Policy Brief

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Financial Literacy: If It's So Important, Why Isn't It Improving?

Lewis Mandell

Abstract: Financial literacy has assumed greater importance in our society as the result of the increasing complexity of financial products and the simultaneous cutting of economic safety nets by government, employers and even parents who worry about their own retirements. If the problem isn't solved and consumers don't look out for themselves, they may exercise a "put option" by throwing themselves on the mercy of taxpayers when they cannot support themselves in retirement. In addition, a lack of financial literacy may contribute to seemingly "irrational" behavior that distorts financial markets.

Measured financial literacy scores among high school seniors is low and has even declined since 1997. More distressing is the fact that students who take a course in personal finance end up no more financially literate than those who don't. Tracking students who took such a course over a 5 year period shows no positive impact on financial literacy, attitudes toward thrift or behavior. The only bright spot is the stock market game which consistently increases literacy scores, indicating that teaching should be interactive, contemporary and "fun."

About the Author: From 1998 to 2001, Dr. Mandell served as dean of the School of Management, leading a successful effort to improve the school's national and regional reputation, as well as its educational facilities. In 2004, he was named "Teacher of the Year" by the Undergraduate Management Association. Previously he served as dean of the School of Business at Marquette University.

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He is a member of the board of directors of Delaware North Companies, mutual funds and variable annuities boards of Met Life, the Jump$tart Coalition for Personal Financial Literacy and the American Financial Services Association Education Foundation for whom he completed an online, interactive textbook "MoneySKILL" which is offerd without charge to teachers and professors throughout the world. He has served as a consultant for such clients as Aetna, American Express, Chase Manhattan Bank, Fleet Bank and General Motors. Currently, he is a member of the Standing Committee for the new national examination in Economics which will first be administered by the Department of Education in 2006 as part of "No Child Left Behind."

Dr. Mandell has published numerous articles in the top business journals including the Journal of Finance (3), the American Economic Review, the Journal of Marketing Research and the Journal of the American Statistical Association. He earned a bachelor's degree from City College of New York, a master's degree from Northwestern University and a doctorate from the University of Texas.

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Definition

From the inception of my research in financial literacy in 1995, my working definition has been that financial literacy is what people must know in order to make important financial decisions in their own best interest. Since my specialization in financial literacy has been that of young people, primarily high school seniors, my working definition appears to be somewhat inadequate. High school students who are 17 or 18 years old tend to not make many important financial decisions and, as a result, tend to not to retain much of what they learn in formal courses about buying a house, investing in securities, purchasing insurance or saving for retirement.

This disconnect causes a lot of problems for well-meaning adults who want our youngsters to be financially literate enough to avoid severe difficulties. They know that it is virtually impossible to reach people who have completed their mandatory school years with education that takes more than a few minutes to impart. Yet this does not stop them from hoping that mandatory high school classes will deliver financial literacy that is "sticky" enough to persevere to adulthood.

Importance

Financial literacy is important at many levels. Certainly, it is most important for the individual who must make complex and expensive financial decisions on

behalf of him/herself and of dependents. Bad decisions can cause a great deal of misery, and recent changes to the Federal bankruptcy statutes extend these consequences to a wider population. [Mecham, 2005]

If, as appears to be the case, those with higher incomes and greater wealth are more financially literate than those with fewer resources, *financial welfare* which is a product of the two, is likely to be more unevenly distributed in the population than either income or wealth. This could ultimately lead to calls for massive re-regulation in an attempt to give government protection to consumers who are incapable of protecting themselves. In addition, if those with low levels of financial welfare perceive themselves to be part of a large segment of the population, they may perceive that they have been given an implicit social put option which will enable them to throw themselves on the mercy of the government if, for example, their lack of savings leaves them incapable of supporting themselves in retirement.

Today's negative aggregate consumer savings rates may already reflect a belief in the availability of this put option. In any event, the consequence of low U.S. savings rates hinders capital development and contributes to our massive trade deficit which increases foreign ownership of our assets and claims on our future national income. This, in turn, will further lower financial welfare of our citizens in the future.

Finally, a lack of financial literacy may well distort our financial markets. Those who specialize in behavioral finance demonstrate seemingly irrational investor behavior, such as refusing to sell a losing stock or getting caught up in the "irrational exuberance" of market bubbles. [see, for example, Kahneman and Tversky, 1979]

While psychologists can explain why people tend to behave in these patterns, those of us who are educators believe that appropriate education or "financial literacy" may help reduce the impact of this behavior. This is not dissimilar to nutritionists who can help us overcome our "natural" tendency to overeat.

Assessment of Financial Literacy

It is possible to assess the level of financial literacy in any population. However, it is far more difficult to assign meaning and importance to these assessments. [Lyons, *et al* 2006]

I specialize in measuring the financial literacy of high school seniors. We chose this group because we believed that this was the last time in the lives of our young that we could compel them to learn anything. Very few college students elect to take a course that will improve financial literacy and after college, people cannot be compelled to sit down and concentrate long enough to learn what they must know to look out for themselves.

Every two years, a stratified, random national sample of thousands of 12th graders sits down to take the Jump$tart Survey of Financial Literacy. Aside from cosmetic changes, such as reordering questions and answers and changing names in problems, the test has been unchanged since 1997. This enables us to see what is happening to financial literacy in this critical segment of our population. [Mandell, 1998, 2001, 2003, 2004].

What is happening is not pretty! Financial literacy, measured as the proportion of age-appropriate, generally case-oriented financial questions answered correctly, declined from about 57 percent in 1997 to about 50% in 2002. There was

a slight increase in 2004 and we await the results of the 2006 survey, but do not expect to see a dramatic increase in literacy in spite of widespread popular and political concern. The Jump$tart survey has been replicated in several other countries and similar studies have been made by other organizations, but no one has yet contradicted the overall findings of low levels of financial literacy. [OECD, 2005]

Perhaps more distressing than low levels of financial literacy is the consistent finding that those who have taken a high school class designed to improve financial literacy tend to do no better or little better than those who have not had such a course Mandell, 2004]. We do not doubt that the vast majority of students who take such a course attend classes, read the textbook and cram successfully for the final. Nor do we doubt that the teachers are dedicated and educated. We just find no connection between education and financial literacy, measured, in most cases, within a year after taking such a course.

Assessing the Impact of Classes in Financial Literacy

Professor Douglas Bernheim and his colleagues have presented findings that suggest a positive impact of financial literacy education on savings behavior. Using Merrill-Lynch account data for middle-aged investors, he found that those who spent their high school years in states that required a class that taught financial literacy tended to save a higher proportion of their incomes than those who were not required to take such a course. [Bernheim, *et al* 2001]

These findings might suggest that a course related to financial literacy might cause a change in *attitudes*, if not necessarily in financial literacy, *per se*. An alternative hypothesis might be that those who were in high school 30 or more years ago might have learned in a more compelling environment and may have emerged from this education more financially literate.

In order to assess whether today's classes in financial literacy result in "beneficial" attitudinal or behavioral changes, this author did two pieces of analysis. The first was on the 2004 Jump$tart data which, for the first time, asked students to assess their own level of thrift from "very thrifty, saving money whenever I can" to "very spending-oriented, hardly ever saving money." Thrift was found to be slightly higher for those who took a course related to financial literacy but was not systematically related to financial literacy scores [Mandell, 2005].

A much smaller study was conducted with graduates of a small to medium-sized Midwestern city which offered a well-regarded financial literacy program in their high schools. In this study we were able to follow a matched sample of high school graduates, half of whom took the course, for up to 5 years after graduation to observe the impact on financial literacy, thrift and financial behavior. The results were disappointing – those who had taken the course had no higher financial literacy scores, proclivity toward thrift or financial behavior scores (on not bouncing checks, missing credit card payments, etc.) than those who had not [Mandell, 2006]

Finally, some observers believe that "just-in-time" financial education is far more effective than general financial education. Translated to the high school level, this means that students would be taught to make decisions that are immediately

relevant to them, such as using a checkbook (most did), choosing a credit card or selecting auto insurance. Unfortunately, when we analyzed 11 Jump$tart questions relating to actual financial decisions made by students (who actually opened a checking or savings account, applied for a credit card or bought auto insurance), we found that classes in financial literacy made no difference in their specific knowledge relating to decisions they recently made [Mandell, 2006A]

Improving Financial Literacy

Thus far, we have found just one intervention that seems to improve financial literacy. Students who play the "stock market game" tend to have significantly higher financial literacy scores than those who don't. This has been shown consistently over several studies, and the differential may even be growing.

We think the success of the stock market game relates to the fact that it is both highly interactive and fun. However, critics of the stock market game point out a flaw which is that the game rewards extreme risk-taking since you can't win unless you go out on a limb with very volatile securities. In addition, since there is no penalty for losing all your money, the game might discourage risk-averse investing which forms the basis for strategic saving in our economy.

In fact, Jump$tart data show that while students who have played the stock market game are more financially literate than other students, they also tend to have markedly lower levels of thrift [Mandell, 2005]. Perhaps they feel they deferred consumption is not necessary if they can make up any savings deficit by playing the market.

Clearly, however, the success of the stock market game in improving financial literacy points our educational efforts in the direction of higher levels of interaction. For that reason, the MoneySKILL program, which I helped develop, is web-based and totally interactive and demands that students "test-fly" their own lives successfully to pass the course [AFSA 2003]. Although the embedded pre and post-tests demonstrate a great deal of learning over the course of a semester, we must follow matched samples of users and non-users to see just how "sticky" this knowledge turns out to be. Some educators believe that the entire high school course must be turned into a giant "game of life" to increase the probability that financial literacy, attitudes and subsequent adult behavior will improve.

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