankruptcy. The NLSY is arguably the best panel dataset available to investigate personal bankruptcy. The NLSY79 is conducted for the Department of Labor's Bureau of Labor Statistics and provides a rich dataset of financial information, employment history, personal traits, family background and demographics. It is a panel dataset that captures the responses of a nationally representative sample of 12,686 men and women. The respondents were born in the years 1957-1964 and were first interviewed in 1979. Follow-up interviews were conducted annually through 1994 and biennially thereafter.

Recent administrations of the NLSY79 make studying bankruptcy possible. The 2004 and 2008 waves include a bankruptcy module that includes data regarding the respondent's bankruptcy experience. These two administrations are also the first to include summary information regarding student loan and credit card balances. This dataset also allows us to control for the adverse events found significant in previous research.

In 2004 and 2008 the NLSY asks the respondents about bankruptcy. Respondents are asked if they ever declared bankruptcy. If the respondent indicates that he or she filed for bankruptcy ever at any point, the respondent is then asked additional questions, including date and type of bankruptcy. Bankruptcy filing dates vary from 1979 to 2008.

Approximately 14 percent of 2004 respondents indicate having ever declared bankruptcy. By 2008, 16 percent of respondents report filing at some point. Bankruptcy types include ‘Chapter 7’, ‘Chapter 11’, ‘Chapter 12’, ‘Chapter 13’ or ‘Other’. This investigation uses only non-business filing and combines Chapter 7 and 13 bankruptcies.

Methods

Binary logistic regression is used to test Equation 1. Using data from the 2004 and 2008 waves of the NLSY79, the following model is estimated:

$$
\begin{aligned}
\text{Bankruptcy}_{it} = {} & B_0 + B_1 \text{NonCompleters Loans}_{i(t-1)} + B_2 \text{NonCompleters No Loans}_{i(t-1)} \\
& + B_3 \text{Completers\_Loans}_{i(t-1)} + B_4 \text{Completers\_No Loans}_{i(t-1)} + B_5 \text{Credit Card Debt}_{i(t-1)} \\
& + B_6 \text{Job Loss}_{i(t-1)} + B_7 \text{Health Shock}_{i(t-1)} + B_8 \text{Divorce}_{i(t-1)} + B_9 \text{IQ Decile}_i \\
& + B_{10} \text{Inheritances}_{i(t-1)} + B_{11} \text{Parental Education}_i + B_{12} \text{Family Income}_i \\
& + B_{13} \text{Number Siblings}_i + B_{14} \text{Single Female}_{i(t-1)} + B_{15} \text{Married Male}_{i(t-1)} \\
& + B_{16} \text{Married Female}_{i(t-1)} + B_{17} \text{Number Children}_{i(t-1)} + B_{18} \text{Homeowner}_{i(t-1)} \\
& + B_{19} \text{Hispanic}_i + B_{20} \text{Black}_i + B_{21} \text{PostBAPCA} + \epsilon_i
\end{aligned}
$$

Bankruptcy. The dependent variable for this study is bankruptcy. It is a dichotomous variable that is coded as one if the respondent declared bankruptcy in the either 2004-2005 or 2008-2009. We investigate bankruptcy in these periods because credit card and student loans information is provided only in 2004 and 2008. Chapter 7 and Chapter 13 non-business filings are pooled together. This pooling is common in the literature and is frequently done because there are small sample sizes that correspond to a given chapter.

Student Loan Use and Educational Attainment. Educational attainment and student loan use is merged into four dummy variables. These variables differentiate between those who complete a bachelor’s degree or higher and those who attend college but do not obtain a four year degree. These variables further distinguish between those who have outstanding student loan balances. This approach is used because we hypothesize that education debtors who have less than a bachelor’s degree are susceptible to bankruptcy. The excluded reference group is those with a high school degree or less.

Financial. It is important to control for credit card debt. Credit has been demonstrated to play an important role in the bankruptcy decision. The 2004 wave of the NLSY79 is the first time detailed credit card account questions are asked. An imputed variable is used that sums the balances from individual accounts. Positive balances are reported by 7611 respondents in 2003. The top one percent is coded at the 99^{th} percentile to address the influence of extreme outliers.

Adverse Events. The adverse events hypothesis posits that job losses, health problems and divorce lead to personal bankruptcy. Recent research suggests that a period of observation longer than 1 year should be used (Keyes, 2009). Three dummy variables are used to capture the presence of these events in the 2 years leading up to the 2004-2005 and 2008-2009 bankruptcy periods. The job loss variable considers layoffs. Breaks in employment caused by layoff tend to be unanticipated and more likely to lead to financial distress. Excluded job loss responses include: ‘quit job’, ‘going to school’, ‘in the Armed Forces’, or ‘did not want to work’. A health shock is defined here as being significant if it affects one’s employment. Breaks in employment that result from health problems are coded as a health shock. Lastly, divorce is considered relevant if it occurs in the two years leading up to bankruptcy.

Parental Influence. Households often receive support from individuals outside the household. Availability of these resources may impact the bankruptcy decision. Parents often provide support to children after completion of high school or college. Four variables are used to account for this. The first variable measures the receipt of inheritances. Respondents are first asked to provide inheritance information in the 1986 administration of the NLSY79. These and subsequent responses are then inflated and summed in 2004 dollars. Next, the level of formal education acquired by the parents is included. Higher human capital reflects an ability to generate lifetime income and assets which can potentially be shared with children. This variable is constructed using the highest of the mother’s or father’s number of years of education. The third variable is parental income. This is created using average income information from the 1979-1982 waves of the NLSY. The last parental variable is the number of siblings. More siblings in a household imply fewer resources that can be transferred or shared. Respondents are asked for this information in the first administration of the survey in 1979.

Household. Marital status and gender are combined into 4 dummy variables. The 'single male' category is the omitted reference group. The number of children in the house and homeownership is also captured. Dummy variables are used for race. Non-black, non-Hispanic is the reference category.

Results

Descriptive Statistics of the Sample

Table 1 provides a descriptive summary of respondent characteristics. Differences between bankruptcy filers and non-filers can be seen here. Filers have higher debt levels, are more likely to experience adverse events, and are more likely to have either 'some college' or an associate's degree.

Table 1: Descriptive Statistics
2004-05 and 2008-09 Bankruptcy Filers and Non-Filers (NLSY79)

	Filers	Non-Filers
Educational Level	**Mean**	**Mean**
High School and Below (%)	52.11	53.53
Some College and AA Degree (%)	33.81	25.12
Bachelors Degree and Higher (%)	14.08	21.35
Financial		
Credit Card Debt (000's $s)	5.38	2.79
Student Loan Debt (000's $s)	5.38	1.52
Adverse Events		
Job Loss	4.69	1.78
Health Shock	6.45	3.09
Divorce	4.23	1.46
Ability		
IQ Decile (AFQT)	4.16	4.59
Family Resources		
Inheritances (000's $s)	13.33	16.41
Parent's Schooling (#yrs)	11.19	11.63
Parent's Income (000's of '79 $s)	9.97	11.36
Number of Siblings	4.04	3.88
Household Factors		
Single Male (%)	12.39	20.88
Single Female (%)	29.51	22.35
Married Male (%)	29.97	26.24
Married Female (%)	26.07	26.47
Number Children	1.28	1.16
Homeowner (%)	63.80	66.25
Hispanic (%)	14.08	19.48
Black (%)	35.21	31.15

note1: all financial numbers are 2004 USD unless annotated otherwise
note 2: all adverse events occur in the 2 years prior to '04-'05 or '08-'10

Regression Analysis

A logistic regression is used to estimate the likelihood of declaring bankruptcy. Coefficient estimates and standard errors are provided in Table 2. Odds ratios are provided for those variables that meet the p=.10 threshold.

Results from this logistic regression indicate that student loan balances are related to bankruptcy. Individuals who have attempted college but have not achieved a four-year degree are more likely to file for bankruptcy. For the purposes of this study, these individuals are labeled 'non-completers'. Non-completers that do not have student debt are 31 percent more likely to file for bankruptcy than those with a high school diploma or less education. Non-completers who have student debt are 97 percent more likely to file. College graduates without debt are significantly less likely to declare bankruptcy than those with high school or less education.

Credit card debt is positively related to bankruptcy. All else equal, a $1,000 increase in credit card debt is estimated to result in about two percent more likelihood of declaring bankruptcy.

Table 2: Logistic Regression Results

	Estimate	Stnd Error	Odds Ratio Estimate
Educational Level			
Non-completers (Some College & AA Degree) - Loans	0.6782	0.2858**	1.9700
Non-completers (Some College & AA Degree) - No Loans	0.2762	0.1507*	1.3180
Completers (Bachelors, Masters & PhD Degree) - Loans	0.2688	0.3190	
Completers (Bachelors, Masters & PhD Degree) - No Loans	-0.4506	0.2338*	0.6370
Financial			
Credit Card Debt (000's $s)	0.0192	0.00524***	1.0190
Adverse Events			
Job Loss	1.0913	0.2724***	2.9780
Health Shock	0.6031	0.2526**	1.8280
Divorce	1.0350	0.3285***	2.8150
Ability			
IQ Decile (AFQT)	-0.0436	0.0302	
Family Resources			
Inheritances (000's $s)	0.0000074	0.0006	
Parent's Schooling (#yrs)	-0.0551	0.0227**	0.9460
Parent's Income (000's of '79 $s)	-0.0030	0.0061	
Number of Siblings	-0.0087	0.0245	
Household Factors			
Single Female	0.6950	0.2037***	2.0040
Married Male	0.7073	0.2195***	2.0290
Married Female	0.4540	0.2249**	1.5750
Number Children	0.0436	0.0523	
Homeowner	-0.1108	0.1417	
Hispanic	-0.6428	0.2019***	0.5260
Black	-0.1113	0.1588	
2005 Bankruptcy Legislation			
Post-BAPCA	-0.7277	0.1257***	0.4830

note1: all financial numbers are 2004 USD unless annotated otherwise
note 2: all adverse events occur in the 2 years prior to '04-'05 or '08-'10
note 3: asterisks denote 10, 5, and 1 percentile level of significance

Divorce, job loss, and health shocks occurring in the two year window leading up to bankruptcy are tested. These adverse events are all statistically significant. Those who experience layoff are 197 percent more likely to declare bankruptcy. Households that suffer a health shock significant enough to affect employment are 82 percent more likely to file. Lastly, recently divorced individuals are 181 percent more likely to seek bankruptcy protection.

Only one of the four 'family resource' factors is found to be significant. Parental schooling is negatively related to bankruptcy. Each year of completed parental schooling is associated with a 5 percent reduction in the likelihood of filing for bankruptcy.

Several household factors were tested. Single females and those married are more likely than single males to file for Chapter 7 or Chapter 13 protection. Relative to the non-black, non-Hispanic reference group, Hispanic households are 47 percent less likely to seek bankruptcy protection all else equal.

Conclusion

Student loans are risky. The self-financed nature of higher education has transferred the risk of the college investment to individual consumers. Evidence suggests that many households struggle with loan repayments. This risk is particularly high for those that take on debt but then fail to graduate with a bachelor's degree. 'Non-completers' are almost twice as likely to declare bankruptcy. Failing to complete a four year degree program while taking on debt may result in poor financial health. Although student loan debt cannot be discharged in bankruptcy, education debt may compel some households to seek bankruptcy protection for other debts.

Student debt explanations for bankruptcy appear to complement 'adverse events' and credit card debt hypotheses. Households with leveraged balance sheets are vulnerable to distress. Credit card debt and unsecured education loans expose consumers to elevated risk. Unanticipated events then push many of these leveraged households to file.

Managing human capital investments is increasingly relevant for effective financial counseling and education. As higher education costs continue to grow and more people pursue degrees later in life, making informed choices is increasingly important. The college decision needs to be viewed as a risky investment that has large costs and uncertain payouts. A wise decision can only be made after weighing the costs, benefits and risks. Aptitude and attitude need to be assessed to gauge the likelihood of graduating. The field of study and the school selected should be taken into account. Future employment opportunities need to be realistically evaluated and both direct and foregone costs should be carefully estimated.

References

Agarwal, S., Driscoll, J. C., Gabaix, X. & Laibson, D. (2007). The age of reason: Financial decisions over the lifecycle, NBER Working Paper n. 13191.

Becker, G. S. (2007). Health as human capital: synthesis and extensions. *Oxford Economic Papers, 59(3),* 379-410.

Buckley, F. H. & Brinig, M. F. (1998). The bankruptcy puzzle. *The Journal of Legal Studies, 27,*187-207.

Cunningham, A. F. & Kienzl, G. S. (2011). Delinquency: the untold story of student loan borrowing. Institute for Higher Education Policy, March 2011.

Dick, A. A. & Lehnert, A. (2010). Personal bankruptcy and credit market competition. *The Journal of Finance, 65,* 655-686.

Domowitz, I. & Sartain, R. L. (1999). Determinants of the consumer bankruptcy decision. *The Journal of Finance, 54(1),* 403-420.

Durkin, T. A. (2000). Credit cards: Use and consumer attitudes, 1970 –2000. *Federal Reserve Bulletin, September 2000*, pp. 623–34.

Ellis, D. (1998). The effect of consumer interest rate deregulation on credit card volumes, charge-offs, and the personal bankruptcy rate. Federal Deposit Insurance Company, Bank Trends, No. 98-05.

Fay, S., Hurst, E. & White, M. J. (2002). The household bankruptcy decision. *American Economic Review, 92,* 706–718.

Federal Reserve Bank of New York (FRBNY). August 2012. Quarterly Report on Household Debt and Credit. Retrieved from: http://www.newyorkfed.org/research/national_economy/householdcredit/DistrictReport_Q22012.pdf

Field, K. (2010, July 11). Government Vastly Undercounts Defaults. The Chronicle of Higher Education. Retrieved from: http://chronicle.com/article/Many-More-Students-Are/66223/

Fisher, J., Filer, L. & Lyons, A. (2004). Is the bankruptcy flag binding? Access to credit markets for post-bankruptcy households*. American Law & Economics Association Annual Meetings Paper 28*.

Gropp, R., Scholz, J. K. & White, M. J. (1997). Personal bankruptcy and credit supply and demand. *Quarterly Journal of Economics*, 112(1), 217-251.

Gross, D. B. & Souleles, N. S. (2002). An empirical analysis of personal bankruptcy and delinquency. *Review of Financial Studies,* 15(1), 319-347.

Han, S. & Li, G. (2009). Household borrowing after personal bankruptcy. *Journal of Money, Credit and Banking*, 43(2-3), 491-517.

Keyes, B. (2009). *Three essays on labor and credit markets*. Unpublished doctoral dissertation, University of Michigan, Ann Arbor, MI.

Lewin, T. (2011, April 11). Burden of College Loans on Graduates Grows. *The New York Times.* Retrieved from: http://www.nytimes.com/2011/04/12/education/12college.html?_r=1&emc=eta1
Livshits, I., MacGee, J. & Tertilt, M. (2010). Accounting for the rise in consumer bankruptcies. *American Economic Journal: Macroeconomics*, 2(2), 165-193.
Pilon, M. (2010, February 13). *The $555,000 Student-Loan Burden*. The Wall Street Journal. Retrieved from http://online.wsj.com/article/NA_WSJ_PUB:SB10001424052748703389004575033063806327030.html
Restuccia, D. & Urrutia, C. (2004). Intergenerational persistence of earnings: The role of early and college education. *American Economic Review*, 94(5), 1354-1378.
Sullivan, T. A., Warren, E. & Westbrook, L. (2000). *The Fragile Middle Class: Americans in Debt*. New Haven: Yale University Press.
Sullivan, T. A., Warren, E. & Westbrook, L. (2006). Less stigma or more financial distress: An empirical analysis of the extraordinary increase in bankruptcy filings. *Stanford Law Review*, 59, 213-256.
U.S. Courts website. Bankruptcy Filing Fees - effective November 1, 2011. Retrieved from: http://www.uscourts.gov/FederalCourts/Bankruptcy/BankruptcyResources/BankruptcyFilingFees.aspx
U.S. Department of Commerce, The 2012 Statistical Abstract, *The National Data Book*, Table 776. Bankruptcy Petitions Filed and Pending by Type and Chapter: 1990 to 2010. Retrieved from: http://www.census.gov/compendia/statab/cats/business_enterprise.html
U.S. Department of Labor, Bureau of Labor Statistics, Current Population Survey, *Household Data Annual Averages,* Table 1. Employment status of the civilian noninstitutional population, 1941 to date. Retrieved from: http://www.bls.gov/cps/tables.htm
Vedder, R., Denhart, C., Denhart, M., Matgouranis, C. & Robe, J. (2010). From Wall Street to Wal-Mart: why college graduates are not getting good jobs. Policy paper. The Center for College Affordability and Productivity. Retrieved from: http://www.centerforcollegeaffordability.org/uploads/From_Wall_Street_to_Wal-Mart.pdf
Wang, F. Q. (2007). A second life or same old story once again? A study on households' post-bankruptcy credit card borrowing. Working paper.
Warren, E. & Tyagi, A. W. (2003). *The Two-Income Trap: Why Middle-Class Mothers and Fathers are Going Broke.* New York: Basic Books.
White, M. J. (1987). Personal bankruptcy under the 1978 Bankruptcy Code: An economic analysis. *Indiana Law Journal*, 63(1), 1–53.
White, M. J. (2007). Bankruptcy reform and credit cards. *Journal of Economic Perspectives*, 21(4),175-199.
White, M. J. (2009). Bankruptcy: Past puzzles, recent reforms, and the mortgage crisis. *American Law and Economics Review*, 11(1), 1-23.

The Relationship between Self-Esteem, Financial Stress, Knowledge, and Satisfaction

Racquel H. Tibbetts[54] and Kelley K. Williams, Kansas State University

Key words: *financial satisfaction, financial stress, self-esteem, financial knowledge*

Abstract

The purpose of this study was to explore the relationship that self-esteem, financial stress, and financial knowledge have with financial satisfaction. Demographic, sociodemographic, solvency, financial knowledge, and financial stressors were examined using a sample of convenience that consisted of individuals living in one U.S. Midwestern state. The results indicate that those who reported fewer financial stressors, higher self-esteem, higher net worth, higher income level, lower credit card balances, and less people living in their household, also reported being more financially satisfied.

Introduction

Financial satisfaction, defined as satisfaction with one's present financial situation (Joo & Grable, 2004) is an important construct in the field of financial planning and counseling. Practitioners should have financial satisfaction as an important goal for their clients when providing financial counseling and planning. Financial satisfaction is a particularly important topic for those in a marriage or similar intimate relationship. In an exploratory study by Grable, Britt, and Cantrell (2007) of the role financial satisfaction has on the thought of subsequent divorce, they found that high financial satisfaction was predictive of low marital distress. Financial satisfaction and its relationship with financial stress may also be of particular importance to university administrators, as they have reported that more students drop out of college due to financial distress than from academic failure (Borden, Lee, Serido, & Collins, 2008). Financial stress has also been tied to suicide (Holub, 2002) and reduced mental health status (Roberts, Golding, Towell, & Weinreb, 1999) in some university settings.

The purpose of this study was to explore the relationship that self-esteem, financial stressors, and financial knowledge have with financial satisfaction. Several researchers have explored financial satisfaction and its predictors (e.g., Hira & Mugenda, 1999; Joo & Grable, 2004; Lown & Ju, 1992). Joo & Grable showed evidence that there is a direct effect of education level, financial stress, and financial knowledge on financial satisfaction. Xiao, Sorhaindo, and Garman (2006) found that reduced debt, accompanied by retirement security, tends to reduce financial stress and increase financial satisfaction among consumers who used credit counseling services.

The current study focused on reviewing the determinants of financial satisfaction. A brief review of the literature indicates there are a number of predictors of financial satisfaction. The results of this study tie together such factors as demographic variables, socioeconomic variables, objective measures of debt burden, as well as psychological factors, subjective financial knowledge, and financial stressors, and their level of association with financial satisfaction. The primary research question to be addressed in the present study was whether self-esteem, financial knowledge, and financial stressors influence financial satisfaction when controlling for demographic, and socioeconomic variables, and solvency factors. From this research question in conjunction with previous research results, the following hypotheses were developed:

H1: Higher levels of self-esteem are positively associated with higher levels of financial satisfaction, controlling for certain demographic and socioeconomic factors.
H2: Financial knowledge is positively associated with financial satisfaction, controlling for self-esteem, and certain demographic and socioeconomic factors.
H3: Higher levels of financial stress are negatively associated with financial satisfaction, controlling for financial knowledge, self-esteem, and certain demographic and socioeconomic factors.

[54] Racquel H. Tibbetts, Kansas State University, 18 Aspen Rdg, Glenburn, ME 04401; Phone: 207-262-5713; Fax: 207-945-0611; Email: racquelt@k-state.edu

Literature Review

While the amount of literature on financial satisfaction is relatively large, the amount of research undertaken to understand the determinants of related psychosocial constructs, such as self-esteem, financial knowledge, and financial stressors as potential predictors of financial satisfaction is limited. Prior studies by Grable and Joo (2001) and Hira and Mugenda (1999) have explored the relationship of self-worth (self-esteem), financial beliefs, behaviors, and their relation to financial satisfaction, and found there to be a significant association between these constructs. Financial knowledge has also been linked to financial satisfaction; however research is limited when financial knowledge is linked with financial behaviors and self-esteem.

Self-esteem
Prior research has shown that self-esteem has a strong association with life satisfaction (Diener & Diener, 2009), marital satisfaction (Britt, Grable, Goff, & White, 2008), and financial satisfaction (Grable & Joo, 2001). The beginning point in understanding potential relationships between and among self-esteem, financial knowledge, financial stressors, and financial satisfaction is defining what is meant by self-esteem. Didato (2003) defined self-esteem as "the cluster of complimentary feelings and attitudes you hold about yourself and could mean the difference between a sense of success or failures as a human being." Lowenstein (1994) reported psychosocial factors, such as self-esteem, have been found to play a role in the way an individual perceives and acts in their world. Grable and Joo (2001) stated that self-esteem, or self-worth, is a reflection of self-confidence. They found in their study that individuals with higher levels of self-esteem were more satisfied financially. Britt, et.al (2008) found self-esteem was positively associated with relationship satisfaction. Grable, et.al (2007) found, in their study on financial satisfaction, and thoughts of divorce, that financial satisfaction strongly relates to relationship satisfaction.

Financial Knowledge
Financial knowledge has been widely defined, and researchers are either using a self-evaluation of one's financial knowledge (Joo & Grable, 2004), or an objective measure based on one's aptitude in certain financial domains (Parotta & Johnson, 1998). This study used a self-assessment of financial knowledge. Prior research has found relationships between financial knowledge and financial satisfaction. Grable and Lytton (1998) found that those with higher levels of financial knowledge had higher levels of financial satisfaction. Joo and Grable (2004) used the construct of financial knowledge as one factor relating to financial satisfaction. They found a positive direct effect between financial knowledge and financial satisfaction. Their study also found greater levels of financial knowledge, solvency, and positive financial behaviors related to greater levels of financial satisfaction. On the contrary, Mugenda, Hira, and Fanslow (1990) found a significant negative relationship between financial knowledge and satisfaction with financial status. The literature remains unclear on the effect that financial knowledge has on financial satisfaction.

Financial Stressors
The financial satisfaction literature indicates that a negative relationship between financial stress and financial satisfaction exists. Financial stressors are generally defined as life events that impact a family unit that can produce changes in a family social system (McCubbin & Patterson, 1983). Financial stressors include things such as, obtaining a cash advance on a credit card, asking a friend or family member for a loan, bouncing a check, paying a late fee on a bill, and having no money for emergencies, among other things. Joo and Grable (2004) found that the more financial stressors an individual experiences, the higher their level of financial stress, resulting in lower levels of financial satisfaction. Bailey, Woodiel, Turner, and Young, (1998) found similar results in their study on financial stress and its relationship to financial satisfaction. Williams (1993) also theorized that high levels of financial stress reduce an individual's financial satisfaction.

Method

Data
Data used for this study were obtained from a sample of convenience that consisted of individuals living in one U.S. Midwestern state. The survey assessed the financial attitudes and behaviors of primarily those with low income. The survey instrument queried respondents about (a) financial satisfaction, (b) demographic characteristics, (c)

personality constructs, (d) financial knowledge, (e) financial stressors, (f) self-esteem, (g) solvency, and (h) risk tolerance.

Table 1

Variable responses and characteristics: Descriptive Statistics (N = 232)

Variables	M	SD	Range	α
Financial satisfaction	33.34	12.95	6 - 60	.89
Age	40.52	17.63	18 - 98	
Marital status[a]	.58	.49	0 - 1	
Years of education	15.08	3.37	0 - 24	
Employed full time[b]	.51	.50	0 – 1	
Gender[c]	1.63	.48	1 - 2	
Household size	2.27	1.33	1 - 8	
Race[d]	.84	.37	0 – 1	
Auto loans	$5,849.02	$9,297.54	$0 - $50,000.00	
Credit card debt	$3,461.67	$8,512.02	$0 - $60,000.00	
In debt or break even	7.19	2.95	1 - 10	
Installment debt	$338.48	$1,504.91	$0 - $20,000.00	
Log10 of income	$3.43	$0.33	$3.00 - $4.00	
Monthly housing	$837.20	$855.37	$0 - $7,200.00	
Self-esteem	48.10	7.62	22 – 60	.88
Financial knowledge	6.32	2.09	1 – 10	
Financial stressors	9.56	7.34	0 – 35	.91

[a]Marital status: 0 = *never married, separated, divorced, widowed, or not married but living with significant other*, 1 = *married*. [b]Employed full time: 0 = *self-employed, retired, student, employed part time, homemaker, not employed, or other*, 1 = *emloyed full time*. [c]Gender: 1 = *male*, 2 = *female.* [d]Race: 0 = *Hispanic/Latino, African American, Pacific Islander, Asian, Native American, other* , 1 = *White/European American*.

There were 258 respondents, of which 232 were included in our analysis. Only 232 of the respondents answered all items included in the regression analysis. Sixty-three percent of the sample were female and 37% were male. Just over 58% of respondents were married, and the average size of the household was two (s = 1.33). Only 51% or 119 (s = 0.50) of the respondents worked full-time. Respondents were, on average, 40 years old (s = 17.63); the age of the sample ranged from 18 to 98. Respondents had, on average, 15 years of education (s = 3.37); the range of education was zero to 24 years. Nearly 84% of respondents were white. Monthly housing debt for respondents averaged $837 ($s$ = $855). Respondents held, on average, $3,462 ($s$ = $8,512) in credit card debt, $5,849 ($s$ = $9,298) in auto loan debt, and $338 ($s$ = $1,505) in installment loan debt. The standard deviations of the debt statistics were large relative to their respective means. Several respondents reported $0 credit card debt, auto loan debt, and installment debt. This resulted in the median being $0 for all three. The range of credit card debt, auto loan debt, and installment debt was $60,000, $50,000, and $20,000, respectively. On average, more respondents reported having a net worth versus a net deficit, meaning they believed they were more knowledgeable about personal finances compared to others.

Outcome Variable
For the financial satisfaction assessment, participants were asked to respond with their level of satisfaction to eight statements related to various aspects of their financial situation. The answers were measured on a 10-point Likert-type scale with choices ranging from 1 = *dissatisfied* to 10 = *satisfied*. These aspects included:

(a) Amount of money you have saved;
(b) Amount of debt you have;
(c) Your ability to meet long-term goals;
(d) Your preparedness to meet emergencies;
(e) Your financial management skills;
(f) Your income level;
(g) Amount of money you spend for fun; and
(h) Your overall current financial situation.

A principal component factor analysis, using the first seven of the above financial satisfaction items, indicated that these items were all measuring a similar construct, financial satisfaction. Item eight was excluded as it was, on its own, measuring the same construct. The seventh item, amount of money you spend for fun, was low in comparison to the other items, so it was dropped from the final composite score. The first six items were then summed to provide an overall financial satisfaction score. Cronbach's alpha for this factor was .89. The score for financial satisfaction ranged from 6 to 60, with a mean score of 33.34, and standard deviation of 12.95. Hira and Mugenda (1999) used a similar measure of financial satisfaction in their study on financial behavior and satisfaction.

Independent Variables
A total of 16 independent variables were included in the data analysis, seven of which were demographic variables used as intervening factors. Age, education, and household size were measured at the interval level. Males were coded 1 and women were coded 2. Married, those employed full time, and Whites were coded 1, and 0, otherwise. The debt variables were measured using the actual amount of debt reported. Income was a computed variable calculated using a log 10 transformation of the actual monthly income reported, which provided a more normal distribution of the data. The net worth variable was measured on a scale of 1 to 10, with 1 = *be in serious debt*, 5 = *Break even*, and 10 = *Have money left over.* Respondents were asked if they were to sell all of their major possessions (including their home), and turn all of their investments and other assets into cash, where would they fall on the scale after paying off all debts.

Financial knowledge was assessed with a 1-item scale. Participants were asked to rate how knowledgeable they thought they were about personal finances compared to others. Respondents could choose a score from 1 to 10 with 10 indicating a high level of subjective financial knowledge. A one item self-assessment of one's financial knowledge was also used in the Joo & Grable (2004) study on the determinants of financial satisfaction.

Self-esteem was measured using a 10-item scale. These items came from a scale that Rosenberg originally developed in 1965, which was then later revised by Didato in 2003 (Britt et al., 2008). Answers were measured on a 6-point Likert-type scale with choices ranging from 1 = *strongly disagree* to 6 = *strongly agree*. Some items were reverse coded. Scores for the self-esteem scale were summed and ranged from 22 to 60. Respondents reported an average self-esteem score of 48.10 (s = 7.62). Cronbach's alpha was .88.

Financial stressors was operationalized using responses to 39 life events. . The items included pay advances, worked overtime, been turned down for a loan, filed for bankruptcy, had bills you could not pay, paid late fees, and voted in an election. The items were identified as a way to measure whether a respondent had endured a stressful event during the past year. Respondents were asked to indicate how often they had endured any of these stressful events. Answers were measured on a 4 - point Liker-type scale with choices ranging from 1 = *never* to 4 = *very often*. The data were recoded to 0 = *never*, and 1 = *otherwise*, for use in the regression analysis. The scores were then summed and ranged from 0 to 35. Respondents reported an average financial stress index of 9.56 (s = 7.34). Cronbach's alpha was .91. A similar scale was used by Joo & Grable, (2004).

Data Analysis Method
A hierarchical regression model was used to determine if and how financial satisfaction was impacted by self-esteem, financial knowledge, and financial stressors. Data were analyzed using SPSS 19.0 for Windows. Variables were analyzed for independence, normality, and multicollinearity using correlation analysis and collinearity diagnostics prior to running a multiple linear regression model. No significant issues were found. Diagnostics were reviewed and considered acceptable.

Results

Based on prior research results, the independent variables were combined into five categories that were entered as blocks into the linear regression model. Demographic variables were entered first, then solvency variables, followed by self-esteem, financial knowledge, and finally, financial stressors.

The first block was used to control for age, gender, household size, marital status, years of education, employment status, and ethnicity. The combination of these variables accounted for 21.6% of explained variance in financial satisfaction. All variables, except years of education and employment status, were significantly related to financial satisfaction. Reviewing statistically significant demographic variables in order of importance, with household size being the most important predictor of financial satisfaction ($b = -.34$, $p < .001$), holding other demographic variables constant, accounted for nearly 10% of the variance in financial satisfaction scores in the first model. One standard deviation increase in household size ($s = 1.33$) reduces the financial satisfaction score by .34 points. The older the respondent, the more satisfied they were with their financial situation ($b = .19$, $p < .01$). Age accounted for slightly more than 4% of the variance in financial satisfaction. One standard deviation increase in age ($s = 17.63$) increases the financial satisfaction score by .19 points. Gender accounted for 3.65% of the variance in financial satisfaction scores. Holding other demographic variables constant, women are less financially satisfied than men ($b = -.18$, $p < .01$). Married respondents reported being more financially satisfied than those that were never married, separated, divorced, widowed, or those living with a significant other, but unmarried ($b = .18$, $p < .05$), and accounted for nearly 2.8% of the variance. White respondents reported being more financially satisfied than Hispanic, African American, Pacific Islander, Asian, or Native Americans ($b = .14$, $p < .05$).

The second block accounted for level of credit card debt, auto loan debt, installment debt, monthly housing debt, income, and net worth. These variables explained 30.9% of variance in financial satisfaction. With this additional block, gender and household size continued to be significantly related to financial satisfaction. Of the solvency variables entered in the second block, all were significantly related to financial satisfaction, except for level of installment debt, and monthly housing costs. The net worth variable was the most important predictor in this second model ($b = .40$, $p < .001$), and accounted for 19.1% of the variance in financial satisfaction scores. Those respondents reporting a higher net worth were more financially satisfied. One standard deviation increase in net worth ($s = 2.95$) increases the financial satisfaction score by .40 points. Income made a significant impact on financial satisfaction scores in the second model ($b = .25$, $p < .001$). Those reporting higher income scored significantly higher in financial satisfaction. One's level of credit card debt was significantly negatively associated with financial satisfaction ($b = -.17$, $p < .001$). One's level of auto loan debt was also significantly negatively associated with financial satisfaction ($b = -.12$, $p < .05$).

The third block accounted for the self-esteem scale and accounted for 3.2% of variance in financial satisfaction. Self-esteem was significantly positively associated with financial satisfaction in the third block ($b = .19$, $p < .001$). This positive relationship was also significant in the final regression model ($b = .13$, $p < .05$). With the addition of the self-esteem variable, household size was the only significant demographic factor and accounted for nearly 10% of the variance in financial satisfaction scores in this model. Net worth continued to be the most important factor in predicting financial satisfaction ($b = .40$, $p < .001$), and accounted for nearly 20% of the variance in the outcome. Income and level of credit card debt continued to be important predictors in the third model.

The fourth block was used to account for financial knowledge. Financial knowledge was a subjective measure based on a respondent's perception of their level of financial knowledge compared to others. Financial knowledge was not significantly related to financial satisfaction and the fourth block accounted for only 0.6% of explained variance in financial satisfaction.

The fifth, and final, block of the hierarchical regression analysis accounted for the financial stress index of respondents. This model accounted for 2.2% of explained variance in financial satisfaction and the financial stress index was significantly negatively correlated with financial satisfaction (b = -.20, $p < .001$). In the final model, net worth was the most important predictor of financial satisfaction and accounted for 14.9% of variance in financial satisfaction scores. Net worth accounted for 25% of the total explained variance in financial satisfaction in the analysis. Household size was the second most important factor in predicting financial satisfaction in our final model and accounted for 8.9% of the total explained variance in financial satisfaction. In descending order of importance, financial stress, level of credit card debt, income, and self-esteem accounted for 8.6%, 6.1%, 5%, and 4.7%, respectively, of variance in financial satisfaction scores.

Table 2

Final Model of Hierarchical Regression Analysis for Variables Related to Financial Satisfaction (N = 232)

Variable	*b*	SE *b*	β	t	*Sig.*
Constant	-4.83	8.99			
Household Size	-1.86	0.54	-.19	-3.43	.00
Credit Card Debt	0.00	0.00	-.14	-2.28	.01
Net Worth	1.48	0.24	.34	6.13	.00
Income	6.38	2.51	.16	2.54	.01
Self-esteem	0.21	0.09	.13	2.47	.01
Financial Stressors	-0.35	0.10	-.20	-3.37	.00

Note: $R^2 = .59$ for Step 1 ($p < .001$), $\Delta R^2 = .31$ for Step 2($p < .001$), $\Delta R^2 = .03$ for Step 3($p < .001$), $\Delta R^2 = .01$ for Step 4 ($p > .05$), $\Delta R^2 = .02$ for Step 5 ($p < .001$), F = 18.95.

According to the final regression model results shown in Table 1, the three predictor variables that were significantly negatively associated with financial satisfaction were household size (b = -.19, $p < .001$), level of credit card debt (b = -.14, $p < .01$), and financial stress (b = -.20, $p < .001$). The three predictor variables that were significantly positively associated with financial satisfaction were net worth (b = .34, $p < .001$), income (b = .16, $p < .05$), and self-esteem (b = .13, $p < .05$). These results support our first and third hypotheses. Higher levels of self-esteem are positively associated with higher levels of financial satisfaction, and higher levels of financial stress are negatively associated with financial satisfaction. However, we failed to accept our second hypothesis that financial knowledge is positively associated with financial satisfaction.

Discussion

The findings from this analysis indicate that self-esteem and financial stress have a major impact on one's financial satisfaction, even after controlling for household size, and solvency. This result supports hypothesis one and three, which is consistent with prior research. Contrary to prior research, were the regression results for financial knowledge, which did not have a substantial impact on financial satisfaction, and therefore rejects our second hypothesis. Financial knowledge was not considered to significantly impact financial satisfaction in the fourth or final model once self-esteem and financial stressors were added to the model. On the contrary, financial knowledge was noted as a significant *direct* factor affecting financial satisfaction in a study by Joo and Grable in 2004. These researchers used a path analysis to analyze their data and also included risk tolerance factors.

The final block included all of the independent variables and accounted for 58.5% of the total variance in financial satisfaction. Over half of this impact was accounted for by the second block, which included the debt and income variables. This is an important finding as it supports prior research (e.g., Joo & Grable, 2004; Lown & Ju, 1992; Xiao et al., 2006). Self-esteem was shown to be a significant positive predictor, whereas financial stress was shown to be a significant negative predictor of the outcome variable, financial satisfaction. This finding is in line with the Britt et al. (2008) study that showed the same significant directive associations with relationship satisfaction. Another important finding is the lack of impact that several of the independent variables had on financial satisfaction. Education was not found to significantly impact financial satisfaction in this study, which supports the notion of Joo and Grable (2004), who concluded that education had a positive *indirect* effect on financial satisfaction, rather than a direct influence. On the other hand, Joo and Grable found that household income did not have a direct effect on financial satisfaction, which is inconsistent with findings from this study.

Overall, this study confirmed prior research for two important predictors of financial satisfaction, namely, financial stressors and self-esteem. The contradictory findings for financial knowledge and its lack of significance in predicting financial satisfaction in this study may be due to a few important facts. The sample used in this study was primarily from individuals in a low income range in a Midwestern community in Kansas, whereas the sample used in the Joo and Grable (2004) study was taken from white collar workers from a community in west Texas. In this study, only 51% of the respondents worked full-time. Measurement of the outcome variable, financial satisfaction, also differed between studies. In the Joo and Grable study, financial satisfaction was measured using a 1-item 10-point question to assess respondents' financial satisfaction with their present financial situation. The predictor variable, financial knowledge, was a subjective measurement in both studies. Although financial knowledge was not found to be a significant predictor of this study's measurement of financial satisfaction in this model, there is still a small correlation between these two variables (r = .36, p < .001). Multiple regression analysis allows us to control for other variables. The difference in significance of financial knowledge was also due to the differences in independent variables that were used as intervening variables in the two studies.

Practitioner Implication

This study used a multiple regression analysis method to reveal an exploratory framework of the determinants of financial satisfaction. The data used in this study are from a cross-sectional survey, which limits the use of the findings. The findings only show significant associations between the dependent and independent variables. In order to examine causal relationships, panel data should be used. Therefore, the following implications are only suggestive. The findings are also limited by the nature of the sample and the exploratory nature of the analysis.

Regression results indicate that individuals who report fewer financial stressors, higher self-esteem, higher net worth, higher income level, lower credit card balances, and less people living in their household, report higher financial satisfaction scores. The items that were found to significantly impact financial satisfaction suggest a platform for financial practitioners to focus on when financial satisfaction is the goal.

Practitioners need to focus on why the client is in the financial situation they are in. Financial planners may need to include discussion of financial stressors. Working with clients on reducing their financial stress may lead to the financially satisfied client that most practitioners strive for.

A client's self-esteem may be hindering clients from implementing the recommendations that clients are advised to do. An understanding of the client's self-esteem may allow the practitioner to alter their advice based on the client's situation. Further research would be needed to understand how advice would differ based on varying levels of self-esteem, and if that did in fact increase implementation of recommendations.

Marriage and family therapists and financial counselors can use the findings from this exploratory study as a guide for increasing their client's financial satisfaction. It was noted by Grable et al. (2007) that increased financial satisfaction plays a significant role in improving relationship satisfaction. The findings suggest that integrating financial aspects such as lowering credit card debt, increasing income, and increasing net worth, will have a significant impact on financial satisfaction, which other research has shown can improve relationship satisfaction. Financial counselors can use these findings as a guide to incorporate improvements in self-esteem in addition to financial aspects.

Despite the limitations of this study, the findings show the importance of integrating financial aspects with psychosocial aspects, when focusing on improving financial satisfaction of individuals. Additional research on the determinants of financial satisfaction and the interrelationships between the financial aspects of one's life and their well-being will assist in the improvement of services for the consumers of marriage and family therapists, financial counselors, and financial practitioners.

References

Bailey, W.C., Woodiel, D. K., Turner, J., & Young, J. (1998). The relationship of financial stress to overall stress and satisfaction. *Personal Finances and Worker Productivity, 2*(2), 198-206.

Borden, L. M., Lee, S-A., Serido, J., & Collins, D. (2008). Changing college students' financial knowledge, attitudes, and behavior through seminar participation. *Journal of Family and Economic Issues, 29*, 23-40.

Britt, S., Grable, J. E., Goff, B. S. N., White, M. (2008). The influence of perceived spending behaviors on relationship satisfaction. *Financial Counseling and Planning, 19*(1), 31-44.

Didato, S. V. (2003). The big book of personality tests. New York: Black Dog and Leventhal.

Grable, J. E., Britt, S., & Cantrell, J. (2007). An exploratory study of the role financial satisfaction has on the thought of subsequent divorce. *Family and Consumer Sciences Research Journal, 36*(2), 130-150.

Grable, J. E., & Lytton, R. H. (1998). Investor risk tolerance: Testing the efficacy of demographics as differentiating and classifying factors. *Financial Counseling and Planning, 9*(1), 61-73.

Hira, T. K., & Mugenda, O. M (1999). The relationship between self-worth and financial beliefs, behavior, and satisfaction. *Journal of Family and Consumer Sciences, 91*(4), 76-82.

Holub, T. (2002). *Credit card usage and debt among college and university students.* Retrieved from ERIC Document Reproduction Service No. (ED466106). http://www.eriche.org/digests/2002-1.pdf

Joo, S., & Grable. J. E. (2001). A subsequent study of the relationships between self-worth and financial beliefs, behavior, and satisfaction. *Journal of Family and Consumer Sciences, 93*(5), 25-30.

Joo, S., & Grable, J. E. (2004). An exploratory framework of the determinants of financial satisfaction. *Journal of Family and Economic Issues, 25*(1), 25–50.

Lown, J. M., & Ju, I (1992). A model of credit use and financial satisfaction. *Financial Counseling and Planning, 3*, 105-125.

Lowenstein, L. F. (1994). Marital therapy: The importance of the assessment of the individuals on personality tests. *Counseling Psychology Quarterly, 7*(2), 99-104.

McCubbin, H. I., & Patterson, J. M. (1983). Stress: The family inventory of life events and changes. In E. F. Filsinger (Ed.), *Marriage and Family Assessment* (pp. 253-274). Beverly Hills, CA: Sage.

Mugenda, D. M., Hira, T. K., & Fanslow, A. M. (1990). Assessing the causal relationship among communication, money management practices, satisfaction with financial status, and satisfaction with quality of life. *Lifestyles: Family and Economic Issues, 11*, 343-360.

Parrotta, J. L., & Johnson, P. J. (1998). The impact of financial attitudes and knowledge on financial management and satisfaction of recently married individuals. *Financial Counseling and Planning, 9*(2), 59-75.

Roberts, R., Golding, J., Towell, T., & Weinreb, I. (1999). The effects of students' economic circumstances on British students' mental and physical health. *Journal of American College Health, 48*, 103-109.

Williams, F. L. (1983). Money income, nonmoney income, and satisfaction as perceived adequacy of income. In M. Dunsing (Ed.), *Proceeding of the Symposium on Perceived Economic Well-being* (pp. 106-1250). Urbana, IL: University of Illinois at Urbana.

Xiao, J. J., Sorhaindo, B., & Garman, E. T. (2006). Financial behavior of consumers in credit counseling. *International Journal of Consumer Studies, 30*(2), 108-121.

Financial Ratios and Perceived Household Financial Satisfaction

Scott Garrett[55], Texas Tech University

Abstract
This paper tests the relative strength of three objective measures of financial health (using the solvency, liquidity, and investment asset ratio) in predicting a household's subjective feeling of current financial satisfaction. Using a sample of 6,923 respondents in the 2008 Health and Retirement Study this paper presents evidence of two main findings: 1) the solvency ratio is most strongly associated with financial satisfaction levels based on a cross-sectional design and 2) changes in the investment asset ratio are most strongly associated with changes in financial satisfaction over time.

Key words: *HRS, financial satisfaction, ratios*

Few studies have taken into account both an objective measure of economic well-being measured by financial ratios and a subjective perception of how a household perceives their current economic well-being (Joo & Grable, 2004). Economic well-being refers to one's economic situation in terms of what is required and desired. To be able to attain what one desires leads to a desirable state of economic well-being. To not be able to buy what you cannot live without leads to an intolerable state of economic well-being (Kyrk, 1933). Objective and subjective measures should be considered to provide a comprehensive assessment of overall economic well-being (Hayhoe & Wilhelm, 1998).

Using data from the 2008 psychosocial leave-behind questionnaire of the Health and Retirement Study (HRS), a series of financial ratios (i.e., the solvency, liquidity, and investment asset ratios) is compared to see which ratio best predicts when a respondent subjectively believes he or she is financially satisfied. Previous studies on subjective financial well-being have been conducted with small samples, thus making it difficult to generalize the findings to the population as a whole (Parrotta & Johnson, 1998; Titus, Fanslow, & Hira, 1989). One benefit of the current study is that it uses a larger sample size than has been available in prior studies of subjective economic well-being.

Literature Review
Financial Ratios as a Measurement of Financial Strain
Prior research has identified several financial ratio guidelines that are useful in identifying household financial health issues such as liquidity problems and insolvency (Baek & DeVaney, 2004; DeVaney, 1994; Lyons & Yilmazer, 2005). Since each ratio can capture a different aspect of the financial circumstances of the household, a single ratio may not be comprehensive enough to accurately capture the magnitude to which households are having financial problems (Baek & DeVaney, 2004; Lyons & Yilmazer, 2005). Financial ratios can be used to assess a household's ability to avoid major debt (solvency ratio), maintain adequate cash reserves for emergencies (liquidity ratio), and can show the accumulation of assets towards financial goals (investment assets ratio).

Griffith (1985) published a model suggesting 16 ratios that could be used to evaluate a household's current financial situation. Prather (1990) attempted to establish norms for the 16 ratios and concluded that five ratios were the most useful with the liquidity ratio being one of them. Iwuagwu (1989) further tested the five best ratios (liquidity ratio, current ratio, debt coverage ratio, debt service ratio, and the inflationary hedge ratio) and found that the liquidity ratio was one of two ratios positively correlated with financial security. Lytton, Garman, and Porter (1991) proposed nine ratios including the liquidity, solvency, and investment assets ratios for financial planners and counselors to use. DeVaney (1993) used the nine ratios proposed by Lytton et al. (1991) to examine which ratio best predicted household insolvency using the 1983 and 1986 waves of the Survey of Consumer Finances (SCF). The liquidity ratio was the best predictor of insolvency using logistic regression and the solvency ratio was the best predictor using a classification tree. The solvency and liquidity ratios were both significant predictors of insolvency in the logistic regression. Not meeting the liquidity and solvency ratio guidelines increased the odds of being insolvent by five and three times, respectively, using the 1983 levels to predict insolvency in the 1986 survey.

[55] Scott Garrett, 1352B G Street SE, Washington, DC 20003; Phone: 205-572-1017; Email: scott.garrett@ttu.edu

Research Question

Based on the findings of the previous studies cited in this paper, the following research question is proposed: What household financial ratio (solvency, liquidity, or investment asset) best predicts a person's level of financial satisfaction?

Methods

Data

The analysis of the research question uses the HRS, a nationally representative panel study of Americans age 50 and older. The HRS provides in-depth information on the financial position of older households. This allows for the construction of a series of financial ratios. Beginning in 2004, the HRS added a new feature in the form of a self-administered questionnaire which is left with respondents upon the completion of an in-person core interview. The questionnaires from the 2004, 2006, and 2008 surveys are used in the current study. The 2008 wave of the HRS consists of 17,217 respondents. The population of interest is respondents who answered a question concerning how satisfied they were with their current financial situation. This question is part of the leave-behind questionnaire which only 6,923 people answered. Answers to the 2008 financial satisfaction question are compared against the respondents' answer from either the 2004 or 2006 study (discussed later) in which the same financial satisfaction question is asked. The total number of respondents answering both questions produced a total sample size of 1,711, as seen in Table 4 which is discussed in detail later.

Financial Ratios

The current study follows Kim and Lyons (2008) in constructing three financial ratios: a solvency ratio (total assets/total debts), a liquidity ratio (liquid assets/monthly income) and an investment assets ratio (investment assets/net worth). A value of one is added to any zero values for monthly income, total debts, and net worth to enable the calculation of a ratio. This is necessary because division is not possible if the denominator of a ratio is equal to zero. As in Kim and Lyons (2008), for this study, financial strain is defined as an objective measurement of financial status.

For purposes of the regression analysis, each ratio is broken out into deciles so that a proper comparison between ratios can be made. This approach converts the ratios into decile scores to form a 1-10 score on each one with the top 10% of the sample getting a 10, the next highest 10% getting a 9, and so forth. Table 1 shows the full decile distribution for each of the ten deciles for each of the ratios used. For example, a household with a solvency ratio of 1.40 will be in the second decile and be assigned a score of two.

Table 1 Ranges for each decile, 2008 Health and Retirement Study

Decile	Solvency Ratio (Ranges)	Liquidity Ratio (Ranges)	Investment Asset Ratio (Ranges)
1st	Less than 1.3875	Zero	Zero
2nd	1.3875 to 2.768	0 to .119	Zero
3rd	2.768 to 5.72	.119 to .389	Zero
4th	5.72 to 15	.389 to .822	0 to .0707
5th	15 to 117	.822 to 1.5038	.0707 to .2208
6th	117 to 15,000	1.5038 to 2.603	.2208 to .3984376
7th	15,000 to 140,000	2.603 to 4.403	.3984376 to .5392
8th	140,000 to 360,700	4.403 to 8.315	.5392 to .6756
9th	360,700 to 765,000	8.315 to 18.63	.6756 to .8139
10th	Greater than 765,000	Greater than 18.63	Greater than .8139

A solvency ratio of less than 1.0, a liquidity ratio of less than 2.5, and a investment assets ratio of less than .25 has previously been used to identify respondents who are financially strained (Kim & Lyons, 2008). This ratio identifies respondents who are highly leveraged and are close to being insolvent. Total assets are defined as the sum of financial assets (checking accounts, savings accounts, money market funds, certificates of deposit, mutual funds, stocks, bonds, and individual retirement accounts) and nonfinancial assets (primary residence and other real estate). Total debts are all debts including mortgage debt. A liquidity ratio of less than 2.5 indicates that a household has sufficient liquid assets to cover about 2.5 months of living expenses after a total loss of income, as might result from illness, disability, or unemployment. Liquid assets include checking accounts, savings accounts, and money market funds. The investment assets ratio of less than 0.25 identifies individuals who have less than 25 percent of their net worth in investment assets. For the purpose of this study, investment assets include stocks, bonds, certificates of deposit, individual retirement accounts, real estate, and business or farm equity but not the primary residence or vehicles. Net worth is defined as total assets minus total debts.

Dependent Variable
Financial satisfaction is the dependent variable in this study and is measured with a 5 point Likert-type item found in the leave-behind questionnaire: "*How satisfied are you with your family's current financial situation?"* The responses are: 1=Completely satisfied, 2=Very satisfied, 3=Somewhat satisfied, 4=Not very satisfied, 5=Not at all satisfied.

Independent Variables
The following demographic characteristics are included as controls in the model and are consistently used in previous studies of financial satisfaction (see, Joo & Grable, 2004; Parrota & Johnson, 1998; Titus et al., 1989): age, gender, race/ethnicity, marital status, education, having children and homeownership. Age is coded as a categorical variable with five groups: respondents younger than 55 years old, 55 to 64, 65 to 74, 75 to 84, and 85 and older. Male is coded as one for male respondents and zero for female respondents. Race is separated into three categories: White, Black, and Other. Respondents who are married or live with a partner are compared against single respondents.

Education is coded as a categorical variable with four groups: having less than a high school education, high school graduate, attended some college, and college graduate. Having children is coded as one and not having any children is a zero. Respondents who own their home are compared against renters. Prior studies have shown that being older, female, White, married or living with a partner, more educated, having no children, and owning a home are associated with higher levels of financial satisfaction.

Household income and net worth are reported using the logarithm of these values (except in the descriptive statistics) based on the variable's skewed distribution. Income uses a self-reported measure of annual gross income for the household and is treated as a continuous variable. Net worth is calculated by subtracting total assets minus total liabilities for a household and is also continuous. Respondents who are currently working are coded as one for respondents who are working and zero for those not working. The prior literature has generally shown that having a higher income, more wealth, and current employment all increase financial satisfaction. Finally, health status is ascertained at the individual level with the question: "*Would you say your health is excellent, very good, good, fair, or poor*?" Based on the prior literature, those who have good health attain higher levels of financial satisfaction (Kim & Lyons, 2008).

Results
Description of Sample
In Table 2, there is a noticeable increase in household income and net worth from those reporting the lowest level of financial satisfaction to those reporting the highest level of financial satisfaction. Median household income doubles from a low of around $22,000 for those reporting that they are not at all satisfied with their present financial situation to almost $50,000 for those completely satisfied. Median household net worth increases by a factor of over 12 from $33,750 at the low end of financial satisfaction to almost $460,000 at the highest level of financial satisfaction.

Table 2 Description of households, 2008 Health and Retirement Study

	Present Financial Satisfaction					
	All Responses	Not At All Satisfied	Not Very Satisfied	Somewhat Satisfied	Very Satisfied	Completely Satisfied
Variable	Measurement	Measurement	Measurement	Measurement	Measurement	Measurement
	Mean (Median)	Mean (Median)	Mean (Median)	Mean (Median)	Mean (Median)	Mean (Median)
Household Income	$ 63,202.56	$ 36,237.29	$ 49,350.99	$ 56,750.66	$ 71,557.44	$ 79,216.25
	$ (39,523.00)	$ (22,200.00)	$ (28,838.00)	$ (35,362.00)	$ (47,248.00)	$ (49,480.00)
Household Net Worth	$ 520,939.02	$ 112,330.80	$ 211,104.94	$ 328,984.15	$ 704,294.43	$ 897,922.42
	$ (204,000.00)	$ (33,750.00)	$ (80,950.00)	$ (141,000.00)	$ (347,000.00)	$ (459,000.00)
	Percent	Percent	Percent	Percent	Percent	Percent
Age						
Less than 55	6.37%	10.28%	12.11%	7.03%	4.63%	2.91%
55 - 64	26.60%	42.06%	35.54%	28.88%	23.94%	16.37%
65 - 74	37.25%	33.56%	34.08%	37.27%	39.37%	37.60%
75 - 84	22.06%	10.74%	14.57%	20.18%	22.85%	31.87%
85 and older	7.72%	3.36%	3.70%	6.64%	9.21%	11.25%
Gender						
Male	40.09%	33.11%	35.54%	40.53%	42.97%	40.70%
Female	59.91%	66.89%	64.46%	59.47%	57.03%	59.30%
Race						
White	84.00%	74.94%	76.57%	79.60%	90.13%	90.36%
Black	12.87%	20.36%	20.52%	16.84%	7.36%	6.74%
Other	3.13%	4.70%	2.91%	3.56%	2.51%	2.90%
Married or Living with Partner	65.00%	47.43%	59.75%	63.56%	70.12%	69.34%
Education						
Less than high school	22.99%	30.64%	29.04%	25.63%	18.32%	18.80%
High school diploma	33.99%	34.68%	31.39%	34.59%	33.48%	35.04%
Some college	21.51%	21.03%	25.22%	21.27%	21.37%	19.95%
College degree	21.51%	13.65%	14.35%	18.51%	26.83%	26.21%
Health Status*						
Poor health	7.99%	24.16%	11.77%	7.96%	4.80%	4.85%
Fair health	20.77%	33.11%	30.38%	22.77%	16.30%	13.75%
Good health	32.41%	22.37%	34.53%	34.99%	32.61%	29.99%
Very good health	29.36%	14.54%	18.27%	27.91%	34.19%	36.73%
Excellent health	9.39%	5.82%	4.93%	6.29%	12.05%	14.62%
Have Children	87.49%	86.13%	88.12%	87.82%	87.30%	87.26%
Currently Working	30.29%	33.33%	36.21%	34.20%	29.50%	20.82%
Homeowner	72.27%	53.69%	64.01%	69.89%	78.57%	78.71%
Solvency Ratio < 1	6.94%	24.16%	10.43%	7.87%	2.84%	3.30%
Liquidity Ratio < 2.5	59.42%	85.01%	79.82%	65.32%	48.64%	43.73%
Investment Ratio < .25	52.29%	78.52%	71.41%	59.87%	40.19%	36.25%
	N = 6,932	N = 447	N = 892	N = 2,275	N = 1,834	N = 1,484

*** Variable is missing observations**

People under age 65 constitute 52% of those with the lowest level of financial satisfaction, but only 19% of those with the highest financial satisfaction. The percentage of respondents who are male increases from 33% for not at all financially satisfied to 41% for those who are completely financially satisfied. The percentage of respondents who are White increases from 75% for not at all financially satisfied to 91% for those who are completely satisfied. Blacks constitute 20% of respondents who are not at all financially satisfied, but only 7% of those who are completely satisfied. The percentage of respondents in the Other race category stayed consistent across all categories of financial satisfaction. Homeownership levels increase by 25 percentage points from the lowest level to the highest level of financial satisfaction.

Respondents who are currently married or live with a partner constitute 48% of those with the lowest level of financial satisfaction, but almost 70% of those with the highest level of financial satisfaction. The percentage of respondents having a high school diploma or attending some college stayed consistent across all categories of financial satisfaction. Respondents who did not graduate from high school comprised 31% of those with low financial satisfaction, but only 19% of those with high financial satisfaction. The share of respondents with a college degree was twice as large for those reporting high satisfaction as compared with those with low satisfaction. The percentage of households having children stayed consistent across all categories of financial satisfaction.

Regression Results
The purpose of Table 3 is to see which financial ratio is the best predictor of financial satisfaction based on testing data from one survey year which is called a cross-sectional view. Table 3 presents ordinary least squares linear regression results from the 2008 HRS. In the first specification, all three ratios converted into decile scores are regressed on financial satisfaction with all the ratios being highly significant. The first model factors in the total effect that all three ratios have on financial satisfaction because they are all included in the same regression along with all the independent control variables. However, a change in the decile for the solvency ratio is associated with a larger magnitude of effect on financial satisfaction because it has a higher coefficient compared to the liquidity and investment ratio. As all three ratios have been converted to deciles, the coefficients indicate that increasing the solvency ratio by one decile is associated with a .08 increase in subjective financial satisfaction. This association is nearly twice that of the impact of increasing one of the other ratios by one decile, which yields coefficients of .04 for the liquidity ratio and .02 for the investment asset ratio.

Table 3 Results of linear regression, 2008 Health and Retirement Study

	Coefficient (Standard Error) [R²]	Coefficient (Standard Error) [R²]
Variable	**(1)**	**(2)**
	N=5,719	***N=6,424***
Ratios		
Solvency Ratio	.08411 (.00581)***	.09038 (.00579) [23.49%]***
Liquidity Ratio	.04484 (.00577)***	.05959 (.00547) [20.83%]***
Investments Ratio	.02884 (.00525)***	.02998 (.00509) [19.80%]***
Independent Variables		
Age		
Less than 55	-.58295 (.06401)***	
55 to 64	-.46466 (.04030)***	
65 to 74	-.20878 (.03285)***	
Gender (Male)	-.03540 (.02756)	
Race (White)	.02919 (.03962)	
Married	.04250 (.03241)	
Education (Less than high school)	.04925 (.03479)	
Have Children	-.04716 (.04006)	
Homeowner	.07736 (.03844)*	
Income (Log)	.16404 (.01788)***	
Net Worth (Log)	.04521 (.01275)***	
Currently working	-.07167 (.03388)*	
Health Status (Poor)	-.38071 (.05285)***	
Ratios with full controls	[24.69%]	
Only Independent Variables	[19.37%]	

P<.05;**P<.01,P<.001.**

(1) All ratios with full controls.

(2) Results from regressions with only one ratio, controls not reported but includes full controls.

In the second specification, each ratio converted into a decile score is separately regressed on financial satisfaction with all the ratios being significant but with the solvency ratio again producing the highest coefficient. This specification is included to examine the separate effect that each ratio has on financial satisfaction using all the independent control variables. The solvency ratio also explains the most variance in the dependent variable at .23. A higher variance explained reflects a better accuracy of the prediction. In comparison, the liquidity ratio model explains .21 of the variance in financial satisfaction whereas the investment ratio model explains .20.

The purpose of Table 4 is to see which ratio is the best predictor of financial satisfaction based on testing data from two points in time which is called a longitudinal view. In Table 4 the change in the variables of interest between 2004/06 and 2008 are compared against the change in financial satisfaction over this same time. A fixed effects model comparing two years is used in the current study. Comparing three survey years is not possible because only two respondents answered the financial satisfaction question in all three waves and only twenty answered the same question between the 2006 and 2008 waves. Therefore, the current study mainly compares the difference in 2008 results to 2004 but if the 2004 answer is blank, the 2006 survey is used, if applicable.

Table 4 Results of the change in financial satisfaction using the 2004, 2006, and 2008 waves of the Health and Retirement Study

Variable	Coefficient (Standard Error) [R^2] (1)	Coefficient (Standard Error) [R^2] (2)
	N=1,711	*N=1,711*
Ratios		
Change in Solvency Ratio from (2004 or 2006) to 2008	0.01502 (.00988)	0.02109 (.00975) [12.11%]*
Change in Liquidity Ratio from (2004 or 2006) to 2008	.00279 (.00771)	.00121 (.00768) [11.87%]
Change in Investments Ratio from (2004 or 2006) to 2008	0.03193 (.00835)***	.03360 (.00821) [12.72%]***
Independent Variable Change from (2004 or 2006) to 2008		
Change in health status from (2004 or 2006) to 2008	-.04971 (.02274)*	
Change in education status from (2004 or 2006) to 2008	0.01122 (.01019)	
Change in homeowner status from (2004 or 2006) to 2008	-.00682 (.02411)	
Change in marital status from (2004 or 2006) to 2008	-.00630 (.02179)	
Change in income status from (2004 or 2006) to 2008	2.528927E-7 (2.337408E-7)	
Change in wealth status from (2004 or 2006) to 2008	-6.6664E-10 (8.098278E-9)	
Change in work status from (2004 or 2006) to 2008	-.00774 (.01358)	

P<.05;**P<.01,P<.001.**

(1) All ratios with full controls - Comparing (2004 or 2006) to 2008 with 2004 results as the base year.

(2) Each individual ratio with full controls not reported - Comparing (2004 or 2006) to 2008 with 2004 results as the base year.

Model one compares the change in all three ratios from 2004/06 to 2008 against the change in financial satisfaction during the same period of time. The first and second specification also includes the change in seven independent variables (health status, education, homeowner status, marital status, income, wealth, and work status) from 2004/06 to 2008. Age, race, and gender are not included because respondents will age similarly between the two waves and it is assumed that race and gender will not vary.

The first measure includes changes in the control variables and the change in all three ratios. The first model factors in the total effect that the change in each of the three ratios have on the change in financial satisfaction. The results indicate that the change in the investment asset ratio is significant. In the second specification, the change in each ratio is separately regressed on the change in financial satisfaction with the solvency ratio and the investment asset ratio being significant. This specification is included to examine the separate effect that the change in each ratio has on the change in financial satisfaction while controlling for changes in the control variables listed above. In order to make the amount of change consistent across ratios, each ratio is broken out into deciles. This approach converts the ratios into decile scores to form a 1-10 score on each one so that a proper comparison between ratios can be made. A one decile increase in the investment asset ratio between 2004/06 and 2008 is associated with a .03 increase in financial satisfaction whereas a one decile increase in the solvency ratio between between 2004/06 and 2008 is half this amount at .015. This result is different from Table 3 where on a cross-sectional basis the solvency ratio described the most variance in financial satisfaction. The change in health status is the only significant independent variable in models one and two.

Discussion

The results from this study present evidence of two main findings: 1) the solvency ratio is most strongly associated with financial satisfaction levels based on a cross-sectional design and 2) changes in the investment asset ratio are most strongly associated with changes in financial satisfaction over time. The first finding confirms past academic studies where on a cross-sectional basis, debt was found to have a negative impact on financial satisfaction. In addition, the current findings extend the earlier work by showing that, in the context of a ratio; a debt-related solvency ratio is most strongly associated with financial satisfaction on a cross-sectional basis. Past research, based only on a cross-sectional analysis, may be flawed in that it may overstate the impact of debt changes. While debt can still have a negative association with changes in financial satisfaction in the longitudinal analysis, it does not have the same strength of association as does the investment asset ratio.

While the first finding gives evidence that reducing debt is useful, it is possible that reducing debt is not as effective as focusing on the investment asset ratio. What could cause this? A difference between cross-sectional and longitudinal results may reflect an association without causation. The defining feature of a cross-sectional study is that it provides a snapshot of a population at a single point in time. The main benefit of a cross-sectional design is that it allows researchers to compare many different variables at the same time but the main drawback is that researchers cannot view the same snapshot before or after that single point in time. However, in a longitudinal study, researchers can conduct several observations of the same respondents over a period of time. Also, in a longitudinal analysis, a fixed effects model can be employed. This allows for the control of all the stable characteristics of a person, thereby eliminating potentially large sources of bias.

The results from the cross-sectional design in Table 3 show that people in more debt are less financially satisfied. But changes in the debt ratio did not have a relatively large impact when viewed through the prism of a longitudinal study as seen in Table 4. It may be possible that some unobserved underlying stable personality characteristic causes people to both be financially unhappy and to get into debt. If such a time-invariant third factor is causing both outcomes, then the association would be evident in a cross-sectional study, but not with a longitudinal design. The longitudinal fixed effects design controls for all time-invariant personal characteristics of respondents as it compares respondents to themselves at different times. Thus, these results are consistent with the idea that some time-invariant characteristics, such as a personality trait, result in both financial dissatisfaction and the increased use of debt. To the extent this is the case, then reducing debt would not be as effective at improving financial satisfaction as it would appear to be in a cross sectional analysis.

Implications

While debt is still an important factor in the cross-sectional results, this does not tell the whole story. For a planner to have the greatest effect on their client's financial satisfaction, it appears that the accumulation of financial assets is the best way to relieve client economic pressure. This has to be welcome news for financial planners who concentrate on wealth management and are paid based on assets under management (AUM). The planners who are successful at helping clients attain a higher investment asset ratio should experience a double benefit: overall happier clients which leads to higher retention rates and more fee income for the planner if they are paid based on an AUM model.

In sum, this research provides information to financial planners on the use of common financial ratios as targets in helping clients to achieve greater financial satisfaction. Although debt reduction is often a positive goal, a solvency ratio goal constitutes a more balanced approach. Improvements in the solvency ratio appear strongly positive in the cross-sectional analysis and weakly positive in the longitudinal analysis. Finally, the investment asset ratio may be a surprisingly useful target ratio which, although not as strong in the cross-sectional analysis, was the most important ratio in the longitudinal analysis. The only ratio that did not have an impact on a cross-sectional or longitudinal basis was the liquidity ratio. In answering the main research question, the solvency and the investment asset ratios best predict a person's financial satisfaction.

References

Baek, E., & DeVaney, S. A. (2004). Assessing the baby boomers' financial wellness using financial ratios and a subjective measure. *Family & Consumer Sciences Research Journal*, *32*, 321–348.

DeVaney, S. A. (1993). Change in household financial ratios between 1983 and 1986: Were American households improving their financial status? *Financial Counseling and Planning*, *4*: 31-46.

DeVaney, S. A. (1994). The usefulness of financial ratios as predictors of household insolvency: Two perspectives. *Financial Counseling and Planning*, *5*, 5-24.

Dew, J. (2007). Two Sides of the Same Coin? The Differing Roles of Assets and Consumer Debt in Marriage. *Journal of Family and Economic Issues*, *28*(1), 89-104.

Griffith, R. (1985). Personal financial statement analysis: A modest beginning, in G. Langrehr (Ed.), *Proceedings, Third Annual Conference of the Association of Financial Counseling and Planning Education*: *3*, 123-131.

Hayhoe, C. R., & Wilhelm, M. S. (1998). Modeling perceived economic well-being in a family setting: A gender perspective. *Financial Counseling and Planning, 9*(1), 21–34.

Iwuagwu, V. S. (1989). *Financial ratios and perceived household financial security*. Unpublished Master's Thesis. University of Wisconsin, Madison.

Joo, S., & Grable, J. E. (2004). An Exploratory Framework of the Determinants of Financial Satisfaction. Journal of Family and Economic Issues, *25*(1), 25-50.

Kim. H., & Lyons, A. C. (2008). No Pain, No Strain: Impact of Health on the Financial Security of Older Americans. *Journal of Consumer Affairs*, *42*(1), 9-36.

Kyrk, H. (1933). Economic problems of the family. New York: Harper

Lyons, A.C. & Yilmazer, T. (2005). Health and financial strain: Evidence from the survey of consumer finances. *Southern Economic Journal, 71*(4), 873-890.

Lytton, R. H., Garman, E. T., & Porter, N. M. (1991). How to use financial ratios when advising clients, *Financial Counseling and Planning*, *2*: 3-23.

Parrotta, J. L., & Johnson, P. J. (1998). The impact of financial attitudes and knowledge on financial management and satisfaction of recently married individuals. *Financial Counseling and Planning*, *9*(2), 59-74.

Prather, C.G. (1990). The ratio analysis technique applied to personal financial statements: Development of household norms, *Financial Counseling and Planning*, *1*: 53-69.

Titus, P. M., Fanslow, A. M., & Hira, T. K (1989). Net worth and financial satisfaction as a function of household money managers' competencies. *Home Economics Research Journal*, *17*(4), 309-318.

Financial Risk Tolerance of House-Poor Consumers

Sara Stolberg Berkowicz[56], CFP®, CDFA®, Institute for Personal Financial Planning, PhD program
Kansas State University, Manhattan, Kansas

Abstract
Whether for the good of the consumer or for the lender's benefit, housing ratios are set in stone. Mortgage payments cannot exceed 30% of an applicant's income; maximum rent is calculated according to the same standard. Spending more on housing is considered risky financial behavior. But people who are house-poor may not be more likely to go bankrupt, stack their portfolios with equities, or take out payday loans. Financial planners may be influenced by clients' abnormal spending behaviors, resulting in portfolio recommendations based on incorrect risk tolerance perceptions.

Key words: *risk tolerance, financial planning, consumer behavior*

Introduction
Housing is the largest monthly expense for the average American (USDOL, 2011). Mortgage lenders and rental agencies use the ratio of housing expenditure to monthly income to determine affordability for their applicants (Schwartz & Wilson, 2008). Since 1981, landlords have imposed a threshold of 30% of income toward rent (Schwartz & Wilson). Mortgage borrowers are typically subject to a housing ratio of 28-30% (FHA, 2012). These guidelines might seem arbitrary. If discretionary expenses are eliminated, and necessary expenditures such as transportation, food, and utilities are reduced, the result can be a budget that balances income with expenses. Yet, lenders and landlords are unlikely to approve consumers who would become "house-poor" by spending more than 30% of their income on housing.

Financial risk tolerance "influence[s] a person's willingness to take financial risks in 'everyday money matters'" (Grable, 2000, p. 626). The real estate industry, long focused on housing expense ratios, may perceive that voluntarily becoming house-poor is a sign of high risk tolerance, similar to other financially risky behaviors such as skipping out on the rent or mortgage (Harlow & Brown, 1990). Since financial advisors consider high housing ratios to be a sign of high risk tolerance, they may balance house-poor clients' portfolios inappropriately (Canner, Mankiw, & Weil, 1997; Cirelli, 2003; Korb, 2010). Should landlords, and lenders, and financial planners be concerned? Are house-poor consumers more risk tolerant? The gender, age, marital status, and financial knowledge of borrowers and renters should not make a difference, but other factors that affect credit score could be important. All things being equal, house-poor consumers may have the same risk tolerance profile as their house-rich neighbors.

Theoretical Perspectives
Economists have studied the relationship between risk tolerance and housing affordability, but the topic has hardly been investigated in the financial planning literature. Kullman and Siegel (2005) found that consumers with high housing ratios were more likely to have lower risk tolerance. They created an economic model of a household's portfolio, and varied housing costs and risk tolerance (Kullman & Siegel). The model showed that people with higher housing ratios were less likely to hold stocks and more likely to hold bonds, while households with lower housing costs as compared with their income were more likely to hold stocks than bonds (Kullman & Siegel). Age was a factor in their study; people over age 50 had lower housing costs and had more equities among their assets (Kullman & Siegel). However, those with greater mortgage indebtedness held more risky investments (Kullman & Siegel).

Flavin and Yamashita (2002) also modeled risk tolerance of households and their assets. They theorized that highly risk tolerant people who spend much of their income on housing are maximizing their return, because they are investing little capital in their home and investing the rest in stocks (Flavin & Yamashita). Risk-averse house-poor households invest in the risk-free asset, diverting excess income, if any to reduce the mortgage balance (Flavin & Yamashita). Another finding linked age with risk tolerance, a common association.

[56] Sara Stolberg Berkowicz, 431 Cedar Ct S, Buffalo Grove, IL 60089; Phone: 847-325-5554; Fax: 847-383-5033, Email: cfpphd@ksu.edu

But, when controlling for housing affordability in a large dataset, Yamashita (2001) found that age was not a factor in determining financial risk tolerance. Ameriks and Zeldes (2000) found similar results; ownership of equities was not associated with age. Age and stock ownership are major factors in a financial planner's calculation of a client's risk tolerance (Canner, Mankiw, & Weil, 1997).

In Sweden, Pålsson (1996) found that risk tolerance was affected when the value of one's home was included in the value of an overall portfolio. Adding housing reduced risk tolerance of survey respondents from levels of moderate-to-high to the low-to-very-low levels (Pålsson). Yao and Zhang (2005) later showed that housing substitutes in a portfolio for riskier elements such as stocks. In addition, higher housing ratios are consistent with lower amounts of investable assets; smaller portfolios tend to be less diversified and less likely to contain equities (Yao & Zhang). House-poor residents are less risk tolerant in their findings.

Research Question

Research question: do people with high housing-expense-to-income ratios have higher risk tolerance than people with low to average housing ratios?

H_o: There is no association between risk tolerance and ratio of housing expense to monthly income. In other words, there is no difference in the risk tolerance of people with low housing ratios and those with high housing ratios.

H_a: There is a positive association between risk tolerance and ratio of housing expense to monthly income. So, people with high housing-expense-to-income ratios have higher risk tolerance than people with low or average housing ratios.

Methodology

Research was conducted using the Kansas State University Survey of Consumer Finance Issues. The survey instrument included demographic, financial, and attitudinal questions. Respondents were selected using proportional representational sampling of residents of a Midwestern state (Fernatt et al., 2012). From an initial mailing of 1,000 surveys to water utility customers, 706 surveys were delivered and 259 surveys were returned (Fernatt et al.). The usable return rate was 37% (Fernatt et al.).

Dependent Variable

The outcome measure was the Joo/Grable Financial Risk Tolerance Scale. Created in 2001, the measure includes seven questions designed to uncover respondents' risk tolerance regarding financial issues (Joo & Grable, 2001). The questions are:

1. I would prefer a sure gain of $500 over a 50% chance to gain $1,000 and a 50% chance to gain nothing
2. Investing is too difficult to understand
3. I am more comfortable putting my money in a bank account than in the stock market
4. When I think of the word "risk" the term "loss" comes to mind
5. Making money in stocks and bonds is based on luck
6. In terms of investing, safety is more important than returns
7. The thought of taking a risk is exciting to me

Responses were recorded on a Likert-type scale, ranging from Strongly Disagree (coded as 1) to Strongly Agree (coded as 6) (Grable, Archuleta, & Nazarinia, 2011; Fernatt et al., 2012). The scale has been judged reliable and valid (Grable, Archuleta, & Nazarinia, Fernatt et al.).

Independent Variables

Control Variables. The first group of control variables included typical demographic and knowledge factors known to be associated both with mortgage borrowing practices and risk tolerance: age, gender, financial knowledge, and marital status. Age was measured on an interval level. Gender was coded 1 for male, 2 for female. Financial knowledge was self-evaluated by the respondents, on a stair-step scale. The survey question asked, "How knowledgeable do you think you are about personal finances compared to others?" Answers for the lowest level were coded 1, and for the highest level were coded 10. Marital status was dummy coded 0 for not married (never married, widowed, divorced, or separated) and 1 for married.

The second group of control variables was comprised of measures for financial behavior that affect credit scores: bouncing a check, exceeding a credit card's limit, paying a credit card bill late, falling behind on a utility bill or the rent, and being late in paying the rent. Responses ranged from never (coded 1), sometimes (coded 2), often (coded 3), and very often (coded 4). These variables are also, perhaps not coincidentally, measures of financial distress.
Housing Expense Ratio. This variable was calculated by dividing the respondents' stated monthly housing expense by their stated household income. Then, results were categorized into deciles: those with no housing expense were coded 0, those with a housing expense ratio of .01 to.10 were coded 1, those with a housing expense ratio of .11 to .20 were coded 2, and so on. Those with a housing expense ratio of over .30 were coded 4. There were 37 cases that contained missing data, or the respondents' income or housing cost was \$0 ($N = 221$).

Data Analysis
A hierarchical logistic regression model was performed on the coded data using SPSS. The analysis explored the effect of the housing ratio on financial risk tolerance, controlling first for demographic and knowledge factors, then for risk-related financial behaviors. Correlations and multicollinearity tests between the independent variables showed no multicollinearity issues.

Results

Initially, a correlation between the housing expense ratio and other variables was run , to ensure its applicability. Housing expense ratio was found to be significantly associated with income perception ($p < .001$, $r = -.409$), overall financial satisfaction ($p < .001$, $r = -.326$), net worth ($p < .001$, $r = -.251$), and satisfaction with the amount of money spent on fun ($p < .05$, $r = -.170$). It was not related to household size ($p > .05$, $r = -.026$), maxing out a credit card ($p > .05$, $r = .114$), filing for bankruptcy ($p > .05$, $r = .080$), or having ever received a payday or car title loan ($p > .05$, $r = .076$).

Subsequently, a univariate ANOVA was used to test the model. The independent variables were tested for correlations. Only one covariance issue was detected: falling behind on rent and falling behind on utilities were correlated at a level higher than .500, as would be expected ($r = .613$). This modest level of covariance was deemed acceptable (Steinberg, 2011). Levene's test of homogeneity was insignificant, $F(3, 217) = .971$, $p > .05$. The model contained 10 independent variables with the population exceeding 150 ($N = 221$), so the model had adequate sample size to detect a modest effect.

The first block of the regression analysis contained the control variables that have often been shown to be associated with financial risk tolerance in financial planning research: age, marital status, gender, and financial knowledge (Harlow & Brown, 1990; Sages & Grable, 2010). ; Xiao, 2010). Second, a block of financial stress variables that are thought to be negatively associated with credit scores was entered. The computed and categorized independent variable for housing expense ratio was entered as the third block in the regression.

The demographic factors in the first block showed a mix of effects on financial risk tolerance. Age and marital status were not significantly related to risk tolerance, and had a combined effect of about 1% on the dependent variable ($p > .05$). Financial knowledge and gender explained 13% of the variance in financial risk tolerance in the model. Gender was negatively associated with risk tolerance, meaning that women were less risk tolerant than men, controlling for age, marital status, and financial knowledge. The association between financial knowledge and risk tolerance was positive.

Nearly all of the financial stress variables in the second block were associated with risk tolerance. Bouncing a check ($p < .05$, $r = -.164$), paying credit card bill late ($p < .05$, $r = -.167$), falling behind on utility bills ($p < .001$, $r = -.322$), and falling behind on rent ($p = .001$, $r = -.204$) showed negative correlations. Exceeding the credit limit on a card ($p > .05$, $r = -.089$) was the only insignificant variable in the group.

In the third block, housing expense ratio was evaluated for its effect on financial risk tolerance. The association was shown to be insignificant ($p > .05$). Housing expense as a function of monthly income increased the variance in the model by less than .1%. The study showed that the risk tolerance of those with high housing ratios ($M = 22.62$) are not different from the risk tolerance scores of people with low housing ratios ($M = 23.30$) or those who spent 20-30% of their income on housing ($M = 22.47$ and 22.83, respectively). The effect size of the final model was of moderate size.

Table 1. Regression Results of the Factors Influencing Financial Risk Tolerance

Independent variables	Zero-order correla-tions	R^2 change	*F* change	Block 1 ß	Block 2 ß	Block 3 ß
Block 1		.138***	8.638***			
Age	.016			-.028	-.043	-.047
Gender (1=male, 2=female)	-.251***			-.209***	-.192**	-.191**
Marital status (0=single, 1=married)	.092			.050	.017	.015
Financial knowledge	.306***			.266***	.217***	.217***
Block 2		.058***	3.026***			
Bounced a check	-.164				.041	.045
Exceeded credit limit on a card	-.089				.034	.033
Paid card bill late	-.167				-.039	-.039
Fell behind on utilities	-.322**				-.251**	-.252**
Fell behind on rent	-.204				-.014	-.012
Block 3		.000	.082			-.019
Housing ratio	-.082					

Note: $F(10,220) = 5.116$; overall $R^2 = .196$.
$*p < .05$. $**p < .01$. $***p < .001$.

Discussion

Mortgage underwriting guidelines currently limit housing expense to approximately 30% of a borrower's income (Bankrate, 2012; Investopedia, 2012). The Federal Housing Administration (FHA) is the biggest insurer of mortgages of single- and multi-family family homes in the world (FHA.gov, 2012). Its guideline housing expense to income ratio is 30% (FHA). The Federal Home Loan Mortgage Corporation ("Freddie Mac"), one of the largest providers of mortgage funding in the U.S., calls a 30% housing expense ratio "conservative" and a 36% housing expense ratio "aggressive") (FHLMC, 2012). Landlords impose a similar threshold of 30% of income for housing (Schwartz & Wilson, 2008).

Grable (2000) defined financial risk tolerance as "the maximum amount of uncertainty that someone is willing to accept when making a financial decision (p. 625). High risk tolerance has been associated with greater wealth (Sages & Grable, 2010; Finke & Huston, 2003), better financial management skills (Sages & Grable), and higher income (Grable, 2000). Real estate investors and managers seek to minimize uncertainty in their returns by seeking housing applicants with those financial characteristics (Ding, Quercia, Li, & Ratcliffe, 2011). So, the decision to rent or to lend to applicants who would be spending more than 30% of their income on housing causes lenders and landlords to balance the positive aspects of financial risk tolerance with the potential for negative outcomes.

Government agencies, banks, and landlords are not the only entities worried about high housing expense ratios. Financial planners are taught to be concerned when their clients spend too much of their income on housing (Cirelli, 2003; Korb, 2010). Housing ratios that exceed the 30% guideline may be perceived by financial planners as financially risky behavior, and may cause the planners to believe that their clients have higher risk tolerance (Cordell, 2001). Planners may assume a client has a high propensity for risk due to his/her record of financially risky behavior (Cordell). Further, a financial planner would see living beyond one's means as an indicator of high risk capacity (Cordell; McCarthy, 2009). If the client has high risk propensity and high capacity for risk, then an advisor would assume the client has high risk tolerance.

The misperception can lead to an over-allocation of equities to a portfolio that would be more conservative, given the investor's true risk tolerance. This can be an especially onerous mistake when the client is middle-age or older. Financial planners typically consider a client's age when allocating investments (McCarthy, 2009). As clients approach and enter retirement, planners would normally recommend the portfolio to be more heavily weighted in bonds than stocks (Schooley & Worden, 2003). If the client appears to have greater risk propensity and greater risk capacity than would usually be seen at his/her age, the financial planner might assume the client has greater risk tolerance and maintain an equity-weighted allocation. With a relatively shorter time horizon to recover potential losses, investors in their 50's and beyond can see their accounts decline at an inopportune moment in their life-cycle. Losses may be so devastating they are never made up.

This study replicated one of the findings of other recent studies, that gender and financial knowledge are significant predictors of risk tolerance (Ahmad, Safwan, Ali, & Tabasum, 2011; Faff, Hallahan, & McKenzie, 2011; Gilliam, Chatterjee, & Zhu, 2010). It further showed that people with high housing expense ratios are not more risk tolerant than people with low housing ratios. Controlling for age, gender, marital status, financial knowledge, and several types of credit-risking financial behavior had no effect on the relationship. The three largest predictors of financial risk tolerance in the final model are financial knowledge (approximately 25% of the variance in the model), gender (21% of the variance in risk tolerance), and falling behind on utility bills (19% of the variance).

People who are house-poor were shown to have lower income perception, lower financial satisfaction, lower net worth, and to be less satisfied with the amount of money they spend on fun. Yet they are not any more likely than people who spend less of their income on housing to have taken out a payday loan or a car title loan, maxed out a credit card, or to file for bankruptcy.

This study adds to the existing literature by including a new independent variable, falling behind on utility bills, to the short list of significant predictors of financial risk tolerance. It also shows that house-poor consumers are no more or less risk tolerant than those people that pay less than 30% of their income for their housing. Financial planners should be aware that their clients' housing ratios do not influence reflect their financial risk tolerance.

References

Ahmad, A., Safwan, N., Ali, M., & Tabasum, A. (2011). How demographic characteristics affect the perception of investors about financial risk tolerance. *Interdisciplinary Journal of Contemporary Research In Business, 3*(2), 412-417.

Bankrate.com. (2012). Mortgage Basics – Chapter 1. How much house can you buy. Accessed May 8, 2012: www.bankrate.com/finance/mortgages/how-much-house-can-you-buy--1.aspx.

Canner, N., Mankiw, N. G., & Weil, D. N. (1997). An asset allocation puzzle. *The American Economic Review, 87*(1), 181-191.

Cordell, D. M. (2001). RiskPACK: How to evaluate risk tolerance. *Journal of Financial Planning, 14*(6), 36-40.

Cirelli, M.A. (2003). Top 10 considerations for prudent financial planning. *The CPA Journal, 73*(11), 11-13.

Ding, L., Quercia, R. G., Li, W., & Ratcliffe, J. (2011). Risky borrowers or risky mortgages: Disaggregating effects using propensity score models. *Journal of Real Estate Research, 33*, 245-277.

Faff, R., Hallahan, T., & McKenzie, M. (2011). Women and risk tolerance in an aging world. *International Journal of Accounting and Information Management, 19*(2), 100-117.

Fernatt, F., Stolberg, S., Blue, J. Cupples, S., Rasure, E., & Grable, J.E. (2012). "A risk tolerance paradox: Are payday and car title loan customers more risk tolerant than others?" *International Review of Social Sciences* and Humanities, *3*(2), 214-229.

FHA. (2012). *Debt requirements*. Accessed May 7, 2012: www.fha.com/fha_requirements_debt.cfm.

FHLMC. Homeownership calculators. Accessed May 8, 2012. www.freddiemac.com/homeownership/calculators

Finke, M.S., & Huston, S.J. (2003). The brighter side of financial risk: Financial risk tolerance and wealth. *Journal of Family and Economic Issues: The Bright and Dark Side of Risk*, *24*(3), 233-256.

Gilliam, J., Chatterjee, S., & Zhu, D. (2010). Determinants of risk tolerance in the baby boomer cohort. *Journal of Business & Economics Research, 8*(5), 79-87.

Grable, J. E. (2000). Financial risk tolerance and additional factors that affect risk taking in everyday money matters. *Journal of Business and Psychology, 14*(4), 625-630.

Grable, J. E., Archuleta, K. L., & Nazarinia, R. R., (2011). *Financial planning and counseling scales.* New York: Springer.

Grable, J. E., & Joo, S. (2001). A further examination of financial help-seeking behavior. *Financial Counseling and Planning, 12*(1), 55-66.

Grable, J.E., & Lytton, R. H. (1999). Financial risk tolerance revisited: The development of a risk assessment instrument. *Financial Services Review, 8*, 163–181.

Hanna, S., Waller, W., & Finke, M. (2008). The concept of risk tolerance in personal financial planning. *Journal of*

Personal Finance, 7(1), 96-108.
Harlow, W.V., and Brown, F. Understanding and assessing financial risk tolerance: A biological perspective. (1990). *Financial Analysts Journal, 46*(6), 50-62.
HUD. (2012). FHA history. Accessed May 7, 2012: hud.gov/hudportal/HUD?src=/program_offices/housing/fhahistory
Investopedia. (2012). Housing Expense Ratio. *Dictionary.* Accessed May 8, 2012: www.investopedia.com/terms/h/housing_expense_ratio.asp#axzz1uHv3BZaC.
Korb, B. (2010). Financial Planners: Educating Widows in Personal Financial Planning. *Journal of Financial Counseling and Planning, 21*(2), 3-15,83.
McCarthy, E. (2009). Time for another look at client risk tolerance? *Journal of Financial Planning, 22*(2), 18-24.
Olson, D., & Bley, J. (2008). Asset allocation with differential borrowing and lending rates. *International Review of Economics & Finance, 17*(4), 629-643.
Palsson, A. (1996). Does the degree of relative risk aversion vary with household characteristics? *Journal of Economic Psychology, 17*(6), 771-787.
Sages, R., & Grable, J. (2010). Financial numeracy, net worth, and financial management skills: Client characteristics that differ based on financial risk tolerance. *Journal of Financial Service Professionals, 64*(6), 57-65.
Schooley, D. K., & Worden, D. D. (2003). Generation X: Understanding their risk tolerance and investment behavior. *Journal of Financial Planning, 16*(9), 58-63.
Schwartz, M. & Wilson, E. (2008). Who can afford to live in a home? A look at data from the 2006 American Community Survey. *U.S. Census Bureau.* Accessed May 8, 2012: http://www.census.gov/hhes/www/housing/special-topics/files/who-can-afford.pdf.
Steinberg, W. J. (2011). *Statistics alive!* Thousand Oaks, California: Sage.
U. S. Bureau of Labor. (2011). *Consumer Expenditures – 2010.* Economic News Release. Retrieved from www.bls.gov.news.release/cesan.nr0.htm.
Xiao, J. J., ed. *Handbook of consumer finance research.* New York: Springer.
Yao, R., & Zhang, H. H. (2005). Optimal consumption and portfolio choices with risky housing and borrowing constraints. *The Review of Financial Studies, 18*(1), 197-239.

Financial Sophistication and the Credit Card Debt Puzzle

Laura Ricaldi[57], Texas Tech University, Department of Personal Financial Planning

Abstract

According to the behavioral lifecycle hypothesis, households exhibit puzzling behavior when they have sufficient liquid assets to pay off their credit card balance, but do not. Based on logistic regression analyses of the 2007 SCF, solvent revolving households are more likely to have lower financial sophistication compared to other credit card users. They are less likely to have a college degree, be self-employed, and be over age 55, while they are more likely to have a late payment history, work at least part-time, view credit as good and have a bankruptcy history. There is a negative relationship with household income.

Key words: *Credit Card Debt Puzzle, financial sophistication, financial literacy*

Introduction

Household credit card use has been widespread in the past years. Over 70% of U.S. households own a credit card (Bucks, Kennickell, Mach & Moore, 2009). There are two main groups of credit card users. Those users that pay off their balance at the end of each month, commonly called convenience users, and those who carry a balance from month to month. The households that carry a balance from month to month are called revolving credit card users (Kim & DeVaney, 2001). According to the 2007 SCF, approximately 46% of families carry a balance on their credit cards. Since 2004, the median balance increased by 25% and the mean balance rose 30.4% (Bucks & et al., 2009).

Within the revolving credit card users, there is another group of users who have enough liquid assets to pay the balance of their credit cards but choose not to pay it off. Bi (2005) found that approximately 58% of revolving credit card users have liquid assets in excess of their credit card balance. These users are called solvent revolvers. Previous studies that have investigated this behavior call this the credit card debt puzzle (Laibson, Repetto, & Tobacman, 2001; Haliassos & Reiter, 2005; Bertaut, Haliassos, & Reiter, 2009). Credit cards usually have a high interest rates associated with revolving balances while liquid asset accounts, like checking and money market accounts, typically have low after-tax returns. Given this information, it is irrational or inefficient for a household to maintain a revolving balance.

The purpose of this study is to look at the impact of financial sophistication on solvent revolving credit card users. This study also looks at the behavioral factors that affect the decision to be a solvent revolver. These factors include other human capital factors, precautionary savings motives, time constraint factors, and other behavioral factors.

Literature Review

Several studies attempted to explain the credit card debt puzzle, or solvent revolving credit card use. Gross and Souleles (2002) found that high credit card balances stem from a person's behavior, not liquidity problems. Behavioral factors include human capital, precautionary savings motives and uncertainty, mental accounting, bankruptcy history and credit attitude.

Becker (1964) described human capital as an individual's knowledge, health, skills or values. It is a function of goods, services, time and the individual's current stock of human capital. Human capital is also broken down into two categories, endowed and acquired. Examples of endowed human capital are strength, intelligence and cognitive ability. Examples of acquired human capital are education and financial sophistication. Individuals can improve this type of human capital by obtaining information through a college education or by taking financial courses to improve their ability to understand financial decisions. Financial sophistication gives the household the potential to improve their ability to make better financial decisions. Financially sophisticated are aware of the consequences of their decisions. Haliassos and Reiter (2005) found that in the shopper/accountant model, the shopper is not fully financially sophisticated. Bertaut et al. (2009) suggested that financially sophisticated households would benefit from the advantages of credit cards. The study also found that those households with greater financial sophistication would be more likely to be convenience users of credit cards.

[57] Laura Ricaldi, Texas Tech University, Department of Personal Financial Planning, Box 41210
Lubbock, TX 79409-1210; Phone: 806-742-5050; Email: laura.ricaldi@ttu.edu

Telyukova and Wright (2008) proposed that households would stay solvent revolvers to maintain sufficient liquid assets for uncertain future events. Bi and Hanna (2006) found that there is a positive effect on households that are solvent revolving and precautionary savings motives.

Self-control issues can be described as issues with immediate consumption or by postponing action. Previous research showed that there is a debt puzzle where consumers' behaviors are not consistent with the life-cycle hypothesis (Laibson & et al., 2001). These households have hyperbolic discount preferences where they are patient when saving for retirement, but are impatient when using credit cards. Angeletos, Laibson, Repetto, Tobacman, and Wineberg (2001) found that households with hyperbolic discount functions tend to have their assets in illiquid form as a way to control their spending. Another study showed that in the accountant/shopper household, the accountant would choose not to pay off the credit card balance in order to impose control over the shopper (Bertaut et al., 2009). Therefore, those households with the hyperbolic discount function should not be solvent revolvers. Hyperbolic discount functions also explain why households postpone action or procrastinate on making decisions.

Households divide assets, expenditures and income into different categories or mental accounts. An economist would state that these accounts are substitutable, but they are not (Thaler, 1999). The household views the mental accounts, either assets or expenses, as different things and marginal propensity to consume from these accounts are different. Since households have mental accounts, they will not view accounts used for savings motives to pay off credit card balances since these accounts are not substitutable. Households hold assets in different physical bank accounts since they believe the assets are non-fungible.

Other studies have identified other behavioral factors that affect solvent revolving credit card use. Credit attitude and bankruptcy history are often considered when households exhibit the credit card debt puzzle. First, Chien and DeVaney (2001) found that a positive credit attitude was related to a higher credit card balance. Rutherford and DeVaney (2009) found that those households who view credit as good are less likely to be convenience users. Next, bankruptcy history has also been shown to be a factor for the credit card debt puzzle. Lehnert and Maki (2001) evaluated the bankruptcy exemption levels for each state. They found a higher prevalence of solvent revolvers in the states that had a higher level of exemption.

Framework and Concepts

Other studies evaluate how the credit card debt puzzle and the relevant behavioral factors are related. To find how behavioral factors, like financial sophistication, will influence the likelihood of being a solvent revolver, this study uses the behavioral life-cycle hypothesis and human capital theory.

Like the life-cycle hypothesis, the behavioral life-cycle hypothesis (Shefrin & Thaler, 1988) suggests that in order to maximize utility, a household will shift resources in periods where the marginal utility of consumption is relatively low to periods where the marginal utility of consumption is relatively high. For example, when households save during the working years for consumption during retirement years. Unlike the traditional life-cycle hypothesis, the behavioral life-cycle hypothesis posits that households have a dual preference framework where they are both planners (long-term) and doers (short-term). The planner preference is when households make rational decisions regarding when to shift resources to maximize utility. The planner focuses on long-term decisions to maximize utility. The doer preference, or short-term preference, is when households succumb to self-control, mental accounting, and framing behaviors. These three behavioral factors, self-control, mental accounting, and framing, are what make the behavioral life-cycle hypothesis different from other life-cycle models.

Self-control refers to the household's temptation to make immediate consumption decisions, rather than saving for future consumption. There is discomfort for the doer associated with postponing current consumption; therefore, households will use saving devices and rules of thumb to deal with self-control issues. These are types of external rules households use to plan for future consumption. Households also use internal rules, like refusing to borrow for current consumption, to maintain self-control.

Mental accounting refers to placing wealth into different non-substitutable accounts. The typical breakdown of mental accounts is current income, current assets, and future income (Shefrin & Thaler, 1988). Households use mental accounting to restrict the doer from bringing future resources into the current period. The way a household frames the different mental accounts determines the temptation to spend from each account. Each account has a different level of temptation associated with it. The marginal propensity to consume from the current income account is much higher than the marginal propensity to consume from the future income account. Temptation plays an important role in the household's decision to spend or save. By carrying a credit card balance, the doer is bringing consumption into the current period. The households that are solvent (i.e., households who have enough liquid assets to pay off their balance but do not) are not displaying the planner behavior, but are displaying the doer behavior. In contrast, convenience users are keeping future resources in future periods by paying off the balance while still benefiting from the advantages of using a credit card.

In addition to the behavioral life-cycle hypothesis, human capital theory also plays a part in solvent revolving credit card use. Human capital is an individual's knowledge, health, skills or values. It is often described as a function of goods, services, time and the individual's current stock of human capital. Although there are two types of human capital, this paper focuses on acquired human capital, like education and financial sophistication rather than endowed human capital. A household's level of human capital impacts its ability to make efficient financial decisions. Those with a higher level of financial human capital (i.e., financial sophistication) have the potential to improve the ability to make effective and efficient financial decisions.

Based on the theoretical framework, the concepts developed for this paper include human capital, precautionary savings motives, time constraint factors, and other behavioral factors. The concepts serve as control factors to help explain why households display puzzling behavior that does not maximize utility. It is hypothesized that solvent credit card revolvers will be less financially sophisticated than convenience users.

Method

Data and Sample

The data used were from the 2007 Survey of Consumer Finances (SCF), a triennial survey, which is sponsored by the Federal Reserve Board and collected by the National Organization for Research at the University of Chicago. The SCF collects detailed information on the finances of U.S. households. The 2007 SCF public data set contains 4,418 households. Since this study only analyzes those households that own a credit card, the sample is limited to 3,417 observations. The 2007 SCF contains five implicates to deal with missing and incomplete data; only the first implicate was used in this study.

Dependent Variable

The dependent variable was constructed by categorizing credit card users into one of three categories. Table 1 shows the measurement of the dependent variable. First, solvent credit card users have liquid assets greater than or equal to the balance still owed on their main credit card after the last payment was made to the account. The Federal Reserve Board definition of total liquid assets used from the net worth code. Next, insolvent credit card users have liquid assets less than the balance still owed on their main credit card after the last payment was made to the account. Third, convenience users do not have an outstanding balance on their main credit card.

Independent Variables

Based on the theoretical framework, four concepts were identified: human capital, precautionary savings motives, time constraint factors, and other behavioral factors. Independent variables operationalized these concepts. The measurement of the independent variables is presented in Table 1.

Table 1: Coding of Variables
Source: 2007 Survey of Consumer Finances.

Variable	Measurement
Dependent Variables	
Solvent Revolver	1 if yes, 0 otherwise
Insolvent Revolver	1 if yes, 0 otherwise
Convenience User	1 if yes, 0 otherwise
Independent Variables	
Human Capital	
Financial Sophistication (X3913, X3014, X414, X6525)	
Quintile 1(most sophisticated) (reference group)	1 if yes, 0 otherwise
Quintile 2	1 if yes, 0 otherwise
Quintile 3	1 if yes, 0 otherwise
Quintile 4	1 if yes, 0 otherwise
Quintile 5 (least sophisticated)	1 if yes, 0 otherwise
Education (X5901, X5902, X5904)	
Less than high school	1 if yes, 0 otherwise
High school graduate (reference group)	1 if yes, 0 otherwise
Some college	1 if yes, 0 otherwise
College degree	1 if yes, 0 otherwise
Precautionary Savings Motives (Uncertainty)	
Saving for Emergencies (X3006, X3007, X7513, X6514, X7515, X6848, X7187)	1 if yes, 0 otherwise
Saving for Unemployment (X3006, X3007, X7513, X6514, X7515, X6848, X7364, X7586)	1 if yes, 0 otherwise
Saving for Illness (X3006, X3007, X7513, X6514, X7515, X6848, X6030, X6124)	1 if yes, 0 otherwise
Ability to borrow from friends/relatives (X6443)	1 if yes, 0 otherwise
Self Employed (X4106, X4706)	1 if yes, 0 otherwise
Time Constraint Factors	
Age (X14)	
Under 35 (reference group)	1 if yes, 0 otherwise
35 to 55	1 if yes, 0 otherwise
Over 55	1 if yes, 0 otherwise
Number of children (X108, X114, X120, X126, X132, X202, X208, X214, X220)	Continuous
Payment History (X3004)	
On time/No payment (reference group)	1 if yes, 0 otherwise
Behind	1 if yes, 0 otherwise
Number of hours worked in a week (X4110)	
Not working	1 if yes, 0 otherwise
Working less than full time (1 to 39 hours)	1 if yes, 0 otherwise
Working full time (≤40 hours)	1 if yes, 0 otherwise
Other Behavioral Control Factors	
Number of Liquid accounts (X3504, X3728)	Continuous
Credit attitude (X401)	
Good	1 if yes, 0 otherwise
Ambivalent (reference group)	1 if yes, 0 otherwise
Bad	1 if yes, 0 otherwise
Bankruptcy history (X6772)	1 if yes, 0 otherwise
Income/$10,000 (X5729)	Continuous

Human Capital.

The human capital concept explains the household's potential to make effective decisions. Households that do not have a strong base in financial human capital (i.e., financial sophistication) tend to make suboptimal financial decisions (Bertaut et al., 2009). Since the purpose of this study is to evaluate the financial sophistication of solvent revolvers, this concept is the main focus. The human capital concept was measured by two independent variables, financial sophistication and education. The variables that make up this concept represent why the household makes suboptimal decisions and does not pay off their credit card balance even though the household has the resources to do so.

Huston, Finke, and Smith (2011) developed a financial sophistication score based on a factor analysis of the SCF. The score includes four variables: own stock (within or outside of tax sheltered accounts), willing to accept at least some investment risk, does not revolve more than 50% of credit card limit, and the household's level of understanding of personal finance. The score is broken into five quintiles to see the magnitude between the groups of credit card users. Quintile 1 is the most sophisticated while Quintile 5 is the least sophisticated. The most sophisticated quintile (#1) was omitted for the regression analyses since the study is comparing all other groups to the most sophisticated. The second variable included in the human capital concept is the level of education for the head of household. The level of education was categorized as: less than high school, high school degree, some college, and college degree. The high school degree variable was the reference group for the regression analyses.

Precautionary Savings Motives.

The precautionary savings motives concept helps control for various savings motives due to uncertainty. With the behavioral life-cycle hypothesis, households do not view mental accounts as substitutable. Households do not tend to use emergency savings accounts to pay credit card balances if they are not in an emergency situation. The variables that make up this concept represent why the household will maintain liquid assets in excess of their credit card balance and maintain their status as a solvent revolver.

The concept of precautionary savings motives was measured by five independent variables. The first variable, saving for emergencies, was constructed by combining two variables: if the household indicated they had a savings motive for emergencies or other unexpected needs and if they stated a positive amount for a subjective emergency fund. The variable was coded as 1 if the household had a motive to save for emergencies and 0 otherwise. The second variable, saving for unemployment, was constructed by combining two variables: if the household stated they had a savings motive for unemployment and they expect their future income will decrease in comparison with prices in the next year. The variable was coded as 1 if the household had a motive to save for unemployment and 0 otherwise. The third variable, saving for illness, was constructed by combining two variables: if the household stated they had a savings motive for in case of illness or future medical expenses and they have a poor health status. The variable was coded as 1 if the household had a motive to save for illness and 0 otherwise. The fourth variable is the household's ability to borrow $3,000 from friends or relatives in an emergency. The last variable was if either the head of household or the spouse is self-employed.

Time Constraint Factors.

The time constraint factors concept is included since households have limited time to make financial decisions. Households also put off making complex financial decision. Time constrained households will procrastinate on paying off the balance on their credit cards. The variables that make up this concept represent the time constraints a household encounters that retain the household's status as a solvent revolver.

The time constraint factors concept was comprised of age, number of children, past payment history, and number of hours worked per week. First, age was coded categorically as under 35, between 35 and 55, and over 55. The age category over 55 is the reference group for the regression analyses. Second, the number of children was a coded as a continuous variable. The third variable is the past payment history of all loans, mortgages and credit cards made during the past year. The variable was coded as 1 for those households who made payments on schedule or had no payments and 0 for those who were behind or missed payments. The on time/no payments category was the reference group for the regression analyses. The last variable for this concept is the number of hours worked in a week. The variable was coded as a categorical variable with 0 hours as not working, 1 to 39 hours a week as working less than full time, and greater than or equal to 40 hours per week as working full time.

Other Behavioral Control Factors.
The behavioral factors concept is included since households make decisions based on behavioral biases. Past literature shows that households maintain solvent revolving due to mental accounting, credit attitude, and bankruptcy history. Household characteristics must be established to control for other behavioral factors. The variables that make up this concept represent why the household will maintain liquid assets in excess of their credit card balance and maintain their status as a solvent revolver.

The concept was measured using number of liquid accounts, credit attitude, bankruptcy history, and income. Number of liquid accounts was a coded as a continuous variable that represents a household's propensity to use mental accounting. Next, the household's credit attitude was measured by their feelings on using credit. The variable was coded as good if the household feels credit is a good idea, ambivalent if the household feels credit is good in some ways and bad in others, and credit is bad if they feel credit is a bad idea. The ambivalent credit attitude group was the reference group for the regression analyses. Bankruptcy history was coded 1 if the household has ever filed for a bankruptcy, or 0 if they have not filed for bankruptcy. Last, household income is a continuous variable. Income is scaled by $10,000 to see the magnitude and its effect in each of the regressions.

Analysis of Data
Descriptive statistics were conducted to look at the characteristics of households. To generalize the findings back to the U.S. population, the descriptive statistics were weighted using a weight variable provided by the Federal Reserve (Lindamood, Hanna & Bi, 2007). Since the dependent variables are binary, logistic regression was used to predict the likelihood of the dependent variable occurring given the set of independent variables. Odds ratios were used to compare the magnitude of the effect that each independent variable had on the dependent variable.

Three logistic regressions were run to establish if there are differences between several combinations of the dependent variable groups. For the first regression, the dependent variable was coded as 1 if the household is a revolving credit card user and 0 if the household is a convenience user. This regression was run to compare the differences between all revolvers and convenience users of credit cards. It is important to distinguish the difference between the two general groups of credit card users before breaking down the revolving group into a specific type of revolvers.

Next, it is important to evaluate the differences between the two specific types of revolving credit card users. For the second logistic regression, the dependent variable was coded as 1 if the household is a solvent revolving user and 0 if the household is an insolvent revolving user.

For the third logistic regression, the dependent variable was coded as 1 if the household is a solvent revolving user and 0 if the household is a convenience user. It is important to establish the differences between these two groups to explain why households remain solvent revolvers. This regression was run because the solvent revolving user has the ability to be a convenience user, but choose not to.

Results

Descriptive Statistics
Since the descriptive statistics are weighted, the reported percentages, means, and standard errors represent all U.S. households. Table 2 shows the descriptive statistics.

Table 2: Descriptive Statistics for solvent revolvers, insolvent revolvers and convenience users of credit cards. (Mean (standard error) for continuous variables; column percent's for categorical variables) (n = 3,417)

Source: 2007 Survey of Consumer Finances. Statistics derived from weighted analysis of one implicate.

	Solvent Revolver (n=794)	Insolvent Revolver (n=702)	Convenience User (n=1921)
Population Percent	29.36	28.91	41.73
Human Capital			
Financial Sophistication			
Quintile 1 (most sophisticated)	18.35	7.98	29.48
Quintile 2	21.41	11.99	24.56
Quintile 3	18.14	27.40	16.19
Quintile 4	22.54	26.94	13.37
Quintile 5 (least sophisticated)	19.56	25.70	16.41
Education			
Less than high school	6.17	8.45	7.00
High school graduate	33.08	34.23	25.44
Some college	19.35	21.09	13.88
College degree	41.40	36.23	53.68
Precautionary Savings Motives (Uncertainty)			
Saving for Emergencies	32.15	31.71	29.32
Saving for Unemployment	2.60	2.34	1.62
Saving for Illness	4.55	6.04	6.03
Ability to borrow from friends/relatives	22.85	33.24	21.29
Self Employed	17.79	11.64	15.77
Time Constraint Factors			
Age			
Under 35	20.47	23.78	12.71
35 to 55	49.53	49.84	35.52
Over 55	30.00	26.38	51.78
Number of Children	0.9285 (0.0421)	0.9059 (0.0418)	0.5922 (0.0219)
Payment History			
On time/ No payment	72.15	65.87	94.76
Behind	27.85	34.13	5.24
Number of hours worked in a week	-	-	-
Not working	18.00	18.54	37.51
Working less than full time (1-39 hrs)	9.62	11.75	10.46
Working full time (≤40 hours)	72.38	69.71	52.03
Other Behavioral Control Factors			
Number of Liquid Accounts	0.7361 (0.0157)	0.4667 (0.0188)	0.6466 (0.0109)
Credit attitude			
Good	34.45	31.48	22.80
Ambivalent	36.88	38.50	39.62
Bad	28.67	30.02	37.59
Bankruptcy history	12.60	18.10	4.26
Income	\$86,273.82 (\$5,575.25)	\$62,436.69 (\$2,417.28)	\$138,914.90 (\$13,826.49)

Solvent Revolvers.
Overall 29.36% of the population is considered a solvent revolver. About 39% of the respondents are in the top two quintiles of financial sophistication. Over 50% of the respondents had a high school education, and about 40% have a college degree. About one third (32.15%) of the respondents have a precautionary savings motive for emergencies. About 23% are able to borrow from friends and relatives during an emergency and 17.79% of the respondents are self-employed. Approximately half of the respondents (49.53%) are between the age of 35 and 55. The average number of children reported was 0.9285 per household. The majority (72.15%) of the respondents reported paying their bills on time or do not have payments. The majority of the households (72.38%) work full time. The average number of liquid accounts is 0.7361. Approximately one third of the respondents reported credit was good (34.45%) and about one third reported credit was bad (28.67%). About 12.6% of the respondents reported filing for bankruptcy. The average income for solvent revolvers was $86,273.

Insolvent Revolvers.
Overall 28.91% of the population is considered an insolvent revolver. About 20% of the respondents are in the top two quintiles of financial sophistication. About 55% of the respondents had a high school education, and about 36% have a college degree. About one third (31.71%) of the respondents have a precautionary savings motive for emergencies. About 33% are able to borrow from friends and relatives during an emergency and 11.64% of the respondents are self-employed. Approximately half of the respondents (49.84%) are between the age of 35 and 55. The average number of children was 0.9059. About 65% of the respondents reported paying their bills on time or do not have payments. The majority of households (69.71%) work full time. The average number of liquid accounts is 0.4667. Approximately one third of the respondents reported credit was good (31.48%) and about one third reported credit was bad (30.02%). About 18% of the respondents reported filing for bankruptcy. The average income for insolvent revolvers was $62,436.

*Convenience Users***.**
Overall 41.73% of the population is considered a convenience user. About 54% of the respondents are in the top two quintiles of financial sophistication. About 40% of the respondents had at leas a high school education, and about 53% have a college degree. Less than 30% of the respondents have a precautionary savings motive for emergencies. About 21% are able to borrow from friends and relatives during an emergency and 15.77% of the respondents are self-employed. Approximately one third of the respondents (35.52%) are between the age of 35 and 55 with over 50% over age 55. The average number of children in the household was 0.5922. The vast majority (94.76%) of the respondents reported paying their bills on time or do not have payments. About half (51.78%) of the households work full time with about 35% working less than full time. The average number of liquid accounts is 0.6466. Approximately 22% of the respondents reported credit was good, about 37% reported credit was bad, and about 39% reported credit was ambivalent. About 4% of the respondents reported filing for bankruptcy. The average income for convenience users was $138,914.

Logistic Regression: All Revolvers Compared to Convenience Users
The results for the logistic regression to compare all revolvers to convenience users of credit cards are presented in Table 3. This regression distinguished the difference between the two general groups of credit card users before breaking down the revolving group into a specific type of revolvers.

Table 3: Logistic regression of the likelihood of being a revolving user compared to a convenience user in the 2007 SCF with at least one credit card (n=3,417)
Source: 2007 Survey of Consumer Finances. Statistics derived from an unweighted analysis of one implicate. Bolded values are significant at the 0.05 level.

	Parameter Estimate	p	Odds Ratio
Intercept	**-0.9081**	**0.0001**	
Human Capital			
Financial Sophistication			
Quintile 2	0.1227	0.2974	1.1310
Quintile 3	**1.0891**	**<.0001**	2.9720
Quintile 4	**1.1093**	**<.0001**	3.0320
Quintile 5	**0.9963**	**<.0001**	2.7080
Education			
Less than high school	-0.1376	0.5154	0.8710
Some college	-0.0445	0.7574	0.9560
College degree	**-0.5039**	**<.0001**	0.6040
Precautionary Savings Motives (Uncertainty)			
Saving for Emergencies	0.1132	0.2224	1.1200
Saving for Unemployment	-0.1409	0.6757	0.8690
Saving for Illness	-0.1964	0.3259	0.8220
Ability to borrow from friends/relatives	0.0596	0.5911	1.0610
Self Employed	**-0.3841**	**0.0003**	0.6810
Time Constraint Factors			
Age			
35 to 55	-0.1471	0.3037	0.8630
Over 55	**-0.7663**	**<.0001**	0.4650
Number of children	0.0820	0.0515	1.0850
Payment History			
Behind	**1.8361**	**<.0001**	6.2720
Number of hours worked in a week			
Working less than full time (1 to 39 hours)	**0.6165**	**0.0002**	1.8530
Working full time (≤40 hours)	**1.0820**	**<.0001**	2.9510
Other Behavioral Control Factors			
Number of Liquid Accounts	0.0415	0.6567	1.0420
Credit attitude			
Good	**0.3937**	**0.0002**	1.4830
Bad	**-0.3516**	**0.0006**	0.7040
Bankruptcy history	**0.8598**	**<.0001**	2.3630
Income/$10,000	**-0.0068**	**<.0001**	0.9930

Most of the human capital variables were significantly related to the likelihood of being a revolving user. Compared to the group with the highest financial sophistication, those in quintile 3 were 197.2% more likely to be a revolver, those in quintile 4 were 203.2% more likely to be a revolver, and those in the least sophisticated quintile were

170.8% more likely to be a revolver. Compared to the high school graduates group, those who have a college degree were 39.6% less likely to be a revolving user of credit. Households that are self-employed are 31.9% less likely to be a revolving credit card user.

Several time constraint variables were significantly related to the likelihood of a household being a revolver. Compared to those respondents under 35, those over age 55 were 53.5% less likely to be a revolving user. The households who have been behind on payments were 527.2% more likely to be a convenience user of credit cards. Compare to those households that do not work, the households that work less than full time are 85.3% more likely to be a revolver. Those households that work full time or more are 195.1% more likely to be a revolver.

Most of the behavioral variables were significantly related to the likelihood of being a revolving user of credit. Compared to the group who viewed credit as ambivalent, the respondents who view credit as good were 48.3% more likely to be a revolving user. Conversely, those who view credit as bad were 29.6% less likely to be a revolver. The households who reported filing for bankruptcy in the past were 136.3% more likely to be a revolving user. For every $10,000 increase in income, households were 0.7% less likely to be revolving users of credit cards.

Logistic Regression: Solvent Revolvers Compared to Insolvent Revolvers
The results for the logistic regression for solvent revolvers compared to insolvent revolvers of credit cards are presented in Table 4. After comparing the general groups of credit card users, it is key to evaluate the differences between the two specific types of revolving credit card users, solvent and insolvent revolvers.

Only the financial sophistication quintiles were significantly related to the likelihood of being a solvent revolver. Compared to the group with the highest financial sophistication, those in quintile 3 were 69.3% less likely to be a solvent revolver, those in quintile 4 were 53.1% less likely to be a solvent revolver, and those in the least sophisticated quintile were 53.9% less likely to be a solvent revolver. The household's ability to borrow from friends or relatives makes them 25.8% less likely to be a solvent revolving user of credit. Also, a household that is self-employed is 36.2% more likely to be a solvent revolver.

Age was the only variable that was significantly related to being a solvent revolving user of credit. Those households over age 55 were 52.8% more likely to be a solvent revolver. For every one increase in liquid accounts the household was 205.5% more likely to be a solvent revolver. Also, for every $10,000 increase in income, households were 0.6% more likely to be solvent revolving user of credit cards.

Logistic Regression: Solvent Revolvers Compared to Convenience Users
The results for the logistic regression for solvent revolving users of credit cards compare to convenience users are presented in Table 5. Since the solvent revolver has the ability to be a convenience user, it is important to distinguish the differences between the two groups.

Table 4: Logistic regression of the likelihood of being an solvent revolving user compared to an insolvent revolving user in the 2007 SCF with at least one credit card (n=1,496)
Source: 2007 Survey of Consumer Finances. Statistics derived from an unweighted analysis of one implicate. Bolded values are significant at the 0.05 level.

	Parameter Estimate	p	Odds Ratio
Intercept	-0.0614	0.8423	
Human Capital			
Financial Sophistication			
Quintile 2	-0.0574	0.7766	0.9440
Quintile 3	**-1.1821**	**<.0001**	0.3070
Quintile 4	**-0.7582**	**0.0001**	0.4690
Quintile 5	**-0.7737**	**0.0003**	0.4610
Education			
Less than high school	-0.2741	0.2611	0.7600
Some college	-0.0282	0.8656	0.9720
College degree	-0.0887	0.5314	0.9150
Precautionary Savings Motives (Uncertainty)			
Saving for Emergencies	-0.0705	0.5658	0.9320
Saving for Unemployment	0.1077	0.7819	1.1140
Saving for Illness	-0.1156	0.6694	0.8910
Ability to borrow from friends/relatives	**-0.2981**	**0.0257**	0.7420
Self Employed	**0.3086**	**0.0358**	1.3620
Time Constraint Factors			
Age			
35 to 55	0.0400	0.7963	1.0410
Over 55	**0.4241**	**0.0212**	1.5280
Number of Children	0.0539	0.2959	1.0550
Payment History			
Behind	0.1522	0.2463	1.1640
Number of hours worked in a week			
Working less than full time (1 to 39 hours)	-0.2600	0.2671	0.7710
Working full time (≤40 hours)	-0.1424	0.4244	0.8670
Other Behavioral Control Factors			
Number of Liquid Accounts	**1.1167**	**<.0001**	3.0550
Credit attitude			
Good	0.1575	0.2396	1.1710
Bad	0.0089	0.9498	1.0090
Bankruptcy history	-0.2015	0.2253	0.8180
Income/$10,000	**0.0062**	**0.0172**	1.0060

Table 5: Logistic regression of the likelihood of being a solvent revolving user compared to a convenience user in the 2007 SCF with at least one credit card (n=2,715)
Source: 2007 Survey of Consumer Finances. Statistics derived from an unweighted analysis of one implicate. Bolded values are significant at the 0.05 level.

	Parameter Estimate	p	Odds Ratio
Intercept	**-1.7299**	**<.0001**	
Human Capital			
Financial Sophistication			
Quintile 2	0.1364	0.2974	1.1460
Quintile 3	**0.7002**	**<.0001**	2.0140
Quintile 4	**0.8324**	**<.0001**	2.2990
Quintile 5	**0.7786**	**<.0001**	2.1780
Education			
Less than high school	-0.2922	0.2572	0.7470
Some college	-0.0944	0.5708	0.9100
College degree	**-0.5442**	**<.0001**	0.5800
Precautionary Savings Motives (Uncertainty)			
Saving for Emergencies	0.0862	0.4227	1.0900
Saving for Unemployment	-0.0691	0.8552	0.9330
Saving for Illness	-0.3002	0.2209	0.7410
Ability to borrow from friends/relatives	-0.0809	0.5423	0.9220
Self Employed	**-0.3236**	**0.0069**	0.7240
Time Constraint Factors			
Age			
35 to 55	-0.0619	0.7089	0.9400
Over 55	**-0.5152**	**0.0048**	0.5970
Number of Children	0.0907	0.0558	1.0950
Payment History			
Behind	**1.8469**	**<.0001**	6.3400
Number of hours worked in a week			
Working less than full time (1 to 39 hours)	**0.5759**	**0.0036**	1.7790
Working full time (≤40 hours)	**1.0137**	**<.0001**	2.7560
Other Behavioral Control Factors			
Number of Liquid Accounts	**0.5149**	**<.0001**	1.6740
Credit attitude			
Good	**0.4344**	**0.0003**	1.5440
Bad	**-0.3182**	**0.0081**	0.7270
Bankruptcy history	**0.6633**	**0.0012**	1.9410
Income/$10,000	**-0.0052**	**<.0001**	0.9950

Most of the human capital variables were significantly related to the likelihood of being a convenience user. Compared to the group with the highest financial sophistication, those in quintile 3 were 101.4% more likely to be a solvent revolver, those in quintile 4 were 129.9% more likely to be a solvent revolver, and those in quintile 5 were 117.8% more likely to be a solvent revolver. Compared to the high school graduates group, those who have a college degree were 42.0% less likely to be a solvent revolver.

The household is 27.6% less likely to be solvent revolver if it is self-employed. Most of the time constraint variables were significantly related to likelihood of being a solvent revolver. Compared to those respondents under age 35, the respondents over age 55 were 40.3% more likely to be a solvent revolver. Those who have reported being behind on their past payments, were 534.0% more likely to be a solvent credit card revolver. The number of hours worked per week is also significant. Compared to households that do not work, the households who work less than full time are 77.9% more likely to be a solvent revolver and those who work full time or more are 175.6% more likely to be a solvent revolver.

All of the behavioral variables were significantly related to the likelihood of being a solvent revolver. For every one increase in the number of liquid accounts, the household is 67.4% more likely to be a solvent revolver. Compared to those who view credit as ambivalent, the respondents who view credit as good were 54.4% more likely to be a solvent revolver, while those who view credit as bad were 27.3% less likely to be to be a solvent revolver. The households who reported filing for bankruptcy in the past were 94.1% more likely to be a solvent revolver. For every $10,000 increase in income, households were 0.5% less likely to be a solvent revolver.

Summary and Implications

The research investigated the financial sophistication of solvent revolving credit card users and their different behavioral characteristics. There is still much research that needs to be done on the credit card debt puzzle. The purpose of this study was to evaluate the financial sophistication of solvent revolving credit card users compared to insolvent revolvers and convenience users of credit cards.

As hypothesized, solvent credit card revolvers have a lower level of financial human capital than convenience users. However, solvent revolvers are more financially sophisticated than insolvent revolving users. This finding supports previous literature that solvent revolvers are not financially sophisticated (Angeletos et al., 2001; Bertaut et al., 2009; Hailassos & Reiter, 2005). Financial planners, counselors and educators should encourage clients to seek help when making financial decisions if they lack a higher level of financial sophistication.

Next, solvent credit card users are less likely to have a college degree compared to convenience users. Financial planners, counselors and educators should encourage clients to achieve the highest level of education possible. Planners, counselors and educators should also encourage clients to save for higher education for their children or grandchildren.

Uncertainty does not seem to have a large impact on households that exhibit solvent revolving. There is no significant support that solvent revolvers are more likely to have higher precautionary savings motives, contrary to other studies (Telyukova & Wright, 2008; Bi & Hanna, 2006). Self-employed households are less likely to be a revolver in general and less likely to be a solvent revolver. This finding suggests that households that are self-employed use credit cards for convenience purposes. Many self-employed households use credit cards as the preferred convenience tool rather than using checks, debit cards or seeking a small business loan from a bank or using checks or debit cards.

The findings significantly support time constraint factors and the likelihood of being a solvent revolver. Solvent revolvers would be more likely to be younger, have more children, be less likely to pay their bills on time, and work more hours during the week. First, when compared to households under age 35, those households over age 55 were less likely to be a solvent revolver. Next, when compared with those who are on time with their loan payments, the households that are behind are five times more likely to be a solvent revolver. Last, the number of hours worked per week, both less than full time and full time, is significantly related to a household being a solvent revolver. These time constraint factors suggest that as a household becomes busier, the more likely it is to be a solvent revolver. Since payment history has such an impact on solvent revolving tendencies, financial planners, counselors and educators should help clients identify debt management issues as well as increase their awareness of making payments on time. The client should change their behavior to avoid making inefficient decisions.

As expected, solvent revolvers are more likely to have a higher number of liquid accounts, a good attitude toward credit, a bankruptcy history, and a lower household income. The findings suggest the solvent revolving households exhibit all of these factors. First, with every one increase in liquid accounts, households are more likely to be solvent revolvers. Next, households that have a positive attitude toward credit are more likely to being a solvent revolver.

Third, households that have filed for bankruptcy are more likely to be solvent revolvers. Last, with every increase of income by $10,000 the likelihood of being a solvent revolver decreases by only 0.50%. This finding suggests that solvent revolving credit card use is behavioral, not based on income. This finding also supports previous research found by Gross and Souleles (2002) in that higher credit card balances stem from behavioral factors.

Financial planners, counselors, and educators should help households understand how a positive attitude toward credit can negatively impact financial decisions. A change in behavior is necessary especially since revolving credit card users believe its ok to spend now and pay later. Financial planners, counselors, and educators can help consumers understand their behavior and change it to maximize overall utility. To facilitate the education process for solvent households, there are two steps. First, planners, counselors, and educators must educate the client about behavioral biases that exist when making financial decisions. Second, financial counselors and educators should educate clients about the inefficiency associated with solvent revolving.

The first step is to educate the client about behavioral biases. This study shows that solvent revolving is a behavioral. Since behavioral biases affect most individuals, it is important to know about them in order to diminish some of the unfavorable effects. Financial planners, counselors and educators can help the consumer develop strategies to control the inefficient behavior and implement appropriate behavior. First, the consumer can set up automatic payments toward their credit card balance. This would reduce the credit card balance while reducing the likelihood of consumers missing or being behind on their payments. Automatic payments also help the consumer to eventually pay off the balance. Next, the planner, counselor or educator should help the client set realistic goals for paying off the debt and understand their motives for saving. A solid cash flow management strategy can help the consumer pay off the debt while maximizing their utility. By understanding the clients motives for saving and maintaining a revolving credit card balance, educators and counselors can help the household realize their inefficient behavior.

The next step is to educate the solvent revolvers in why the behavior is inefficient. Households should understand the opportunity cost associated with carrying a high interest rate credit card balance and holding liquid assets in a low interest rate account. Education about interest rates, savings accounts, and the tradeoff between holding a balance on a credit card and paying off the balance with savings is essential. This step is where financial planners can help clients build wealth instead of exhibiting inefficient behavior.

References

Angeletos, G. M., Laibson, D., Repetto, A., Tobacman, J., & Weinberg, S. (2001). The hyperbolic consumption model: Calibration, simulation, and empirical evaluation. *Journal of Economic Perspectives, 15*(3), 47-68.

Becker, G.S. (1964). A theoretical and empirical analysis, with special reference to education (First edition). New York: Columbia University Press for the NBER.

Bertaut, C. C., Haliassos, M., & Reiter, M. (2009). Credit card debt puzzles and debt revolvers for self control. *Review of Finance,* 1-36.

Bi, L. (2005). The influence of uncertainty and liquidity constraints on liquid asset holdings of credit card revolvers. Retrieved from OhioLink ETD Center. (osu1127153217).

Bi, L. & Hanna, S.D. (2006). Do financial planners serve the interests of their clients? Use of financial planners, credit card balances and liquid assets. *Consumer Interests Annual, 52*, 292-314.

Bucks, B. K., Kennickell, A. B., Mach, T. L., & Moore, K. B. (2009). Changes in U.S. family finances from 2004 to 2007: Evidence from the Survey of Consumer Finances. *Federal Reserve Bulletin, 95,* A1-A55.

Chien, Y.W., & DeVaney, S.A. (2001), The effects of credit attitude and socioeconomic factors on credit card and installment debt. *The Journal of Consumer Affairs, 35(1),* 162-179.

Gross, D. B. & Souleles, N. S. (2002). Do liquidity constraints and interest rates matter for consumer behavior? Evidence from credit card data. *The Quarterly Journal of Economics, February,* 149-185.

Huston, S.J., Finke, M. S., & Smith, H. (2011). A financial sophistication proxy for the Survey of Consumer Finances. Manuscript submitted for publication.

Haliassos, M. and Reiter, M. (2005) Credit card debt puzzles, unpublished working paper, CFS Working Paper 2005/26.

Kim, H. & DeVaney, S. A. (2001). The determinants of outstanding balances among credit card revolvers. *Financial Counseling and Planning, 12,* 67-78.

Laibson, D., Repetto, A., & Tobacman, J. (2001). A debt puzzle. In P. Aghion, R. Frydman, J. Stiglitz, & M. Woodford, (Eds.), *Knowledge, information, and expectations in modern economics: In honor of Edmund S. Phelps* (pp. 228-266). Princeton: Princeton University Press.

Lehnert, A. & Maki, D. (2007). Consumption, debt, and portfolio choice: Testing the effects of bankruptcy law. In S. Agarwal & B. W. Ambrose (Eds.), *Household credit uses: personal debt and mortgages* (pp. 55-76). New York, NY: Palmgrave Macmillan.

Lindamood, S., Hanna, S.D, Bi, L. (2007). Using the Survey of Consumer Finances: Some methodological considerations and issues. *The Journal of Consumer Affairs, 41,* 195-222.

Rutherford, L.G. & DeVaney, S.A. (2009). Utilizing the theory of planned behavior to understand convenience use of credit cards. *Journal of Financial Counseling and Planning, 20*(2), 48-63.

Shefrin, H.M. & Thaler, R. H. (1988). The behavioral life-cycle hypothesis. *Economic Inquiry,* 26, 609-643.

Telyukova, I. A. & Wright, R. (2008). A model of money and credit, with application to the credit card debt puzzle. *Review of Economic Studies, 75,* 629-647.

Thaler, R. H. (1999). Mental Accounting Matters. *Journal of Behavioral Decision Making, 12,* 183-206.

Using Pocket Trackers in the Colorado Small Steps to Health and Wealth™ (SSHW) Program: Mary O'Neill Financial Education Mini-Grant Recipient

Nancy M. Porter[58] and Laurel Kubin, Colorado State University Extension

Key words: *tracking behavior, health, finance*

Target Audience: Coloradans, aged 25 to 65, living in rural and other areas of the state

Objectives/Purpose:

SSHW is the first long-term Extension program developed to motivate Americans to simultaneously improve their health and personal finances by using the same personal behavior change strategies. The original SSHW program was developed upon a framework of 25 behavior change strategies for improved well-being by Cooperative Extension faculty at Rutgers University (O'Neill, B. & Ensle, K., 2006). In 2012 an updated version was created and is being delivered and evaluated in Colorado, funded in part by a Rural Health and Safety Education Competitive Program of the USDA National Institute of Food and Agriculture (NIFA) grant number 2011-46100-31139. This project is providing timely, quality health education and health promoting activities along with financial information and wealth promoting activities to diverse populations. The connection of wealth to health serves as a unique motivational factor to increase positive behavior change.

Description:

Colorado workshops began in January, 2012 to maximize the teachable moment when people are often making New Year's Resolutions to improve their health and wealth. Workshops will continue to be conducted through the end of the grant period in September, 2013.

The $2,500 Mary O'Neill Financial Education Mini-Grant was used to develop and print 2000 copies of a "Pocket Tracker" teaching tool. One strategy (out of 13 total) included in the Colorado program (www.ext.colorado.edu/smallsteps) is, "Track Your Current Behavior." It focuses on helping participants become more aware of how much they eat, move, and spend throughout a typical day or week to provide a baseline necessary for setting goals to improve their health and/or wealth by taking specific small steps. County Extension agents provided copies of the Pocket Tracker to all participants in both the two-hour "Where Am I Now?" and the one-hour worksite workshops. The Pocket Tracker serves as both a teaching tool as well as convenient, continual motivational item to help people increase positive behavior change and achieve wealth and health goals.

An online follow-up survey conducted in August, 2012 asked participants (N=65), "Did you use the Pocket Tracker to help you become more aware of how much you eat, move, and spend over a period of time?" A majority (81%) indicated that they did not use the Pocket Tracker. Of the 19% who reported that they did use the Pocket Tracker, 76.9% indicated that the Pocket Tracker helped them take small steps that increased their health and/or wealth. The following were reported as ways its use increased their health and/or wealth:

- "Recording information in the Pocket Tracker helps keep my health and wealth goals present in my mind wherever I take it. Maintaining awareness of what I want to achieve has helped me start to change old habits;"
- "Awareness of what I was eating and purchasing to eat;"
- "Kept in my wallet. Helped me stay on track as a reminder of my goals;
- "It kept me aware of my eating and spending and made it easier to control myself;" and
- "It helps me to be more accountable."

References:

O'Neill, B., & Ensle, K. (2006, November). Small steps to health and wealth™. Ithaca, NY: Natural Resource, Agriculture, and Engineering Service (NRAES).

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[58] Nancy M. Porter, Ph.D., CFCS, Financial Resource Management Specialist; Colorado State University Extension, 1311 South College Ave., 4040 Campus Delivery, Fort Collins, CO 80523-4040; Phone: 970-491-6603; Email: nancy.porter@colostate.edu