

Debt Holding, Financial Behavior, and Financial Satisfaction

Judith Aboagye^a and Ji Young Jung^a

This study examined factors associated with financial satisfaction and found that financial behaviors/attitudes provide the strongest explanation for the total variance in financial satisfaction. While overspending had a strong negative association with financial satisfaction, having a higher risk tolerance, no difficulty with monthly bill payments, and savings in an emergency fund, were all positively associated with financial satisfaction. Households with student loan debts and homeowners with mortgage loans were also less likely to be satisfied with their overall financial situation. The findings underscore the important role of positive savings and spending behavior on overall financial satisfaction and the opportunity for financial counselors, educators, and coaches to focus on motivating clients to save and plan ahead.

Keywords: debt, financial behavior, financial satisfaction, risk tolerance, saving, spending

The concept of financial satisfaction has received extensive attention over the past few decades by researchers, federal agencies, and private foundations. The importance of financial satisfaction is evident with numerous financial professionals focusing on programs and resources to help consumers navigate financial challenges (Consumer Financial Protection Bureau [CFPB], 2015), as well as the recent focus of various national survey reports. For instance, the 2015 Federal Reserve Survey of American households showed a continuous improvement in financial well-being as compared to 2013 and 2014. However, nearly one-third of respondents still expressed a feeling of financial stress. Financial stress levels were higher for single parents, racial and ethnic minorities, and those with lower levels of income and education (Federal Reserve Board, 2016). Additionally, the National Endowment for Financial Education (NEFE) found that the main reasons for financial stress were related to lack of savings (53%) and debt (44%). Specifically, having no money saved in an emergency fund and having student loan debt were the outstanding reasons for a lack of financial satisfaction, indicating that both saving and borrowing could be associated with financial satisfaction (National Endowment for Financial Education, 2017).

Many academic studies have also focused on determining the factors associated with financial satisfaction or

financial well-being (Hira & Mugenda, 1998; Joo & Grable, 2004; Kapoor, Dlabay, & Hughes, 2007; Leach, Hayhoe, & Turner, 1999; Prawitz et al., 2006; Rutherford & Fox, 2010; Shim, Xiao, Barber, & Lyons, 2009; Xiao, Chen, & Chen, 2014). These studies have consistently shown that socioeconomic and demographic factors, financial attitudes, financial behaviors, and financial knowledge are all associated with financial satisfaction or financial well-being. However, very little is known about the effect of debt on financial satisfaction. This study therefore examined the relationship between selected socioeconomic and demographic factors, financial behavior, and types of debt on overall financial satisfaction. The major contribution to existing literature regarding factors that impact financial satisfaction, in addition to the socioeconomic and behavioral/attitudinal, is different types of debt.

Literature Review and Hypotheses

Definition and Measurement of Financial Satisfaction

Financial satisfaction has been used interchangeably with financial well-being and financial wellness by some researchers, while others maintain them as separate concepts. In addition, most studies do not show consistency in how they define and measure the concept. For instance, Shim et al. (2009) define financial well-being as satisfaction with

^aDoctoral Candidate, Department of Financial Planning, Housing, and Consumer Economics, University of Georgia, 305 Sanford Dr., Rm 205, Athens, GA 30602. E-mail: aboagyej@uga.edu. E-mail: jiyoung@uga.edu

one's current financial status and level of debt using both subjective and objective measures. Others define financial well-being as overall satisfaction with one's financial situation (Joo & Grable, 2004, 2008). Financial satisfaction has also been defined as satisfaction with one's income, ability to handle financial emergencies, amount of debt, level of savings, and money for future needs (Hira & Mugenda, 1998). The CFPB (2015) also defines financial well-being as having financial security and financial freedom of choice, in both the present and the future. These differing definitions along with having a preference between financial satisfaction and financial well-being could be related to the purpose, scope, and intention of specific studies and therefore determined by the researcher's discretion.

Similar inconsistencies exist in the measurement of financial satisfaction and financial well-being. The CFPB uses a 10-item financial well-being scale that has an abbreviated 5-item version, which ranks financial well-being on a 10- to 100-point scale (CFPB, 2015). Rutherford and Fox (2010) measured financial satisfaction using several items to capture respondents' feelings regarding their financial situation. Prawitz et al. (2006) also ranked the 10 concepts related to financial satisfaction with the prior item being "worry about being able to meet normal monthly living expenses." Their financial well-being score was from 1 to 10, similar to a 10-point Likert scale. However, Joo and Grable (2004) suggested that a single-item measure of financial satisfaction can be as effective as a multi-item measure. They used a one-item 10-point scale question where respondents were asked to choose how satisfied they were with their present financial situation. Similarly Xiao, Tang, & Shim, 2009 measured financial satisfaction on a 5-point scale when they studied financial behavior and life satisfaction of college students. As noted by Rutherford and Fox (2010), financial satisfaction is not tied to having a specific amount of money, and therefore, two people may feel different degrees of satisfaction when experiencing the same financial situation or having similar financial resources. Despite the element of subjectivity, previous studies have primarily shown that satisfaction with one's personal financial affairs generally contribute to overall life satisfaction (Kapoor et al., 2007; Xiao & Porto, 2017). For this study, financial satisfaction was measured using a single-item 10-point scale question of overall satisfaction with one's current financial situation.

Determinants of Financial Satisfaction

Recent studies on financial satisfaction have shown significant associations with debt, financial education, financial capability, and financial behavior. For instance, Tay, Batz, Parrigon, and Kuykendall (2017) developed a conceptual model to explain the associations between debt and subjective well-being (SWB). Their analysis of previous studies showed at least one significant negative effect between debt and SWB for 90% of the associations and a small random effect ($r = -.07$) between debt and SWB moderated by levels of debt, source of debt, and overall financial resources. The conceptual model was tested in a moderated mediation analysis with a large sample of college graduates ($N = 2781$) to examine the effects of student loans on SWB. The findings showed that debt and income accounted for 40% and 60 % of the predicted variance of life satisfaction, respectively.

Using data from the 2012 National Financial Capability Study (NFCS), Xiao and Porto (2017) showed that subjective financial literacy, desirable financial behavior, and the financial capability index are strong mediators between financial education and financial satisfaction. The results showed a full mediation effect of the financial capability index, which indicates that consumers with high levels of financial capability may not need to rely on financial education to achieve financial satisfaction. They concluded that financial education might improve financial well-being in multiple ways, such as facilitating knowledge acquisition, enhancing confidence in knowledge and ability, and encouraging action taking. Similarly, Xiao et al. (2014) examined the associations between consumer financial capability (measured by perceived financial capability, financial literacy, and financial behavior) and financial satisfaction. The analysis from the 2009 NFCS data indicated a positive association between perceived financial capability and financial satisfaction. The findings confirm the hypothesized positive association of desirable (positive) financial behavior and negative association of risky financial behavior and financial satisfaction.

Additionally, Davis and Runyan (2016) explored personality determinants of financial satisfaction using Mowen's 3M Model as a theoretical framework and survey data from 328 respondents. The study showed strong positive associations between financial behavior (compound traits), financial situation (situational traits), and financial satisfaction

(surface traits). The findings suggest that positive money management skills or wealth-building activities (financial behavior) will influence financial situation as well as financial satisfaction. Similarly, Chalise and Anong (2017) found that overspending increased the likelihood of financial distress during the recession, whereas being in good health, having income certainty, and above average risk tolerance lowered the odds of financial distress.

Some recent studies have also shown that the choice and source of information in financial decision making may affect financial behavior and financial satisfaction. For instance, Cao and Liu (2017) examined the role of social media on the financial lives of young adults (18–25 years old) using a sample of 229 survey respondents. The study concluded that seeking financial information on social media and online resources was associated with financial satisfaction. Also, Fan and Chatterjee (2017) examined credit card and mortgage loan owners from the 2009 NFCS sample and found that financial literacy, perceived financial knowledge, and higher education attainment were positively associated with informed borrowing behavior. The authors defined informed borrowing behavior as comparing credit card offers and mortgage loan options before selection and also found that low-income and minority groups were the least likely to make informed borrowing decisions.

Summary of the Literature

Previous studies have consistently shown that socio-economic and demographic factors such as age, gender, race, education, and income are significantly associated with overall financial well-being (Hira & Mugenda, 1999a, 1999b; Joo & Grable, 2004; Leach et al., 1999). Recent studies on the financial well-being and satisfaction of college students showed that gender, age, ethnicity, and parental income were all positively related to financial well-being or financial satisfaction (Copur, Gutter, Eisen, & Way, 2008; Shim, Barber, Card, Xiao, & Serido, 2010; Xiao & Porto, 2017). Additionally, research indicates that other variables such as financial behavior (Hira & Mugenda, 1999b; Joo & Grable, 2004; Xiao et al., 2014; Xiao & Porto, 2017), financial attitudes (Grable & Lytton, 1998), and financial knowledge (Joo & Grable, 2004; Shim et al., 2009; Xiao & Porto, 2017) can also affect financial well-being. However, there is very little known about the effect of different types of debt on financial satisfaction or financial well-being. This study therefore examines the association of demographic

and socio-economic factors, financial behavior, and types of debt on financial satisfaction.

Hypotheses

To examine the association between selected socioeconomic and demographic factors, financial behaviors/attitudes, types of debt, and overall financial satisfaction, the study tested three hypotheses as follows:

1. There is a positive association between income and education and financial satisfaction.
2. There are associations between financial behaviors/attitudes and financial satisfaction.
3. There is a negative association between debt and financial satisfaction.

Methodology

Data

Data for the study were drawn from the 2015 NFCS. The dataset is a cross-sectional dataset collected every 3 years by the Financial Industry Regulatory Authority Investor Education Foundation and represents the responses of the general population of the United States with about 500 participants from each state (FINRA Investor Education Foundation, 2016). The final sample size for the analyses shown in this study was 18,600 participants after accounting for missing data in the dependent and key independent variables such as the financial behavior and debt situation questions.

Variables

The dependent variable for this study was a single-item question, which asked the respondents to rate their overall satisfaction with their current financial situation on a 10-point Likert scale with 10 being extremely satisfied. For the socioeconomic and demographic factors model, the independent variables included age, gender, race, marital status, number of dependents, education, and income. Age was defined using six categories ranging from 18 to over 65 years. The gender, race, and marital status variables were coded as 0–1 dummies, with males coded as 1 or otherwise 0, Whites coded as 1 and other races were 0, and married coded as 1, and single or other coded 0. The number of dependent variables ranged from one to six, and education level was measured using four categories: high school or lower, some college without a degree, college with a degree, and postgraduate. Income was classified into four categories that ranged from less than \$50,000 to

more than \$150,000. Financial behavior/attitude variables included risk tolerance, spending behavior, difficulty of bill payments, budget, credit card behavior, emergency fund, and retirement savings. Risk tolerance was measured on a 10-point Likert scale with 10 being the highest risk tolerance level. Budget was coded as 0–1 dummy, where having a budget was coded as 1 or otherwise 0. Spending behavior was measured using three categories: less than income, same as income, and more than income. Bill payment difficulty was also measured using three categories: extremely difficult, somewhat difficult, and not at all difficult. Credit card behavior was investigated with six yes/no questions related to credit card bill payments. Saving for retirement and an emergency fund were also measured on a yes/no binary scale. For the debt situation model, the independent variables included medical debt, student loans, mortgage loans, and auto loans. These debt types were all measured on a yes/no binary scale. We present a separate analysis for all respondents without the mortgage variable, and another for homeowners, due to the smaller sample size for the mortgage debt item ($N = 13,426$).

Analysis

The hypotheses of the study were tested with a series of ordinary least squares multiple regressions in a step-wise procedure. Prior to the regression analyses, a correlation analysis was conducted on all the independent variables to check for possible multicollinearity problems. First, the eight demographic and socioeconomic variables were used to predict financial satisfaction. Second, the financial behavior/attitude variables were added, and finally, the debt situation variables were added while continuing to control for demographic and socioeconomic factors. The analyses were conducted using STATA 13.

Results

Descriptive Analysis

The descriptive analysis shown in Table 1 indicates that overall, the respondents were moderately satisfied with their current financial situation, displaying a mean value of 6.22. There were slightly more female respondents than males (53.0% vs. 47.0%), more married than unmarried respondents (61.5% vs. 38.5%), and more White respondents than others (75.5% vs. 24.5%). Age group distribution ranged from 6.3% (18–24 years) to 21.9% (65+ years), and the average number of dependents was less than one (0.70). The distribution of respondents'

education levels among the four categories were about 18.8% having a high school diploma or lower, 26% with some college education, 38% with college degrees, and 17.1% with postgraduate degrees, respectively. About 23% of respondents were retired, while 36.7% had an income range of less than \$50,000, and 39.6% had an income range of \$50,000–\$149,999. As related to financial attitudes and behavior, the respondents had an average risk tolerance level of 5.40. About 59% of respondents had a budget. Over 80% of respondents spent less than or equal to their income, while only 17.4% overspent. About 42% of respondents have experienced extreme or some difficulty with monthly bill payments. Also, 54.5% of respondents indicated that they always made full payment of their credit card bills, while 46.8% of respondents had interest charges on credit card bills. About 77% of respondents reported that their credit scores were good or very good. In addition, about 59% of respondents had money saved in an emergency fund, and about 70% had money saved in a retirement account. Of the respondents who were homeowners ($N = 13,426$), 60% had a mortgage loan. Additionally, 26% of respondents had a student loan, 37% had an auto loan, and 16% had a medical debt.

Regression Results. A correlation analysis was conducted prior to the multiple regression analysis to check for multicollinearity problems. The six credit card behavior variables were related (Table 2), and the full payment variable was omitted from the regression models because it was strongly related to the charged interest and the minimum payment variables. In addition, all regression models used “robust” standard errors to deal with heteroskedasticity, and the variance inflation factor (VIF) values (1.02–2.03) showed no indication of any multicollinearity problems.

The first set of multiple regressions which included all respondents ($N = 18,600$) are shown in Table 3. The results (model 1) indicate that age, gender, race, marital status, number of dependent children, education level, retirement, and income were all significantly associated with overall financial satisfaction. Respondents who were male, younger, married, retired, and white, as well as those with higher levels of education and income were shown to be more likely to be satisfied with their overall financial situation, while those with more dependent children were less likely to be satisfied with their overall financial situation. Based on a comparison of beta, income

TABLE 1. Descriptive Statistics of the Sample (N = 18,600)

Variables				Mean (SD)		
DV	Financial satisfaction	Frequency %		6.22	2.61	
IV: financial behaviors/ attitudes	Risk tolerance			5.40	2.58	
	Budget	Yes	10,958	58.91		
		No	7,642	41.09		
	Overspending	Less than income	8,584	46.15		
		Equal to income	6,788	36.49		
		More than income	3,228	17.35		
	Bill payment	Very difficult	1,364	7.33		
		Somewhat difficult	6,524	35.08		
		Not difficult	10,712	57.59		
	Credit card behavior in the past 12 months (1 = yes)	Full payment	10,117	54.50		
		Charged interest	8,709	46.82		
		Minimum payment	5,698	30.63		
		Late fee	2,314	12.44		
		Exceed credit line	1,190	6.40		
		Cash in advance	1,802	9.69		
	Credit record rate	Very bad	296	1.59		
		Bad	1,282	6.89		
		About average	2,694	14.48		
		Good	3,749	20.16		
		Very good	10,579	56.88		
Emergency fund saving	Yes	10,889	58.54			
	No	7,711	41.46			
Retirement account	Yes	12,939	69.56			
	No	5,661	30.44			
IV: sociodemographic	Gender	Female	9,850	52.96		
		Male (=1)	8,750	47.04		
	Age group	18–24	1,170	6.29		
		25–34	3,306	17.77		
		35–44	3,138	16.87		
		45–54	3,464	18.62		
		55–64	3,443	18.51		
		65+	4,079	21.93		
	Race	White (=1)	14,041	75.49		
		Others	4,559	24.51		
	Marital status	Married (=1)	11,438	61.49		
		Others	7,162	38.51		
	No. of children	0	11,600	62.37	.70	1.05
1		2,972	15.98			
2		2,583	13.89			
3		971	5.22			
4		474	2.55			

(Continued)

TABLE 1. Descriptive Statistics of the Sample (N = 18,600) (Continued)

Variables				Mean (SD)	
DV	Financial satisfaction		Frequency	%	6.22 2.61
IV: types of debt	Education level	High school or lower	3,497	18.80	
		Some college w/o degrees	4,895	26.32	
		College with degrees	7,026	37.77	
		Postgraduate	3,182	17.11	
	Retired	Working	14,309	76.93	
		Retired	4,291	23.07	
	Income	Less than \$50,000	6,827	36.70	
		\$50,000–\$99,999	7,373	39.64	
		\$100,000–\$149,999	2,950	15.86	
		\$150,000 and more	1,450	7.80	
	Mortgage (N = 13,426)	Yes	8,074	60.14	
		No	5,352	39.86	
	Student loan	Yes	4,874	26.20	
		No	13,726	73.80	
Auto loan	Yes	6,881	36.99		
	No	11,719	63.01		
Medical debt	Yes	3,010	16.18		
	No	15,590	83.82		

Note. SD = standard deviation; DV = Dependent variable; IV = Independent variables.

is shown to be the most strongly associated socioeconomic factor in relation to financial satisfaction. This finding supports our hypothesis that income and education are positively associated with financial satisfaction. The findings are also consistent with previous studies (Hira & Mugenda, 1998, 1999b; Leach et al., 1999; Joo & Grable, 2004), which show significant associations between socioeconomic variables such as income and education and financial well-being.

The second model, which includes the financial behavioral/attitudinal factors, was shown to offer the strongest association with overall financial satisfaction. Apart from overspending and being charged interest on credit cards which had strong negative associations with financial satisfaction, having a higher risk tolerance, having a budget, no difficulty with monthly bill payments, good credit scores, and savings in an emergency fund were all positively associated with financial satisfaction. This finding

TABLE 2. Correlation Analysis of Credit Card Behavior Variables

Variables	Full Payment	Charge Interest	Minimum Payment	Late Fee	Exceed Credit Line	Cash in Advance
Full payment	1					
Charge interest	-.7785***	1				
Minimum payment	-.5092***	.4826***	1			
Late fee	-.2068***	.2760***	.3819***	1		
Exceed credit line	-.0710***	.1810***	.2855***	.3610***	1	
Cash in advance	-.0838***	.1730***	.2586***	.2874***	.3610***	1

^aThe full payment variable is omitted from the regression model in this study as it could possibly produce multicollinearity problems given its high correlation with the charge interest and minimum payment variables.

* $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

TABLE 3. Regression Analysis With Full Sample Excluding Mortgage Debts (N = 18,600)

Variables	Model 1		Model 2		Model 3	
	Coefficient	β	Coefficient	β	Coefficient	β
Socioeconomic factors						
Age	-.051***	-.031	-.024	-.014	-.033**	-.020
Gender (male = 1)	.428***	.082	.009	.001	.008	.002
Race (White = 1)	.103*	.017	.095**	.016	.094**	.016
Marital status (married = 1)	.284***	.053	.147***	.027	.150***	.028
No. of dependent children	-.118***	-.048	.059***	.024	.060***	.024
Education level	.121***	.046	-.064***	-.024	-.058***	-.022
Retired	1.174***	.190	.773***	.125	.774***	.125
Income						
1 = (50-100K)	1.100***	.206	.172***	.032	.176***	.033
1=(100-150K)	1.647***	.231	.216***	.030	.221***	.031
1 = (150K)	2.065***	.212	.334***	.034	.334***	.034
Financial behaviors/attitudes						
Risk tolerance			.244***	.241	.244***	.242
Budget			.213***	.040	.215***	.041
Spending (overspending)			-.266***	-.076	-.264***	-.075
Bill payment difficulty			1.166***	.282	1.163***	.281
Credit card behaviors						
Charged interest			-.524***	-.100	-.515***	-.099
Minimum payment			-.067	-.012	-.061	-.011
Late fee			-.003	-.000	-.001	-.000
Exceed credit line			.951***	.089	.966***	-.091
Cash in advance			.454***	.052	.456***	.052
Credit record rates			.339***	.135	.334***	.133
Emergency fund			1.122***	.212	1.117***	.211
Retirement accounts			.067	.012	.074*	.013
Types of debt						
Student loan					-.097**	-.016
Auto loan					-.021	-.004
Medical debt					-.014	-.002
Constant	4.560		.026		.089	
R^2	0.1365		0.4861		0.4863	
Adjusted R^2	0.1360		0.4855		0.4856	
Model F	330.51		964.72		851.31	

* $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

partially supports our hypothesis that financial behaviors/attitudes are significantly associated with financial satisfaction. However, contrary to the expected directional effect, participants who exceeded their credit limit and those who received cash in advance over the past 12 months were shown to be more satisfied with their overall

financial situation. Although these behaviors are generally considered expensive and negative in the long-term, the potential for them to provide immediate increases in liquidity could possibly explain the positive association with current level of financial satisfaction. It is also important to note that these are rather unusual credit card

behaviors and were exhibited by less than 10% of the respondents.

Besides, having a retirement savings account was not shown to be significantly associated with the current level of financial satisfaction, and this could be explained by the fact that retirement savings are more related to future financial security than current situation. Also, the direction of effects for number of children and education level changed to positive and negative, respectively. The negative association with education could be explained by the higher expectations of more educated households as related to holding assets and other financial resources which may be more evident when spending and saving behaviors are considered. It is not clear why having more dependents would be positively related to overall financial satisfaction; but based on the beta, the variable was not shown to be an important indicator of financial satisfaction. This model explains about 49% of the variation in financial satisfaction level (adjusted $R^2 = .4855$), with the most strongly related variables being no difficulty with bill payments, risk tolerance, and emergency fund savings.

The final model combines the socioeconomic, behaviors/attitudes, and debt factors together. Age, race, marital status, number of children, education level, retired, and income remain significantly associated with financial satisfaction, but the effects of these socioeconomic variables are much smaller compared with the financial behaviors/attitudes. In addition, retirement savings gain a positive significant association with financial satisfaction, while age gains a negative significant relationship. Also, student loan was the only debt factor shown to have a negative significant association with financial satisfaction. This finding is consistent with previous research by Tay et al. (2017), where student loan debt was shown to account for 40% of the predicted variance in life satisfaction. However, the overall explanatory power of this final model (adjusted $R^2 = .4856$) is close to the second model which implies that the debt factors do not matter as much as the behavioral factors.

The second set of multiple regression analyses, which are shown in Table 4, reflects the responses specifically of homeowners ($N = 13,426$) as it includes the mortgage debt variable for model 3. Model 1 indicates that respondents

who are younger, male, White, retired, more educated, and those with higher income levels were more likely to be satisfied with their overall financial situation. Similar to model 1 of the first regression analysis, the income variable showed the strongest association with financial satisfaction. Model 2 of the second multiple regression has the strongest explanatory power (adjusted $R^2 = .4586$) as all the financial behavior/attitude factors except for minimum payment and late fee are associated with overall financial satisfaction. Also, similar to model 2 of the first regression analysis, having a budget, high risk tolerance, and emergency fund savings show the strongest associations with financial satisfaction based on the beta. The final model of the second regression includes four types of debts (mortgage, student loan, auto loan, and medical debts). However, only mortgage debt was significantly associated with overall financial satisfaction compared to student loan debt in the first analysis. Thus, in the absence of a mortgage loan, households with student loan debts are less likely to be satisfied with their overall financial situation.

Discussion and Implications

The analyses from this study indicate that financial attitudes and behaviors such as risk tolerance, spending behavior, and saving for emergencies and retirement significantly influence the overall level of financial satisfaction. Our findings are consistent with previous research regarding the associations between financial behavior and financial satisfaction (Davis & Runyan, 2016; Xiao et al., 2014, 2009; Xiao & Porto, 2017). Collectively, these studies indicate that practicing positive spending, saving, and planning behaviors, and even more importantly, avoiding undesirable financial behaviors, significantly impacts overall financial satisfaction. Since these behavioral factors dominate important socioeconomic factors such as income and education as well as different forms of debt, the results may be beneficial to financial counselors and planners in diverse ways. First, counselors could place more emphasis on behavioral coaching models to motivate positive financial attitudes and behaviors such as spending less, saving more, and planning ahead. Debt management remains an important aspect of financial counseling and planning, with the particular concern being the stress associated with medical debt and student loan debt. However, the finding that student loan and mortgage debts, though significant, had a weak association with overall financial satisfaction has

TABLE 4. Regression Analysis With Homeowners' Sample Including Mortgage Debt (N = 13,426)

Variables	Model 1		Model 2		Model 3	
	Coefficient	β	Coefficient	β	Coefficient	β
Socioeconomic factors						
Age	-.087***	-.051	-.027	-.016	-.049**	-.029
Gender (male = 1)	.338***	.069	-.021	-.004	-.018	-.004
Race (White = 1)	.187***	.030	.096*	.016	.102*	.017
Marital status (married = 1)	.036	.007	.063	.012	.067	.012
No. of dependent children	-.149***	-.065	.028	.012	.035	.015
Education level	.143***	.058	-.029	-.012	-.027	-.011
Retired	1.150***	.209	.767***	.139	.730***	.132
Income						
1 = (50–100K)	1.023***	.207	.173***	.035	.215***	.043
1 = (100–150K)	1.455***	.235	.191***	.031	.264***	.043
1 = (150K+)	1.900***	.232	.358***	.044	.419***	.051
Financial behaviors/attitudes						
Risk tolerance			.229***	.238	.227***	.236
Budget			.211***	.042	.228***	.046
Spending (overspending)			-.267***	-.074	-.260***	-.077
Bill payment difficulty			1.131***	.274	1.109***	.269
Credit card behaviors						
Charged interest			-.568***	-.114	-.492***	-.099
Minimum payment			-.033	-.006	-.038	-.007
Late fee			.058	.007	.054	.007
Exceed credit line			1.159***	.107	1.140***	.105
Cash in advance			.553***	.063	.518***	.059
Credit record rates			.290***	.107	.302***	.111
Emergency fund			1.168***	.225	1.136***	.219
Retirement accounts			.092*	.016	.138***	.024
Types of debt						
Mortgage loan					-.441***	-.088
Student loan					.058	.010
Auto loan					.030	.006
Medical debt					.021	.003
Constant	5.103		.437		.664	
R^2	0.1149		0.4595		0.4655	
Adjusted R^2	0.1142		0.4586		0.4645	
Model F	186.88		550.58		479.31	

* $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

important implications for planners and counselors. There is a need for financial counselors to find ways of playing down the negativity associated with these debts and instead, find ways of helping clients reduce their stress by focusing more on positive behaviors. The application

of solutions-focused therapy and appreciative inquiry models, all of which focus on positive attitudes like goal setting and planning ahead, is also reinforced in this finding. Financial counselors and educators working with low-to-moderate income households must also continue

to encourage homeownership, particularly as their clients become more financially stable and their incomes or job security increases. The main limitation of the study is that there was no indication of the actual level of debt since the survey only asks whether the respondent has any student, medical, auto, and mortgage debt. Additionally, the credit card behavior questions were used in the absence of actual credit card debt items, and future studies may consider using actual debt levels to determine the effects of different types of debt on financial satisfaction.

References

- Cao, Y., & Liu, J. (2017). Financial executive orientation, information source, and financial satisfaction of young adults. *Journal of Financial Counseling and Planning*, 28(1), 5–19.
- Chalise, L., & Anong, S. (2017). Spending behavior change and financial distress during the great recession. *Journal of Financial Counseling and Planning*, 28(1), 49–61.
- Consumer Financial Protection Bureau. (2015). Measuring financial well-being: A guide to using the CFPB financial well-being scale. Retrieved from <http://www.consumerfinance.gov/financial-well-being>
- Copur, Z., Gutter, M. S., Eisen, J., & Way, W. (2008). Exploring the relationship between financial behaviors and financial distress/financial well-being of college students. *Consumer Interests Annual*, 54, 1.
- Davis, K., & Runyan, R. C. (2016). Personality traits and financial satisfaction: Investigation of a hierarchical approach. *Journal of Financial Counseling and Planning*, 27(1), 47–60.
- Fan, L., & Chatterjee, S. (2017). Borrowing decision of households: An examination of the information search process. *Journal of Financial Counseling and Planning*, 28(1), 95–106. <http://dx.doi.org/10.1891/1052-3073.28.1.95>
- Federal Reserve Board. (2016). Report on the economic well-being of U.S. households in 2015. Retrieved from <http://www.federalreserve.gov/2015-report-economic-well-being-us-households-201605>.
- FINRA Investor Education Foundation. (2016). Financial capability in the United States 2016. Retrieved from <http://www.usfinancialcapability.org/downloads>
- Grable, J. E., & Lytton, R. H. (1998). Investor risk tolerance: Testing the efficacy of demographics as differentiating and classifying factors. *Journal of Financial Counseling and Planning*, 9(1), 61–73.
- Hira, T. K., & Mugenda, O. (1998). Predictors of financial satisfaction: Differences between retirees and non-retirees. *Journal of Financial Counseling and Planning*, 9(2), 75–83.
- Hira, T. K., & Mugenda, O. (1999a). Do men and women differ in their financial beliefs and behaviors? In K. Kitt (Ed.), *Proceedings of eastern family economics resource management association* (pp. 1–8).
- Hira, T. K., & Mugenda, O. (1999b). The relationships between self-worth and financial beliefs, behavior, and satisfaction. *Journal of family and consumer sciences*, 91(4), 7682.
- Joo, S., & Grable, J. E. (2004). An exploratory framework of the determinants of financial satisfaction. *Journal of Family and Economic Issues*, 25(1), 162–171.
- Joo, S. (2008). Personal financial wellness. In J. J. Xiao (Ed.), *Handbook of Consumer Finance Research* (pp. 21–33). New York: Springer.
- Kapoor, J. R., Dlabay, L. R., & Hughes, R. J. (2007). *Personal finance* (8th ed). Boston: McGraw-Hill Irwin.
- Leach, L. J., Hayhoe, C. R., & Turner, P. R. (1999). Factors affecting perceived economic well-being of college students: A gender perspective. *Journal of Financial Counseling and Planning*, 10(2), 11–23.
- National Endowment for Financial Education. (2017, January 3). 1 in 3 say financial life is worse than they expect it to be. [Press room news]. Retrieved from <http://www.nefe.org/press-room/news/tips-for-getting-financially-fit-in-2017.aspx>
- Prawitz, A. D., Garman, E. T., Sorhaindo, B., O'Neill, B., Kim, J., & Drentea, P. (2006). InCharge financial distress/financial well-being scale: Development, administration, and score interpretation. *Journal of Financial Counseling and Planning*, 17(1).
- Rutherford, L. G., & Fox, W. S. (2010). Financial wellness of young adults age 18-30. *Family and Consumer Sciences Research Journal*, 38(4), 468–484.
- 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(12), 1457–1470. <http://dx.doi.org/10.1007/s10964-009-9432-x>
- Shim, S., Xiao, J. J., Barber, B. L., & Lyons, A. C. (2009). Pathways to life success: A conceptual model of financial well-being for young adults. *Journal of Applied Developmental Psychology*, 30, 708–723.

- Tay, L., Batz, C., Parrigon, S., & Kuykendall, L. (2017). Debt and subjective well-being: The other side of the income-happiness coin. *Journal of Happiness Studies*, 18(3), 903–937.
- Xiao, J. J., Chen, C., & Chen, F. (2014). Consumer financial capability and financial satisfaction. *Social Indicators Research*, 118(1), 415–432.
- Xiao, J. J., & Porto, N. (2017). Financial education and financial satisfaction: Financial literacy, behavior, and capability as mediators. *International Journal of Bank Marketing*, 35(5), 805–817.
- Xiao, J. J., Tang, C., & Shim, S. (2009). Acting for happiness: Financial behavior and life satisfaction

of college students. *Social Indicators Research*, 92(1), 53–68. <http://dx.doi.org/10.1007/s11205-008-9288-6>

Acknowledgments. A shorter version of this article was submitted to the AFCPE 2016 Conference Proceedings titled “An analysis of the indicators of financial satisfaction: Does debt and behavioral factors matter?” authored by Judith Aboagye. The shorter version used the 2012 FINRA Data. This article used the 2015 FINRA Dataset and therefore the sample size and results are not the same. The background, methods and discussions are however built around the same concepts and themes.