

# PERSONAL FINANCE INSTRUCTION

## at U.S. COLLEGES AND UNIVERSITIES

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### INTRODUCTION

College students report that money from student loans appears in their bank accounts – almost like magic – minutes after completing a lender’s “easy online loan application.” Recent graduates face such high monthly payments on college loans that they can’t afford to rent a decent apartment. Some college students become so overwhelmed by debt they have to abandon their studies.

Soaring tuitions and a flood of money into financial markets nearly a decade ago created the conditions that plunged more U.S. college students than ever into debt. Wall Street’s era of easy credit is over, but large annual tuition hikes guarantee that loans will continue to be the primary way most students finance their college educations for many years.

How bad is the college debt crisis? More than two-thirds of students graduating with bachelor’s degrees have some student-loan debt. In just five years, the average balance for students graduating with debt surged 29 percent, to [\\$24,000](#) in 2009 from \$18,650 in 2004, according to the non-profit Project on Student Debt. The averages don’t show how bad things have gotten for some students, who accumulate as much as [\\$90,000 in college loans](#). Overuse of credit cards adds to the crisis on campus. Today, more than three-fourths of students have at least one card.

For millions of graduates entering the workforce, debt will have painful, long-term consequences, making it difficult to buy a home or start a family and even jeopardizing future employment with companies that do not hire people with large debts.

Colleges and universities have begun taking the initiative to deal with this worrisome trend by offering personal finance courses to their general student populations. While no central database exists of institutions that do so, the Financial Security Project at Boston College identified more than 100 U.S. colleges and universities that offer for-credit courses in personal finance.<sup>1</sup> Many have adopted them during the past five to seven years.

Yet, there is still an enormous need for college personal finance classes, which currently reach only a small share of all college students – and an even smaller percentage of all young adults in the United States.

The first challenge after graduating from college is getting a handle on student loan payments. A March 2011 study by the Institute for Higher Education Policy in Washington, DC, found that 41 percent of former students with loan payments are struggling to make them.

This report provides an in-depth examination of the activities taking place in colleges and universities that are attempting to educate their general student populations to be more financially

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savvy. It is based on interviews in 2010 with more than three dozen people, including educators, textbook publishers, researchers, personal finance organizations, and university business schools.

This report has four goals. Section I is an overview of the types of colleges and universities that offer personal finance instruction and an explanation of why they decided to do so. To be clear, this report examines only those courses offered to help students navigate their finances in their personal lives – it does not include courses offered as part of a business school curriculum, for example, or as part of a program to train personal finance planners. Section II identifies the most popular personal finance textbooks, as well as the hodgepodge of supplemental materials used in these college courses, from IRS tax tables to virtual online worlds.

Section III reviews the academic literature on the effectiveness of personal finance instruction at the college level and finds it is inconclusive. But practitioners said they feel strongly that they are having an impact, and have identified four crucial components of an effective curriculum: relevance, personalization, engagement, and attainable goals.

There is debate about the best way to ensure these courses have a lasting impact. One area of debate is whether to make these courses highly accessible to appeal to the broadest possible student population or to use a mathematical approach that provides students with the sophisticated skills to analyze their future financial issues. Finally, in Section IV, the report recommends important things to consider when educating young adults about personal finance.

## **I. OVERVIEW OF PERSONAL FINANCE COURSES IN U.S. COLLEGES**

College students are clamoring to get into personal finance courses. At the University of California, Berkeley, Fred Selinger, a former investment banker, teaches 500 juniors and seniors in two sections. “The kids want to learn, and they recognize it’s important and it’s practical,” he said. When Selinger holds office hours, he said, “Half of the students are coming in with questions about the material and how it relates to them. The other half is looking for help because their parents have lost their jobs, their parents are being evicted, or they’re a single mom facing a short sale on their house.”

Some educators feel so strongly about the urgency of offering these courses they have tried to add personal finance to their college’s core curriculum, including Bridgewater State College in Massachusetts, which has made this case unsuccessfully for 20 years. “I have students every semester begging me to let them in,” said Professor Shannon Donovan at Bridgewater State. At Madison (Wisconsin) Area Technical College, Michael Johnson, who has taught personal finance there for 14 years, said faculty have proposed that the college’s five-year strategic plan includes a requirement that all students take personal finance.

Despite the popularity of these courses where they are now taught, adoption of them among U.S. colleges and universities remains sporadic. One reason is that they have no natural home, since business schools often spurn them. Personal finance is frequently wedged into the curriculum at the urging of a single faculty member on a mission to help students. These faculty are located in myriad departments, including agriculture, family and consumer sciences, economics, human ecology, human science, and education, to name a few.

Certain types of institutions also seem more likely to offer personal finance to their general student populations. For example, prestigious institutions often view the course as too practical and not intellectual enough; Princeton and Harvard do not offer them. But many of the elite women's colleges do.

The following is a sampling of some types of institutions – and specific colleges within the group – that currently offer personal finance classes, with brief explanations of their decisions to do so.

- a. **Oklahoma Institutions:** *Oklahoma State University in Oklahoma City and Stillwater; Oklahoma University in Norman; Rose State College; University of Central Oklahoma in Edmond.*



The emotional toll on college students of excessive debt was first exposed nationally on CBS' *60 Minutes* in 2001. The segment featured two students – one at the University of Oklahoma; the other at the University of Texas – who had committed suicide to escape what they felt were crushing credit card bills.

The next morning, Randal Ice, chairman of the finance department at the University of Central Oklahoma in Edmond, received a call from the university's president. He was ordered to add 20 sections of personal finance. "Suddenly, I had resources," said Ice, who had taught a single course for 26 years. He hired lecturers and expanded the program. The University of Central Oklahoma now runs between 700 and 1,000 freshmen and sophomores through the personal finance course each academic year, still a small segment of its nearly 15,000 undergraduates.

After book publishers learned about the personal finance push there, they passed the word to other Oklahoma institutions and sparked a trend, as others began offering courses. Oklahoma's early reaction to the looming debt crisis on college campuses has proved prescient. A decade later, there is a widespread belief in Oklahoma that personal finance is a necessary part of a college education. "If the kids don't get this, their lives are in turmoil," Ice said.

- b. **Community and State Colleges:** *Anne Arundel Community College in Arnold, Maryland; Ashland Community & Technical College in Kentucky; Bridgewater State College in Massachusetts; Community College of Rhode Island, in Providence, Warwick and Newport; East Arkansas Community College; Oglala Lakota Community College in South Dakota.*



Community colleges were the first to adopt personal finance courses in large numbers. One reason is that cash-strapped community colleges recognized early on that these popular courses could generate badly needed revenue.

Community colleges also tend to be sensitive to the great need for personal finance education among their primary student populations, which are comprised of young adults in their mid- to late 20s – or even 30s or 40s – who often postponed college. These students are more likely to come

from families with lower incomes than do students at four-year institutions – and they work part-time or full-time while getting their education. They welcome the opportunity to learn about how to manage their small incomes effectively.

“These are the folks who can most use this type of education. They don’t have lots of extra dollars, and they need to be very efficient,” said Johnson at Madison Area Technical College.

**c. Women’s Colleges:** *Simmons College, Smith College, Wellesley College.*



Some women’s colleges see a need to educate young women about personal finance. At Smith, a Goldman Sachs investment banker started the Women and Financial Independence program at her alma mater because she believed women needed training in personal finance. She had learned this from experience: women clearly needed help with their finances, but came reluctantly to Goldman’s wealth management group for advice – if at all.

The initiative to help Smith women prepare for their financial futures is a recognition they have a compelling need – perhaps more so than men – to begin thinking about their finances early in life, because women live longer and spend more in retirement, yet earn less than men, said Rene Heavlow, the program’s assistant director.

“Our motto is: ‘You’re not truly independent until and unless you’re financially independent,’” she said. Smith’s course, while very popular, is not for credit. Heavlow said this design was intentional because for-credit courses may intimidate women who don’t like math.

At two other Massachusetts women’s colleges – Simmons and Wellesley – the courses are for-credit. Wellesley economics professor Anne Witte teaches a very demanding course. She said young women have no greater need to learn about personal finance than their male counterparts. “In general, people are poorly informed. Women are more willing to admit their lack of information,” she said.

**d. Land Grant and State Institutions:** *Indiana University, University of California at Berkeley, University of Florida at Gainesville, University of Massachusetts at Amherst, University of Michigan.*



At land grant colleges, personal finance courses fit easily into their original mission of providing a practical education. Land grant and other state colleges also are responding to growing demand for personal finance classes, which some students like to put on their resumes. As a result, more are adopting the courses as a revenue generator and one answer to state budget crises that are forcing state-funded universities to slash spending, said Angela Lyons, a consumer economics professor at the University of Illinois.

This is a big change from just five years ago, when Lyons conducted a survey of personal finance programs. At the time, she was speaking with college administrators around the country in an attempt to persuade them to provide personal finance as a requirement for students' general education. "They would say, 'We don't have the resources,'" she said. Today, "It's surprising if they don't have a program."

**e. Institutions with a Certified Financial Planner track:** *Cornell University, Kansas State University, Michigan State University, Ohio State University, Texas Tech University, University of Georgia, University of Missouri in Columbia, University of Rhode Island, University of Wisconsin, Virginia Tech, Utah State University.*



Business schools historically have not viewed personal finance as within their purview, which is to train future entrepreneurs and corporate executives.

One unusual exception is the University of Virginia's Darden School of Business. It offers personal finance to UV's non-business students in their senior year. The thinking within the administration was that business school students are able to learn about debt-equity trade-offs, interest costs, and other basic financial concepts in classes they take for their major. The course was created for non-business students so they, too, could benefit from learning about these crucial skills.

A more common exception is business schools with programs that train students who want to become certified as professional financial planners (CFPs) after graduation. Faculty in CFP-track programs are highly attuned to the need for this training that would benefit students in their personal lives, and they often push to offer an additional course to non-business students. Personal finance courses are also a way to indirectly lure students into the business school, which may induce students to enroll in a business major or minor.

## II. CLASSROOM INSTRUCTION AND MATERIALS

### a. Instruction

Personal finance, a relatively new area of instruction, does not have a standardized discipline or curriculum, and the courses vary widely. Also contributing to the variety are personal finance professors and instructors from many academic disciplines or professional walks of life. They are economists, consumer scientists, finance PhDs, mathematicians, career financial planners, and investment bankers, among others. Due to their biases, instructors may, for example, make the mistake of diving too deeply into investing, without laying a solid foundation that helps students understand why this matters.

A review of about a dozen syllabi shows, however, that professors largely cover the same basic topics. For samples of syllabi posted online, see [Barbara O'Neill's](#) syllabus in the Department of Agricultural, Food, and Resource Economics in Rutgers University's School of Environmental and Biological Sciences; [Jerry Basford's](#) at the University of Utah; and [Witte's](#) in Wellesley's economics department.

Courses often begin by defining personal financial planning and reviewing its importance. Early in the course, instructors discuss concepts that will underpin discussion throughout the semester, such as the time value of money.

Michael Gutter, a professor of family financial management at the University of Florida who also researches personal finance instruction, categorizes standard course (and textbook) topics into “three core concepts”:

- **Cash management:** Budgets, savings, bank accounts, taxes, credit cards, credit scores, consumer purchases;
- **Risk management:** Health, car, home, and life insurance; liability exposure;
- **Wealth accumulation:** Retirement savings options; the stock and bond markets; mutual funds; and retirement, investment, and estate planning.

Professors said they also weave related topics into classroom discussion, such as Social Security, subprime mortgages, gambling, buy versus rent, student financial aid, career planning, and consumer protection agencies. The curriculum content will be discussed in more detail in Section III.

## b. Textbooks

The topics outlined above by Gutter also form the backbone of the handful of popular textbooks in use by college and university educators. The most popular textbooks are usually in their 10th, 11th, or 12th editions and tend to be relatively refined.

Yet instructors interviewed for this report often said they are dissatisfied with the available textbooks, though they assign one so that students have a reference for studying. Their descriptions of textbooks ranged from “dry” and “deplorable” to “outdated” and “abstract.” Another shortcoming is that they deal with each topic as if it were self-contained. Aside from explaining the fundamentals of personal income statements and balance sheets, they fail to pull together information into a cohesive whole that would give students an understanding of the importance of financial planning over a lifetime.

The following are brief descriptions of five textbooks that instructors and professors said are most often used in undergraduate courses. The strengths and weaknesses of each textbook are based on comments by personal finance educators interviewed by the Financial Security Project, and on the project’s own comparisons of the textbooks.

- **“[Personal Finance](#),” by E. Thomas Garman and Raymond Fogue. Publisher: South-Western/Cengage Learning. 10th Edition.**



Professor Jonathan Fox, who teaches personal finance at Ohio State University, likes Garman’s activities and exercises. A personal finance workbook accompanying Garman’s [textbook](#) coaches students through preparation of their own financial plan. In the credit card chapter, students are given an actual credit card statement and are shown the average daily balance calculation and finance charges. Fox then uses this to help students do the same analysis of their own card statements, bringing home the point of why they should not run up their balances.

Garman also has a full suite of online materials, including an instructor’s manual, flashcards, and online quizzes.

But several instructors complained Garman is too mathematical and puts off the broad swath of students they hope to attract. Indeed, the authors launch into discussion of countercyclical indicators on page 9, and by page 17 they are calculating the future value of a lump sum.

- **“[Personal Financial Planning](#),”** by Lawrence Gitman, Michael Joehnk, and Randall Billingsley. Publisher: South-Western/Cengage Learning. **12th Edition.**



Like Garman, Gitman also is published by Cengage and offers a suite of [online materials](#).

Instructors often complain that available textbooks fail to make personal finance relevant to their students’ lives. What distinguishes Gitman is an emphasis on personalized case studies at the back of each chapter, which can make the lessons more effective: “Karl and Amber Merritt, a dual-income couple in their late 20s, want to replace their seven-year-old car.” ... “Greg and Tanya Ridpath have two children, ages six and five months. Their younger child, Ray, was born with a congenital heart defect.” This is more than some textbooks do.

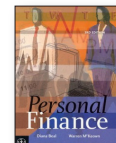
- **“[Personal Finance](#),”** by Jack Kapoor, Les Dlabay, and Robert J. Hughes. Publisher: McGraw-Hill Irwin. **9th Edition.**



Kapoor is among the most popular textbooks, and it is extremely thorough and well-written.

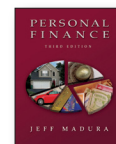
Nevertheless, textbooks should be commercially pristine, and one professor complained that Kapoor has content that verges on advertising to students already bombarded with commercialism on the Web. For example, it provides advice on selecting stores, comparing brands – Del Monte, Sony, Tylenol, Gap – and choosing brand-name versus private-label products at Safeway, Walgreen’s, and Osco. The goal of helping students spend money is dubious.

- **“[Personal Finance](#),”** by Diana Beal and Warren McKeown. Publisher: Wiley. **2006 Edition.**



One common criticism of personal finance textbooks, perhaps more so than those used in other disciplines, is that they become dated before they roll off the presses. Textbooks cannot keep up with tax law changes or changes in federal regulation of credit card interest rates. This problem is not unique to Beal and McKeown.

- **“[Personal Finance](#),”** by Jeff Madura. Publisher: Prentiss Hall. **4th Edition.**



Some instructors use Madura because they like the online assignments – students sign in to their own accounts, using a password. Madura’s [software](#) program also enables students to go through the textbook, chapter by chapter, and fill in an Excel spreadsheet with their own personal information. In Chapter 1, they input their goals; in Chapter 2, they input a budget and complete a net worth analysis. At the end of the course, each student has his own financial plan.

Instructors like this personalization in Madura, only in its fourth edition, because it goes beyond other textbooks and provides students' with the big picture of their own finances.

"This book is appropriate both for absolute beginners and for people looking for a more in-depth explanation of finance," said one [review](#) on Amazon.com. "The included software is very useful, allowing you to record your financial situation in printable spreadsheets."

### c. Supplemental Instructional Materials

Educators expend considerable energy finding creative ways to present the information and guard against a tendency for the subject to be dry and boring for young people. Instructors feel that, to be effective and spur their students to action, it is essential that they engage them and draw them into the conversation. "The things we're trying to teach them aren't on paper. They're around them. The more that we can show them that, the better off they are," said Gutter.

To accomplish that, instructors rely on a patchwork of supplemental materials from a variety of sources, such as [Yahoo! Finance](#) (stock prices), computer games, IRS tax forms, mortgage and credit card calculators, videos of motivational speakers, [Visa](#), the [Employee Benefits Research Institute](#), and the [National Endowment for Financial Education](#), among others. Pop economics books, such as "[Predictably Irrational](#)" by MIT's Dan Ariely and "[Freakonomics](#)" by University of Chicago economist Steven D. Levitt and journalist Stephen J. Dubner, have found their way into some personal finance courses. Instructors also use such tools as the [IRS tax tables](#) so students can calculate how much the federal government will take out of their first paycheck.

There are no standard materials, and much of what is available is superficial or poorly conceived, or its message misses the target. In short, there is not much to choose from at the college level. Educators use materials produced by companies for the high school or college markets, or, in some cases, have designed their own materials. The following is a sampling of each.

**Independent Materials.** *The following are supplemental materials that professors and instructors said in interviews they used to engage their students or to convey important points about an aspect of personal finance.*

- **Board Game: [Cash Flow](#) – How to Get Out of the Rat Race**



Michael Johnson's students at Madison (Wisconsin) Area Technical College play "Cash Flow" in class to learn about investment opportunities and to make connections between the balance sheet and income statement.

The board game's object is to "get out of the rat race" of living paycheck to paycheck by building up enough savings and investment income to meet, and then exceed, expenses. Students who win the game win their financial freedom.

As with many supplemental materials discussed, the subject matter in "Cash Flow" is limited. And its goal is unattainable for students who haven't yet entered the workforce. Nevertheless, Johnson said, the messages the game does convey – the need to save money and diversify investments, for example – come across loud and clear to his students.

"Students get hung up on cash. But you have to put cash to work to ensure the cash flow," he said. "The students have so much fun they become engaged. It just opens their eyes."



- **Personality Finance:** [Dave Ramsey](#)



The high school videos produced by radio and Fox TV personality Dave Ramsey are used by 10,000 educational programs around the country, ranging from high schools to the YMCA, according to Jim King, Ramsey's vice president of curriculum. With similar ambitions for the college market, Ramsey in January 2010 released a college video curriculum, "Foundations for Life and Money," which has videos, workbooks, tests, and case studies. King said 25 colleges are now using this curriculum.

Instructors said they use videos to break up the lectures, and Ramsey's 15-minute online videos of his speeches to live audiences are entertaining – people handle their money, he says, "like Gomer Pyle on valium." But Ramsey's videos for college students are not always tailored to them. He seems to simply have recycled and repackaged his basic "Baby Steps" speech created for any audience. For example, in the Savings narration, he begins by encouraging college students to set up a \$500 emergency fund. He then moves to steps targeted to a much older audience, such as saving money for their children's college.

In another two-minute video, however, a case study is tailored to college students. It features two students, one who has scholarships and one who works to get through college. The sample college [student guide](#) is highly readable. Ramsey also provides a teacher guide for course instruction.

**Instructor-Designed Supplemental Materials.** *A handful of professors at major educational institutions have designed their own videos or online tutorials. In many cases, these are professors who conduct research on the effectiveness of personal finance literacy and are trying to produce something that will engage their college audiences in reaction to the limited amount of materials on the market. The following is a sampling of these.*

- **Online Tutorial:** [Love Your Money](#)



Love Your Money is a product of collaboration between professors at the University of Tennessee, Kansas State University, Mississippi State, and the University of Florida, with funding from the FINRA Investor Education Foundation. The University of Florida's Gutter said the online tutorial was created for students to enable instructors to limit textbook instruction during the investing module in personal finance courses.

The website appeals to students by introducing – in a photograph – seven different students or new graduates with varied profiles. The goal was apparently to deploy a cast of characters so that any student visiting the website can identify with at least one of them.

Characters include Matt, who feels he is "too young" to save; Sara, who likes saving money; Robert, who has a job waiting for him after college; and Lisa, who hopes to get rich quick. The website pulls viewers through the particular dilemmas facing each student, dropping in lessons, financial calculators, and pop-up tips. The narrators – George Washington, Abe Lincoln, Andrew Jackson – inject corny humor along the way.

In the first segment, "Measuring Your Financial Health," Colleen wants to know her net worth and calculates it using a well-designed tool that includes definitions and clear instructions for filling out each category – nothing is assumed and everything is explained to the students. For example, in the

“student loan” category, the program instructs the student to enter the total amount owed. The next segment, “Spend a Little Less, Save a Lot More,” presents a striking comparison between Matt the spendthrift and Sara the saver. Even though Matt earns \$84,000, at his saving rate he would have only \$462,000 at retirement, while Sara, who earns just \$37,000 but is a big saver, would accumulate \$600,000 by retirement.

The site progresses logically and is a breeze to navigate and understand. Unfortunately, the segments do not consistently use interactive features, games, or calculators that engage young adults, who are “digital natives” with high standards for video entertainment.

- **Virtual World: [Credit Union Island](#)**



Personalizing financial education is viewed by financial literacy experts as being highly effective in delivering information to teenagers and young adults. A computer avatar is the next best thing for digital natives who are always game to assume a new identity and enter an online world.

Credit Union Island is perhaps the most ambitious attempt to reach young adults online. The virtual financial world was created by The Vital Lab at Ohio University in conjunction with [Roger Shelor](#), an Ohio University finance professor, and was sponsored by credit unions. Shelor said “hundreds” of students have visited Credit Union Island.

To understand Credit Union Island, the user must first know about an existing virtual world already popular among teenagers known as [Second Life](#), which attracts more than 1.5 million unique visitors per month. In Second Life, each teen’s avatar roams freely from one virtual experience to the next, testing out experiences and decision-making. Avatars can shop, design a dream home, learn to write open source computer code, take a course at their university, or dress up and go dancing at the Jazzy Blue Lounge.

Visitors to Credit Union Island are sent on “quests” to learn specific skills – deciding whether to buy or rent, financing a house, financing a car. The creators plan to add more quests in the future. The game automatically targets students at different levels. “Unbeknown to the player, the more questions that are answered correctly, the better deals they will receive from the dealer,” Shelor wrote in a paper explaining the simulation.<sup>2</sup>

Players who complete a quest can play again. Each time they return to a quest, the questions and answers become more complex. In a survey conducted among teenagers who played the game, they said they felt it was worthwhile.

Credit Union Island was located in Second Life, because Second Life already has a large existing audience. But Second Life can be problematic for educators, because islands created by the world’s major corporations market their brands. Coca-Cola, for example, sponsored a “virtual thirst campaign” in which visitors compete to design vending machines. Pontiac’s virtual island – a “virtual auto body island where residents can customize their cars,” according to a 2007 post on the blog [Gigaom](#) – is a big hit.

- **Punchy Paperback: “Money Rocks”**



Money is a psychologically loaded topic for many people, triggering conflicting neurological impulses. Any parent knows it is extremely difficult to persuade young adults to act in their own best

interest when their brain wiring tells them to pursue [instant gratification](#) at the same time it sends signals to “do the right thing.”

Yet personal finance textbooks weighing 10 pounds are filled with off-putting – and sometimes unnecessary – exercises such as calculating credit card finance charges or layering the students’ term insurance policies.

A 102-page paperback, “Money Rocks,” was written specifically for college freshmen by Professors Ice and Sue Lynn Sasser at the University of Central Oklahoma. The lessons are simple. Don’t accumulate debt, max out your employers’ 401(k) contribution, or manage a budget “the hard way.” And it is fun to read. A sticker on the cover, for example, warns students: “Money may cause you to behave frantically, spend excessively, or act impulsively. Use with Extreme Knowledge & Caution.”

- **Online Personal Finance Course: [I Otto Know This!](#)**



Syracuse University recently launched an online personal finance course, named after the university’s mascot, Otto the Orange. It is available to any student and is part of Syracuse’s broader efforts to help them control how much they borrow. Syracuse’s efforts also include a new program to replace students’ high-interest loans with grants of \$5,000–\$7,000 annually. Each qualifying student is required to attend a financial literacy session. Syracuse does not offer for-credit personal finance courses, but freshmen in their first semester must attend personal finance forums organized under the I Otto Know This! program.

The need for a comprehensive personal finance program was obvious to Syracuse officials, said Katrina Delgrosso, associate director of financial aid. “Some kids take credit cards and they overdo it or don’t know how to budget and don’t understand that I’m not making much so I need to budget financial aid to cover me on living expenses and books. They aren’t budgeting on that, and they don’t pay their landlord,” she said.

Syracuse students are “graded” on a quiz. One sample quiz question is about credit cards: “If you can’t pay your credit card:” (a) max out the card; (b) bet you’ll have the money eventually; (c) develop a budget and stick to it; or (d) get a card with a lower rate. After completing the quiz, students then proceed to lessons, such as “Credit Card 101.” This class teaches concepts such as annual percentage rate (APR), provides facts (84 percent of college students have credit cards), and gives examples (cardholders with a \$15,000 original balance pay \$29,500 in interest if they make the minimum payment – and the card won’t be paid off for 4.2 years). The lesson ends with students re-taking the same quiz to measure what they learned.

While Syracuse’s initiative is notable, the online quiz does not always hold the user’s attention; interactivity often involved no more than hitting the “next” button.

### III. EFFECTIVENESS OF PERSONAL FINANCE INSTRUCTION

#### a. High School versus College

For decades, a belief prevailed that personal finance should be taught at home. But parents with poor or risky financial behaviors proved to be poor and powerful models for their children. The disastrous consequences of the growing complexity of many financial products was underscored re-

cently in the subprime mortgage crisis, which showed that millions of adults – not to mention their children – need help in navigating their financial futures.

Personal finance education is becoming common in high schools, due to a concerted movement by state governments to raise financial literacy among teenagers by requiring it in high school. Thirteen states now have such a requirement, up from just seven states in 2007, according to a [2009 report by the Council for Economic Education](#). Four additional states go further and require testing of students' knowledge. More states, including Massachusetts, are considering adopting a mandate.

Despite these efforts, the financial literacy of high school students is declining, according to the [Jump\\$tart Coalition](#) for Personal Financial Literacy, a national, non-profit coalition that tests high school students every two years on their financial knowledge. In 2008, high school students' scores averaged 48.3 percent, the lowest level since the surveys began. The score has never been higher than it was in the survey's first year, 1998, at 57.3 percent.

In 2008, Jump\$tart for the first time tested full-time college students, with somewhat more encouraging results. The 1,030 college students tested scored 62.2 percent, on average, on the financial knowledge test – barely above the “passing” grade of 60 percent. Scores also increased for each year of college, with seniors achieving the highest score – 64.8 percent.

But, as Jump\$tart concluded, only a minority – 28 percent – of students completes college, “leaving nearly three-quarters ill-equipped to make critical financial decisions.”

## **b. The Academic Literature**

Educators have often jumped to the conclusion that the need for financial education is great, based solely on anecdotal evidence such as rising bankruptcies or credit card delinquency rates. There is now enough research to establish that personal financial education can be effective, especially at the college level. But measuring the efficacy of these courses is difficult, and the research is often contradictory or incomplete.

A seminal 1997 study, by [Douglas Bernheim](#) of Stanford University and co-authors, carried out a cross-sectional household survey of adults in their 30s and 40s.<sup>3</sup> Bernheim established for the first time that financial education in high school significantly raised the survey respondents' ability to save and to accumulate assets later in their lives.

A decade later, Tzu-Chin Martina Peng, Ohio State's Jonathan Fox, and others replicated the Bernheim study, but expanded it to include college education.<sup>4</sup> Researchers surveyed 1,039 college alumni of a large Midwestern university to determine the impact of personal finance courses on two outcomes: investment literacy and savings.

On the question of investment literacy, the study determined that “participating in a personal finance class in college appears more effective in terms of enhancing one's investment knowledge than participating in a high school finance course.” The authors partly explained this with the “teachable moment maxim.” Because college students take greater responsibility for their own budgeting and saving, they are more likely to engage in learning about their finances.

The impact of education on saving was not as strongly linked in Peng's study. This finding was supported by prior research that had found that saving is highly influenced by myriad social factors, including the behavior of friends and parents.

In research funded by the [National Endowment for Financial Education](#), Michael Gutter from the University of Florida found that college students may benefit from living in states that mandate a personal finance curriculum in their high schools. Gutter examined the impact of state mandates on students at 15 colleges around the country. He found that students from states with mandates had better financial behaviors – they were less likely to max out their credit cards and more likely to make payments on time – than students from states with no policy.

But a rigorous inspection in 2009 of Jump\$tart’s test scores for college students was more discouraging. In this study, [Lewis Mandell](#), a finance professor at the University of Washington, found that college students who had taken one semester of personal finance had lower scores for financial literacy than those who had not taken a course. On the other hand, Mandell found that students who had taken a semester of economics, finance, or accounting scored higher on average. He concluded that the “most financially literate college students” can be found in science, social science, and engineering. “This appears to indicate that financial literacy is more closely related to problem-solving ability than to educational content.”

Research that pinpoints the most effective types of personal finance instruction is scarce and, at best, scattershot. Gutter has a [paper](#) in the June 2010 *Family and Consumer Science Research Journal* that indicates social learning, including work with parents, may be one avenue for making personal finance education more effective.<sup>5</sup>

More research is needed to evaluate various types of instructional programs, Fox wrote in 2005.<sup>6</sup> “Without reliable, valid, and relevant information collected from well-designed program evaluations, financial educators jeopardize their ability to provide effective recommendations for the direction of education policy,” he said. To address this, he encouraged educators “to think about and integrate evaluation from program inception through eventual identification of program impacts.”

### c. Teaching Tenets and Philosophies

Personal finance professors and lecturers interviewed for this report felt strongly that they are reaching their students and having a positive impact in the classroom. In the absence of strong research on the most effective types of instruction, these educators indicated they share some beliefs about the best way to teach personal finance to young adults. One area of disagreement was *how* to teach, with opinions diverging over how rigorous or mathematical the courses should be.

Their common beliefs boiled down to four qualities important to delivering personal finance instruction: courses must strive to be relevant, personalized, and engaging, and must have attainable goals.

- **Relevance**

By college, young adults are getting their first credit card, taking out college loans, and budgeting their small stipends from parents or part-time jobs. By the time they’re seniors, thoughts turn to career prospects and future earning power. These experiences prime college students to focus on their finances and to comprehend more deeply the importance of learning how to manage their money for short- and long-term goals.

Even long-term goals, such as saving for retirement, can be made relevant to students who are contemplating starting careers soon, instructors said. For example, students may not focus on a discussion about retirement and 401(k)s. But they become interested when told they will soon have to tell their first full-time employer how much to deduct from their paycheck for their 401(k).

- **Personalization**

Educators widely agree that personalizing their courses for each student is crucial to teaching effectively. Considerable overlap exists between relevance and personalization, but relevance should be thought of as pertaining to where the students are situated in life, while personalization requires them to look inward. Relevance takes care of itself. Personalization is more difficult to achieve in the classroom.

[Fox](#), who studies the effectiveness of personal finance instruction, makes personalization of lessons and homework central to his curriculum at Ohio State. “Whenever I teach my personal finance course, I always say I’m teaching ‘personal’ finance and not finance,” he said. “You can look at examples in a book on calculating average daily balance. It’s very different if you look at your own credit card. You can calculate a FICO score, but what’s a lot more interesting is getting your own credit score and doing exercises based on that. Why don’t you have a score? How do you get one? How do you raise your own score?” he said. Students are unlikely to be in the market for a home, but Fox also makes that personal by assigning students to find out information about buying a house in the neighborhood where they currently live or imagine they would like to live.

A common teaching tactic is to combine personalization and shock therapy to drive a point home. UC Berkeley’s Selinger demonstrated the long-term impact of casually buying two cups of coffee a day after one student revealed she spent about \$2,000 a year at Starbucks. He said he whipped out his calculator and estimated the future value of her \$2,000 annual expenditure, assuming it would earn (a slightly unrealistic) 8 percent compounded interest until age 65 - \$700,000. “There was a gasp of air in the room,” he said.

- **Engagement**

Selinger’s course is wildly successful. The first time he taught it, in 2005, he said he had 24 students. Enrollment rose to 45, then 100. The course eventually had to be split into two sections of 250 students each; still, there is a waiting list of 125. His students are juniors and seniors, and 80 percent of them are not business majors.

The key to the former investment banker’s popularity is that he loves teaching and is passionate about his mission of engaging students and spurring them to take charge of their money. “The biggest reason they are learning something is that they recognize they’ve got to learn this. That is what I drive home in the very first class,” he said. “One thing I ask in the first two minutes is, ‘How many of you think Social Security will be there to take care of you when you retire?’ Never a hand goes up. Ditto Medicare. I say, ‘Okay then, who is going to take care of that?’ They get the idea right away.”

Selinger has a story for every financial situation. In his “Love and Money” lecture, he selects a man and woman in the class and asks them to stand up. He tells the female student she earns \$100,000 and is “madly in love” with the male student, who earns \$40,000. “You rent an apartment,

and the rent is \$2,000 a month. I ask her, ‘How much of the rent are you going to pay?’ I get all kinds of answers. Everyone gets involved.”

In evaluations, he said his students recommend that his course be made mandatory.

- **Attainable Goals**

Professor Shannon Donovan at Bridgewater State has taught personal finance for a decade, and her students tend to be older – in their early 20s, or even 30s or 40s. A high percentage of their parents did not attend college, and students tend to be conservative with their money, probably because they work.

Donovan’s course, initially open only to business school students, now fulfills a Bridgewater requirement that all students take a computational course. It has no prerequisites.

At the end of the course, Shannon requires her students to develop their own financial plans. This goal might seem daunting at the outset. But she makes it attainable by assigning homework that walks them through each of the steps they need. To help them, she assigns the Madura textbook, which has a CD with exercises, chapter by chapter, in which they fill in their own personal financial information and incrementally build a plan.

- **Rigorous versus Accessible**

Donovan designs her course to attract students who don’t like math. Indeed, whether the goals slated by personal finance instruction are attainable – saving for emergencies, eliminating credit card debt, obtaining a car loan with a fair interest rate – depends partly on whether students can grasp mathematical or economic concepts.

So, how rigorous and mathematical does a course need to be? Educators disagree on this fundamental question.

Professor Witte at Wellesley is firmly in the camp that believes personal finance courses must have an intellectual framework – an economic one in her case. The centerpiece of her [course](#) is a set of prototypical individuals and families, which students create and build upon throughout the semester. Students explore economic tradeoffs faced by their prototypes, and when students select an income level for their prototype, Witte discusses income in terms of intellectual capital. Students calculate the internal rate of return and net present value of their Wellesley education, compared with, say, a high school diploma. Students do not work on a fictional budget, either. Their prototype’s paycheck is based on U. S. Bureau of Labor Statistics (BLS) income data, and they compile budgets using the BLS Consumer Expenditure Survey.

Witte said she strives to improve the way personal finance is now taught. “It has had no intellectual content. And if it has no intellectual content, there’s no reason for good schools to offer it,” she said. For students of Wellesley’s caliber, “We feel very strongly we needed an intellectual approach.”

She acknowledged that her course’s prerequisites – microeconomics and basic statistics – exclude many students; attendance in her course is capped at 20. But before personal finance is taught more widely, Witte said she would like to see establishment of an “intellectually coherent approach.” “Then you can develop a way to teach people without statistics or an economics background,” she said.

- **The Math Controversy**

Professors who teach personal finance in a quantitative way feel these skills will be useful throughout the students' lives. At Simmons College, a women's college in Boston, students in one of Finance Professor Hugh Colaco's classes worked through calculation after calculation under his direction: monthly payments for a car loan, total interest paid over the life of a home loan, the reduced effective interest rate when tax deductions are taken into account. Twelve students take the class, with majors ranging from nursing to English – but the same two or three students solved all of the math problems he posed in class.

Robert Hornsby, a staff person in Columbia University's communications department, was a fairly typical student as an art major at the University of Texas in Austin. He admits to "being intimidated by the whole notion of big-time economics." After taking his personal finance course, Hornsby said he still can't calculate compound interest, but he knows it when he sees it and knows why it matters. Although he may not know precisely how a mortgage works, he knows a low interest rate will save him money. "The class made it less mysterious," he said.

From a pragmatic standpoint, mathematical rigor clearly forces a tradeoff. A mathematically oriented course is highly valuable training. But if the goal is to educate as many students as possible, less math means higher rates of participation and comprehension. "In finance, we're intrigued by how complicated and mathematical we can make things," said textbook author Arthur Keown, a Virginia Tech finance professor. "Personal finance is so pragmatic that it doesn't fit into what we do."

#### **IV. SOME MODEST PROPOSALS**

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While college students can benefit from personal finance instruction, they are a tough crowd. Late teens and early adults do not have the life experiences necessary to fully grasp how important this education could be to their future well-being. Yet, it may be more important to reach this age group than any other. Early education, if it does succeed, can have enormous positive, long-term consequences for students who face high student loan payments after college and may one day live in a world with curtailed Social Security benefits.

The following are three important things to keep in mind when designing a personal finance curriculum for young adults.

##### **a. Resolving the Math Controversy**

It is, of course, impossible to eliminate mathematics from personal finance instruction. But to reach college-age students who are not physics, math, or engineering majors, it is crucial they not be overwhelmed by the math.

For example, it is possible to explain the concept of intellectual capital without requiring students to calculate the internal rate of return. This might be done by explaining and demonstrating differences in (though not calculating) the net present value of future earnings. Or skip that altogether and simply compare the potential future earnings for three young adults: one without a college degree, one with an Ivy League degree, and one with a technical degree. Similarly, one could argue that a financial calculator that enables students to compare, say, monthly payments for the same



mortgage at different interest rates can be just as effective in driving home the point as calculating the interest payments manually.

“I come down in the middle” on the math controversy, said Ohio’s Fox. “If there’s a financial calculator instead of doing the math, that’s okay. To the detriment of business schools, it’s sad because it’s so easy to make this relevant to the individuals who are there,” he said.

Fox said there is research showing that students benefit greatly from personal finance courses taught at lowest-common-denominator levels. “The people who have no concept about how to shop for a mortgage, the realtors’ role, savings, etc. – these people benefit more. A little bit of financial education goes a long way,” he said.

## **b. The Challenge of Educating Digital Natives**

Educators should think carefully about how to present information online. Today’s digital natives are capricious – a new craze can send them in an entirely new direction online. They engage the Web on their own terms.

Creators of websites for young adults often try to “push” students around by creating a new website and essentially demanding that they visit it. Even if the new sites have the bells and whistles that teens like, it is extremely difficult – and may be impossible – to lure students to a new site and ensure information is viewed by the broadest population possible.

Professor Gutter at the University of Florida argues that educators need to go to the sandbox where students are already playing. These days, they are playing on [Twitter](#) and [Facebook](#). One idea Gutter proposed was creating a personal finance game modeled on the Facebook game, “[Mafia Wars](#).” Gutter described Mafia Wars as being fun while also teaching budgeting concepts, such as how Mafia dons allocate resources among their illicit activities.

Mafia Wars is one of many Facebook games that companies have developed, including Farmville, Petville, Yoville, and Vampires. But Mafia Wars, which counts 21 million active players, may be Facebook’s most popular game. Its profanity and risqué references to sex and drugs ramp up its appeal. “Build alliances, amass property, and fight mobs of enemies in games of power and deception,” Facebook urges visitors.

Gutter imagines a personal finance game that’s similarly exciting, though appropriate and more focused on personal finance challenges. “You go where they are,” he said about using Facebook to reach students. “When you are where they are, maybe they’ll follow you back to where you want to be.”

But students are fickle, too. What they like now and what they will like in a year or two is anyone’s guess. Remember the social networking website, [MySpace.com](#)? Now some college students are souring on Facebook in the wake of moves to drop more of its privacy settings. Some believe [Twitter](#) is the new Facebook.

Virtual experiences such as Credit Union Island could be another solution. But asking students to play a game they do not already participate in or go to a new island in a virtual world they do not frequent may be asking too much.

Some marketing firms specialize in navigating these difficult technology questions, and companies seeking to reach this target audience spend millions to design and market games that will work. Designing a popular and engaging website is a tall order for mere mortals.

**c. Personalization is Key**

Gather dozens of educators in one room, and most of them would agree that materials, lessons, and exercises should be personalized as much as possible.

Students are happy to watch a video in which a student discusses his or her financial views, experiences, and dilemmas. And the young viewer may, as the videographer hoped, absorb more of that message if it is delivered by a peer. But lecturers and professors, including those who research the efficacy of personal finance education, all agree that students truly grasp the importance of managing budgets and finances by looking at their own budgets and finances.

A young woman will better understand the importance of a good credit rating if she looks up her own credit report and realizes that Big Brother is watching her spending habits. A young man will better understand why he is in debt if he puts his own budget on paper, experiencing in a concrete way that, yes, his expenses – the new iPad or a splurge on baseball tickets – exceed his income.

The more personal the education, the more meaningful it is to the student.

## ENDNOTES

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- 1 For a list of sample institutions, see Attachment 1.
- 2 See Attachment 2.
- 3 Douglas Bernheim, Daniel M. Garrett, and Dean Maki. June 2001. "Education and Saving: The Long-Term Effects of High School Financial Curriculum Mandates." *Journal of Public Economics*, 80(3): 435-465.
- 4 Tzu-Chin Martina Peng, Suzanne Bartholomae, Jonathan J. Fox, and Garrett Cravener. 2007. "The Impact of Personal Finance Education Delivered in High School and College Courses." *Journal of Family and Economic Issues*, 28:265-284.
- 5 Michael Gutter, Zeynep Copur, and Selena T. Garrison. June 2009. "Which Students are More Likely to Experience Financial Socialization Opportunities? Exploring the Relationship Between Financial Behaviors and Financial Well-Being of College Students." Working Paper 2009-07. Terre Haute, IN: Networks Financial Institute.
- 6 Jonathan Fox, Suzanne Bartholomae and Jinkook Lee. Summer 2005. "Building the Case for Financial Education." *The Journal of Consumer Affairs*, 39(1): 195-214.

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