

PREPPED FOR SUCCESS



A Study of Teacher Training,
Financial Literacy & Classroom Outcomes



CHAMPLAIN COLLEGE



CHAMPLAIN COLLEGE
Center for Financial Literacy



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IN 2009, Drs. Wendy Way and Karen Holden of the University of Wisconsin-Madison published results of a national survey of K-12 teachers. They reported that educators overwhelmingly felt personal finance should be a subject required for graduation, but only about a third offered any kind of personal finance instruction to their classes, and even fewer felt qualified to teach the subject.

Following on those findings, the Jump\$tart Teacher Training Alliance brought together non-profit, government and academic organizations to create a new model for training educators to teach personal finance with confidence. The resulting program focused on content knowledge in lieu of a specific curriculum or mode of instruction and was tested — with outstanding results — at institutions in five states, including at Champlain College’s Center for Financial Literacy in Vermont.

This study delivers the next logical discovery in that line of inquiry, exploring how personal finance taught by educators trained in that model affects learning. As you’re about to see, our findings are encouraging, and we’re grateful to the Vermont Department of Financial Regulation and our other sponsors (see [page 28](#)) for making this research possible. Thanks to their support, we can now affirm that the combination of highly trained teachers and formal education do make a difference, helping to give students foundational knowledge that may help promote a lifetime of financial well-being.

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Research Overview

Our study used a simple design repeated over two consecutive years, beginning in the 2013–2014 school year and engaging more than 800 students' in a baseline and follow-up test/survey.

Between baseline and follow-up, one group of students (“pilot”) had formal personal finance instruction by trained teachers — a standalone, one-semester course or its equivalent embedded within a one-year course in math or life skills. The other group of students (“control”) had no financial literacy instruction.

Teachers & Instruction

The 11 educators teaching financial literacy in the pilot schools had each completed 45 hours of graduate-level training at Champlain College's Vermont Teachers Financial Literacy Summer Institute.

Additionally:

- Pilot teachers had varying expertise/teaching endorsements, e.g. math, business, social studies, etc.
- While they could employ any curriculum, they were required to address national standards provided by the Jump\$tart Coalition for Personal Financial Literacy (then 3rd-edition/2007) in six areas: Financial Responsibility & Decision Making; Income & Careers; Planning & Money Management; Credit & Debt; Risk Management & Insurance; and Savings & Investing.
- Teachers were not allowed in the room during tests/surveys and did not know the questions until after the study, controlling for intentional or subconscious “teaching to the test.”



Control Group

2 Schools

314 Students



Pilot Group

3 Schools

503 Students

11 Trained Teachers



Test/Survey Questions

Students were presented with 49 questions on knowledge, behavior and demographics near the start and at the end of the study. They did not receive corrected answers after the baseline test and were given the same questions at follow-up. Note that findings related to demographics aren't addressed in this summary but may be shared in a future report.

SAMPLE QUESTIONS

Thirty knowledge questions, including:

- How long does missed payment information stay on your credit report? (multiple choice)
- Most auto loans are a type of installment loan. (true/false)
- Suppose you have \$100 in a savings account earning 2 percent interest a year. After five years, would you have more than \$102, exactly \$102 or less than \$102? (multiple choice)

Seven behavior questions, including:

- I plan ahead how I spend my money. (always, occasionally, etc.)
- I exceed my monthly limit on my texting or telephone plan. (same answer choices)
- I use the same password to log in to all of my online profiles and accounts. (yes/no)

Twelve demographic questions, including:

- Do you have a checking account in your name? (yes/no)
- What are your plans after you complete high school? (multiple options, check all that apply)
- If you need advice about money, where do (or would) you go? (multiple choice)

Statistical Methodology

Statistical analyses for this report exclude instances in which students did not provide responses to questions; because the “Broader Context” analyses (see [page 13](#)) hinge on performance across a set of five questions, those analyses excluded students who did not fully answer that set.





Key Findings

Teacher Training Outcomes

- Formally training educators to teach personal finance dramatically improved their self-assessed classroom readiness and confidence, including a 139% increase in the percent of teachers who felt they had the knowledge to teach personal finance.
- Post-training, 100% of teachers surveyed said they gained valuable knowledge and resources and that other teachers would find such training helpful.

Student Outcomes

- Students receiving personal finance education from trained teachers showed statistically significant knowledge gains in all test topics, while average scores for students not receiving personal finance education dropped in all but one area.
- Averaging overall test performance, students receiving the formal education improved their financial literacy by 17%, compared to a 2% drop among other students.
- Students receiving formal education by trained teachers reported some improvement in most personal finance behaviors, such as avoiding fees on their bank cards and planning how they spend their money.

Comparative Outcomes

- When limiting analysis to five knowledge questions also used in the National Financial Capability Study, students who had received personal finance education by trained teachers had “high financial literacy” on par with that among Generation X, outperforming not only the control group but also older Millennials in the population at large.
- Using that same five-question analysis, our students who had formal personal finance education performed better than all other populations on a question about risk in stock investments, though older Americans tended to show greater knowledge on most questions.





Teacher Training

A major challenge in studying the efficacy of personal finance education is wide variation in the preparedness of its teachers. Many K-12 teachers have no formal education in personal finance, and a 2009 national survey showed that less than 20 percent felt qualified to teach even one topic area within the broader domain.

The Vermont Teachers Financial Literacy Summer Institute at Champlain College was created to give educators the confidence, skills and curriculum tools they need to successfully teach personal finance.

Between 2011 and 2013, all of the educators teaching personal finance to students in the pilot group of this study completed the Summer Institute training, a 45-hour, graduate-level course given on the Champlain campus.



Training Curriculum

Training combined content and pedagogy developed by Champlain's Center for Financial Literacy with the *Financial Foundations for Educators* program of the JumpStart Teacher Training Alliance, a steering committee of professionals from leading non-profit and governmental agencies partnering to standardize teacher training in personal finance and advance understanding of effective professional development for educators.

The curriculum covered nine topics to address gaps in participants' own financial literacy and prepare them to teach personal finance:

- *Income & Careers*
- *Planning & Money Management*
- *Credit & Debit*
- *Risk Management & Insurance*
- *Saving & Investing*
- *Financial Responsibility & Decision Making*
- *Classroom Ready Curriculum*
- *Global Economics & Personal Finance*
- *Games & Activities to Promote Financial Literacy in the Classroom*

Teams of participants also completed an Action Project, planning and presenting together how they'd incorporate into their classrooms what they'd learned through their training.



Learn more:

Vermont Summer Institute: <http://tinyurl.com/vtsummerinstitute>
JumpStart Teacher Training Alliance: <http://www.jumpstart.org/teacher-training-alliance.html>
Pilot Study on Teacher Training: <http://tinyurl.com/teachertrainingpilot>



Teacher Training Outcomes

As part of this study, teachers in the 2011–2013 Summer Institute cohorts (97 educators in all) anonymously answered 46 questions related to personal finance and their confidence in teaching the subject. The educators provided responses in surveys before undergoing training, immediately following training and six months later.

Data from these assessments overwhelmingly show that participants' personal finance attitudes and behaviors improved, as did their confidence as financial literacy educators. The findings below were calculated by aggregating survey responses from all three cohorts.

Confidence in Teaching Personal Finance

From 31% to 70%: Teachers who felt “completely” confident that they had the knowledge necessary to effectively teach students about personal finance (127% increase in relative frequency)

From 39% to 94%: Teachers who “agreed” or “strongly agreed” they had the knowledge to effectively teach their students about personal finance (139% increase in relative frequency)

Changes in Attitudes & Behaviors

Participants' attitudes and behaviors consistently improved compared to baseline assessments, though the magnitude of changes varied significantly, as shown by these sample findings (changes in relative frequency).

Up 51%: “Yes,” in the last 6 months, I have actively taken steps to improve my credit score.

Up 91%: When considering a new bank or credit account, I “always” request disclosure statements for each account.

Up 67%: “Yes,” I have calculated the amount of money I would like to have when I retire and make contributions to my retirement account based upon attaining that amount.

Up 88%: I “always” pay attention to news related to our national economy.

Up 45%: I am “completely confident” that I will take the correct steps if my wallet is lost or stolen.

Follow-up Assessment of the Experience

100% of participants surveyed said they gained knowledge

100% said they acquired resources that would impact their teaching

100% said they felt other teachers would find this or similar training helpful



Source: 2009 national survey of K–12 educators, National Endowment for Financial Education

Learn more:
<http://tinyurl.com/kew2wqm>



Classroom Outcomes

At the heart of this study was a simple but important question: Does high school personal finance education by trained teachers make a difference in what students know about personal finance?

In a simple research design, one group of students (“pilot”) had a semester (or its equivalent) of formal personal finance education by trained teachers.

The other students (“control”) had no formal financial education. We measured before and after financial literacy for all students (“baseline” and “follow-up”) via 30 multiple-choice questions.

About the Questions

The 30 personal finance knowledge questions in this study addressed the Jump\$tart Coalition’s National Standards in K–12 Personal Finance Education.

They were drawn from peer-reviewed academic journals and resources at the National Endowment for Financial Education and included six multiple-choice questions in each of five categories: Earning, Spending, Saving, Borrowing and Protecting.

Five of the questions were those used to gauge financial literacy across the country and across generations in the 2012 National Financial Capabilities Study. See [page 26](#) for those comparisons.

PILOT SCHOOL SUCCESSES

Significantly stronger gains than students at control schools

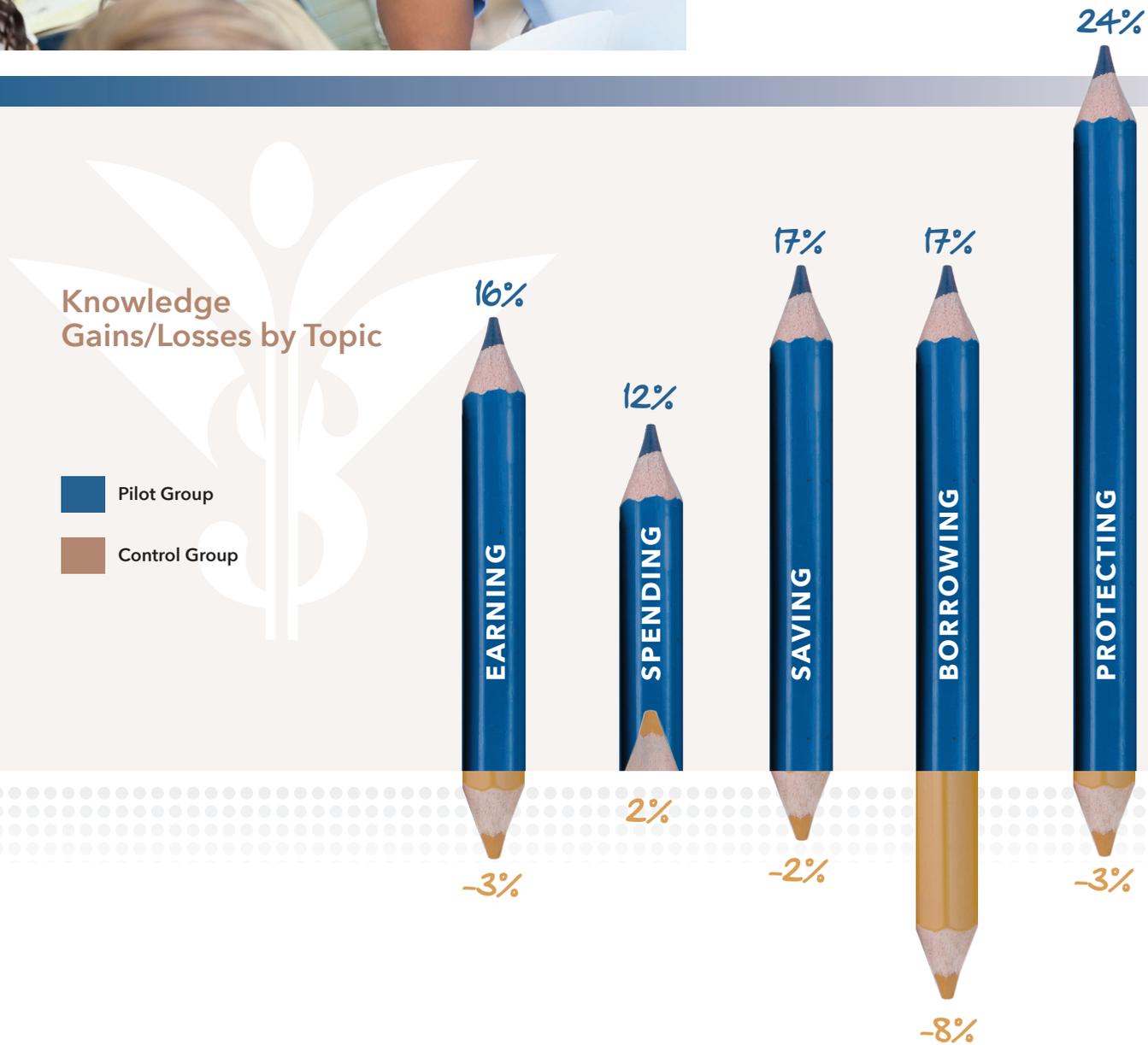
Significant learning across all topics





Significant Learning Across All Five Topics

Again looking at average test performance, pilot-group students also showed statistically significant knowledge gains in all five topics, while average scores for students in the control group showed statistically significant decreases in all but one area.



AVERAGE PERFORMANCE ACROSS 5 TOPICS



Dramatic Difference in Overall Learning

Averaging test performance across each of the five topic areas, students in the pilot group improved their financial literacy by 17%, compared to a 2% drop among students in the control group.



Average Scores & Percent-Change from Baseline

	Pre-Test		Post-Test		% Change	
	Control	Pilot	Control	Pilot	Control	Pilot
Earning	55%	53%	53%	62%	-3%	16%
Spending	70%	69%	71%	77%	2%	12%
Saving	44%	49%	43%	57%	-2%	17%
Borrowing	37%	45%	34%	52%	-8%	17%
Protecting	45%	48%	43%	60%	-3%	24%
Average by Topic	50%	53%	49%	62%	-2%	17%
Combined	50%	54%	48%	62%	-2%	15%

Note that all of the gains and losses were at a level of statistical significance, meaning chance does not scientifically account for the performance differences.





Student Behavior

The test/survey used in this research also asked a handful of questions about behaviors in personal finance as a way to begin to examine downstream effects – the end goal of financial literacy.

Of course, the limited scope of this particular study posed a challenge. Change takes time and, in some cases, resources. Nonetheless, students' responses suggest that even a few months of financial education by trained teachers can begin to improve personal finance behaviors.

PILOT SCHOOL SUCCESSES

Modest changes in most financial behaviors

Greatest Impact

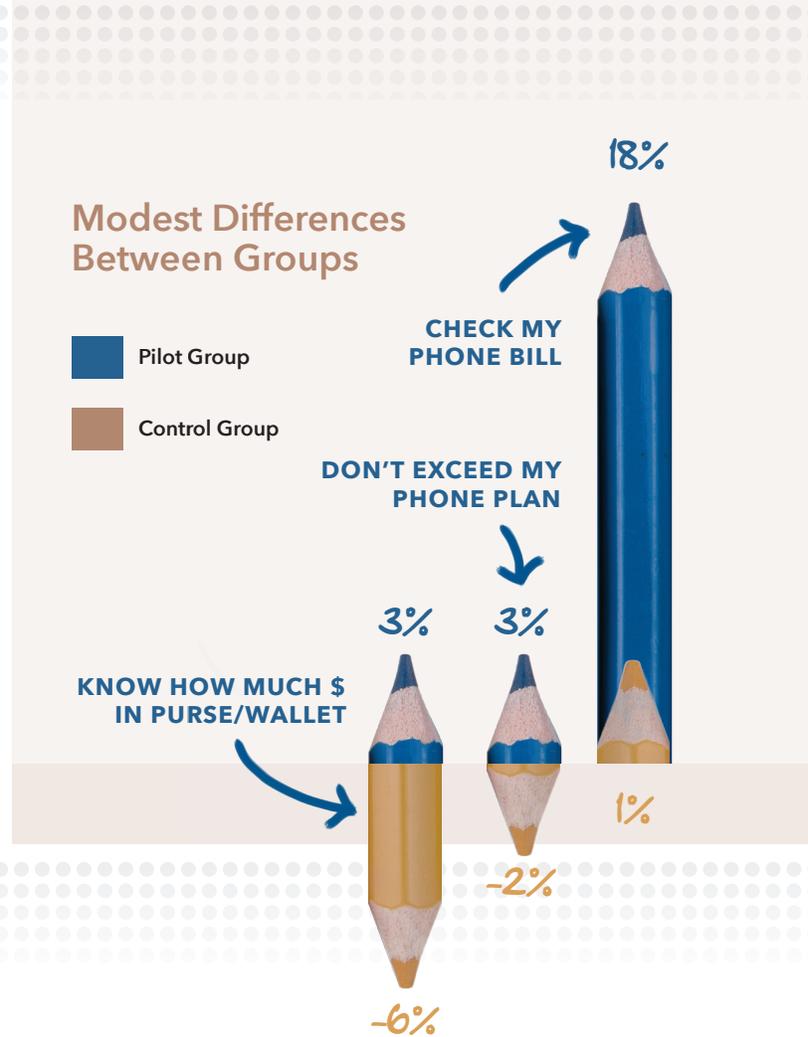
Students' answers suggest that the pilot education program had the most statistically significant impact in two areas: planning how to spend money (4.43% improvement among pilot schools) and avoiding fees on debit or ATM cards (18.72% improvement among pilot schools).

Most Significant Differences Between Groups



Additional Impact

The study also showed significant differences (at a more modest level, statistically) between the groups in three other areas: checking one's phone statement for accuracy (17.54% improvement among pilot schools), knowing how much money one has in her/his purse/wallet (2.78% improvement in pilot schools) and not exceeding text/data plan limits (3.35% improvement in pilot schools).



Timing, Resources & Relevance

In evaluating findings on behaviors, it's important to consider a number of factors. As mentioned at the start of this section, real change often takes time — more than the handful of months this study comprised.

Additionally, many high school students have little or no income, and therefore limited opportunity to save or plan spending. This fact likely played a role in the insignificant difference between control and pilot groups in response to “I save money each month for a future purchase.”

Notably, however, other recent studies have demonstrated that as individuals have greater opportunity to apply what they learn, their tendency to practice more positive behaviors grows. Research has also shown that personal finance concepts are most accessible when relevant to daily life.

Although this study occurred just prior to a time that many of its participants will get jobs or attend college, live away from home and need to manage daily living expenses, our hope (a question to be explored in further research) is that the concepts here introduced to our pilot students will resurface in their futures to shape behavior in meaningful ways.





Broader Context

Five of the knowledge questions included in our test/survey were based upon the 2012 data sets of the National Financial Capability Study (NFCS), funded by the FINRA Investor Education Foundation and conducted by Applied Research and Consulting.

The questions (see page 26) were multiple choice, designed to test a basic understanding of savings account interest, inflation, bond prices, mortgages and risk in stock investments. Using those questions, we can compare our students' financial knowledge at the end of the study to that of larger populations.

National and state-level findings for NFCS were drawn from state-by-state surveys: online questionnaires completed by more than 25,000 American adults. Findings were weighted to represent Census distributions according to the American Community Survey, and national figures were weighted to represent the national population in terms of age, gender, ethnicity, education and Census Division.

	Millennials	Gen Xers	Boomers	Silent Generation
Birth Years	1978 to 1994	1963 to 1977	1946 to 1962	1945 or earlier
Age Range	18 to 34	35 to 49	50 to 66	67 and older

Learn more: <http://www.usfinancialcapability.org/>



A Generational View

The data and charts throughout this section are based on findings detailed in “The Financial Capability of Young People—A Generational View” by Gary R. Mottola, Ph.D., March 2014.

Analyses highlight, in particular, the financial struggles and paucity of personal finance knowledge among Millennials compared to other older Americans.

Learn more: <http://tinyurl.com/ovuh9wd>

FINRA
Investor Education
FOUNDATION

FINRA Foundation Financial Capability Insights

March 2014
Author:
Gary R. Mottola, Ph.D.

This brief was produced in consultation with the United States Department of the Treasury and in support of the President's Advisory Council on Financial Capability for Young Americans.

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The Financial Capability of Young Adults—A Generational View

Summary

An examination of data from the FINRA Investor Education Foundation's National Financial Capability Study (State-by-State Survey) found that millennials are struggling financially. In particular, they exhibit a number of problematic financial behaviors, display low levels of financial literacy and express concerns about their debt. Within the millennial generation, females and minorities display signs of lower financial capability relative to males and whites, but it is millennial households with dependents that struggle the most. Despite the higher financial strain that millennials face, they express levels of financial satisfaction that are on par with gen Xers and boomers, but significantly lower than the silent generation.

Background

Americans born between 1978 and 1994—commonly referred to as millennials—came of age in an America that is different than it was for previous generations. Millennials grew up in a country characterized by more social diversity, a narrower gender gap in educational attainment,¹ large increases in the cost of higher education² and the defining events of September 11, 2001. In addition, millennials faced the Great Recession early in their lives and/or careers. In its wake, they continue to wrestle with the financial challenges of a struggling post-recession economy. Making up nearly a third of the population, millennials are a significant force in the U.S. economy (Figure 1).

Figure 1. Generation Size

Generation	Percentage
Millennials	21%
Gen Xers	29%
Boomers	50%

Source: 2012 National Financial Capability Study (State-by-State Survey)

1. Hobbs and Sloops, 2002; Humes, Jones and Ramirez, 2011.
2. Theodos, Kuhn, Wolfman and Kucifors, 2014.
3. College Board, 2013.
4. Barlett, Kocian and Bruchung, 2004.

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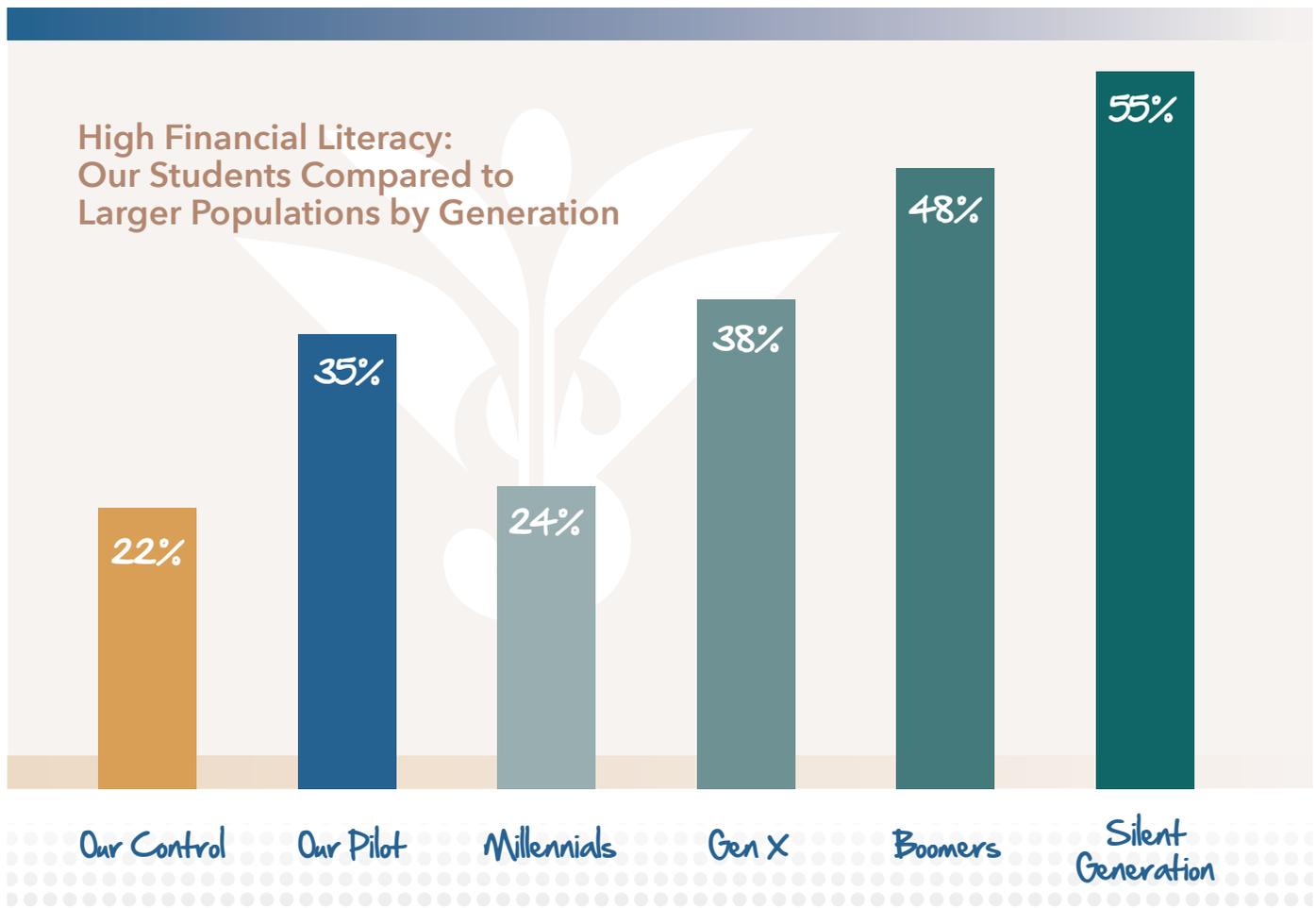
High Financial Literacy

NFCS described respondents who answered at least four of the five questions correctly as having “high financial literacy.” By this standard, as expected, our control group — younger and without having had personal finance education — anchor the low end of generational comparisons.

However, our pilot students showed a greater incidence of high financial literacy compared not only to the control group (35% vs. 22%) but also compared to Millennials in the population at large (24%), a group that NFCS defined as Americans born between 1978 and 1994 (ages 18 to 34 at the time) and thus, on average, considerably older than our students.

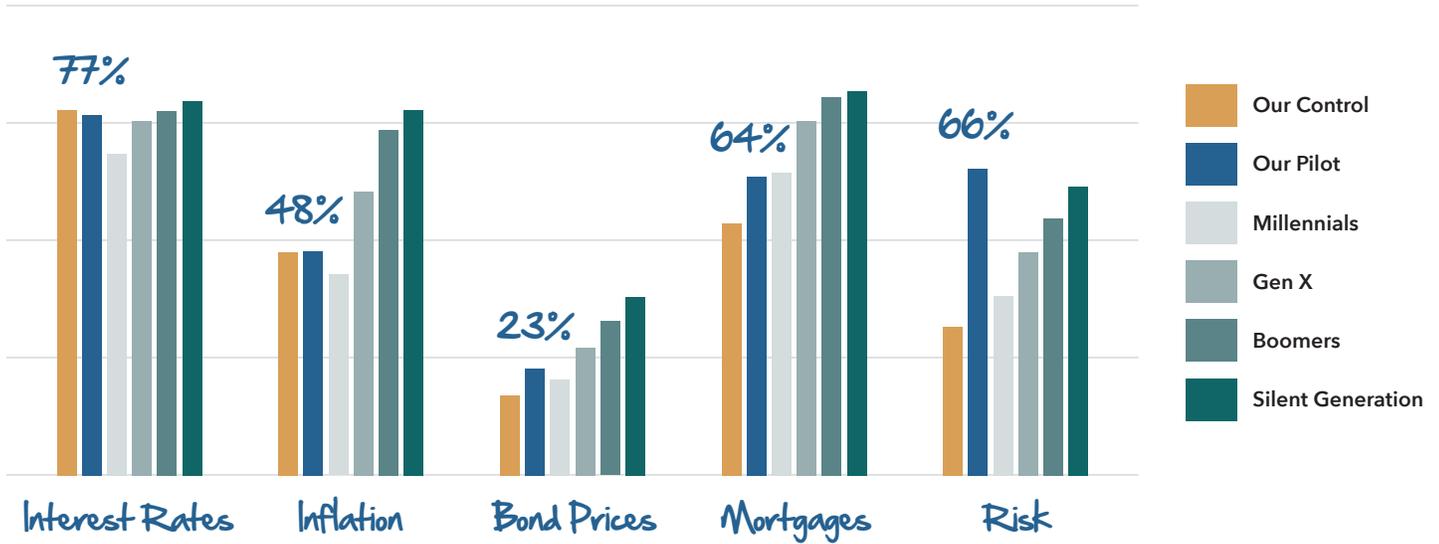
In fact, at the conclusion of this study, high school students who had received formal personal finance education by trained teachers had high financial literacy at a frequency on par with Generation X (38%) in the larger population — young men and women not only much older but unquestionably with much more real-life personal finance experience.

This encouraging finding suggests that students who receive quality personal finance education in high school start their adult lives at an advantage, not only with greater financial literacy to apply right away but also with a stronger knowledge foundation to build on as they mature and face increasingly sophisticated choices and opportunities.



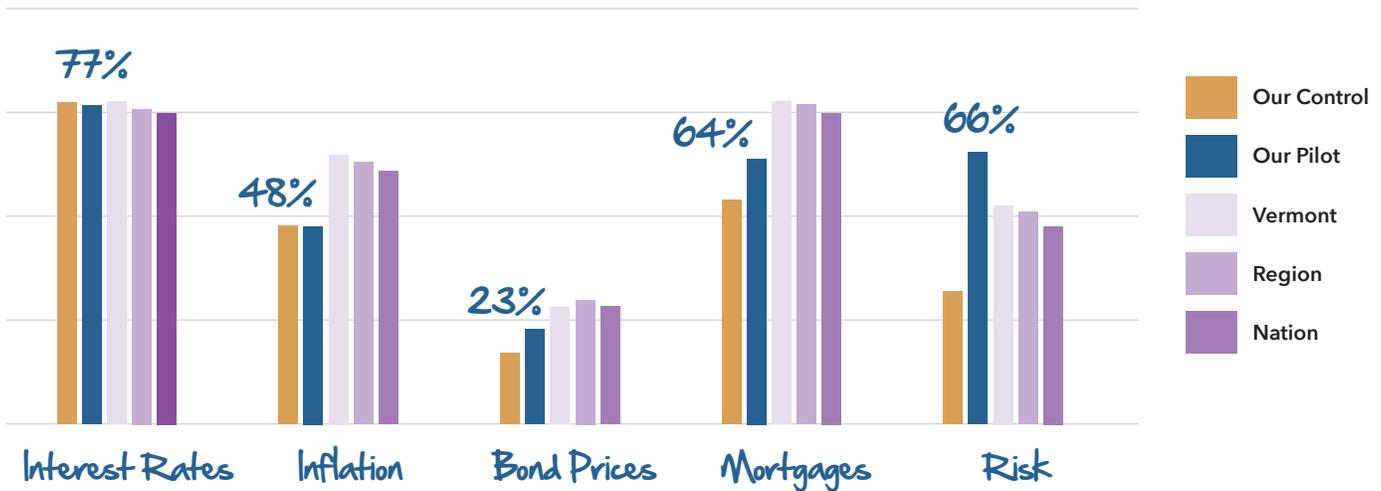
Percent Correct by Generation

Continuing analysis by generation, beyond an understanding of savings account interest rates (for which all groups were comparable), older respondents tended to show greater knowledge. Notably, however, our pilot students outperformed even older Americans on the question about risk in stock investments.



Percent Correct across State, Regional and National Samples

Pilot and control students fared comparably to larger populations on the questions about savings interest rates and bond prices. Pilot students performed considerably better than larger populations on the question about risk in stock investments and worse on the questions about inflation and mortgages.



“Region” data compiled from states in the New England Census Division: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont.





Website Launch: TeachFinLit.org

As a third aspect of this pilot study – in addition to teacher training and student tests/surveys – the 11 educators teaching personal finance at the pilot schools worked with Champlain’s Center for Financial Literacy and a third-party agency to create a professional learning community website: TeachFinLit.org.

Created by Educators for Educators

Stewardship “by educators for educators” will continue to guide site development. Educators can trust that resources recommended at TeachFinLit.org have been “teacher-tested,” favored by instructors currently working the “front lines” of personal finance high school education. Concepts, curriculum and teaching tools are included strictly on the basis of their endorsements, without remuneration from any publishers or other firms.

Site Content

In addition to full-curricula for new teachers, TeachFinLit.org organizes videos, calculators, activities, articles, lesson plans and other resources — more than 200 at site launch — into six categories:

- Income & Careers
- Budgeting & Spending
- Credit & Debt
- Saving & Investing
- Risk Management & Insurance
- Key Concepts

Educators are invited to submit their own best-loved teaching tools (e.g. links to third-party lesson plans, project ideas, etc.) for review and potential inclusion in the site. The site also gathers links to reports/data and curriculum standards from government and leading non-profits.

Learn more: TeachFinLit.org





Looking Ahead

This study offers another advance in understanding how to promote financial well-being among Americans young and old, across all socioeconomic strata. Every step forward matters, but many needs and questions remain.

Despite decades of research on financial literacy, the discipline lacks a standard, scientifically validated instrument for measuring personal finance knowledge. That instrument will not only facilitate discrete investigations, it will enable more precise meta-analyses, combining findings across studies to better understand broad patterns and outcomes.

Another challenge lies in the fact that most states lack guidelines on who can teach personal finance. While teachers are required to show expertise to teach math, English and other subjects, few call for endorsements to teach personal finance, seriously confounding data on classroom outcomes. Given the outstanding results of pilot teacher-training programs, such guidelines are within our reach.

Along those lines, additional research may also help compel states to adopt requirements for personal finance educators. To that end, as a follow-up to this study, researchers might next examine the specific impact of teacher training, isolating that effect by using a control of students receiving formal personal finance education, but by instructors not trained in the subject.



Beyond these primary needs, a host of questions related to effective personal finance education remain unanswered:

- Do students instructed by educators using a prescribed teaching method and curriculum learn more or less than those taught by educators free to choose their materials and approach?
- Do mandated, standalone courses with robust requirements produce different outcomes compared to elective courses or personal finance education embedded within courses on math, civics, economics, life skills or other broader topics?
- Does a teacher's core expertise affect learning outcomes? E.g., do students taught personal finance by math teachers statistically fare differently than those taught by social studies teachers?
- What additional factors contribute to successful K-12 classroom teaching of financial education?



THE CENTER FOR FINANCIAL LITERACY at Champlain College looks forward to continuing its contribution in answering these questions, and to a future when every American has access to free, quality instruction that builds knowledge, shapes positive attitudes and ultimately helps them manage their money in ways that make them happier, healthier and more financially secure.



Appendix A: Schools & Students

Schools for this study were selected in an effort to represent Vermont’s regional and demographic diversity with regard to poverty levels, minority representation, English learners and students needing support services. Per the study contract, schools in the control group are represented here anonymously. All data is for the 2013–2014 school year, the first year of pilot coursework.

	Burlington Senior High School ⁺	U-32 High School ⁺⁺	Fair Haven High School ⁺⁺⁺	Control School #1	Control School #2	Vermont State Average
Enrollment (Grades 9 - 12)	1057	542	434	821	986	*
Students in Free or Reduced Lunch Program	47%	30%	45%	34%	45%	41%
Student/Teacher Ratio	10.53	10.82	9.95	10.69	14.50	10.56
Average Teacher Salary	\$68,832	\$54,748	\$52,443	\$58,832	\$56,787	\$55,904
White Students	66%	93%	97%	87%	96%	91%
English Language Learners	18%	*	*	*	*	2%
Students Not Needing Support Services	86%	77%	71%	65%	70%	76%

⁺Burlington Senior High School, Burlington School District, Northern Vermont
⁺⁺U-32 High School, Washington Central Supervisory Union, Central Vermont

⁺⁺⁺Fair Haven High School, Union High School, Addison Rutland Supervisory Union, Southern Vermont

* = Information not available

	Pilot: 503 Students		Control: 314 Students	
	Pre-Test	Post-Test	Pre-Test	Post-Test
Gender				
Female	193	188	173	172
Male	227	193	135	130
Do not identify w/ either	4	11	1	0
Information N/A	79	111	5	12
Grade Level				
Freshman	5	5	0	0
Sophomore	24	26	0	1
Junior	104	95	176	171
Senior	298	272	133	130
Information N/A	72	105	5	12

Participating Students

Note: “Information not available” indicates the number of students who did not provide an answer or were not present for the test/survey.

Appendix B: Student Survey

The following comprises all of the knowledge, behavior and demographic questions students were prompted to answer. Correct answers for knowledge questions appear in blue. Note that the topical groupings provided here (“Earning,” “Spending,” etc.) did not appear in the student survey.

Knowledge Questions

QUESTIONS ON EARNING

Which statement most accurately completes the phrase, “Taking out a student loan to pay for college...”?

- a. May represent a sound financial decision due to the potential opportunity to earn a higher salary (as a college graduate) over the lifetime
- b. Is only possible if you attend a four year college
- c. Guarantees your credit score will be higher than someone who did not take out a student loan
- d. Don't know

What is net worth?

- a. The value of your yearly salary
- b. The difference between assets and debts
- c. The total of your retirement savings, yearly salary and home value
- d. Don't know

FICA taxes, which are deductions withheld from your paycheck, are used to support the Financial Industry Care of Americans programs which provide financial counseling and educational opportunities for low income Americans.

- a. True
- b. False
- c. Choose not to answer
- d. Don't know

The employee benefits (like insurance, retirement savings plans, and paid time off) provided by employers:

- a. Can be very different depending on the employer
- b. Are not very important to think about since all employers offer the same benefits
- c. Are not offered to any employees in the United States making less than \$18,000 per year
- d. Don't know

What is gross pay?

- a. The amount of money you select to put in a retirement or other savings account
- b. The money that is left after all of the taxes and other withholdings are removed from your pay
- c. The total amount of your pay before any of the taxes and other withholdings are removed
- d. Don't know

The total amount of federal and state taxes you will pay each year is:

- a. Determined solely on the gross income you received from an employer
- b. Based on numerous factors including (but not limited to) the number of dependents you have, the amount of charitable contributions you make, how much mortgage interest you pay, and the total amount of income you receive from all sources
- c. The same for every person who makes the same salary as you
- d. Don't know



QUESTIONS ON SPENDING

A financial plan includes: spending targets and savings goals.

- a. True
- b. False
- c. Choose not to answer
- d. Don't know

When considering needs and wants, which of the following is an example of a want?

- a. Eating out with friends
- b. Healthcare
- c. Paying for housing
- d. Don't know

A monthly budget with a revolving savings account includes income, savings, regular expenses, and non-regular expenses.

- a. True
- b. False
- c. Choose not to answer
- d. Don't know

When inflation occurs:

- a. Less money purchases more things
- b. More money purchases fewer things
- c. More money purchases more things
- d. Don't know

All banks and credit unions are required by law to charge the same fees for checking and savings accounts.

- a. True
- b. False

- c. Choose not to answer
- d. Don't know

What are variable expenses?

- a. Common expenses where the amount is the same each time, such as a car payment
- b. Common expenses where the amount is different based on consumption, such as your utility bill or gas for your car
- c. Both A and B
- d. Don't know

QUESTIONS ON SAVING

Imagine that the interest rate on your savings account is 1% per year and inflation is 2% per year. After one year, would the money in the account buy more than it does today, exactly the same or less than today?

- a. More than today
- b. Exactly the same as today
- c. Less than today
- d. Don't know

If interest rates rise, what will typically happen to bond prices? Rise, fall, stay the same, or is there no relationship?

- a. Rise
- b. Fall
- c. Stay the same
- d. Don't know

Suppose you have \$100 in a savings account earning 2 percent interest a year. After five years, would you have more than \$102, exactly \$102 or less than \$102?

- a. More than \$102
- b. Exactly \$102
- c. Less than \$102
- d. Don't know



Buying a single company's stock usually provides a safer return than a stock mutual fund.

- a. True
- b. False
- c. Choose not to answer
- d. Don't know

Rob and Mary are the same age. At age 25 Mary began saving \$2,000 a year in a retirement savings account while Rob saved nothing. At age 50, Rob realized that he needed money for retirement and started saving \$4,000 per year in a retirement savings account while Mary kept saving her \$2,000. Now they are both 75 years old. Who has the most money in his or her retirement account?

- a. They would each have the same amount because they put away exactly the same
- b. Rob, because he saved more each year
- c. Mary, because her money has grown for a longer time at compound interest
- d. Don't know

Compounding interest does not grow a principal amount as fast as simple interest.

- a. True
- b. False
- c. Choose not to answer
- d. Don't know

QUESTIONS ON BORROWING

Which statement about mortgages is true?

- a. A 15-year mortgage typically requires higher monthly payments than a 30-year mortgage, but the total interest paid over the life of the loan will be less.
- b. A 30-year mortgage typically requires lower monthly payments than a 15-year mortgage, and the total interest paid over the life of the loan will be less.

- c. Mortgages are only available in 30-year loan terms.
- d. Don't know

Which answer most closely defines principal?

- a. The fee charged by the lender.
- b. The part of a monthly payment that covers the interest.
- c. The amount borrowed, or the part of the amount borrowed which remains unpaid.
- d. Don't know

The annual percentage rate (APR) on a mortgage is the same as the interest rate.

- a. True
- b. False
- c. Choose not to answer
- d. Don't know

If a person with student loans files for bankruptcy:

- a. She will not have to pay back the student loan
- b. She still will have to pay back the student loan
- c. It depends on the type of bankruptcy she files
- d. Don't know

Most auto loans are a type of installment loan.

- a. True
- b. False
- c. Choose not to answer
- d. Don't know

Installment loans typically charge higher annual percentage rates than credit cards.

- a. True
- b. False
- c. Choose not to answer
- d. Don't know



QUESTIONS ON PROTECTING

Which statement about credit reports is accurate?

- a. Negative information goes away once you pay off the past-due balance
- b. Unpaid tax liens do not show up on your credit report
- c. Your salary is not part of your credit report
- d. Don't know

A commonly recommended emergency fund amount is approximately three to six months worth of expenses.

- a. True
- b. False
- c. Choose not to answer
- d. Don't know

A consumer does not need to compare interest rates for deposit accounts and loans because all financial institutions offer the same interest rates.

- a. True
- b. False
- c. Choose not to answer
- d. Don't know

Which phrase is the most accurate definition of insurance?

- a. Insurance reimburses you for unexpected loss or damages caused by a specific set of hazards (such as illness or fire) to a specific thing (such as a car or your life)
- b. Insurance reimburses you for any loss or damages caused by any reason to all items you own
- c. Both A and B are correct
- d. Don't know

How long does missed payment information stay on your credit report?

- a. It goes away as soon as the balance is zero
- b. Two years
- c. Seven Years
- d. Don't know

If your credit card information is stolen and used, and you contact the card issuer within 48 hours of discovering the theft, the company can't hold you liable for more than:

- a. \$50 in unauthorized purchases
- b. \$500 in unauthorized purchases
- c. \$500 in authorized purchases
- d. Don't know

BEHAVIOR QUESTIONS

Indicate how often you have engaged in the following activities.

I plan ahead how I spend my money.

- a. Always
- b. Occasionally
- c. Rarely
- d. Never
- e. Does not apply

I check my cell phone statement each month to make sure it is accurate.

- a. Always
- b. Occasionally
- c. Rarely
- d. Never
- e. Does not apply



Without looking, I always know how much money is in my wallet or purse.

- a. Always
- b. Occasionally
- c. Rarely
- d. Never
- e. Does not apply

I save money each month for a future purchase.

- a. Always
- b. Occasionally
- c. Rarely
- d. Never
- e. Does not apply

I pay fees for using my debit/ATM card.

- a. Always
- b. Occasionally
- c. Rarely
- d. Never
- e. Don't know
- f. Does not apply

I exceed my monthly limit on my texting or telephone plan.

- a. Always
- b. Occasionally
- c. Rarely
- d. Never
- e. Don't know
- f. Does not apply

I use the same password to log in to all of my online profiles and accounts.

- a. Yes
- b. No
- c. Does not apply



Demographics Questions

What is your gender?

- a. Female
- b. Male
- c. I do not identify with either
- d. Choose not to answer

What is your grade?

- a. 9th
- b. 10th
- c. 11th
- d. 12th

Check each statement below that is true. (Mark all that apply.)

- a. I get an allowance from my parents/guardians
- b. I have a full-time job
- c. I have a part-time job
- d. I have an unpaid internship
- e. I earn money doing occasional work such as babysitting, mowing lawns, or helping out around the house
- f. I have a cell phone
- g. I pay my cell phone bill (or my portion of the bill)
- h. My parents/guardians pay my entire cell phone bill
- i. I pay for the gas when I drive
- j. My parents/guardians pay for gas when I drive
- k. I pay some or all of the car insurance bill
- l. My parents/guardians pay the entire car insurance bill
- m. I am involved in at least one activity that takes place outside class time (athletics, music, drama, scouting, volunteering, religious activities, etc.)

- n. I do not make decisions about money
- o. Choose not to answer
- p. What other items/activities do you pay for?
- q. Other (please specify) [text input box included]

What are your plans after you complete high school? (Mark all that apply)

- a. Work full-time
- b. Work part-time
- c. Attend vocational school or a training program
- d. Join the military
- e. Attend community college
- f. Attend a four-year college
- g. Don't know
- h. Choose not to answer

Did at least one of your parents/guardians attend college?

- a. Yes
- b. No
- c. Don't know
- d. Choose not to answer

Do you have a checking account in your name?

- a. Yes
- b. No
- c. Don't know
- d. Choose not to answer

Do you have a debit or credit card in your name?

- a. Yes
- b. No
- c. Don't know
- d. Choose not to answer



Do you have a savings account in your name?

- a. Yes
- b. No
- c. Don't know
- d. Choose not to answer

If you need advice about money, where do (or would) you go? (Mark all that apply)

- a. Parents/guardians
- b. Siblings
- c. Other family (aunts/uncles, grandparents, etc.)
- d. Friends/peers
- e. Teachers
- f. Search online
- g. Not sure
- h. No one
- i. Choose not to answer

Does your family include you in decisions about spending, budgeting, and/or saving?

- a. Yes
- b. No
- c. Don't know
- d. Choose not to answer

Have you ever personally made an investment in stocks, bonds, CDs, or mutual funds?

- a. Yes
- b. No
- c. Don't know
- d. Choose not to answer

Which of the following is the most likely way for you to have a million dollars when you retire?

- a. Win the lottery
- b. Place money in a savings account
- c. Become famous
- d. Inherit from your parents/family
- e. Invest in stocks and bonds



Appendix C: Comparative Question Set

The five questions used for these comparisons have been used in a number of studies exploring financial literacy, including the National Financial Capability Study. In our test, three of the questions were used verbatim. The question on bonds offered four vs. five answer options, and the question on mortgages used the same content but in a format adapted slightly for high school learners. Correct answers for questions below appear in blue.

Interest: Suppose you have \$100 in a savings account earning 2 percent interest a year. After five years, would you have more than \$102, exactly \$102 or less than \$102?

- a. More than \$102
- b. Exactly \$102
- c. Less than \$102
- d. Don't know

Inflation: Imagine that the interest rate on your savings account is 1% per year and inflation is 2% per year. After one year, would the money in the account buy more than it does today, exactly the same or less than today?

- a. More than today
- b. Exactly the same as today
- c. Less than today
- d. Don't know

Bond Prices: If interest rates rise, what will typically happen to bond prices? Rise, fall, stay the same, or is there no relationship?

- a. Rise
- b. Fall
- c. Stay the same
- d. Don't know

Mortgages: Which statement about mortgages is true?

- a. A 15-year mortgage typically requires higher monthly payments than a 30-year mortgage, but the total interest paid over the life of the loan will be less.
- b. A 30-year mortgage typically requires lower monthly payments than a 15-year mortgage, and the total interest paid over the life of the loan will be less.
- c. Mortgages are only available in 30-year loan terms.
- d. Don't know

Risk: Buying a single company's stock usually provides a safer return than a stock mutual fund.

- a. True
- b. False
- c. Choose not to answer
- d. Don't know





About Champlaine College & The Center for Financial Literacy

Founded in 1878, Champlaine College is a small, not-for-profit, private college in Burlington, Vermont, with additional campuses in Montreal, Canada, and Dublin, Ireland. Champlaine offers a traditional undergraduate experience and more than 60 online undergraduate and graduate degree programs and certificates.

Champlaine is also one of the few colleges that requires undergraduate students to take personal finance training.

Champlaine's distinctive, career-driven approach to higher education embodies the notion that true learning occurs when information and experience come together to create knowledge.

The College is featured in The Princeton Review's "Best 380 Colleges for 2016" and in the 2016 Fiske Guide to Colleges as one of the "best and most interesting schools" in the United States, Canada and Great Britain.

Established in 2010, Champlaine College's Center for Financial Literacy is committed to improving the personal finance knowledge of our nation's K-12 and college students, teachers and adults, leading to more sound decisions about spending, credit, debt, investments and complex financial situations such as buying a home and saving for retirement.

Center director, John Pelletier, was formerly chief operating officer and chief legal officer at some of the largest asset management firms in the United States. In 2015, he was asked to serve on the Vermont Universal Children's Higher Education Savings Account Program Fund Advisory Committee, and appointed by the governor to co-chair the newly created Vermont Financial Literacy Commission alongside the state treasurer.



Learn more:

Champlaine College: <http://www.champlaine.edu>

Champlaine College Center for Financial Literacy:

<http://www.champlaine.edu/centers-of-excellence/center-for-financial-literacy>

CENTER ACTIVITIES & ACCOMPLISHMENTS

- Publishing the acclaimed National Report Card on State Efforts to Improve Financial Literacy in High Schools
- Offering innovative, graduate-level training for K-12 educators designed to confer the confidence, knowledge and resources they need to teach personal finance
- Recognition of its teacher and student training initiatives in the 2012 White House report, "Every American Financially Empowered: A Guide to Increasing Financial Capability among Students, Workers and Residents in Communities"
- Recognition as an information and curriculum resource in 2015 Consumer Financial Protection Bureau report "Advancing K-12 Financial Education: A Guide for Policymakers"
- Partnering with MarketWatch on the "Money for Life" video series for Millennials
- Establishing the Vermont Financial Literacy Task Force, which has, to date, helped drive two state laws in support of financial literacy (learn more at FinancialFunkVT.org)
- Creating an assessment for measuring the financial literacy of high school and college students, now ready for multi-state field testing and psychometric validation study and ultimately intended for free availability to all schools and researchers pending funding support
- Launching TeachFinLit.org, a resource website created by financial literacy high school educators for financial literacy educators (see [page 16](#)).



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NATIONAL ENDOWMENT FOR
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The National Endowment for Financial Education provided guidance and in-kind support towards research methodology, test/survey development and statistical analysis.

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All of the personal finance instructors at participating pilot schools completed training at the Vermont Teachers Financial Literacy Summer Institute offered by the Center for Financial Literacy at Champlain College.

Curriculum for the Institute was developed by Champlain's Center for Financial Literacy with the Financial Foundations for Educators program of the Jump\$tart Teacher Training Alliance.

