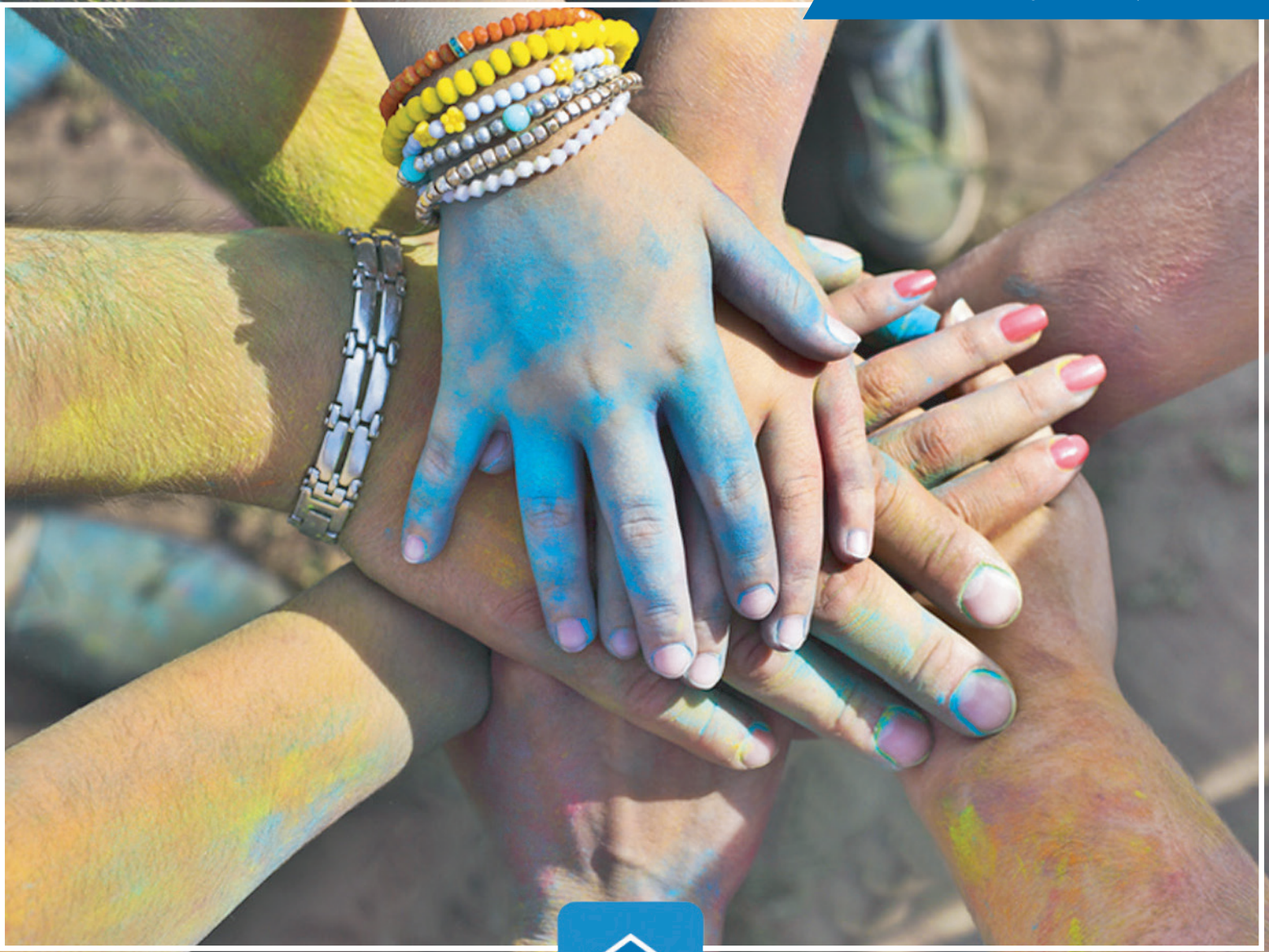


# FINANCIAL LITERACY STUDY COMPILATION

A COLLECTION OF FINANCIAL LITERACY STUDIES FROM THE WORLD'S TOP EDUCATORS

PUBLISHED JULY 1<sup>st</sup>, 2015



Enrich iGrad

# ABOUT iGRAD

In 2009, a group of financial aid professionals decided to tackle the alarming lack of financial capability around the world. Our first product, iGrad, is an award-winning financial literacy platform that partners with over 600 schools across the country and connects over 1.2 million students, as well as alumni and staff, with the tools needed to succeed in the real world of personal finance. Empowered by our success with iGrad, we were excited to bring financial capability to a much wider audience - with Enrich.

In launching Enrich, our team has leveraged our financial literacy expertise and award-winning technology to offer a product tailored to the unique needs of the average consumer, as well as the broader marketplace. We are pleased to partner with credit unions, financial institutions, businesses, and other organizations to offer financial literacy solutions that work.

## OUR MISSION

To empower students, alumni, staff, parents and families to make effective personal finance, student loan, and career decisions throughout their lives.

## OUR FOCUS

Our entire company is 100% focused on improving financial capability. We are not a subsidiary of a larger company or an organization trying to reinvent ourselves.

## OUR BELIEF

We believe financial literacy efforts need three qualities to be effective: 1) Continuous and ongoing, 2) Interactive and engaging, 3) Relevant to each individual.

## OUR PASSION

We're crazy passionate about being a national financial literacy leader, working every day to build a product that enriches the lives of our users.

## OUR VALUES

We value individuals and interactions. Our platform serves a vibrant community engaged on a social level and educated in a highly personalized way.

## OUR SERVICES

We aim to exceed all expectations in every partnership, while providing customized, personalized, and reportable solutions to our partners' unique challenges.

## MESSAGE FROM THE CEO

As Alan Greenspan astutely remarked, "The number one problem in today's generation and economy is the lack of financial literacy." Most of us intuitively know that being financially literate is the first step toward making wise financial decisions and more and more data that is released supports that intuition. The fact of the matter is that financial capability (or lack thereof) affects all of us and you can be sure that if someone in your company or at your school is stressed about their finances, it will absolutely have an impact on their performance.



Our team of financial wellness experts is proud to offer our platform as an award winning, tried and true resource for those seeking to be more financially literate. We understand that people learn in different ways and that any experience has to be relevant and timely to the lives of the individual. To that end, our platform is extremely dynamic and a results oriented platform that is an invaluable addition to any school or employee benefits program. We look forward to hearing from you and showing how iGrad & Enrich can be an asset to your company.

# THE NEED FOR FINANCIAL LITERACY EDUCATION

Americans have endured some difficult times — from foreclosures and bankruptcies, to health complications and long periods of unemployment. But we are better people for it — more resilient than ever and ready to take on the uncertainties that lie ahead. We are also smarter than ever before. But it's time to apply our newfound intelligence to learn about the financial concepts that will keep us from falling behind once again.

According to the 2012 FINRA Investor Education Foundation's National Financial Capability Study,<sup>1</sup> 61% of people failed a basic financial literacy test. Financial literacy is quickly becoming a skill necessary for leading a financially stable life. While pre-existing research identifies what is wrong with financial literacy, not much has been done to identify effective ways to attack this growing pandemic. Earlier generations operated under the belief that discussions of finances should be kept private, resulting in a knowledge gap that has left people of all ages navigating through the muddled waters of money management. With the cost of education on the rise, a growing need for a college degree, and easy access to debt via credit cards and personal loans, Americans are facing the intricate consequences having poor financial awareness.

In 2012, 71% of students graduating with a four-year degree had an average student loan debt of \$29,400.<sup>2</sup> Each student is required to start making payment 6 months after graduation whether or not he or she has a steady source of income. And while unemployment has fallen to 5.5%<sup>3</sup> for all people over the age of 16, unemployment rates for those graduating college is almost double the national average. In a country where higher education is the foundation of a financially stable life, the education system is doing everything to set these students back. The problem doesn't end there. Mid-career Americans and retirees are faced with their own slate of financial problems.

70% of American workers say money is their most common cause of stress — <sup>4</sup> A serious condition that is affecting absenteeism, productivity, and profitability among employers.

A college graduate shouldn't have to put his career on hold by taking a minimum wage job because she is afraid of becoming delinquent on her students loans. A single mother shouldn't be forced to choose between buying groceries and paying for her child's medical bill while retirees shouldn't have to work 5 additional years in order to scrape through retirement. No matter what the situation is, financial literacy is more important than ever.

This report was put together as a resource for educators, administrators, politicians, and those who are trying to implement financial literacy initiatives within their organization. It contains some of the best financial literacy studies from the most renowned educators in the world. We hope that you use it as a citeable resource when advocating for financial literacy.

<sup>1</sup> FINRA Investor Education Foundation, Financial Capability Study: U.S., <http://www.usfinancialcapability.org/results.php?region=US>

<sup>2</sup> U.S. Department of Education. National Postsecondary Student Aid Study (NPSAS), <http://nces.ed.gov/surveys/npsas>


<sup>3</sup> U.S. Department of Labor Statistics, Unemployment rates by age, sex, and marital status, seasonally adjusted. <http://www.bls.gov/web/empsit/cpseea10.htm>

<sup>4</sup> Financial Wellness Survey 10 (2014), available at [http://www.pwc.com/en\\_US/us/private-company-services/publications/assets/pwc-employee-financial-wellness-survey-2014-results.pdf](http://www.pwc.com/en_US/us/private-company-services/publications/assets/pwc-employee-financial-wellness-survey-2014-results.pdf).

---

# ARGUMENTS FOR AND AGAINST FINANCIAL LITERACY EDUCATION: WHERE TO GO FROM HERE?

by Liezel Alsemgeest, 2015



Basic financial literacy education is needed to manage day-to-day finances; however, specialist areas such as investments and retirement planning should be left to professionals. It is suggested that financial literacy education should focus not only on cognitive factors but also on non-cognitive and affective factors that might override rational decision making.

Financial literacy education needs to be changed and adapted to not just take numerical and cognitive factors into account, but to focus on non-cognitive and affective factors that in some cases override rational decision making.

One-on-one sessions with financial experts, versed in both the cognitive and the psychological issues surrounding finances, should become more commonplace. Consequently, people such as debt counsellors and financial advisors would also have to be educated in the intricacies surrounding this complex problem.


Because of the diverse psychological, cognitive, and literacy skills of individuals, a 'one-size-fits-all' approach will definitely not work and herding consumers into a classroom to be taught the 'best way' of managing finances could do more harm than good.

Basic financial literacy is needed in order to be financially healthy, but complicated issues such as investments and retirement planning should be left to the specialists.

---

# FINANCIAL LITERACY AROUND THE WORLD: AN OVERVIEW OF THE EVIDENCE WITH PRACTICAL SUGGESTIONS FOR THE WAY FORWARD

by Lisa Xu and Bilal Zia, 2012

 Furthermore, the literature shows that lack of awareness of financial products and institutions is likely a major barrier to the take-up of financial products, such as insurance.

This study reviews the literature surrounding financial literacy programs worldwide. It summarizes the correlates observed between people, programs, and financial literacy outcomes. It also describes existing and upcoming causal studies, as researchers aim to study effects of financial literacy beyond associations. Finally, it concludes by offering practical policy recommendations based on the existing evidence.

The summary of global research on financial literacy reveals the following demographic trends: women tend to have lower levels of financial literacy; financial literacy is associated with higher levels of income and educational attainment; and geographic and racial/ethnic disparities in financial literacy are common.


In high-income countries, correlations are found between financial literacy and retirement planning, more sophisticated investment behavior, and debt and mortgage outcomes.

In low-income countries, most studies show associations between financial literacy and the likelihood that people have bank accounts. Furthermore, the literature shows that lack of awareness of financial products and institutions is likely a major barrier to the take-up of financial products, such as insurance.

---

# THE IMPACT OF FINANCIAL LITERACY TRAINING FOR MIGRANTS

by John Gibson, David McKenzie and Bilal Zia, 2012

 Financial literacy training produced positive effects on more direct financial outcomes, such as migrants' knowledge of financial products. It reduced the risks that migrants would choose costlier products to transfer remittances.

Remittances represent an important source of development finance, yet the financial services and products used to send remittances vary in cost and quality. Migrants increasingly need to be financially literate and capable of utilizing information sources to compare different products. Increased knowledge could be expected to boost the amount of remittances provided to their home countries.

This paper presents the results of a randomized experiment designed to measure the impact of providing financial literacy training to migrants. The training taught migrants the different elements which make up the cost of sending remittances and how to compare costs across methods, explained how different methods of remitting work, and also covered content on comparing costs of different methods of short-term credit financing for immigrants.


Financial literacy training produced positive effects on more direct financial outcomes, such as migrants' knowledge of financial products. It reduced the risks that migrants would choose costlier products to transfer remittances. However, the financial training did not yield the same effects on more indirect outcomes. In particular, the training did not lead to a higher level or frequency of remittances.

The results suggest that governments targeting reduced money transfer costs may need to address other barriers, such as excessive regulation and lack of access to financial services on the receiving country side.

---

# STIMULATING MANAGERIAL CAPITAL: THE IMPACT OF BUSINESS AND FINANCIAL LITERACY

by Miriam Bruhn and Bilal Zia, 2011

 The study found that financial literacy training positively impacted more direct outcomes of entrepreneurs, such as their business practices, investments, and loan terms for surviving businesses.

In post-conflict and emerging market economies, stimulating entrepreneurship is key to sustainable development. However, the determinants of entrepreneurship in these environments remain unclear.

This study helps to unpack the relationship between financial literacy and entrepreneurship. It presents the findings from a randomized controlled trial of a comprehensive business and financial literacy program on business outcomes of young entrepreneurs in Bosnia and Herzegovina. The characteristics of the sample makes important contributions to the literature by observing the effects of financial and business training not only on existing business owners, but also on potential entrepreneurs to identify impacts on business start-up.

From the beginning, financial literacy was found to be a strong predictor of baseline financial and business outcomes. Furthermore, the training program led to significant improvements in basic financial knowledge for those who started out with low levels of financial literacy at baseline.

The study found that financial literacy training positively impacted more direct outcomes of entrepreneurs, such as their business practices, investments, and loan terms for surviving businesses. However, the training has less impact on higher level business outcomes. The study found no relationship between financial literacy training on firm survival nor on business start-up.

# CAN YOU HELP SOMEONE BECOME FINANCIALLY CAPABLE? A META-ANALYSIS OF THE LITERATURE

by Margaret Miller, Julia Reichelstein, Christian Salas, and Bilal Zia, 2014



The results from the meta-analysis indicate that financial literacy and capability interventions can have a positive impact on financial behavior in some areas, including increasing savings and promoting financial skills such as record keeping.

This study provides a meta-analysis of causal impact studies in the field of financial education. It identifies 188 papers and articles that examine effects of interventions designed to increase consumers' financial knowledge (financial literacy) or skills, attitudes, and behaviors (financial capability).

Existing research is diverse across a number of program characteristics, including objectives of the program intervention, expected outcomes, intensity and duration of the intervention, delivery channel used, and type of population targeted. Pooling and systematically studying these varied impacts through meta-analysis has the potential to provide valuable policy insight on what works in financial education, as well as to help identify where the research gaps lie.

The results from the meta-analysis indicate that financial literacy and capability interventions can have a positive impact on financial behavior in some areas, including increasing savings and promoting financial skills such as record keeping. However, studies have not shown positive impacts on other outcomes, such as tendency for credit default.

While the intensity was weakly significant in the case of record keeping, it was not significant for other outcome variables. Other characteristics such as delivery mechanism, duration of exposure to the treatment, location of the intervention, etc., were also not shown to be significant; however, the small sample size limits the power of the statistical analysis. Overall, the difficulty in evaluating the financial education literature for meta-analysis highlights the importance of strengthening and expanding the use of rigorous evaluation methods within this field.



---

# UNPACKING THE CAUSAL CHAIN OF FINANCIAL LITERACY

by Fenella Carpena, Shawn Cole, Jeremy Shapiro and Bilal Zia, 2011

Financial literacy training significantly improves basic awareness of financial choices and attitudes toward financial decisions. Specifically, individuals who received financial literacy training are 5 percentage points more likely to know the concept of a household budget, 17 percentage points more likely to know minimum bank account opening requirements, and 20 percentage points more likely to understand unproductive loans.

This paper unpacks the mechanism by which financial literacy can affect financial behaviors and outcomes. It presents the findings from a randomized experiment, focusing on the intermediary impacts of a five-week comprehensive video-based financial education program in India. The program contained modules on savings, credit, insurance, and budgeting. The program was complemented by a pay-for-performance treatment, where some individuals were provided with greater incentives to pay attention to the training program.

The study measures the effect on three distinct dimensions of financial knowledge: (1) numeracy skills (e.g., computing interest rates), (2) basic financial awareness (e.g., bank account opening requirements), and (3) attitudes towards financial decisions (e.g., belief in insurance products).


Financial literacy training significantly improves basic awareness of financial choices and attitudes toward financial decisions. Specifically, individuals who received financial literacy training are 5 percentage points more likely to know the concept of a household budget, 17 percentage points more likely to know minimum bank account opening requirements, and 20 percentage points more likely to understand unproductive loans.

However, financial literacy does not immediately enable individuals to discern costs and rewards that require high numeracy skills. Monetary incentives fail to yield better performance on these outcomes, suggesting that cognitive constraints rather than lack of attention are a key barrier to improving more difficult financial decision making. For example, even those provided with a monetary incentive were no more likely to choose the loan option that minimizes expense, to select the most appropriate savings or insurance product, or to create a budget effectively.

---

# FROM FINANCIAL LITERACY TO FINANCIAL CAPABILITY AMONG YOUTH

by Elizabeth (Lissa) Johnson and Margaret Sherraden,  
Center for Social Development at Washington University, 2007

 The paper proposes that financial capability results when individuals develop financial knowledge and skills, but also gain access to financial instruments and institutions.

In this paper, we suggest that an approach to financial education that focuses solely on financial literacy may work well for children whose families already have access to mainstream financial institutions, but will not benefit as much those children whose families do not use banks and other mainstream financial institutions. Although these children may learn enough to pass a test of financial knowledge and they may even be able to recite desired financial behaviors, but they will not have developed what we call financial capability.

In order to develop financial capability, we think that the combination of financial education and financial institution access may be an effective combination.


Another approach would be to provide a savings account for every child at birth and to encourage families and children to participate by providing a savings account with a small grant to launch every child's savings account. This idea is embodied in "Kids Accounts" proposed in the Aspire Act. Inspired by United Kingdom's Child Trust Fund, Aspire offers an opportunity for financial education to meet the real world. It proposes that every child born in the United States receive an account with an initial \$500 deposit. Eligible low-income families could receive matched savings incentives and supplemental deposits. All children – not just wealthy children with savings accounts or trust funds – might be able to apply what they are learning in financial education. Lessons on money management, saving, and investment might take on greater meaning, and as a result, might have greater impact. Moreover, if each child owned an account, parents might be drawn into financial education and the financial system as well.

If all children came into school with savings accounts, they could be met with universal financial education, which could use their accounts in lessons on making economic choices and developing money management skills. Implementation of a national policy for kids' accounts with universal financial education would send a clear message of commitment to the financial success and well-being of future generations. In this way, we might have a nation of "financially capable" young people.

---

## EXPECTATIONS OF INFLATION: THE ROLE OF FINANCIAL LITERACY AND DEMOGRAPHIC VARIABLES

by Bruine de Bruin, W., van der Klaauw, W., Downs, J.S., Fischhoff, B.,  
Topa, G. and Armantier, O., 2010




Higher inflation expectations have been reported by individuals who are female, poorer, single and less, educated. Our results suggest that these demographic differences in inflation expectations may be partially explained by variations in expectation formation and financial literacy.

We conducted a Web-based survey with RAND's American life panel (ALP), whose members were recruited from respondents participating in the Michigan Survey of Consumers in 2007. These survey respondents were originally reached through random-digit dialing. Those who indicated willingness to participate in Web-based surveys and gave consent to have their information transferred were contacted by RAND and provided with Web TV if they did not have Internet access. A random sample of 740 ALP panel members were invited to participate in the ALP's 16th monthly survey. Of those, 613 completed the survey (82.8% response rate). Our sample included 299 respondents randomly assigned to receive the questions we analyzed, including about inflation expectations, how they formed their inflation expectations, and financial literacy.

When financial decisions have consequences beyond the immediate future, individuals' economic success may depend on their ability to forecast the rate of inflation. Higher inflation expectations have been reported by individuals who are female, poorer, single, and less educated. Our results suggest that these demographic differences in inflation expectations may be partially explained by variations in expectation formation and financial literacy. Specifically, higher inflation expectations were reported by individuals who focused more on how to cover their future expenses and on prices they pay (rather than on the US inflation rate) and by individuals with lower financial literacy.

# AN ANALYSIS OF PERSONAL FINANCIAL LITERACY AMONG COLLEGE STUDENTS

by Haiyang Chen, 1998



The illiteracy and its costly consequences have made individuals worry about their finances to the extent that their productivity in workplaces is affected (CHRG, 1995). When individuals cannot manage their finances, it becomes a problem for the society.

This study surveys 924 college students to examine their personal financial literacy, the relationship between the literacy and students' characteristics, and impact of the literacy on students' opinions and decisions.


College students are not knowledgeable about personal finance. Results show that participants answer about 53% of questions correctly. Non-business majors, women, students in the lower class ranks, students under age 30, and with students little work experience have lower levels of knowledge. Less knowledgeable students tend to hold wrong opinions and make incorrect decisions. The incompetency will limit their ability to make informed financial decisions. Together with evidence provided by the research conducted in the past three decades, the findings of this study suggest that there is a systematic lack of personal finance education in our education system.

The lack of education has resulted in serious financial illiteracy found in the American public. The illiteracy and its costly consequences have made individuals worry about their finances to the extent that their productivity in workplaces is affected (CHRG, 1995). When individuals cannot manage their finances, it becomes a problem for the society. This challenging issue needs to be addressed.

---

## EASTERN FAMILY ECONOMICS AND RESOURCE MANAGEMENT ASSOCIATION 2006 CONFERENCE

by Brenda J. Cude, Frances C. Lawrence and Angela C. Lyons, 2006


 Poor financial management can affect their academic performance, mental and physical well-being, and even their ability to find employment after graduation (Bodvarsson & Walker, 2004; Lyons, 2003, 2004).

This study examines college students' overall financial management practices using quantitative and qualitative data from a multi-state research project. Specifically, the study investigates how college students acquire financial knowledge and behaviors, and the factors that place some students at greater financial risk than others.

The findings show that parents play a key role in their children's financial socialization. The implications of poor financial management can affect more than students' finances. It can affect their academic performance, mental and physical well-being, and even their ability to find employment after graduation (Bodvarsson & Walker, 2004; Lyons, 2003, 2004). Thus, campuses need to take a more holistic approach when addressing the financial needs of their students – student organizations and parents need to be involved in the process along with a wide range of campus offices (i.e., financial aid, student affairs, student health services, career centers, residence life, and student business services).

# FINANCIAL LITERACY AMONG THE YOUNG: EVIDENCE AND IMPLICATIONS FOR CONSUMER POLICY

by Annamaria Lusardi, Olivia S. Mitchell and Vilsa Curto, 2009

 A college-educated male whose parents had stocks and retirement savings is about 50 percentage points more likely to know about risk diversification than a female with less than a high school education whose parents were not wealthy.

We examined financial literacy among the young using data from the 1997 National Longitudinal Survey of Youth. Financial literacy is not entirely determined by cognitive ability. While this variable plays a role in explaining the differences in financial knowledge among the young, it is not the only relevant factor. Thus there is a role for education in improving financial knowledge. Third and most important, it is likely to be beneficial to provide financial education before individuals engage in financial contracts and before they start making financial decisions. In this respect, it may be important to find ways to improve the effectiveness of financial literacy programs currently offered in high school.


This study also illuminated the importance of parental influences on young people’s acquisition of financial knowledge. Involving parents in a financial education program could be more effective than only involving young people. First, parents who are engaged in such a program may take a more active role in guiding their children’s financial behaviors. Second, such a program could aid those parents who lack sufficient financial knowledge to provide their children with sound financial advice. Given the low level of financial knowledge displayed by young adults who are already out of school, it may also be important to pursue other financial education initiatives. Several firms, particularly those offering defined contribution pensions, have offered financial education programs (Bernheim and Garrett 2003; Lusardi 2004).

The findings from this study show that young workers are particularly in need of these programs. Other studies also show that the young are those more susceptible to making financial mistakes (Agarwal et al., 2007). Given the substantial differences that exist among the young, “one-size-fits-all” programs are unlikely to be effective. The results suggest that there may be substantial gains in financial literacy when programs are targeted to women, minorities, such as Blacks and Hispanics, and those with low educational attainment.

---

# FINANCIAL LITERACY: AN ESSENTIAL TOOL FOR INFORMED CONSUMER CHOICE?

by Annamaria Lusardi, 2008



Those with low education, women, African-Americans, and Hispanics display particularly low levels of literacy. Financial literacy impacts financial decision-making. Failure to plan for retirement, lack of participation in the stock market, and poor borrowing behavior can all be linked to ignorance of basic financial concepts.

While financial education programs can result in improved saving behavior and financial decision-making, much can be done to improve these programs' effectiveness.

Technology makes it possible to use interactive methods to teach. Thus, "students of financial literacy" do not necessarily have to attend classes at school, but can learn from courses online from their homes. Courses can be customized and tailored to various needs and levels of financial knowledge. Moreover, it is important to find ways to make courses engaging and to stimulate interest in acquiring financial literacy.


Providing economic incentives, such as a small fund for children's education or for retirement, may be one way to encourage people to become financially literate.

Given the current low levels of financial literacy, employers and the government should devise and encourage programs that simplify financial decision-making as well as provide sources of reliable financial advice.

---

# FINANCIAL LITERACY OF COLLEGE STUDENTS: PARENTAL AND PEER INFLUENCES

by Bryce Jorgensen, 2007



The financial decisions made early in life create habits difficult to break and affect students' ability to become financially secure adults. Most recent studies show average personal financial scores declining with average scores close to a failing grade.

The College Student Financial Literacy Survey (CSFLS) was created to collect data specifically for this study. The purpose of this descriptive, cross-sectional, on-line survey design study is three fold. First, I investigated the personal financial literacy (knowledge, attitudes, and behavior) of a sample of undergraduate and graduate college students using the personal characteristics of gender, class rank, and socioeconomic status (SES). Second, I examined parental and peer influences on the level of financial literacy of college students. Finally, I examined how college students' financial knowledge and attitudes correlated with their financial behavior.


The present study provides insight into the state of financial literacy among a sample of college students today. Parents did significantly influence their children's financial knowledge, attitudes, and behavior. College students continue to score low in financial knowledge, attitudes, and behavior. Although levels of knowledge increased by class rank, college students may lack the necessary knowledge to handle financial responsibility during and after college. Without an appropriate understanding of their personal finances, they may be more likely to mismanage their finances now and in the future, contributing to the poor financial behaviors that are reflected in today's society. Therefore, college students need to receive more financial education during this important time of their life so they can be better financial consumers in today's increasingly complex marketplace. The ability to make important personal financial decisions will affect them for the rest of their lives.



---

# FINANCIAL SOCIALIZATION OF FIRST-YEAR COLLEGE STUDENTS: THE ROLES OF PARENTS, WORK, AND EDUCATION

by Soyeon Shim, Bonnie L. Barber, Noel A. Card, Jing Jian Xiao, and Joyce Serido, 2009




Our results indicate that parents can be both direct teachers and useful role models in the financial development of their children. From adolescence and through the transition to adulthood, parents' ongoing enactment of these roles lays the foundation for sound young adult financial attitudes and behavior.

This cross-sectional study tests a conceptual financial socialization process model, specifying four levels that connect anticipatory socialization during adolescence to young adults' current financial learning, to their financial attitudes, and to their financial behavior. A total of 2,098 first-year college students (61.9% females) participated in the survey, representing a diverse ethnic group (32.6% minority participation: Hispanic 14.9%, Asian/Asian American 9%, Black 3.4%, Native American 1.8% and other 3.5%).

Acquiring responsible financial behavior is a key developmental task, one that must be accomplished along the path to adult self-sufficiency, and parents are central in that process. Much previous research has noted the role of family economic background in the successful launching of young adults. Our results indicate that parents can be both direct teachers and useful role models in the financial development of their children. From adolescence and through the transition to adulthood, parents' ongoing enactment of these roles lays the foundation for sound young adult financial attitudes and behavior. Given the importance of financial well-being to many indicators of college student success (Shim et al. 2009), such parental investment in the financial skills and knowledge of their adolescents may pay substantial dividends in terms of youth health, adjustment, and academic success.

# WHAT DOES FINANCIAL LITERACY TRAINING TEACH US?

by Bruce Ian Carlin and David T. Robinson, 2010



All students in our study were exposed to decision support surrounding the benefits of paying off their credit installment plans early; however, students who were exposed to literacy training were significantly more likely to act on this advice.

This paper explores how financial education changes savings, investment, and consumer behavior. We use data from a Junior Achievement Finance Park to measure the effect of a financial literacy program on students who are assigned fictitious life situations and asked to create household budgets for these roles. Students in the treatment group are about 35% more likely to complete the budget balancing exercise that they are given than those in the non-treatment group.


Our results suggest that financial literacy training teaches us at least two things. On the one hand, we find some evidence that students who were exposed to literacy training made better financial decisions. The second thing that financial literacy training teaches us is to make better use of the information around us. In our study, exposure to financial literacy training increased the up-take of timely advice. All students in our study were exposed to decision support surrounding the benefits of paying off their credit installment plans early; however, students who were exposed to literacy training were significantly more likely to act on this advice.

In a contrasting setting, in which students faced a similar decision with respect to health insurance in the absence of clear-cut advice, the students with exposure to financial literacy training avoided high monthly premium insurance plans, even though these plans might have offered lower out of pocket costs down the road.

---

## DELIVERY OF FINANCIAL LITERACY PROGRAMS

by Maude Toussaint-Comeau and Sherrie L. W. Rhine, 2000



Opportunities exist for community-based organizations, consumer counseling organizations, educational institutions, and government agencies to establish partnerships with financial institutions to leverage the resources needed to bring effective educational programs to adult consumers. At the same time, financial institutions can take important steps toward earning Community and Reinvestment Act (CRA) credit through their educational service initiatives and partnerships.

A critical challenge faced by educators, community leaders and policy makers is to bring financial literacy and consumer education effectively to their constituencies. Based on the qualitative evidence gleaned from focus groups, we take a pragmatic approach in proposing ways to deliver financial literacy programs to adults.

This article makes several suggestions for implementing financial literacy programs, from outlining important financial literacy and consumer education topics, to discussing the logistics of using various methods of outreach activities. Offering these various programs can be expensive in terms of time, human resources, and actual expenses. Opportunities exist for community-based organizations, consumer counseling organizations, educational institutions, and government agencies to establish partnerships with financial institutions to leverage the resources needed to bring effective educational programs to adult consumers. At the same time, financial institutions can take important steps toward earning Community and Reinvestment Act (CRA) credit through their educational service initiatives and partnerships. Educators, community organizations, and financial institutions are encouraged to engage in such partnerships.

---

# THE FINANCIAL LITERACY OF YOUNG AMERICAN ADULTS

by Lewis Mandell, 2008

 Just 27.3 percent of high school seniors and 39 percent of college students realize that interest on a savings account is taxable if one's income is high enough.

The 2008 national Jump\$tart survey of high school seniors was the sixth such biennial survey and completed the first ten years of measuring financial literacy in the United States. In 2008, the Jump\$tart Coalition also conducted its first national survey designed to measure the financial literacy of college students. The two surveys present contrasting results:

Only 16.8 percent of high school seniors and 19.2 percent of college students feel that stocks are likely to have higher average returns than savings bonds, savings accounts and checking accounts over an 18 year period.


Just 27.3 percent of high school seniors and 39 percent of college students realize that interest on a savings account is taxable if one's income is high enough.

Only about 40 percent of high school seniors realize that their own health insurance could stop if their parents become unemployed. Nearly 70 percent of college students answered this question correctly.

---

# FINANCIAL LITERACY AND PLANNING: IMPLICATIONS FOR RETIREMENT WELLBEING

by Annamaria Lusardi and Olivia Mitchell, 2006



Financial knowledge and planning are clearly interrelated: those who displayed financial knowledge were more likely to plan and to succeed in their planning. Moreover, those who did plan were more likely to rely on formal methods such as retirement calculators, retirement seminars, and financial experts, and less likely to rely on family/relatives or co-workers.

Only a minority of American households feels “confident” about retirement saving adequacy, but little is known about why people fail to plan for retirement and whether planning and information costs might affect retirement saving patterns.

To better understand these issues, we devised and fielded a purpose-built module on planning and financial literacy for the 2004 Health and Retirement Study (HRS). This module measures how workers make their saving decisions, how they collect the information for making these decisions, and whether they possess the financial literacy needed to make these decisions.

Our analysis shows that financial illiteracy is widespread among older Americans: only half of the age 50+ respondents could correctly answer two simple questions regarding interest compounding and inflation, and only one-third correctly answered these two questions and a question about risk diversification.

We find that retirement calculations are not an easy task: only 31% of these older people had ever tried to devise a retirement plan, and only two thirds of these succeeded. For the sample as a whole, only 19% engaged in successful retirement planning. Overall, fewer than one-fifth of the respondents believed they engaged in successful retirement planning.


We also find that financial knowledge and planning are clearly interrelated: those who displayed financial knowledge were more likely to plan and to succeed in their planning. Most importantly, those who display higher financial literacy are more likely to save and invest in complex assets, such as stocks.

Moreover, those who did plan were more likely to rely on formal methods such as retirement calculators, retirement seminars, and financial experts, and less likely to rely on family/relatives or co-workers.

---

# HOW ORDINARY CONSUMERS MAKE COMPLEX ECONOMIC DECISIONS: FINANCIAL LITERACY AND RETIREMENT READINESS

by Annamaria Lusardi, Olivia S. Mitchell and Vilsa Curto, 2009

 Financial literacy is a key determinant of retirement planning. We also find that respondent financial literacy is higher when consumers have been exposed to economics in school and in employer-sponsored programs.

This paper evaluates the causal relationship between financial literacy and retirement planning by exploiting information about respondents' financial knowledge acquired in school — before entering the labor market and certainly before starting to plan for retirement. Results show that those with more advanced financial knowledge are those more likely to be retirement-ready.

By every measure, and in every sample we have examined, we conclude that financial literacy is a key determinant of retirement planning. We also find that respondent financial literacy is higher when consumers have been exposed to economics in school and in employer-sponsored programs.

Indeed, very young adults receive multiple credit cards, they may take out loans, and they can readily purchase assets ranging from mutual funds to stocks and tax-favored plans such as IRAs and 401(k)s. However, our work shows that young adults are not well equipped to make financial decisions (Lusardi, Mitchell and Curto, 2008). Saving for retirement is becoming more challenging but also more critical for younger consumers, requiring ever-greater levels of financial sophistication. It is thus urgent to develop, evaluate, and target effective programs to those who can put this necessary financial knowledge to work.

# DEBT LITERACY, FINANCIAL EXPERIENCES, AND OVERINDEBTEDNESS\*

by Annamaria Lusardi and Peter Tufano, 2009

Groups displaying lowest levels of financial literacy:

The elderly (those older than 65)—they display the lowest amount of knowledge about interest compounding; also, more than 30% do not know the answer to a question about credit card debt.

Women—their correct response rate is sometimes up to 20 percentage points lower than that of men.

Those who are divorced/widowed/separated. Minorities—particularly African-Americans and Hispanics.


Those with low income and low financial assets.

From a representative sample of the US population: Only 36% of respondents performed an interest rate calculation correctly. Only about 35% of respondents figured out that making minimum payments equal to the interest payment on outstanding credit card debt will never eliminate debt. Only 7% of respondents responded correctly to a question requiring an understanding of the notion of the time value of money. Most respondents think they know more than they do: when asked to rate their own financial knowledge on a scale of 1 to 7, the average score in the sample is 4.88 and more than 50% of respondents chose a score as high as 5 or 6. The elderly display low levels of debt literacy but rank themselves highest: their average score is 5.3. Those who are divorced/separated/widowed display low levels of debt literacy but rank themselves high: their average score is 4.79.

---

# FINANCIAL LITERACY: AN ESSENTIAL TOOL FOR INFORMED CONSUMER CHOICE?

by Annamaria Lusardi, 2008



To be effective, programs have to recognize the many differences among individuals, not only in terms of preferences and economic circumstances but also of their existing levels of information, financial sophistication, and ability to carry through with plans. In other words, relying on “one-size-fits-all” principles can lead to rather ineffective programs.

This paper demonstrates widespread financial illiteracy among the U.S. population, particularly among specific demographic groups. Those with low education, women, African-Americans, and Hispanics display particularly low levels of literacy. Financial literacy impacts financial decision-making. Failure to plan for retirement, lack of participation in the stock market, and poor borrowing behavior can all be linked to ignorance of basic financial concepts. While financial education programs can result in improved saving behavior and financial decision-making, much can be done to improve these programs’ effectiveness.


First, while economic incentives such as employer matches or tax advantages may be useful, there are many more methods that can be employed to make people save. In fact, given the massive lack of information and lack of financial knowledge that exists in the general population, implementation of programs aimed at simplifying saving decisions may prove to be a cost-effective strategy.

Second, individuals are most prone to decision-making in specific time periods. For example, the start of a new job pushes people to think about saving (often because they have to make decisions about their pensions), and it may be very important to exploit such “teachable moments.”



# BABY BOOMER RETIREMENT SECURITY: THE ROLES OF PLANNING, FINANCIAL LITERACY, AND HOUSING WEALTH

by Annamaria Lusardi and Olivia S. Mitchell, 2006



Most important, planners in both cohorts arrive close to retirement with much higher wealth levels and display higher financial literacy than non-planners. Instrumental variables estimates show that planning behavior can explain the differences in savings and why some people arrive close to retirement with very little or no wealth.

We compare wealth holdings across two cohorts of the Health and Retirement Study: the early Baby Boomers in 2004, and individuals in the same age group in 1992. Levels and patterns of total net worth have changed relatively little over time, though Boomers rely more on housing equity than their predecessors.

We show that respondents who report they planned for retirement enter their golden years with higher wealth levels. We further show that planning is strongly correlated with financial and political literacy and that the relationship between planning and wealth remains strong, even after controlling for many socio-demographic factors. We explore the possibility that it is wealth that affects planning rather than planning that affects wealth, but our statistical tests indicate this is not the case.

A one-size-fits-all approach is unlikely to do much to build retirement wealth, and education programs must be targeted specifically to particular subgroups.

Our findings provide support for this statement and highlight the fact that specific groups in the economy, particularly those with low education, low income, and Black and Hispanic households, are at risk of not preparing adequately for their retirement.

# FINANCIAL LITERACY AND RETIREMENT PREPAREDNESS: EVIDENCE AND IMPLICATIONS FOR FINANCIAL EDUCATION

by Annamaria Lusardi and Olivia S. Mitchell, 2009

Implications for policymakers as they consider financial education programs include the importance of targeting specific groups, simplifying financial decision-making, and providing specific steps and guidance to the least financially knowledgeable.

**FINANCIAL EDUCATION SHOULD START YOUNG.** Financial education should be provided before people engage in financial contracts. For example, financial education in school can provide a base level of financial literacy to help navigate an increasingly complex financial environment.

**ONE SIZE DOES NOT FIT ALL.** The differences in financial literacy among the population that are highlighted in this report suggest that it is important to target specific groups in the population to best serve those most in need.

**A ONE-TIME RETIREMENT SEMINAR IS LIKELY TO BE INEFFECTIVE.** When financial illiteracy is so widespread in the population, small interventions such as offering one retirement seminar to all workers are likely to be ineffective. The cure must fit the disease.

**SIMPLIFICATION IS ESSENTIAL FOR THE LESS FINANCIALLY LITERATE.** Those concerned with widespread illiteracy must find ways to simplify financial decision-making as much as possible. Further, methods of communication must be found that do not rely on percentage information, mathematical calculations, or numerical data.


**FINANCIAL ADVICE CAN BE OF SUBSTANTIAL HELP TO THE LEAST FINANCIALLY LITERATE.** It is important to provide guidance in making financial decisions and provide specific steps that people can act upon, particularly for the least financially literate.

**FINANCIAL LITERACY IS AN ESSENTIAL TOOL FOR DECISION-MAKING** Because individuals make many financial decisions and these decisions are interrelated, it is important to equip people with some basic tools. Given widespread illiteracy, people are prone to make mistakes and these mistakes can be costly.

---

# HOUSEHOLD SAVING BEHAVIOR: THE ROLE OF FINANCIAL LITERACY, INFORMATION, AND FINANCIAL EDUCATION PROGRAMS

by Annamaria Lusardi, 2008



Combining default options with financial education programs or financial advice may prevent workers from saving at sub-optimal rates. Moreover, the combination may help workers evaluate their total savings, not only pension but also private savings and, for example, help them save for their children's education, to build a buffer to insure against shocks, or for other reasons.

This paper shows that financial illiteracy is widespread among the U.S. population and particularly acute among specific demographic groups, such as those with low education, women, African-Americans, and Hispanics. Moreover, close to half of older workers do not know which type of pensions they have and the large majority of workers know little about the rules governing Social Security benefits. Notwithstanding the low levels of literacy that many individuals display, very few rely on the help of experts or financial advisors to make saving and investment decisions. Low literacy and lack of information affect the ability to save and to secure a comfortable retirement; ignorance about basic financial concepts can be linked to lack of retirement planning and lack of wealth. Financial education programs can help improve saving and financial decision-making, but much more can be done to improve the effectiveness of these programs.


Saving decisions are derived from maximizing utility not only under a lifetime budget constraint but also under the limitations imposed by low financial literacy, lack of information, and crude sources of financial advice. Thus, policies that aim to stimulate saving and financial security after retirement should consider a variety of incentives, including how to decrease informational barriers and simplify decision-making.

Combining default options with financial education programs or financial advice may prevent workers from saving at sub-optimal rates. Moreover, the combination may help workers evaluate their total savings, not only pension but also private savings and, for example, help them save for their children's education, to build a buffer to insure against shocks, or for other reasons.

---

# FINANCIAL LITERACY AND STOCK MARKET PARTICIPATION

by Maarten van Rooij, Annamaria Lusardi, and Rob Alessie, 2007



The role of financial literacy should not be under-estimated. As more workers transition to a system where they have to decide how much to save for retirement and how to invest their retirement wealth, it is important to consider ways to enhance their level of financial knowledge or to guide them in their financial decisions.

Individuals are increasingly put in charge of their financial security after retirement. Moreover, the supply of complex financial products has increased considerably over the years. However, we still have little or no information about whether individuals have the financial knowledge and skills to navigate this new financial environment.

To better understand financial literacy and its relation to financial decision-making, we have devised two special modules for the DNB Household Survey. We have designed questions to measure numeracy and basic knowledge related to the working of inflation and interest rates, as well as questions to measure more advanced financial knowledge related to financial market instruments (stocks, bonds, and mutual funds). We evaluate the importance of financial literacy by studying its relation to the stock market: Are more financially knowledgeable individuals more likely to hold stocks? To assess the direction of causality, we make use of questions measuring financial knowledge before investing in the stock market. We find that, while the understanding of basic economic concepts related to inflation and interest rate compounding is far from perfect, it outperforms the limited knowledge of stocks and bonds, the concept of risk diversification, and the working of financial markets. We also find that the measurement of financial literacy is very sensitive to the wording of survey questions. This provides additional evidence for limited financial knowledge. Finally, we report evidence of an independent effect of financial literacy on stock market participation: Those who have low financial literacy are significantly less likely to invest in stocks.

---

# FINANCIAL LITERACY AND RETIREMENT PLANNING: NEW EVIDENCE FROM THE RAND AMERICAN LIFE PANEL

by Annamaria Lusardi and Olivia S. Mitchell, 2007



By every measure, and in every sample we examine, financial literacy proves to be a key determinant of retirement planning. We also find that respondent literacy is higher when they were exposed to economics in school and to company-based financial education programs.


First, it is critical to ask specific questions about financial knowledge as outlined here, since education, income, and age are correlated with but do not adequately capture the full flavor of the financial literacy measures developed here. Second, the fact that we find that more financially literate adults are more likely to plan for retirement complements other analysts who have sought to link financial sophistication and decision-making. For instance, research shows that financially unsophisticated households tend to avoid the stock market (van Rooij, Lusardi and Alessie 2007; Kimball and Shumway 2006; Christelis, Jappelli and Padula 2006; Hilgert and Hogarth 2003). The financially unsophisticated are also less likely to refinance their mortgages in a propitious environment (Campbell 2006), and they select less advantageous mortgages (Moore 2003). People who cannot correctly calculate interest rates given a stream of payments borrow more and accumulate less wealth (Stango and Zinman 2007). And now our results show that the financially illiterate do not plan for retirement either.

It is necessary to enhance financial knowledge if consumers are to do a better job navigating the financial complexities of the modern world. Indeed individuals are confronted at a very early age with the opportunity to use credit cards, take out loans, and purchase assets ranging from mutual funds to stocks and tax-favored plans such as IRAs and 401k's. As a result, saving for retirement is becoming more and more challenging and a more important objective requiring ever-greater levels of financial sophistication. Clearly it is urgent to target effective programs to those who can put this necessary financial knowledge to work.

---

# SAVING AND THE EFFECTIVENESS OF FINANCIAL EDUCATION

by Annamaria Lusardi, 2004



Many families arrive close to retirement with little or no wealth. Portfolios are also rather simple, and many families, particularly those with low education, hold little or no high-return assets. Seminars do indeed foster savings. This is particularly the case for those with low education and those who save little.

This work examines how retirement seminars help explain the wide differences in retirement accumulation that we observe across older households. The results show that seminars are remedial and appear to affect those at the bottom of the wealth distribution the most. The effects become even stronger for every education group and every quartile of the wealth distribution if pension and Social Security wealth are included in the household wealth measures. These estimates imply that retirement seminars can influence the accumulation of both net worth and broader measures of wealth. Both financial and net worth can increase by 20 percent and a lot more across sub-groups of low education when workers attend retirement seminars. A broader wealth measure, inclusive of pension and Social Security relative to permanent income, increases by 15-20 percent for both high and low education families. While the provision of information and the reduction of planning costs could play an important role in improving the financial security of many U.S. households, it should be recalled that only a small number of workers, 10 to 13 percent, attend retirement seminars. Consequently, many remain untouched by employers' efforts to provide financial education. Moreover, many of the households with low education or at the bottom of the wealth distribution are minorities, particularly Blacks and Hispanics. They not only save little but often do not hold any high-return and tax-favored assets, or even simple assets, such as checking accounts. To understand the saving behavior and the effectiveness of financial education for these groups, it may be important to study them in isolation.

## MOTIVATION AND FINANCIAL LITERACY

by Lewis Mandell and Linda Schmid Klein', 2007



These results suggest an approach to teaching that places great emphasis on why financial literacy is important to the student and his or her future.

Our research demonstrates that motivation is an important driver of financial literacy. After controlling for other important determinants of financial literacy, we find that questions relating to motivation add significantly to explaining student financial literacy scores. These results suggest an approach to teaching that places great emphasis on why financial literacy is important to the student and his or her future. Given the tendency, quantified by Laibson (1997), to overrate the benefits of immediate consumption and underrate the difficulty of making future payments for that consumption, it is easy to understand why consumers apply such a high discount rate to the disutility of payback. The dysfunctionality and unhappiness of families with severe debt difficulties and the struggles of many elderly, who are trying to scrape by, seldom make prime time television. Nor are many students exposed to the fact that falling birthrates and longevity combine to increase the dependency ratio, placing greater burdens on them during their working years. There is no single, silver bullet that will solve the problem of financial illiteracy. For high school students, motivation is a key factor to becoming financially literate and trained instructors who teach personal finance interactively through activities such as a stock market game or other simulations are certainly a start. In addition, as we learn in this paper, it is important for these teachers to set the stage by demonstrating to their students, perhaps repeatedly, that they are responsible for their futures and that the happiness of these futures can vary dramatically based upon their actions.

---

# CREDIT CARD CONSUMERS: COLLEGE STUDENTS' KNOWLEDGE AND ATTITUDE

by Joyce Jones, 2005



Results from this study of incoming college freshmen indicated many students already had access to credit or had acquired debt. Sixty-two percent had access to a credit/charge card and just over half (50.9%) had some type of debt.

Many incoming freshmen at the College and University studied already had access to credit or had acquired debt. Sixty-two percent had their own credit/charge card or the use of one. Two-thirds of those who had their own credit/charge card had an outstanding balance on their card(s) and almost one-third of all the students had other (non-credit/charge card) debt. As might be anticipated, older students had more credit/charge cards, as well as higher levels of credit/charge card debt, other (non-credit/charge card) debt, and total debt, than younger students. White students tended to have fewer credit/charge cards than non-white students, while single, never married students had lower levels of both other (noncredit/charge card) debt and total debt than currently/formerly married students. Freshmen students in this study knew little about credit, although they scored higher when answering more general credit knowledge questions – some of which were related to issues addressed by the media – than when answering more specific questions. Two demographic variables were significant predictors of credit knowledge, with female students consistently scoring lower than male students and white students consistently scoring higher than non-white students. Further study is needed to see if these and other reported relationships are consistent when utilizing a more diverse, representative sample of freshmen students.

Interestingly, there was not a significant relationship between credit knowledge and use of credit. Students who had higher levels of debt – or who had access to credit/charge cards – were not significantly more or less knowledgeable about credit. Nor were students who were more knowledgeable about credit more or less likely to have higher debt levels (or have access to credit). While access to credit can provide many advantages to college students, it also can create current and future financial problems if used unwisely. Credit education programs may facilitate better financial practices and counter the economic impact of credit mistakes on the individual, their families, businesses, and the economy.



# FINANCIAL KNOWLEDGE OF TEENS AND THEIR PARENTS

by Cathy Faulcon Bowen, 2002

Teens were knowledgeable about net incomes and endorsing checks. Parents were knowledgeable in all areas studied except, credit card liability for unauthorized use, W-4 forms, annual percentage rates, auto collision coverage, and interest accrual on outstanding credit card balances.

The purposes of this study were to determine the financial knowledge of high school juniors/seniors and their parents and the relationship between the teens' and parents' financial knowledge. Seventy percent or more of the teens answered two of the 19 knowledge questions correctly. These two items dealt with the concept of endorsing checks and defining net income. On the remaining 17 items, the number of teens answering items correctly ranged from 3% to 64%. Over half of the teens had a paid job during the previous school year and a few (7) had a checking account. Furthermore, nearly all of their parents had a checking account. Perhaps the teens learned about these two concepts from repeated hands-on experience of endorsing and cashing their paychecks, seeing the difference between the gross and net income of their paychecks, and finally observing parents endorsing checks. It is somewhat surprising that only 11 or 18% of the teens were knowledgeable about W-4s. Most employers require you to complete a W-4 form so the appropriate taxes can be withheld. However, completing a W-4 is usually done once at the beginning of employment. Furthermore, adjustments in W-4 withholdings may not occur until an event such as a marriage or birth of a child. Neither event is one which these teens were likely to have experienced. As expected, the parents were knowledgeable about most areas included on the survey. Seventy percent or more of the parents answered 12 of the 19 knowledge questions correctly. Those 12 items were on the terms or concepts of net income, endorsing a check, insurance policyholder, comprehensive auto insurance, credit card grace periods, insurance deductible, Social Security tax, personal identification number, lapsed insurance policy, uninsured motorist insurance, cash advances, and lowering the cost of car insurance. Items on which parents scored poorly were concerned with: finance charges, auto collision coverage, date interest starts accruing on credit card accounts with an outstanding balance when new charges are made, liability for unauthorized credit card use, W-4 forms, annual percentage rates, and the concept of pay-yourself-first. Note that four of the seven areas on which parents were not knowledgeable relate to credit card use. Nearly 90% (42 of 47) of the parents owned credit cards. This could be an indication that although these parents had middle incomes and owned credit cards, perhaps they could benefit from additional education on the finer details of using them wisely. Lack of knowledge about credit was also a finding in the Consumer Federation of America (1990) on adult consumer literacy. Adults in that study answered only 56% of the questions in the credit section correctly.

---

# FINANCIAL LITERACY AND THE COST OF BORROWING

by Annamaria Lusardi, 2013

Using well-tested questions to measure financial literacy, we document that most high-cost borrowers display very low levels of financial literacy, i.e., they lack numeracy and do not possess knowledge of basic financial concepts.

In this paper, we examine high-cost methods of borrowing in the United States, such as payday loans, pawn shops, auto title loans, refund anticipation loans, and rent-to-own shops, and offer a portrait of borrowers who use these methods.

First, high-cost borrowing is pervasive among American households; about one in four Americans has used these methods. Moreover, some demographic groups make heavy use of alternative financial services (AFS); as many as one-third of the young (aged 18–34) have used high-cost borrowing methods in the five years prior to the survey. Thus, the young start their working life not only carrying debt but often paying a high cost for it.

Second, education plays a critical role in explaining AFS use. Both in the full survey population and specifically among the young, a very high proportion of individuals without a college degree have used high-cost borrowing. In the empirical regressions and even after controlling for a rich set of demographic characteristics and economic circumstances, education is the variable that matters the most in explaining high-cost borrowing; it is more important than having been hit by shocks or being unbanked.

Third, having not just general knowledge, as proxied by education, but having 22 specific types of knowledge, such as financial literacy, explains high-cost borrowing behavior. One finding we highlight in the paper is that financial literacy is strikingly low among AFS users; the large majority lack knowledge of basic financial concepts at the basis of financial decision making. As documented in other papers (Lusardi, 2011; Lusardi, Mitchell, and Curto, 2010; Lusardi and Mitchell, 2011b), financial literacy is particularly low among the young and among those with low educational attainment, and both groups have been found to be heavy AFS users. In the empirical work, we find that low levels of financial literacy have strong links to AFS use. The quantitative importance of financial literacy is high; according to our estimates, financial literacy accounts for 20 percent of the reduction in the use of high-cost borrowing. While in our empirical work we use well-tested measures of financial literacy, our estimates are robust to different measures of financial literacy.

# WHAT EXPLAINS THE GENDER GAP IN FINANCIAL LITERACY? THE ROLE OF HOUSEHOLD DECISION MAKING

by Raquel Fonseca, Kathleen J. Mullen, Gema Zamarro and Julie Zissimopoulos, 2010



We found that decision-making within couples, with regards to paying bills, preparing taxes, tracking investments and making short and long term savings plans, is sensitive to the relative education level of spouses for both women and men.

Research has shown that financial illiteracy is widespread among women, and that many women are unfamiliar with even the most basic economic concepts needed to make saving and investment decisions. This gender gap in financial literacy may contribute to the differential levels of retirement preparedness between women and men.

We found that women perform almost 0.7 standard deviations lower than men on our financial literacy index, and the difference is highly significant. We then examined a number of potential factors affecting the observed financial literacy gap. We found that demographic characteristics had a limited effect on the financial literacy gap, whereas controlling for socio-demographic characteristics, current and past marital status reduced the observed gap by around 25%. We found marital selection may be important in explaining the observed gender gap, as well as marital specialization. Finally, we allowed for men and women to have different financial literacy production functions and performed an Oaxaca decomposition analysis. This analysis showed that the great majority of the gender gap is due to differences in coefficients rather than differences in characteristics between men and women. Thus, men and women seem to have very different production processes for financial literacy. We did not find strong support for specialization by gender for the financial decisions we study and only a positive correlation between decision-making and financial literacy for males. Instead, we found that decision-making within couples, with regards to paying bills, preparing taxes, tracking investments and making short and long term savings plans, is sensitive to the relative education level of spouses for both women and men. In fact, women and men with similar education levels relative to their partner on average take on the same number of financial responsibilities and both men and women are responsible for more financial activities as their education increases relative to their spouse or partner.

---

# TEACHERS' BACKGROUND & CAPACITY TO TEACH PERSONAL FINANCE: RESULTS OF A NATIONAL STUDY

by Wendy L. Way and Karen Holden, 2010



"Teachers' Background and Capacity to Teach Personal Finance," a two-year national study funded by the National Endowment for Financial Education® (NEFE®) and completed in March 2009.

Finding No. 1: Teachers recognize the need for financial education.

Finding No. 2: Few teachers currently are teaching financial literacy.

Finding No. 3: Teachers do not feel prepared to teach personal finance.

Finding No. 4: Teachers do not feel qualified to use state standards.

Finding No. 5: Teachers do not feel qualified in financial education pedagogy.

Finding No. 6: A majority of teachers are open to further education in financial literacy.

Finding No. 7: Teachers' financial concerns are focused on retirement needs and income adequacy.