Consumer Interest Annual *Volume 48, 2002*

Financial Knowledge, Experience and Learning Preferences: Preliminary Results from a New Survey on Financial Literacy

This abstract describes a recent Federal Reserve Board study on financial knowledge, experiences and learning preferences. Results are still preliminary and further analysis will be forthcoming.

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Introduction

Over the last several years, the issue of financial literacy seems to have risen on the agendas of educators, community groups, businesses, government agencies, organizations, and policy makers. Well-informed, financially literate consumers should make better decisions for their families, increasing their economic security and well being. Secure families are better able to contribute to vital, thriving communities, further fostering community economic development. Thus, financial literacy is not only important to the individual household and family, but also to their communities as well.

One reason for the increasing visibility of financial literacy is that the financial marketplace of the 21st century has become more complex. And, as Alan Greenspan has said, "As market forces continue to expand the range of providers of financial services, consumers will have much more choice and flexibility in how they manage their financial matters. They will also need to accumulate the appropriate knowledge on how to use new technologies and on how to make financial decisions in an informed manner" (Greenspan, 2001).

Take the "simple" decision of opening a checking account. Thirty years ago, you could walk into your hometown bank; the tellers and the bank manager knew your name; the product choice was simple (about all you had to choose was the color of your checks); and the bank was on the corner. Today, the bank may still be on the corner, but it's just as likely to be on the Internet; the product choice is much more diverse (banks have several basic and interest checking accounts along with electronic transaction accounts); and with mergers and acquisitions, the staff may not know you at all. The same holds true for many other products and services – mortgages (which are no longer just 30-year fixed-rate mortgages, but include all permutations of terms and interest rates), home equity loans and lines of credit (products that didn't exist 20 years ago), and a broad range of investment choices – the list could go on. Information and the ability to decipher and use that information in decision making becomes more necessary as financial products and services continue to expand and as new delivery channels for financial services develop.

Beyond the changes in the financial marketplace, a demographic shift is taking place. Aging baby boomers who will be more responsible for their own retirement income security, youth who are coming to financial independence with limited role models and experiences, and immigrants who need to learn to manage in the U.S. marketplace – all are trends that need to be addressed via financial literacy efforts.

Even though financial literacy is important for all the above reasons, the topic has not been studied holistically (see the discussion in Hogarth, 2002). Some researchers have focused on levels of consumers' financial knowledge (see, for example, CFA, 1990, 1991, 1993, 1998; Mandell, 2001; ACEC, 2001; ASEC, 1999). Others have looked at the types of products and services consumers use (for example, see O'Neill, Xiao, Bristow, Brennan, and Kerbel, 2000) or at specific financial management behaviors (Joo, Grable, and Bagwell, 1999). Few researchers, however, have studied the links between knowledge, experience and behaviors.

The goal of this project is to shed some light on the relationships between financial knowledge, financial experiences, financial behaviors and how these relate to the ways in which consumers learn about financial management. The questions that we pose in this study are: What is the level of basic financial knowledge of U.S. consumers? What types of financial experiences do consumers have? What financial management practices do they follow? How do people learn about financial management? How would they prefer to learn? In this abstract, we focus on knowledge, experiences, and learning preferences.

Study Design

In order to answer these questions, the Federal Reserve commissioned additional questions regarding a household's financial knowledge, experience, behaviors, learning experiences, and learning preferences in the monthly Surveys of Consumers. These surveys, which were initiated in the late 1940s by the Survey Research Center at the University of Michigan, measure changes in consumer attitudes and expectations with regard to consumer finance decisions. Each monthly telephone survey of 500 households includes a set of core questions covering consumer attitudes and expectations along with socioeconomic and demographic characteristics (see Curtin, 2001 for more information). The questionnaire was administered in November and December 2001; the data contain information from 1000 respondents.

Federal Reserve staff worked with colleagues in the U.S. Department of Agriculture's Cooperative State Research, Education, and Extension Service, to craft the supplemental questionnaire. Questions were based, in part, on experiences from other surveys (for example, the Jump$tart Coalition's bi-annual survey of high school seniors, Money 2000 surveys, previous CFA/American Express surveys, ASEC youth survey, ACEC youth survey). The questions were divided into 5 parts: a knowledge "quiz;" an assessment of experiences with financial products and services; an assessment of financial behaviors; how respondents learned about financial management; and how respondents would prefer to learn about financial management. Since the Survey of Consumers is a phone survey, a true-false-uncertain format was adopted for the knowledge quiz rather than the multiple-choice format used in many of the sample surveys. Once questions were drafted, they were shared with a set of researchers who work in the area of financial education. These researchers helped review the questions and provided additional guidance. Further revisions were made in consultation with the staff at the Survey Research Center.

As of this writing (in spring, 2002), data analysis is just under way. We present the following introductory results on the knowledge "quiz," financial experiences, and learning sections of the data. The reader is reminded that these results are preliminary in nature.

What Do Consumers Know?

We asked consumers a set of 28 true-false questions covering savings, credit, mortgages, and general financial management topics. The average "score" on the quiz was 67% (correctly answering 19 of the 28 questions, see Table 1). Individual items in the quiz ranged from only 18% knowing that the 3-day cooling off period does not apply to buying a new car to 94% knowing that "you should have an emergency fund that covers 2 to 6 months of your expenses" and 94% knowing that "making payments late on your bills can make it more difficult to take out a loan."

Consumers were most knowledgeable about mortgages; the average score on the mortgage questions was 81%. In general, consumers were less knowledgeable about credit (average score of 65%), savings (average score, 67%), and general financial management (average score, 60%).

Table 1.
<u>Knowledge questions</u>

Credit	Answer	% answering correctly
Making payments late on your bills can make it more difficult to take out a loan.	True	94
The finance charge on your credit card statement is what you pay to use credit.	True	69
If you expect to carry a balance on your credit card, the APR is the most important thing to look at when comparing credit card offers.	True	84
Your credit rating is not affected by how much you charge on your credit cards.	False	60
Using extra money in a bank savings account to pay off high interest rate credit card debt is a good idea.	True	68
If you are behind on debt payments and go to a credit counseling service, they can get the federal government to apply your income tax refund to pay off your debts.	False	22
If your credit card is stolen and someone uses it before you report it missing, you are only responsible for $50, no matter how much they charge on it.	True	50
Creditors are required to tell you the APR that you will pay when you get a loan.	True	92
Your credit report includes employment data, your payment history, any inquiries made by creditors, and any public record information.	True	81

If you have any negative information on your credit report, a credit repair agency can help you remove that information.	False	30
Saving		
With compound interest, you earn interest on your interest, as well as on your	True	72
All investment products bought at your bank are covered by FDIC insurance.	False	33
Mutual funds pay a guaranteed rate of return.	False	52
A stock mutual fund combines the money of many investors to buy a variety of stocks .	True	75
Over the long-term, stocks have the highest rate of return on money invested.	True	56
If you buy certificates of deposit, savings bonds, or treasury bills, you can earn higher returns than on a savings account, with little or no added risk.	True	74
The earlier you start saving for retirement, the more money you will have because the effects of compounding interest increase over time.	True	92
Whole life insurance has a savings feature while term life insurance does not.	True	60
If you have a savings account at a bank, you may have to pay taxes on the interest you earn.	True	86
Mortgage		
If the interest rate on an adjustable rate mortgage loan goes up, your monthly mortgage payments will also go up.	True	77
You could save thousands of dollars in interest costs by choosing a 15-year rather than a 30-year mortgage.	True	84
Repeatedly refinancing your home mortgage over a short period of time results in added fees and points that further increase your debt.	True	72
When you use your home as collateral for a loan, there is no chance of losing your home.	False	91
General		
You should have an emergency fund that covers two to six months of your expenses.	True	94
Your bank will usually call to warn you if you write a check that would overdraw your account.	False	62
Employers are responsible for providing the majority of funds that you will be need for retirement.	False	72
The cash value of a life insurance policy is the amount available if you surrender your life insurance policy while you're still alive.	True	56
After signing a contract to buy a new car, you have three days to change your mind.	False	18
Overall average Knowledge Score		67%

<u>Who Is More Knowledgeable?</u>

To begin to study levels of financial knowledge, we sorted the data into two groups: those with more financial knowledge (scoring 18 or more on the quiz), and those with less financial knowledge (scoring 17 or less on the quiz). The cutoff point between 17 and 18 was based on “grading on the curve” – taking the mean score and using standard deviations to create the “grades” – C or better was a passing grade, D’s and below were not.

In a simple bi-variate framework, respondents who were more financially knowledgeable tended to be married, non-minority, middle aged, more highly educated, and have higher incomes (Table 2). It remains to be seen whether these relationships hold in a multivariate framework.

Table 2
Demographic Characteristics by Level of Financial Knowledge (in percentages except where noted)

	All obs.	More financial knowledge	Less financial knowledge	Chi-Square*	P-value
Number of observations	1004	676	328		
Marital status and gender:				13	0.0012
Married	60	64	53		
Single male	16	16	14		
Single female	24	20	33		
Race/ethnicity:				36	<.0001
White	79	85	68		
Black	9	6	16		
Hispanic	6	4	10		
Other	3	4	3		
Not known	2	1	3		
Age groups:				47	<.0001
18-24	8	7	10		
25-34	18	17	22		
35-44	23	25	21		
45-54	19	23	12		
55-64	12	14	10		
65-97	18	14	26		
NA	1	1	0		
Education:				80	<.0001
High school or less	39	31	55		
Some college	25	25	24		
College	22	26	15		
More than college	13	17	4		
Not known	1	0	1		
Region:				3	0.3983
West	21	21	20		
Midwest	25	23	28		
Northeast	19	20	18		
South	35	35	34		
Household income				-9**	<.0001
Mean	$56,079	$65,399	$37,062		
Median	$45,000	$53,000	$30,000		

* Chi-square tests are performed between those with more financial knowledge and those with less financial knowledge
** T-tests are performed between those with more financial knowledge and those with less financial knowledge

What Experiences Do Consumers Have?

We asked consumers whether they had experience with any of 12 different financial products or services. These ranged from savings and checking accounts to credit cards, mortgages, refinancings, and investments (Table 3). Consistent with other surveys, we found that 89% of households had a checking account and 80% had a savings account. Less than half reported having retirement accounts (pensions, 401k or IRA plans) or mutual funds; about one-fourth reported holding individual stocks. Three-fourths were home owners, and one-third had refinanced or obtained a home improvement loan. Nearly four-fifths had a credit card. About two-thirds reconciled their checkbooks monthly, had a financial record keeping system, and had an emergency fund. Half reported spreading their money across different types of investments. Two out of five reported doing their own income taxes and calculating net worth.

Table 3.
Financial Experiences by Level of Financial Knowledge (in percentages except where noted)

	All obs.	More financial knowledge	Less financial knowledge	Chi-Square*	P-value
Type of financial instrument:					
Checking account	89	95	76	80	<.0001
Savings account	80	84	71	26	<.0001
Have credit card	79	86	65	55	<.0001
Bought a house	72	79	58	53	<.0001
Mutual fund	46	56	26	77	<.0001
Company pension plan	45	51	31	37	<.0001
401k plan	45	51	31	37	<.0001
IRA/Keogh	43	51	25	60	<.0001
Refinance mortgage or loan for home improvements	35	41	22	36	<.0001
Certificates of deposit (cd's)	30	35	20	22	<.0001
Public stock	24	30	10	47	<.0001
Bonds	6	7	3	5	0.0267
Proxies of networth:					
Have at least one stock (either public or through retirement savings or mutual funds)	36	46	15	90	<.0001
Home owner	75	79	67	15	<.0001
Other financial experience:					
Reconcile checkbook every month	67	71	60	12	0.0006
Have financial record keeping system	65	73	49	58	<.0001
Have emergency fund	63	72	45	69	<.0001
Reviewed credit reports	58	62	48	88	<.0001
$ spread over different types of investments	53	64	30	103	<.0001
Have any investment accounts	52	63	30	98	<.0001
Do own taxes each year	40	44	33	11	0.0012
Calculated net worth in past 2 yrs	40	47	26	41	<.0001

* Chi-square tests are performed between those with more financial knowledge and those with less financial knowledge
** T-tests are performed between those with more financial knowledge and those with less financial knowledge

For each and every product or service, higher proportions of financially knowledgeable consumers had experience with the product or service. Mutual funds had the largest differential – 56% of financially knowledgeable respondents held mutual funds compared with only 26% of respondents with less financial knowledge.

Use of these products and services may be connected with net worth. The Surveys of Consumers do not provide precise data on net worth, although there are some proxy variables we can use to estimate the relationship between net worth and financial knowledge. When looking at stock ownership -- whether in mutual funds, retirement plans, or ownership of individual stocks – the differential between those with more and less knowledge was substantial: 46% of those with higher knowledge scores had stocks in some form, compared with only 15% of those with less knowledge. A slightly higher proportion of financially knowledgeable respondents was homeowners (79%) compared with those with less financial knowledge (67%).

Learning About Financial Management

The survey asked consumers how much they learned about financial management from 7 different sources, the most important way in which they learned, and their preferences for learning in the future. As in other studies, consumers indicated they learned the most from personal experience; half said this was the most important way they learned (Table 4). Friends and family were the second-most reported source of learning, followed by the media. There was no difference between those with more or less knowledge in the way they learned.

Table 4
Learning about Financial Topics

How much have you learned about financial topics from:	Average score*	% Answering "a fair amount" or "a lot"	% Reporting this was most important way of learning
High school or college courses?	2	19	5
Training courses or seminars outside of school?	2	17	5
Personal financial experiences?	4	68	50
Friends and family?	3	42	22
An employer	2	21	5
TV, radio, magazines, or newspapers?	3	36	11
The Internet?	2	11	2

*1=nothing, 2=very little,3=some, 4=a fair amount, 5=a lot

Turning to how people preferred to get future information, the top-ranked sources were media, brochures, and home videos (Table 5). The Internet, courses, and seminars ranked somewhat lower, although about half indicated that these would be effective ways for them to learn. Interestingly, the preferred methods of learning can be classified as individually focused and "on demand" – that is, consumers want information on their time, not on someone else's schedule. There was a slight difference between those with more and less knowledge in their learning preferences; both groups consistently ranked media, brochures, home videos as the top three, but those with more knowledge ranked learning from the internet higher than those with less knowledge.

Table 5
Learning Preferences for Financial Topics

Which of the following ways would be effective for you to learn about managing your money?	% feeling this would be effective
Informational seminars held in your community	51
Formal courses at a school in your community	52
A video presentation you could view at home	62
Informational brochures	65
TV, radio, magazines or newspapers	69
The Internet or from a computer program	54

Into the Future

We plan to develop similar univariate and bivariate analyses on financial behaviors and then begin to explore the links between knowledge, experiences, and – perhaps the truest test of financial literacy – financial behaviors. Our next goal is to look at the relationships between financial knowledge, experience and behaviors, both with respect to sub-categories (e.g. credit, savings, retirement) and with respect to overall financial management in a multivariate framework.

References

ACEC (Americans for Consumer Education and Competition) (2001). Key findings from a national survey of high school seniors regarding personal finance issues. Retrieved from the World Wide Web at http://www.acecusa.org/reportcard/ on September 27, 2001.

ASEC (American Savings Education Council) (1999) Youth and Money. Retrieved from the World Wide Web at http://www.asec.org/youthsurvey.pdf on September 27, 2001.

ASEC (2001) Parents, youth and money. Retrieved from the World Wide Web at http://www.asec.org/2001pym/pym-es.pdf on September 27, 2001.

CFA (Consumer Federation of America) (1990). U.S. consumer knowledge: The results of a nationwide test. Washington DC: Consumer Federation of America.

CFA (1991). High school student consumer knowledge: A nationwide test. Washington DC: Consumer Federation of America.

CFA (1993). College student consumer knowledge: The results of a nationwide test. Washington DC: Consumer Federation of America.

CFA (1998). American consumers get mixed grades on consumer literacy quiz. Press release. Retrieved from the World Wide Web at www.consumerfed.org/clquizpr.pdf on September 24, 2001.

Curtin, R. T. (2001) Surveys of consumers. Retrieved from the World Wide Web at http://athena.sca.isr.umich.edu/scripts/info/info.asp on February 14, 2001.

Greenspan, A. (2001) Remarks by Chairman Alan Greenspan: The importance of education in today's economy. Speech presented at the Community Affairs Research Conference of the Federal Reserve System, April 6. Retrieved from the World Wide Web at www.federalreserve.gov/boarddocs/speeches/20010406/default.htm on September 24, 2001.

Hogarth, J.M. (2002) Financial literacy and family and consumer sciences. Journal of Family & Consumer Sciences, 94 (1), 15-28.

Joo, S., Grable, J.E., and Bagwell, D.C. (1999) Financial behavior of clerical workers: An examination and implications. Proceedings of the Association for Financial Counseling and Planning Education, 94-101.

Mandell, L. (2001). Dumb and getting dumber. Credit Union Magazine, 67 (1), 6-7.

O'Neill, B. Xiao, J., Bristow, B., Brennan, P. and Kerbel, C. (2000) Successful financial goal attainment: Perceived resources and obstacles. Financial Counseling and Planning, 11 (1), 1-12.

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To cite this paper:
Hogarth, Jeanne M. and Hilgert, Marianne A. "Financial Knowledge, Experience, and Learning Preferences: Preliminary Results from a New Survey on Financial Literacy." Paper published in the *Consumer Interest Annual*, Proceedings of the American Council on Consumer Interests 2002 Annual Conference, March, 2002. Available online at
http://www.consumerinterests.org/public/articles/\public\articles\FinancialLiteracy-02.pdf

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