The Effectiveness of Youth Financial Education: A Review of the Literature

Martha Henn McCormick

In the current financial crisis, children and youth are uniquely impacted by household finance complexities. Moments of financial trouble are teachable opportunities for children and youth to learn about personal finance and to improve their own money management skills. However, comprehensive strategies for educating them about personal finance have not yet emerged. This review of the literature explores the state of youth financial education and policy, including definitions and measures of effectiveness. Delineating a range of approaches to the delivery and assessment of youth financial education, this paper reports on impact data and best practices and highlights some controversies. It concludes with a discussion of the gaps in knowledge and suggestions for further research.

Key Words: financial literacy, personal finance, review of literature, youth financial education

Introduction

As we approach the close of the first decade of a new millennium, in the United States—and indeed, globally—society faces recession, rapidly rising fuel and food prices, a mortgage foreclosure crisis, increased bankruptcy filings, credit tightening, and a drastic decline in savings. The effects of these financial stressors for individuals, families, and communities have been widely reported in the media. These media reports discuss challenges and potential remedies for adults struggling with high rates of indebtedness, diminished incomes, negligible savings (including retirement planning), and a financial services marketplace replete with complicated product offerings. These reports also examine the implications of severe economic strain for children. However, comprehensive strategies for educating children and youth to be effective managers of money and successful navigators of a complex financial marketplace have not yet emerged from the dialogue and debate.

Although some effective strategies have emerged for adult financial education, these strategies and approaches cannot simply be reengineered down to more age-appropriate versions and imposed on a K–12 educational system. Adult financial education is largely a remedy imposed to fix specific critical breakdowns in how adults use (or misuse) money; it tends to be designed and delivered to target demographic groups and is frequently, though not always, intended to compensate for already-existing financial ordeals. Childhood financial education needs to be prescriptive, preventative, developmental, and delivered on a massive scale. Therefore, the pedagogies and strategies that are appropriate for adult financial education cannot transfer effectively onto efforts by the American school system to train children to be financially literate.

Why is it necessary to bring financial education to children and youth? In addition to the struggles their families face, which are likely to persist into their own adulthood, advertising heavily targets and influences children. Children are in stores and retail venues an average of two to three times weekly, exceeding in a typical week the time dedicated to reading, church attendance, youth group and household activities, and outdoor play (Suiter & Meszaros, 2005, p. 93). Moreover, children, especially the majority who do not go directly on to postsecondary education, are quickly faced with adult financial tasks and responsibilities.

To better understand the long-term impact of youth financial education, the New America Foundation and the Citi Foundation hosted a meeting in Washington, D.C. on July 15–16, 2008, to discuss the effectiveness of financial education for youth. The convening included financial

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education experts from the public, private, nonprofit, and academic sectors. The goal of the meeting was to summarize existing research about the effectiveness of financial education and its relationship to positive financial behavior change. The meeting also sought to identify and prioritize gaps in knowledge that need to be explored about youth financial education and behavior change and to discuss approaches for closing the research gap.

Purpose and Methodology

This paper, through a review of the literature, explores the current state of youth financial education and policy, including the definitions and measures of effectiveness of youth financial education that may exist. Although there are some family-based and out-of-school programs, most research focuses on programs in the K–12 educational setting. Bringing in findings from the more extensively researched adult financial education context, this paper delineates a range of approaches to the delivery and assessment of youth financial education, reports on impact data and promising practices, and discusses some controversies in the field of youth financial education. The paper concludes by highlighting gaps in knowledge and suggestions for further research.

Scope limitations include the following:

1. Due to the proliferation of studies in recent years and the preexistence of several excellent earlier literature reviews, research covered herein is limited to that published between 2004 and 2008. Emphasis on K–12 financial education is spotty and limited prior to this time.
2. The bulk of adult and community-based financial education programs are relatively new and lack assessment data. Multiple studies of adult financial education look at various measures of knowledge, satisfaction, and confidence; few can definitively establish behavioral changes as resulting from, rather than corollary to, the educational program in question. Even less longitudinal data are available because of the newness of many programs, the lack of funds for long-term follow-up on program participants, and the sensitive nature of tracking personal financial management information. All of these challenges are amplified in the K–12 setting.
3. Popular press coverage is not included.
4. Emphasis is placed on scholarly, peer-reviewed publications and on government- and intergovernment-sponsored programs and publications. Practitioner reports were sought but found to be in short supply, specifically as they pertain to youth financial education.
5. This review does not comprehensively describe the range and multitude of K–12 curriculum products, models, and programs available (see Suiter & Meszaros, 2005, for a representative list),[1] although it references some of the most-well-known programs.[2]
6. Although many nonprofit organizations, private firms, youth clubs, social service agencies, and youth correctional operations offer extracurricular financial education, this report does not comprehensively list these.[3]

Youth Financial Literacy, Education and Capability: Some Definitions

Although there is no one single, agreed-upon definition for financial literacy, financial education, or financial capability, scholars offer insight about the different meanings of these terms. Literacy is the possession of basic knowledge or competence, and education is the means to build that capacity. Most broad-based financial education programs for adults and children attempt to bring all participants to a minimum basic knowledge of money management skills regarding banking, finance, savings, credit, and so forth; many attempt to accommodate individual or familial goals. Johnson and Sherraden (2007) are among the latest to suggest that the term financial capability is intended to include not only the concept of education but also access to financial services and institutions, arguing that knowledge alone—without access to the resources and services of financial institutions, especially for those coming from under- or unbanked communities—will not ultimately allow people to choose a financially literate lifestyle (Johnson and Sherraden, p. 122).[4]

According to Hogarth (2006), the consistent themes running through various definitions of financial education include (a) being knowledgeable, educated, and informed on the issues of managing money and assets, banking, investments, credit, insurance, and taxes; (b) understanding the basic concepts underlying the management of money and assets (e.g., the time value of money in investments and the pooling of risks in insurance); and (c) using that knowledge and understanding to plan, implement, and evaluate financial decisions (Hogarth, p. 3).

Several researchers specifically examined financial literacy in a youth context. Australia's National Consumer and Financial Literacy Framework (NCFLF) stated that "consumer and financial literacy is important for all young people in order to empower them to make informed consumer decisions and to effectively manage their personal financial resources" (Consumer and Financial Literacy Working Party, 2005, p. 2). According to the Department of Agriculture's Cooperative State Research, Education, and Extension Service (CSREES), "many young people are unskilled in managing their personal finances, yet this crucial life skill will greatly affect their future economic well-being. . . . [Youth financial education] help[s] America's youth understand the basics of money management and develop sound financial habits to expand their opportunities for the rest of their lives" (United States Department of Agriculture, 2007, ¶ 1).

There is growing interest in approaches to financial literacy that are subtly compulsory in nature, at the very least by making financially beneficial selections the default option, requiring consumers to choose actively against their long-term financial self-interest in order to opt out. The most frequently cited example of such a choice moment is the decision to participate in retirement programs such as voluntary 401(k) contributions in the workplace. Historically, workers have had to decide to opt into these programs. Many financial professionals suggest the default should be an automatic opt in, with an employee having to deliberately select her- or himself out. Caskey (2006) suggested that a default approach may lead to greater financial success, although such an approach appears superficially to be at odds with some free market or democratic principles.

In their 2008 book *Nudge,* Thaler and Sunstein urged an approach they call libertarian paternalism. By libertarian, they mean liberty preserving, in that no choice is foreclosed. Thaler and Sunstein reject the assumption that people will necessarily make choices in their best interest. They contended that it is impossible to avoid influencing people's choices and also challenged the notion that paternalism always involves coercion (Thaler & Sunstein, pp. 5–11). Their book applies libertarian paternalism to money, health, and other areas of social choice and freedom such as education, consumer decisions, and relationships. In the money section, they address saving, investing, and borrowing.

Effectiveness of Financial Education

Currently, we have no clearly defined or widely accepted standards of excellence for financial education effectiveness, and certainly none pertaining specifically to youth financial education. The U.S. Treasury Department's Office of Financial Education offers eight elements of a successful financial education program,[5] relating to the program's content, delivery, impact, and sustainability. The primary purpose of the eight elements is to offer guidance to financial education organizations as they develop programs and strategies to achieve the greatest impact in their communities.

Kozup and Hogarth (2008) argued that worthwhile financial education programs start with a participant-defined goal (e.g., becoming a homeowner, reducing debt, or saving for retirement). However, K–12 education is unlikely to be predicated upon individually determined financial goals. Most of what is known about program effectiveness has been built on an adult program model, and the bottom line of most studies is that there is not likely to be a one-size-fits-all financial education program for consumers. Chang and Lyons (2007), Borden, Lee, Serido, & Collins (2008), and Lusardi (2008) are just three of the latest program reviewers to note the impact of demographic descriptors such as gender, employment status, ethnicity, family background, educational level, and other social markers on improvements in financial knowledge, satisfaction, or confidence—which, again, are the three measures that have most often been evaluated.

The Borden et al. (2008) study of a seminar-based financial education program (Credit Wise Cats) administered to college students showed that "the seminar effectively increased students' financial knowledge, increased responsible attitudes toward credit, and decreased avoidant attitudes toward credit from pretest to posttest. At posttest, students reported intending to engage in significantly more effective financial behaviors and fewer risky financial behaviors" (Borden et al., p. 23). This study is typical of current research in that it charts vague measures of improvement based on a pre- and posttest model of assessment. It also is typical in that it relies on self-reported and/or intended, rather than actual, behavioral change, and does not include any longitudinal follow-up to determine "stickiness" of perceived improvements in financial knowledge and/or behaviors.

Hathaway and Khatiwada (2008) in their Federal Reserve Bank of Cleveland working paper "Do Financial Education Programs Work?" arrived at research-based conclusions about both effective program design and the validity of evaluative measures that echo what so many scholars conclude regarding adult financial education. They found that the best program design advice is to target specific audiences and areas of financial activity (such as credit or retirement planning), and to offer training on a just-in-time or "teachable moments" approach. In terms of program outcomes, they concluded: "Unfortunately, we do not find conclusive evidence that, in general, financial education programs do lead to greater financial knowledge, and, ultimately, to better financial behavior. However, this is not the same as saying that they do not nor could not" (Hathaway & Khatiwada, p. 19).

Youth Program Design: Tips for Effectiveness

Suggestions for making personal finance education effective for youth include incorporating a relevant program design, ensuring effective motivation, and providing education at an early age.

Relevant Program Design

Most of the design recommendations for adult financial education cannot realistically transfer to the K–12 classroom, where standard educational practice demands that curriculum design be generic and transferable to multiple audiences, anticipatory, and developmental, rather than event specific or just-in-time. Lucey (2007) offered a strongly dissenting perspective: K–12 financial education design must be customized. He argues that "financial education processes do not meet the needs of all children, because they do not account for differences in child development prompted by various economic contexts" (Lucey, p. 486).

Grody, Grody, Kromann, & Sutliff (2008) offered the perspective that youth program design must relate directly to today's complex financial environment:

> The current educational literature, teaching aids, and school curricula for the elementary school age group appear to be variations of the same old theme of teaching kids solely through old age piggy bank savings and numeration techniques. . . . Our premise is that understanding the relationship of work and money, money and ATM machines, money and investments, credit cards and tangible product acquisition, bill payment mechanisms, monthly statements, retirement savings, taxes, deficits, et al., is a more fundamental and current foundation for a financial education in our modern age (p. 10).

Effective Motivation

In terms of general findings on the effectiveness of financial education offerings, Mandell and Klein (2007) and Meier and Sprenger (2007) offered unique insight regarding the role of motivation in the success of programs. Mandell and Klein noted that successive iterations of the Jump$tart financial literacy surveys of high school seniors (a total of six surveys in all) indicate a failure to show improvements in their levels of financial literacy knowledge. The 2006 survey introduced questions to determine the relevance to these students of basic concepts of personal finance, based on the hypothesis that "low financial literacy scores among young adults, even after they have taken a course in personal finance, is related to lack of motivation to learn or retain these skills" (Mandell & Klein, p. 105).

While surveys reveal that students do perceive that financial difficulties can be affected by their own actions, survey questions show significant evidence that students experience apathy rather than motivation in terms of managing and setting goals for their own personal finances. This lack of motivation correlates with students' consistently low financial literacy scores (Mandell & Klein, 2007, pp. 109–114) and reveals that programs addressed to these students need to teach *why* financial literacy is important.

In a study of self-selection into adult financial literacy programs, Meier & Sprenger (2007) examined a similar motivation question: "Evidence from our field study shows that, even controlling for education and prior financial knowledge, time preferences influence the acquisition of new information. . . . Future research should investigate the relationship between time preferences and abilities like planning, imagination, and motivation in general" (Meier & Sprenger, p. 13).[6]

Early Education

In the 2006 policy brief by the Organization for Economic Cooperation and Development (OECD), *The Importance of Financial Education,* the OECD's "Recommendations on Principles and Good Practices for Financial Education and Awareness" include that financial education should start at school and should be clearly distinguished from commercial advice. Suiter and Meszaros (2005) advocated forcefully for comprehensive K–12 financial education:

> Children throughout the K–12 grades, including children who differ in ability levels and socioeconomic backgrounds, can learn worthwhile content in personal finance if their teachers use appropriate

strategies and materials. Children's understanding of economics and personal finance develops through a series of levels or stages. Nothing about the subject matter *per se* makes personal finance inappropriate for study by children in the early grades. And postponing the study of personal finance is unwise for other reasons. First, children certainly acquire some ideas and information about personal finance information from nonschool sources. Some of what children acquire in this way will be incorrect or misleading. The longer we wait to provide personal finance education, the more time teachers will spend correcting misinformation. Second, many students drop out of school before their senior year. If personal finance education is postponed until the senior year, these students—those who may be most in need of personal finance education—are deprived of receiving any (p. 93).

The Current State of Financial Education for Youth

The Financial Literacy and Education Commission's (FLEC) 2006 national strategy document, *Taking Ownership of the Future,* reported the Treasury Department's findings that the five access points for bringing financial education into the schools are (a) state standards, (b) testing, (c) textbooks, (d) financial education materials, and (e) teacher training. Although not every school can pursue comprehensive, stand-alone curricula, the national strategy noted opportunities for integration via math, social studies, and family and consumer sciences in the earlier grades, and other disciplines such as economics and business education in the high school curriculum (FLEC, 2006, p. 87).

Every two years, the National Council on Economic Education's (NCEE) *Survey of the States: Economics and Personal Finance Education in Our Nation's Schools* provides a snapshot of national progress in implementing a K–12 personal financial education agenda. The NCEE has since changed its name to the Council for Economic Education; their 2007 report, published under the old name, revealed the following:

1. Personal finance is included to some extent in the educational standards of 40 states.
2. Twenty-eight states now require these standards to be implemented.
3. Only seven states require students to take a personal finance course as a high school graduation requirement.
4. Only nine states require the testing of student knowledge in the area of personal finance (NCEE, 2007, p. 1).

The National Association of State Boards of Education (NASBE) issued *Who Will Own Our Children? The Report of the NASBE Commission on Financial and Investor Literacy* in 2006. While NCEE profiles where our nation's schools are, NASBE's recommendations indicate directional goals for improvement:

1. State boards of education must be fully informed about the status of financial literacy in their states.
2. States should consider financial literacy and investor education as a basic feature of K–12 education.
3. States should ensure that teachers and/or staff members teaching financial literacy concepts are adequately trained.
4. States should fully utilize public/private partnerships.
5. States should improve their capacity to evaluate financial literacy programs.
6. States should include financial and investor education in their academic standards and ensure that assessments are aligned with the standards.
7. State boards of education should cooperate with other state boards to develop a common assessment tool for financial and investor education.
8. States should encourage the development of a National Assessment of Educational Progress (NAEP) framework for financial literacy (NASBE, pp. 20–21).

Promising Practices in Youth Financial Education

Scholars have identified some factors that support promising practices for financial education. These factors include the timing of financial education, teacher training, the incorporation of saving tools that make the education relevant, and evaluation and assessment.

Timing of Financial Education

1. The NASBE Commission (2006) argued that "the earlier a student begins learning these concepts, the more opportunities schools will have to impact behavior. Therefore, states should consider infusing financial and investor education throughout the K–12 curriculum" (NASBE, p. 20).

2. The poor performance over time of high school students on personal financial knowledge tests, as indicated by the Jump$tart surveys, suggests that the current model of waiting until high school to introduce personal money management concepts is too late; the model needs to be backed up into the earlier grades.

3. It is widely recognized that literacy, as the foundation for virtually all other subject areas, needs to be taught from the very earliest ages; this focus on early childhood literacy is known as emergent literacy. A Networks Financial Institute report (2006) contended that the core concepts that undergird financial literacy—including goal setting, intertemporal choice,[7] philanthropic giving, earning, saving, and spending—also need to be emphasized and supported from the very earliest grades, if students are to transition into financially literate consumers (Godsted & McCormick, pp. 3–4).

Teacher Training and Professional Development

1. Baron-Donovan, Wiener, Gross & Block-Lieb (2005) provided insight on the topic of teacher training as a component of successful delivery of financial education, based on a Coalition for Consumer Bankruptcy Education two-day train-the-trainer program with multiple measures (focus groups, pre- and posttest knowledge and attitude surveys, and classroom observations). This study sought to demonstrate whether individuals from diverse backgrounds are prepared to teach basic financial literacy and used a combination of focus groups and a pre- and post-training survey to substantiate increases in teacher satisfaction, confidence, and motivation. The 30-question survey (16 financial knowledge questions and 14 attitude measures) showed an average pre-training knowledge score of 81% and a post-training knowledge score of 90%. The researchers found that "desired changes on almost one half of the attitude items indicate that teachers not only gained an understanding of what they needed to teach, but also gained the confidence to teach what many considered to be complex material. . . . These results suggest that well-designed teacher training can influence the beliefs that individuals have about themselves as teachers . . . Trained teachers report that they are satisfied and generally feel prepared to teach. Self-reports are buttressed with measured gains in financial knowledge and more confident attitudes about teaching" (Baron-Donovan et al., pp. 68–72).

2. Loibl (2008) also addressed the teacher confidence issue for high school financial education programs in Ohio, identifying (a) academic content area concerns, that is, teacher confidence in the larger disciplines within which the topic of financial education is often addressed (math, social studies, economics, family and consumer science, and business education); (b) teacher strategies in gathering personal finance information; and (c) teacher knowledge about personal finance. Loibl's survey included a short quiz on financial knowledge with which teachers from almost all disciplines struggled, indicating a need for training of financial education instructors.

Incorporate Savings Tools to Make Education Relevant

Three policy documents from the New America Foundation reinforced best practices for youth financial education.[8] Their suggestions included the establishment of savings and investments accounts at birth (that can be tracked by the children in their school-based financial education programs) and school-based delivery of financial education that is active. However, because of a lack of standards, there is little cohesiveness in terms of format, content, and depth for financial education in schools.

Evaluation and Assessment

Lyons (2005) and Hathaway and Khatiwada (2008) decried the lack of evidence regarding financial education's impact on behavior specifically because programs fail to incorporate meaningful "formal program evaluation methods in the design of the program itself" and that study authors "assume a causal relationship [between financial education and financial outcomes] where there is (often weak) correlation. There is a big difference between these two, and confusing correlation with causality is a critical flaw" (Hathaway & Khatiwada, p. 3).

The next section, on evaluation, will focus heavily on evaluative frameworks and models, but some general observations concerning evaluation include the following:

1. Pre- and posttests appear to be the most pervasive approach to outcomes measurement. Lyons, Cheng, and Scherpf (2006) also described retrospective pretests (RPTs), in which "participants are asked to answer questions about their level of

knowledge and behavior after the program. They are then asked to think back to their level of knowledge and behavior prior to the program" (p. 28).

2. Fox et al. (2005) cited as problematic the widely accepted assumption that the need for financial literacy is so great that "no further evidence is required" (Fox et al, p. 205). They found that program evaluations generally are one of two types: process or formative evaluations (which provide feedback for educators and program organizers to make improvements in the program itself), or impact or summative evaluations (collecting information on whether the program is making a difference in previously identified and desired outcome measures: Does education impact behavior? Increase knowledge? Increase levels of confidence?). Like Hathaway and Khatiwada (2008), Fox et al. suggested a five-tiered evaluation program, as described by Jacobs (1988): preimplementation, accountability, program clarification, progress toward objectives, and program impact (pp. 203–204).

Evidence of Impact: Data

As this study has pointed out, due to weaknesses in assessment measures, "definitive statements on the impact of financial education [on behavior] are premature" (Hathaway & Khatiwada, 2008, p. 208). However, some indicators do point to efficacy of financial education efforts. While most studies measure adult financial education programs, Danes and Haberman (2007), Mandell (2006, 2007, 2008), Mandell and Klein (2007), Peng, Bartholomae, Fox & Cravener (2007), Valentine and Khayum (2005) and Varcoe, Devitto, & Go (2005) have considered youth impacts. It should be noted that most impact studies cite the foundational work of two prior studies outside the timeframe of this report. The first is the 1999 Danes, Huddleston-Casas, and Boyce study that, in 1997–1998, evaluated the National Endowment for Financial Education's High School Financial Planning Program (HSFPP), both at the conclusion of the curriculum and three months after delivery. This report found increases in knowledge, self-efficacy, and savings rates. The second is Bernheim, Garrett, and Maki's 2001 study of the effects of statewide financial education mandates which found evidence of positive effects of state mandates on savings rates and net worth during peak earning years.[9] The following list summarizes the findings; none reach down into the elementary or middle school grades.

Source and Summary of Youth Impact Data

Danes, S., & Haberman, H. 2007. Teen financial knowledge, self-efficacy, and behavior: A gendered view. *Financial Counseling and Planning, 18*(2), 48–60.[10]

> Several gender differences before and as a result of the curriculum are highlighted. In sum, male teens reinforced their existing knowledge, whereas female teens learned significantly more about finances in areas with which they were unfamiliar prior to the curriculum.

Mandell, L. Jump$tart Financial Literacy Surveys of High School Seniors, 1997–2008. For further information, see http://www.jumpstart.org.

> The highest mean financial literacy score, 57%, was reached in the 1997–98 academic year. This fell to 51.9% in 2000, then again to 50.2% in 2002. It recovered slightly to 52.3% in 2004 and 52.4% in 2006 before falling to 48.3% in 2008.

Peng, T., Bartholomae, S., Fox, J., & Cravener, G. (2007). The impact of personal finance education delivered in high school and college courses. *Journal of Family and Economic Issues, 28*(2), 265–284.[11]

> The study showed no significant relationship between high school financial education and investment knowledge. There was a significant relationship between college-level financial education and investment knowledge.

Valentine, G., & Khayum M. (2005). Financial literacy skills of students in urban and rural high schools. *Delta Pi Epsilon Journal, 47*(1), 1–9.[12]

> Regression analysis shows that certain socialization factors, such as having a part-time job of 10–20 hours per week, having a savings account, and being from a family with a relatively higher level of family income, yielded improved quiz performance.

Varcoe, K., Martin A., Devitto, Z., & Go, C. (2005). Using a financial education curriculum for teens. *Financial Counseling and Planning, 16*(1), 63–71.[13]

> The study showed improvement in all measured financial behaviors: saving, knowledge of ways to decrease auto insurance costs, and comparison and sale shopping.

The Evaluation Dilemma

In 2004, the Comptroller General issued a report entitled *The Federal Government's Role in Improving Financial Literacy*. This study is important to this discussion because of its promotion of better evaluation measures to track behavior change. While citing the benefits of standardized evaluation measures to allow program comparisons, this report further reminds policymakers that measuring impact on a societal scale requires the use of benchmarks—such as the Jump$tart periodic survey of high school seniors or federally generated economic data—to evaluate the effectiveness of financial education on a macro level. Striking a cautionary note, the report acknowledged that long-term tracking of actions and decisions by educators may be "unduly expensive, time consuming, or infeasible. In addition, because many variables can affect consumers' behavior and decision making, ascribing any long-term changes to a particular program is difficult" (Comptroller General, pp. 14–15).

Hathaway and Khatiwada (2008), Fox et al. (2005), Hogarth (2006), and studies by Lyons (2005, 2006) critiqued the weak methods and frameworks for evaluation. Historically, measurements of outputs (numbers of program participants, for example, or number of programs delivered) have stood in where measurement of outcomes (behavior impacts, for example) should occur, because evaluation was conducted as an afterthought rather than built into the design and delivery of financial education. Studies also generally lack control groups and random population samples for comparison purposes.

Lyons, Palmer, Jayaratne and Scherpf (2006) summarized what program assessments and evaluative frameworks should look like the chart below.

Willis (2008) cited some additional flaws in data-driven financial education assessment. The study maintained that data collection relating to financial education programs is frequently biased toward finding that the education has been effective. Participants tend to overestimate how much they have learned in courses when left to self-assess (which many evaluations do). Additionally, programs frequently bundle direct assistance (financial rewards, special loan programs, etc.) with education, in which case improved outcomes may be attributable to assistance rather than learning. Furthermore, there is a self-selection bias. Most financial education is voluntary, and researchers cannot randomize citizens into treatment and control groups.

Controversies

Several areas of controversy or significant intellectual disagreement exist concerning both youth financial education and its evaluation. Willis (2008) and Gross (2005) both identified a "blame the victim" subtext in financial education. Willis argued that policymakers' embrace of financial education as a means to consumer responsibility and empowerment, while seductive, is empirically unsupported and implausible given the velocity of change in the financial services marketplace and the persistence of emotional bias in the individual decision-making process (as documented by psychologists and behavioral economists). The study also sees more pernicious aspects of what Willis views as the false promise of financial education: "With its focus on the responsibility and efficacy of the individual consumer, the financial literacy model absolves financial services firms and policymakers and deflects inquiry away from systemic societal and market failures" (Willis, p. 44).

Objective Measures of Program Impact	*Subjective Measures of Program Impact*
Savings rates	Satisfaction levels
Debt levels	Self-confidence
Wealth accumulations	Attitudes
Delinquency and bankruptcy rates	Intended changes in financial behavior
Credit scores	
Investments	
Account enrollments	
Homeownership rates	
Retirement plan participation	
Specific Evaluative Framework Needs	
Ease of use	Basic methodological infomation, including models
Sample evaluation instruments	Quantitative/qualitative data collection methods
Instructions on how to analyze, interpret, and summarize data	
Instructions on creating impact statements (reports, news releases, executive summaries)	

Similarly, argued Gross (2005):

> Money education is being sold as a tool for consumer empowerment and a cure for all that ails our consumer credit economy: financial ignorance, unhealthy debt burdens, predatory lending, mortgage foreclosures, joblessness, and susceptibility to savvy lenders and scam artists. This approach is fundamentally flawed. It leads to a "blame the victim" mentality by erroneously assuming that individual knowledge acquisition alone will produce fundamental change in the consumer financial markets, an approach that also absolves a wide range of other entities, public and private, from responsibility. (Abstract)

Willis (2008) suggested shifting the context away from the responsibility of the individual to seek his or her own financial best interest to a model of responsibility located within the financial services industry. The report also outlined several changes that could be imposed on the industry: affordable expert advice, welfare-enhancing defaults, true transparency through simplification of financial products toward clearer costs and benefits, aligning incentives between product sellers and consumers, imposition of liability on sellers whose actions and products harm consumers, and substantive regulation of risky or harmful products (Willis, pp. 52–54).

Lucey (2007) pitted the "diversity-minded multiculturalists" of a social educator movement against "standardized curriculum advocates," claiming that standardized curricula produce an assimilative classroom environment (p. 486).

> In a society experiencing degrees of diversity, social educators should reexamine these cultures' values systems and recognize the importance of guiding children toward moral decisions on humanistic, rather than economic, bases. . . . Social educators should explore the moral issues in financial education by fostering classroom dialogues, modeling pedagogies toward equality, and lowering resistance to conversations about the economic injustice. (pp. 489–490)

Lucey and Giannangelo (2006) advocated financial education tailored specifically to the needs of urban students, whose financial literacy needs include countervailing pressures to combat the "stronger consumer-based social pressures" and "self-images related to material comparisons" in urban settings (Lucey and Giannangelo, p. 271). They further discussed the need to meet students where they are in terms of the socioeconomic functioning of their families and the possible scenarios for their access to financial institutions. For example, an introduction to financial institutions may need to start with a discussion of pawn shops and their costs and benefits and move from there to a discussion of banks and banking functions (Lucey & Giannangelo, p. 282).

Corporate sponsorship of financial education by financial services firms exists as an act of corporate citizenship and/or philanthropy and, in the case of banking, as a logical extension of Community Reinvestment Act services. However, many of the financial services marketplace providers offer approaches to financial education that teach students to be effective, reliable, and "safe" consumers of financial services and products. These emphases are not necessarily coterminous with the best interests of individual consumers, and a distinction must be made between holistic financial education and sponsored curricula focused on consumers in the financial services marketplace. Willis (2008) said that "the advantage in resources with which to reach consumers that financial services firms enjoy puts firms in a better position to capitalize on decision-making biases than educators who seek to train consumers out of them" (p. 3). Willis further argued that the teachable-moment approach is also based on consumer vulnerability. Again, due to circumstance and the financial resource advantage enjoyed by the financial services firms, consumers at those moments are more likely to be reached by sales-motivated industry representatives than unbiased educators (Willis, pp. 36–37).

Gaps in Knowledge and Suggestions for Further Research

In addition to the need for improved assessment measures and evaluative frameworks, what additional gaps in knowledge and understanding have scholars of financial education identified? Wagland (2006) cited the need to know more about the emotional and other barriers to making beneficial financial decisions; she encouraged researchers not to assume that lapses in financial literacy and knowledge *per se* are the most important, or only, barriers preventing individuals from successfully navigating lifecycle financial decisions. And as Caskey (2006) and Meier and Sprenger (2007) discussed, means to achieve motivational improvements must be addressed as well.

Financial literacy and education research, as a discipline, is heavily weighted toward economics, both because economics is a logical disciplinary venue for financial education in the upper grades (Morton, 2005) and because economists traditionally pursue measures of micro and macro level financial well-being.[14] However, many studies discussed in this paper note that financial education is needed in the early grades, and economics is a late-occurring class in a typical student's K–12 educational path. Therefore, scholars who are K–12 pedagogy experts or content experts for the lower grades need to be brought into the dialogue.

Haynes and Chinadle (2007) discuss that, for purposes of classroom friendliness, practicality, and educator buy-in, curricula need to be written by and for educators, emphasizing active learning and multiple intelligences models. Moreover, research is needed into means and methods for professional development for teachers. Godsted and McCormick (2007) establish that a lack of teacher training is a significant impediment to the inclusion of financial education in K–12 classroom settings.[15]

Lucey and Cooter (2008) go a long way to address this need for teacher training, having produced a multidisciplinary teacher education text (though not a how-to guide) that they believe will have appeal for finance scholars, psychology scholars, sociology researchers, and even philosophers. (Section 3 approaches financial literacy from a sociohistorical and moral framework, looking at questions of social justice and equitable resource allocation.) Their instructional section addresses a range of classroom scenarios, including math, economics, drama, and art (Lucey & Cooter, 2008, pp. ix–x). Their work is a significant resource in that regard, with nearly 600 pages of text and 27 articles, geared mostly but not exclusively to middle and high school teachers, and complete with discussion questions and activity suggestions for educators to employ.

Lastly, while not a gap in knowledge *per se*, a major impediment to progress in getting financial education into the schools is the lack of inclusion of financial education standards in state academic standards. A 2007 national survey of K–12 financial literacy finds the following:

> After the ever-present challenge of finding time, the second ranking obstacle for teachers is the lack of specific academic standards mandating financial literacy. Among teachers NOT teaching financial literacy in their classrooms, lack of standards is the number one reason cited, not a lack of time. Also notable is that 75% of all teachers surveyed believe there are academic standards pertaining to financial literacy embedded in existing standards. In general, K–12 teachers do show a strong consensus that it is important to have academic standards for financial literacy instruction and would teach more, or at least as much, on this topic were the standards in place (Godsted & McCormick, 2007, p. 5).

Conclusion

There is reason for concern about financial well-being on the individual, familial, community, and national levels, but also for some sense of progress on the issue of an educational counterattack against the ills of financial illiteracy. In recent years, programs have grown exponentially in number and emphasis, but financial education professionals know more about program design, implementation, success, and next steps in the field of adult financial education than in the field of youth financial education. The need for financial education for children and youth is clear and compelling. It is not disputed, but neither is it championed. A plan of action is required for integrating financial education into state standards, training teachers, implementing curriculum, verifying behavioral impacts, widening disciplinary expertise and input, and resolving areas of professional disagreement. This study provides a snapshot of youth financial education status at a moment in time, summarizing what is known, delineating what is happening now, and providing direction for future efforts to educate the school-age population for a lifetime of financial decision making and security in a dauntingly complex marketplace.

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Endnotes

[1]For educational materials generally, see the Jump$tart Coalition Clearinghouse, http://www.jumpstart.org/search.cfm. The Clearinghouse uses the Educational Materials Review Checklist as a guide in the selection of materials to be included in the database.

[2]These programs include the high school curricula, Council for Economic Education Financing Your Future (http://financingyourfuture.councilforeconed.org/) and the National Endowment for Financial Education High School Financial Planning Program (http://www.nefe.org/HighSchoolProgram/). The President's Advisory Council on Financial Literacy promotes Money Math: Lessons for Life (http://www.treasdirect.gov/indiv/tools/tools_moneymath.htm) for middle schoolers. Networks Financial Institute offers a grades 3–5 curriculum and mobile classroom experience, known as Kids Count on the Money Bus™ (http://www.nfikidscount.org/).

[3]Some of the better-known include 4H efforts, such as Financial Champions (http://www.4-hcurriculum.org/catalog.aspx?cid=184&c=Financial) and Consumer Savvy (http://www.4-hcurriculum.org/projects/consumer/), and the U.S. Department of Agriculture Cooperative State Research, Education and Extension Service youth financial efforts. (For a state-by-state breakdown of programs and contacts, visit http://www.csrees.usda.gov/nea/economics/in_focus/security_if_youth2.html.) Girls Inc. Economic Literacy (http://www.girlsinc.org/about/programs/economicliteracy.html), Girl Scouts Financial Literacy (http://www.girlscouts.org/program/program_opportunities/financial_literacy/), and Boy Scouts Personal Management Merit Badge (http://www.boyscouttrail.com/boy-scouts/meritbadges/personalmanagement.asp) are additional examples.

[4]Others, including New America Foundation, stress that part of financial education should be access to real-life savings and financial services opportunities, such as Individual Development Accounts (IDAs), bank-at-school programs, matched savings accounts, or the U.S. Department of Treasury's Save for America program.

[5]See http://www.treasury.gov/offices/domestic-finance/financial-institution/fin-education/support-docs/eight-elements.pdf.

[6]Time preference is the general desire to have goods and services sooner rather than later.

[7]Intertemporal choice is the study of the relative value people assign to two or more payoffs at different points in time. Intertemporal choice was introduced by John Rae in 1834 in *Sociological Theory of Capital*. Eugen von Böhm-Bawerk (1889) and Irving Fisher (1930) elaborated on the model (http://en.wikipedia.org/wiki/Intertemporal_choice). Intertemporal choice is different from the concept of delayed gratification. Deferred or delayed gratification is the ability of people to wait for things they want but does not take into consideration comparative value of now vs. later, or the notion of payoff as a benefit of waiting (http://en.wikipedia.org/wiki/Delayed_gratification).

[8]See Parrish & Servon (2006), "Policy Options to Improve Financial Education: Equipping Families for Their Financial Futures"; Parrish et al. (2006), "State Policy Options for Building Assets"; and Seidman, Murrell, & Koide (2007), "Public Policy Ideas to Improve Financial Education and Help Consumers Make Wise Financial Decisions."

[9]As an interesting additional observation, but pertaining to privately sponsored financial education programs in schools, Fox, Bartholomae, & Lee (2005) mentioned that a 2002 Consumer Bankers Association review of bank-sponsored K–12 programs points out that only 56% of bank sponsors evaluate their programs, with only 21% of the bank-sponsored programs using a more rigorous pre- and posttest method to identify impact. Fully 35% of programs were deemed effective based solely on the number of students completing the program.

[10]A social constructivist perspective was taken in this investigation of 5,329 male and female high school students. Gender differences were investigated in financial knowledge, self-efficacy, and behavior after studying a financial planning curriculum.

[11]The survey (N = 1,039) was sent to alumni of a large Midwestern university, with 46 questions (10 specific to investment knowledge), also covering savings, financial education, financial experience, income and inheritance, and demographics.

[12]This study quizzed 312 students in five southwestern Indiana high schools (urban and rural) on credit cards, checking and savings, automobile insurance, housing rental, food purchases and car purchases, with an average score of 51%. There were no significant overall differences in knowledge between urban and rural schools.

[13]This study evaluated the "Money Talks: Should I Be Listening?" curriculum in 2002 with 114 high school students in four California counties. The evaluation used pre- and posttest methodology, and the posttest was generally administered two months following delivery of the curriculum. Statistically significant improvement was shown in self-reported financial knowledge, and there was improved knowledge score on a 19-question true/false test (with males averaging a significantly greater increase in knowledge than females). There was no significant change in talking with families about money.

[14]However, as Godsted and McCormick (2006, p. 5) pointed out, "Insofar as economics is a social science concerned with the production, distribution, and consumption of goods and services, including financial services, it is not the same thing as financial literacy. Most students take economics, yet most students fail financial literacy tests."

[15]According to Godsted and McCormick (2007, p. 5): "[R]esearch also indicates that there is a strong need for grade level and subject-appropriate professional development and training opportunities for teachers to feel fully comfortable with the topic. Other reported obstacles to teaching financial literacy include lack of funding and a lack of access to materials. And, some teachers (32%) do report that they have never even thought about teaching the topic."

Acknowledgments

With support from the Citi Foundation, the New America Foundation commissioned this research in anticipation of an expert convening held in Washington, D.C., July 15-16, 2008.