Financial Literacy versus Financial Knowledge

Alexis Cass*
The University of Texas at Dallas

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Abstract

This paper compares a traditionally used measure of financial knowledge to an operationalized definition of finanical literacy based on the standards set forth by the President's Advisory Council on Financial Literacy in 2008 utilizing the National Financial Capability Study of 2009. The purpose is to explore respondent characterisitics associated with higher degrees of financial literacy to better focus financial education policy. The findings suggest that financial literacy and financial knowledge are highly correlated, however definitional distinctions result in slightly differing associations with respondent characteristics, which may have effects on future financial education.

KEYWORDS: FINANCIAL LITERACY, FINANCIAL KNOWLEDGE, FINANCIAL EDUCATION, NUMERACY, DEBT

Introduction

The "Great Recession", beginning in 2008, taught Americans an important lesson: managing money matters. It also depicted the ramifications of poor money management and poor financial decisions. Financial behaviors matter. In the wake of this economic meltdown, financial literacy is a "hot topic" in Washington evidenced by the President's Advisory Council on Financial Literacy, formed in January 2008, the Presidents Advisory Council on Financial Capability, formed in January 2010, and new agencies, such as the Consumer Financial Protection Bureau and the Office of Financial Education. All are charged with the promotion of programs that improve financial education, literacy, and capability in the United States.

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It is apparent that in the wake of the nation's economic meltdown, financial literacy has taken on new urgency, fueled by the wide-array of increasingly more sophisticated financial products that have emerged and financial instruments which have become ever more complex over the past thirty-years. Concurrently, access to credit and ease of borrowing has increased. Financial illiteracy is not a new problem, however with increased personal responsibility for individual financial lives through the replacement of pensions with 401ks, the uncertainty of social security benefits among younger populations, the myriad of mortgage options, the array of choice and easy credit, and so on, the consequences are severe. Individuals are increasingly tasked with understanding their financial decisions and the implications and consequences of said decisions. But, who is equipped to make these decisions? Do all segments of the American populace possess similar levels of financial literacy? What factors influence the financial literacy (or illiteracy) rate? Does the more commonly measured indicator of financial knowledge[1] correlate with financial literacy? Exploration into this topic can help shape public policy and future education programs as they pertain to financial literacy and assist in targeting the most as risk subgroups of the population.

Defining Financial Literacy: A Brief Review of the Literature

In 2009, the President's Advisory Council on Financial Literacy adopted a conceptual definition of financial literacy with the hope that a uniform definition of the concept will lead to advances in both policy and research. The definition set forth by the President's Council on Financial Literacy aims to standardize the thinking around these terms and frame future research around financial literacy rather than financial knowledge (President's Advisory Council on Financial Literacy, 2009). From the council: "financial literacy [is] the ability to use knowledge and skills to manage financial resources effectively for a lifetime of financial well-being" (President's Advisory Council on Financial Literacy, 2009) This definition is modeled after the definition of the U.S. Financial Literacy and Education

1. In much of the literature, financial literacy and financial knowledge are treated as interchangeable. In this paper, they are not. Financial literacy includes financial knowledge, as traditionally measured, as well as financial behaviors and attitudes, defined further on page 3.

Commission[2] and is very similar to the definition used by Jump$tart Coalition.[3] This differs from financial knowledge, defined as "understanding key financial terms and concepts needed to function daily in American society" (Bowen, 2002). Literacy implies the ability to apply and use knowledge to affect behaviors and attitudes (Huston, 2010). Therefore, financial knowledge is an integral piece of financial literacy, but knowledge by itself is not enough. In fact, financial knowledge is neccessary but not sufficient for financial literacy. Unfortunately, the terms financial literacy and financial knowledge are used synonymously in much of the literature, as well as by the media (Huston, 2010). Building off the recommendations of Huston (2010) and Remund (2010), this paper attempts to operationalize the definition of financial literacy as distinct from financial knowledge and analyze the factors influencing both concepts as separate constructs.

In 1995, Bernheim documented the high rate of financial knowledge in America.[4] This represented one of the first studies on the topic of financial literacy in this country. From this research and others, interest in financial literacy and education rose dramatically in the late 1990s and early 2000s. In fact, a research study commissioned by Fannie Mae determined that approximately three-fourths of all financial education programs began during this time.[5] Despite this focus on financial education, Americans' understanding of financial concepts remains low in recent studies (Agnew and Szykman, 2004, Hilgert et al., 2003, Lusardi et al., 2010, Lusardi and Mitchell, 2005, 2008, Cole and Shastry, 2009).[6]

This is concerning as financial knowledge is linked to many "sound" financial decisions. Research done by Lusardi and Mitchell in 2005 and 2008 identified that lower levels

2. "Financial literacy is the ability to use knowledge and skills to manage financial resources effectively for a lifetime of financial well-being"(U.S. Financial Literacy and Education Commission, 2006)

3. "Financial literacy is the ability to use knowledge and skills to manage financial resources effectively for lifetime financial security."(Jump$tart Coalition, 2007)

4. Bernheim wrote about financial literacy, however based on the definition of financial literacy adopted by this paper, the study measured financial knowledge.

5. See Martin (2007) and references therein

6. It is possible that the focus of financial education has not been great enough, and so while knowledge has increased, it has not kept pace with the increasingly complex financial markets, with financial innovation causing complexity to increase at a greater pace than knowledge, however no research has been done showing the longitudinal nature of financial knowledge or financial literacy.

of financial knowledge are associated with lower levels of retirement planning. Multiple studies have confirmed a link between stock market participation and financial knowledge (van Rooij et al., 2007, Christelis et al., 2010, Cole and Shastry, 2009). Financial knowledge influences all aspects of an individuals financial well-being, including budgeting, savings, spending, debt, mortgage rates, etc (Perry and Morris, 2005). The less financially knowledgable also appear less able to determine appropriate expectations for the future economy, such as through expectations of inflation (Bruine de Bruin et al., 2010).

Studies have determined that demographic characteristics matter when identifying performance on financial and macroeconomic questions. Specifically, lower rates of financial knowledge are seen in women, single people, minorities, people with lower levels of education, and people with lower incomes (Lusardi et al., 2010, Lusardi and Mitchell, 2005, 2007, 2008). However, most of the research thus far on financial literacy looks at segments of the population, rather than a representative sample of the entire nation. Other research, such as that conducted by the financial literacy non-profits, like Jump$tart Coalition, ask about financial knowledge but provide no insight into overall financial literacy. The National Financial Capability Survey is unique as a dataset surveying financial knowledge, behaviors, and attitudes across a representative sample of the country.

Description of the Data

The 2009 National Financial Capability Survey was completed in mid-2009 and released in December 2009. The study consists of three linked surveys: (1) a national telephone survey of 1,488 American adults; (2) a state-by-state online survey of 25,000 American adults (available Fall 2010); (3) an online survey of 800 military survey members and spouses. This study relies on the National Survey as administered from May through July of 2009. The initial sample of 1,200 respondents was conducted through a national, random-digit-dialed telephone survey and constructed to be representative of the general adult U.S. population. To ensure an adequate number of respondents, the sample size was increased to 1,488 through oversampling of African-Americans, Hispanics, Asian-Americans, and individuals with less than a high school education. The data collection

1. Suppose you had $100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow?
   - More than $102
   - Exactly $102
   - Less than $102
2. Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, how much would you be able to buy with the money in this account?
   - More than today
   - Exactly the same
   - Less than today
3. If interest rates rise, what will typically happen to bond prices?
   - They will rise
   - They will fall
   - They will stay the same
   - There is no relationship between bond prices and the interest rate
4. A 15-year mortgage typically requires higher monthly payments than a 30-year mortgage, but the total interest paid over the life of the loan will be less.
   - True
   - False
5. Buying a single companys stock usually provides a safer return than a stock mutual fund.
   - True
   - False

Figure 1: Questions from the Financial Knowledge Component of the Financial Capability Study

and design of the survey was supported by FINRA Investor Education Foundation.[7] The survey aimed to measure financial capability, through "banked" status and debts, financial behaviors and financial knowledge. Four main topics were covered: (1) making ends meet; (2) planning ahead; (3) choosing and managing financial products; and (4) financial knowledge and self-assessed skills (Lusardi, 2010).

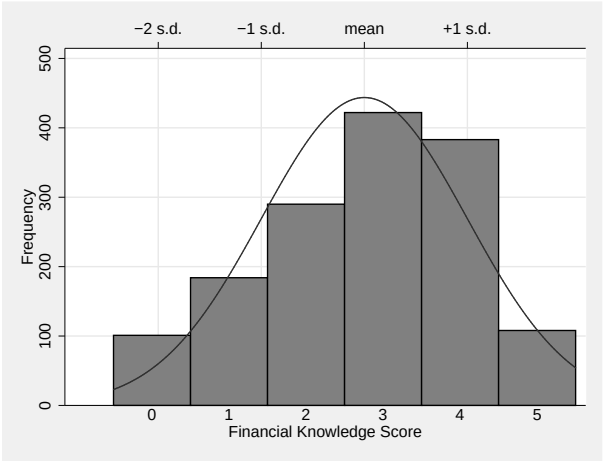
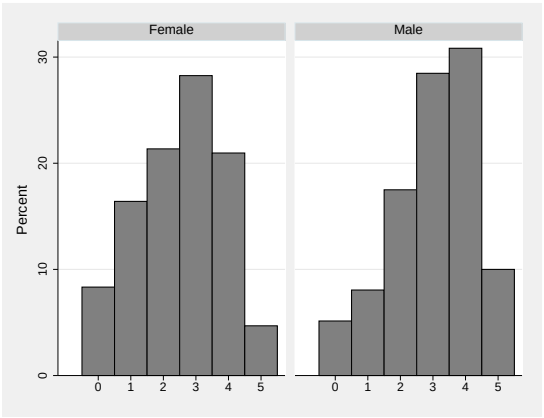


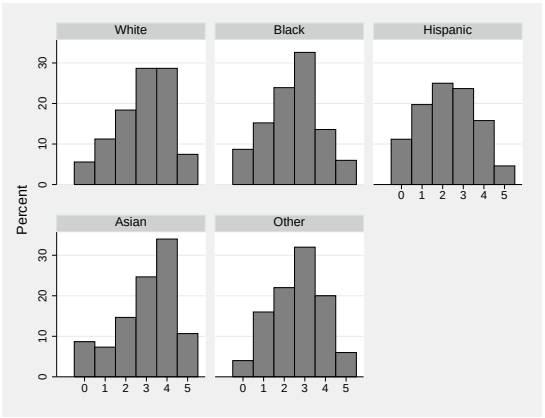
Figure 2: Frequencies of Correct Responses

To evaluate financial knowledge, respondents answered five multiple choice questions covering fundamental personal finance questions and four personal assessment questions. The exact wording of these questions and the corresponding answer choices can be seen in

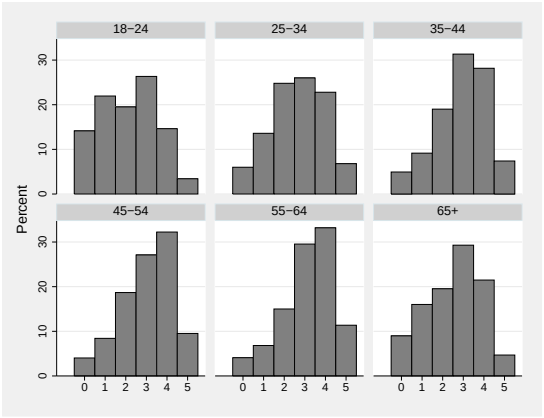
7. More information on the survey can be found at `www.finrafoundation.org/resources/research/p120478`.



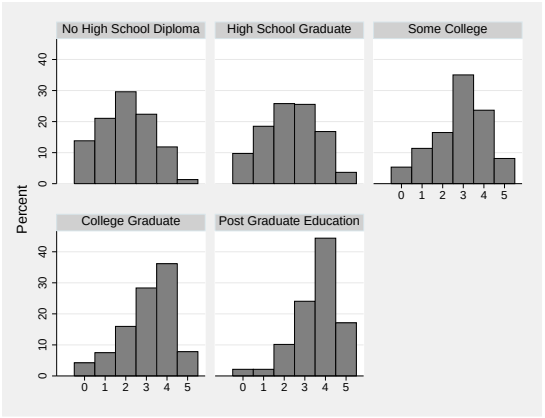
(a) By Gender



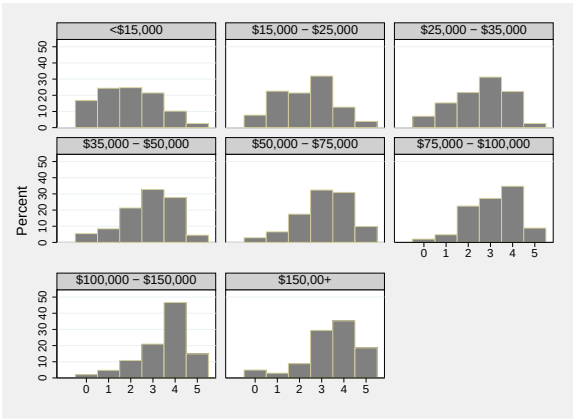
(b) By Race



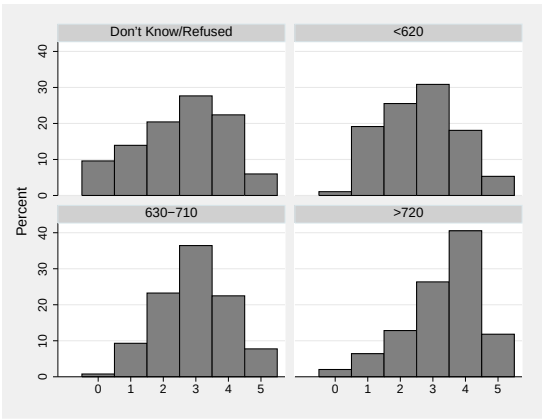
(c) By Age



(d) By Educational Attainment



(e) By Income



(f) By Credit Score

Figure 3: Correct Responses by Respondent Characteristics

Figure 1. Only 7.3% of respondents answered all five questions correctly, while an almost equivalent amount (6.8%) did not answer any questions correctly. The frequencies of correct responses are shown in Figure 2 and are distributed normally, with a mean of 2.8 correct responses. This same graph is shown by respondent characteristics, including gender, race, age, educational status, income, and credit score. A breakdown of the percent of respondents with the given characteristic responding correctly can be seen in Figure 3.

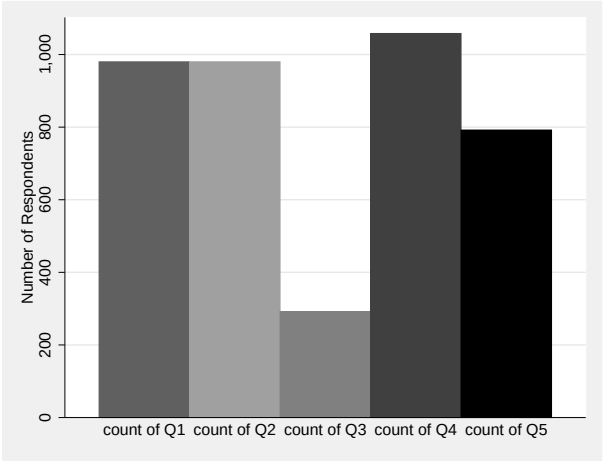


Figure 4: Count of Correct Responses by Question

Performance on all questions was not equal, with question 3, over bond prices, being answered correctly by only 19.6% of respondents. The rest either answered incorrectly, didn't know or refused to answer. 71.1% of respondents correctly answered the mortgage rate question (question 4) correctly. Again, the other respondent either answered incorrectly, didn't know, or refused to answer. A summary of the number of correct responses by question can be seen in Figure 4. The exact wordings of the questions and the corresponding answer choices can be found in Figure 1.

When asked about their overall financial knowledge, most respondents (38.5%) rated their own financial knowledge either 6 or 7, on a scale of 1-7. Only 7.5% of respondents believe that they possess a low level of financial knowledge. This personal assessment is not a good indication of actual financial knowledge, measured by performance on the financial knowledge quiz section of the Financial Capability Study (questions displayed in Figure 1).[8] In fact, as seen in Figure 5, less than half of respondents who indicated

8. A spearman correlation of financial knowledge and personal assessment of financial knowledge does suggest that the relationship between financial knowledge and

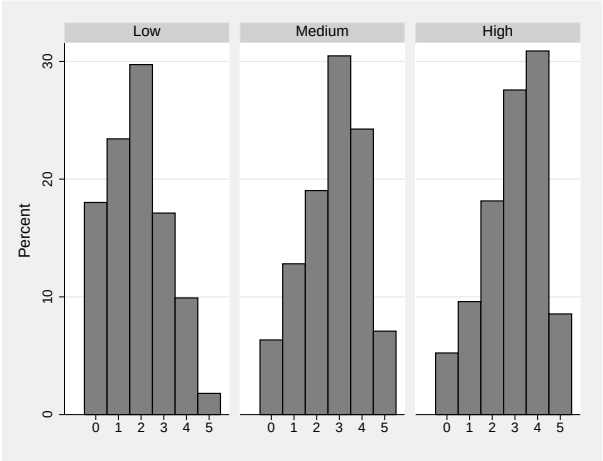


Figure 5: Correct Responses by Personal Assessment of Knowledge

a high financial knowledge answered at least 4 of the 5 financial knowledge questions correctly.

Testing Financial Knowledge

Few studies look at the appropriate measurement of financial literacy (versus the currently used measurement of financial knowledge) (Huston, 2010).[9]) Therefore, as a point of reference to the existing body of literature, this data must first be analyzed in reference to financial knowledge.

Due to the ordinal nature of the financial knowledge variable, demographic factors associated with financial knowledge were analyzed using ordinal logit. After the initial analysis, the model was rerun including only the significant variables. This is show in Table 1.[10] As you can see, not only is financial illiteracy a problem (see Figure 2), but it is more prevalent in some groups. Specifically, the odds of a male getting all of the questions correct, versus missing one or more questions, are 1.88 times more likely than for females, given the other variables in the model are held constant. This is consistent with previous findings on gender differences in financial knowledge (Lusardi and Mitchell, 2008). Other variables with a significant relationship with financial knowledge are age,

personal assessment ($rho = 0.1587, p = 0.000$) is statistically significant, although the correlation level between the variables is only 0.19, meaning that financial knowledge shares approximately 3.6% of its variability with personal assessment.

9. Recall that financial knowledge is called financial literacy in most works

10. The full model is presented in Table 4 in the Appendix.

Table 1: Ordinal Logit Model of Selected Variables on Financial Knowledge

	finknow	
	Odds Ratio	Std. Err
male	1.880***	(0.20)
age	1.110**	(0.04)
black	0.817	(0.12)
hispanic	0.708	(0.13)
asian	0.946	(0.18)
other	0.914	(0.24)
educ	1.323***	(0.07)
income	1.176***	(0.04)
internet	1.550**	(0.21)
investments	1.185*	(0.09)
advice	1.448***	(0.16)
goodmath	1.139***	(0.03)
goodnews	1.093**	(0.03)
Chi2	319.624	
R2	0.090	
N. of Cases	1482.000	

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

with a one category increase in age resulting in the odds of missing no questions versus missing one or more questions being 1.11 times greater, given the other variables are held constant in the model. Education and income also have a statistically significant impact on financial knowledge, consistent with previous knowledge. The race variables did not appear as statistically significant in the model, which is contrary to the existing literature (Lusardi et al., 2010, Lusardi and Mitchell, 2005, 2007, 2008). This is perhaps due to the use of an ordinal logit model versus the literature which primarily uses differences in meand. Despite the difference in the means of racial groups performance on the financial knowledge questions, performance by racial group does not vary in a statistically significant fashion.

Under the hypothesis that perhaps males are more likely to perform as financially knowledgable because they have greater exposure to the household finances, bill payer status was included in the model. While bill payer status is weakly significant, it does not diminish the gender effect. Under the hypothesis that perhaps it is not income that matters, but rather access to financial resources, both internet and advice were tested. Internet was statistically significant, with an individual with internet access being 1.55 times more likely to get all five questions correct versus missing one or more questions.

Use of financial advice is also statistically significant, and for individuals who reported speaking to a professional for advice, the odds of five correct responses versus missing at least one questions are 1.45 times higher than for individuals who did not report seeking financial advice, given the other variables are held constant. Also contributing were a personal assessment of mathematical ability and a personal assessment of ability to keep up with the news.

Assessing Financial Literacy

Next, I created a variable representing overall financial literacy. This was done using the behavioral and attitudinal questions on the National Financial Capability Survey. Factor Analysis was conducted, generating three important factors: Factor 1 - Debt/Borrowing Behavior, Factor 2 - Financial Knowledge, and Factor 3 - Banking Behavior. These three factors were then combined into one variable called finlit, with equal weighting given to each factor. For more information on the factor loadings see Table 5 in the Appendix. The resulting financial literacy variable incorporated attitudes and behaviors on insurance, debt, savings, banking, as well as financial knowledge and self perceptions. This variable was rescaled to 0-5 to be comparable to the financial knowledge variable used above.

An analysis of the factors contributing to financial literacy is seen in Table 2. Gender has a significant effect on financial literacy with males scoring 0.9 points higher than females on the 0 to 5 scale, or 18% higher. Also contributing to increased rates of financial literacy are age, education, and income, as in the analysis of financial knowledge. Unlike the analysis of financial knowledge, being hispanic does have a statistically significant effect when compared to the base case of white, although being black, asian or other remains statistically insignificant. This difference represents an area in need of further research. This could be due to behavioral differences between races, which might indicate that financial education is not the solution to financial illiteracy. It could also indicate levels of discrimination in the financial sector, leading to differing behaviors. It could also indicate that there are cultural factors at play where hispanics are more likely to be unbanked, and therefore make "poor" financial decisions such as the use of payday lenders and pawn shops. Number of children has a weakly negative effect on financial

Table 2: Regression Model on Financial Literacy (Scaled 0-5)

	finlit
south	-0.164**
	(-3.01)
west	-0.0850
	(-1.39)
midwest	-0.0729
	(-1.19)
male	0.0912*
	(2.14)
age	0.0883***
	(6.10)
black	-0.0581
	(-0.93)
hispanic	0.161*
	(2.24)
asian	0.147
	(1.73)
other	0.130
	(1.26)
educ	0.0574**
	(2.69)
marital	-0.182**
	(-2.68)
income	0.0928***
	(6.64)
employ	-0.0276
	(-0.75)
kids	-0.0459*
	(-2.20)
billpayer	0.0941
	(1.64)
internet	0.0858
	(1.58)
investments	0.647***
	(20.45)
creditscore	0.0468**
	(2.77)
constant	1.739***
	(20.10)
R2	0.352
N. of Cases	1476

t statistics in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

knowledge, perhaps due to issues correlated with the type of person who has four or more children versus the type of person who has no children or 3 or fewer children. While bill payer status did appear to affect financial knowledge, it does not have a statistically significant effect on financial literacy.

The individual factors that contribute to financial literacy were also examined and are presented in Table 3. It is apparent that financial knowledge is highly contributive to behaviors, lending credence to earlier works that studied financial knowledge as a proxy for financial literacy. The impact of financial knowledge on behaviors and attitudes has important policy implications and encourages the use of financial education to improve financial behaviors and therefore enact financial reform in the country. Different census regions apparently treat debt and borrowing differently, as census region (North, South, East, or West) has a statistically significant effect on debt and borrowing behaviors. Also interesting, controlling for financial knowledge, gender does not have a significant effect on behaviors. Income has a statistically significant effect on all three factors of financial knowledge, implying that those with more money think more about their financial behaviors and act in more positive fashion. It could also imply that those with more money have greater opportunities to engage in positive behaviors and indicate that labeling some behaviors positive and others negative as they relate to financial behavior is a biased measurement.

Perhaps it is inappropriate to assume that access to insurance is a positive attribute for all individuals. Below a certain income threshold it is perhaps not the best use of limited resources. Banked status is considered a positive attribute, but not all individuals have equal opportunity to maintain a bank account, making payday loans a logical (although not optimal) option. Without banked status and other positive financial behaviors, it is not possible to have the credit score necessary to get a credit card or other types of borrowing, therefore making the use of rent-to-own furniture or electronics center a logical (although again not optimal) solution. Just as a lower income individual may not have equal access to credit, they may also not need equal levels of retirement savings. A better financial behavior for that individual could be getting into a better apartment or paying off debt rather than starting to save.

Table 3: Regression Model on Financial Literacy Factors

	Factor 1 DebtBorrowing	Factor 2: Financial Knowledge	Factor 3: Banking
finknow	0.117***		0.0798***
	(3.74)		(4.51)
south	-0.407***	-0.0819*	0.0713
	(-4.15)	(-2.42)	(1.32)
west	-0.261*	-0.0197	0.0403
	(-2.49)	(-0.52)	(0.71)
midwest	-0.207	-0.0384	0.0572
	(-1.89)	(-1.05)	(0.95)
male	-0.0493	0.0117	0.103*
	(-0.66)	(0.45)	(2.47)
age	0.176***	-0.00812	0.0378**
	(6.66)	(-0.93)	(2.69)
black	-0.254*	0.144***	-0.110
	(-2.16)	(3.62)	(-1.64)
hispanic	0.202	0.192***	-0.0656
	(1.62)	(3.88)	(-0.96)
asian	0.229	-0.00106	0.113
	(1.53)	(-0.02)	(1.43)
other	0.0177	0.161*	0.00131
	(0.09)	(2.03)	(0.01)
educ	0.0469	-0.0405**	0.0869***
	(1.29)	(-2.97)	(4.05)
marital	-0.0717	-0.0677	-0.188**
	(-0.59)	(-1.62)	(-2.71)
income	0.207***	-0.0563***	0.0820***
	(8.14)	(-6.36)	(6.00)
employ	-0.150*	0.0134	0.0235
	(-2.41)	(0.56)	(0.61)
kids	0.00141	0.0219	-0.102***
	(0.04)	(1.64)	(-5.21)
billpayer	-0.00787	0.0150	0.131*
	(-0.08)	(0.44)	(2.29)
internet	0.282**	-0.0629	-0.000166
	(2.84)	(-1.77)	(-0.00)
investments	-0.0459	0.765***	0.123***
	(-0.83)	(34.33)	(3.89)
creditscore	0.125***	-0.0338**	0.0335*
	(4.41)	(-3.15)	(1.98)
constant	1.813***	2.176***	2.368***
	(10.87)	(41.45)	(26.95)
R2	0.291	0.635	0.205
N. of Cases	1476	1476	1476

t statistics in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Concluding Remarks

This work contributes significantly to the literature on financial literacy by making a first attempt at analyzing factors correlated with higher levels of financial knowledge and financial literacy. The use of the federally adopted definiton of financial literacy is a significant step forward, but not the answer. Measuring financial literacy is a complicated issue and deserves further scrutiny. A better measure of financial literacy will distinguish the optimal financial behavior for an individual rather than indicate a behavior as positive or negative as it pertains to the overall population.

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Appendices

A Description of Variables

The data source is the Financial Capability Study of 2009 found at `www.finrafoundation.org/resources/research/p120478`. For all variables, "don't know" and "no response" are combined and coded with the incorrect responses. This is because we are primarily concerned with the number of respondents with correct answers.

finknow The Financial Knowledge Score of the respondent on a scale of 0-5, coded by summing the number of correct reponses to the five financial knowledge questions

finlit The Financial Literacy Score, scaled to 0-5 for comparison with finknow, created through factor analysis using both financial knowledge, financial behaviors, financial attitudes, and financial characteristics

Census Region Respondents census region: (Northeast as base case, South, Midwest, or West)

male Dummy equals 1 if respondent male, 0 if female

age Age grouping of respondent, in six categories: coded 0 for 18-24, 1 for ages 25-34, 2 for ages 35-44, 2 for ages 45-54, 4 for ages 55-64, and coded 5 for ages 65+

Race Dummy variables for the respondents race (Hispanic, Black, Asian, Other, with base case of White)

educ Highest educational level attained, with 0 being no high school degree, 1 high school graduate, 2 some college, 3 college graduate, and 4 a post-graduate education

marital Status Equals 1 if respondent married or living with partner

income Household income, including wages, tips, investments, etc., divided into 8 categories: variable equals 0 for income under $15,000, equals 1 for income of at least $15,000 but no more than $25,0000, equals 2 for income between $25,000 and $35,000, equals 3 for income between $35,000 and $50,000, equals 4 for between $50,000 and $75,000, equals 5 for income of at least $75,000 but less than $100,000, equals 6 for income of $125,000 to $150,000 and equals 7 for income above $150,000.

employment Employment status of respondent (0=Employed (full-time or part-time) 1=not working (retired, student, homemaker, disabled), 2=Unemployed)

kids Number of dependent children, censored at 4

billpayer Equals 1 if respondent has some billpayer responsiblities in the household (shared or sole responsibility), otherwise equals 0

internet Dummy variable equals 1 if respondent regularly uses the internet

advice Dummy variable equals 1 if respondent received financial advice from a professional in the past five years, equals 0 if the respondent has not received financial advice, does not know if they received advice or refused to answer

Investments Dummy variable equals 1 if household owns stock, bonds, mutual funds, or other investments, 0 otherwise, don't know or refused to answer

creditscore Credit Score of respondent, grouped into four categories: 0 if respondent does't know or refsed to answer, 1 for a credit score of less than 620, 2 for a credit score between 630 and 710, 3 for a score above 720

goodfinancial Respondent's personal assessment of their day to day financial ability (1 low - 7 high)

goodmath Respondent's personal assessment of their mathematical ability (1 low -7 high)

goodnews Respondent's personal assessment of their ability to keep us with the news (1 low - 7 high)

personalassessment Respondent's personal assessment of their overall financial literacy (1 low - 7 high)

	Variable Name	mean	sd	min	max
Number of Correct Financial Knowledge Responses	finknow	2.76	1.34	0	5
Financial Literacy Score	finlit	2.71	0.90	0	5
Census Region					
West	west	0.25	0.43	0	1
Midwest	midwest	0.22	0.42	0	1
Northeast	northeast	0.19	0.39	0	1
South	south	0.34	0.47	0	1
Gender	male	0.48	0.50	0	1
Age Group	age	2.54	1.66	0	5
Race					
White	white	0.64	0.48	0	1
Black	black	0.12	0.33	0	1
Hispanic	hispanic	0.10	0.30	0	1
Asian	asian	0.10	0.30	0	1
Other	other	0.03	0.18	0	1
Highest Educational Level Attained	educ	1.98	1.18	0	4
Marital Status	marital	0.62	0.49	0	1
Household's Approximate Annual Income (including wages, tips, investments, etc.)	income	3.05	2.20	0	7
Respondents Employment Status	employ	0.49	0.63	0	2
Number of Financially Dependent Children	kids	0.96	1.19	0	4
Primary Bill Payer in Household	billpayer	0.45	0.50	0	1
Regular Internet Usage	internet	0.71	0.45	0	1
Advice from Financial Professional in Past 5 Years (on debt counseling, savings, etc)	advice	0.57	0.50	0	1
Does household own stocks, bonds, mutual funds, or other securities?	investments	0.63	0.66	0	1
What is Credit Score	creditscore	0.83	1.23	0	3
I am good at dealing with day-to-day financial matters	goodfinancial	5.64	1.72	1	7
I am pretty good at math	goodmath	5.67	1.71	1	7
I regularly keep up with economic and financial news	goodnews	4.97	1.94	1	7
How would you assess your overall financial knowledge	personalassessment	5.02	1.50	1	7
Observations	1476				

B Ordinal Logit Results

Table 4: Ordinal Logit Model of Financial Knowledge

	finknow	
	Coef.	Std. Err
south	0.2	(0.1)
west	0.1	(0.2)
midwest	0.0	(0.1)
male	0.7***	(0.1)
age	0.1*	(0.0)
black	-0.2	(0.2)
hispanic	-0.4*	(0.2)
asian	-0.1	(0.2)
other	-0.1	(0.3)
educ	0.3***	(0.1)
marital	0.2	(0.2)
income	0.1***	(0.0)
employ	0.1	(0.1)
kids	-0.1	(0.0)
billpayer	0.1	(0.1)
internet	0.4**	(0.1)
investments	0.2	(0.1)
creditscore	0.1	(0.0)
advice	0.4**	(0.1)
goodfinancial	-0.0	(0.0)
goodmath	0.1***	(0.0)
goodnews	0.1**	(0.0)
personalassessment	0.0	(0.0)
cut1	0.4	
cut2	1.7	
cut3	3.0	
cut4	4.4	
cut5	6.6	
Chi2	346.3	
R2	0.1	
N. of Cases	1476.0	

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

C Factor Loadings

Table 5: Factor Loadings

	Factor1	Factor2	Factor3	Uniqueness
finknow	.365	-.163	.017	.840
finrisk	.163	-.166	.112	.933
goodfinancial	.306	-.421	.053	.727
goodmath	.194	-.367	.106	.817
goodnews	.256	-.377	.151	.769
personalassessment	.3138011	-.3963559	.1062782	.7331358
banked	-.579	.261	.635	.194
bankoverdraw	-.300	-.023	.641	.499
behaviorsavings	-.440	.361	-.204	.634
behaviorcheckcashing	.501	-.249	-.562	.370
behaviorbankruptcy	.082	-.029	.100	.982
behaviorforeclosure	-.242	.013	.142	.921
behaviorpaydayloan	.116	-.0839	.159	.954
behaviortaxadvance	.158	-.095	.042	.964
behaviorpawn	.273	-.155	-.021	.901
behaviorrenttoown	.231	-.053	.002	.944
retireemployerplan	-.320	.143	.065	.873
retireaccounts	-.312	.150	-.066	.876
debtpattern	-.226	.227	-.130	.881
debtpaybills	-.445	.407	-.161	.610
debtcreditcards	.789	.210	.041	.331
debtcreditinfull	.711	.362	-.090	.356
debtcreditinterest	.826	.140	.173	.268
debtcreditminimum	.907	.139	.178	.127
debtcreditlatefee	.911	.195	.147	.110
debtcreditoverlimit	.941	.256	.098	.040
debtcreditcashadvance	.930	.270	.060	.060
debtauto	-.127	-.080	.239	.920