

Personal Financial Literacy in New Hampshire

Assessing the Need and Efficacy of Personal Financial Education in New Hampshire Public Schools

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TABLE OF CONTENTS

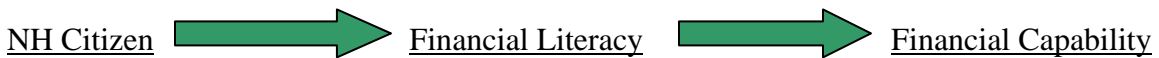
| | |
|--|----|
| EXECUTIVE SUMMARY | 2 |
| 1. THE STATE OF PERSONAL FINANCE IN NEW HAMPSHIRE | 3 |
| 1.1 UNEMPLOYMENT | 3 |
| 1.2 BANKRUPTCIES | 3 |
| 1.3 HOME FORECLOSURES | 3 |
| 1.4 STUDENT DEBT | 4 |
| 1.5 CREDIT SCORES AND DEBT | 4 |
| 2. PERSONAL FINANCE PROGRAMS AND CURRICULA | 4 |
| 2.1 TWO LEVELS OF PERSONAL FINANCE EDUCATION | 4 |
| 2.1.1 THE STUDENT LEVEL: PUBLIC EDUCATION | 5 |
| 2.1.2 THE ADULT LEVEL: THE WORKFORCE | 6 |
| 2.2 NATIONAL COORDINATION EFFORTS | 6 |
| 2.3 STATE MODELS | 7 |
| 2.3.1 PERSONAL FINANCE COURSES | 8 |
| 2.3.2 CURRICULAR STRUCTURE FLEXIBILITY | 8 |
| 2.3.3 FINANCIAL LITERACY PASSPORT | 8 |
| 2.3.4 FINANCIAL LITERACY RESOURCE BANK | 8 |
| 2.3.5 FINANCIAL LITERACY FUNDS | 9 |
| 2.4 NEW HAMPSHIRE | 9 |
| 2.4.1 K-12 SOCIAL STUDIES CURRICULUM FRAMEWORK | 9 |
| 2.4.2 PERSONAL FINANCE COURSES IN NEW HAMPSHIRE | 10 |
| 3. THE DATA: PERSONAL FINANCIAL LITERACY STATISTICS | 10 |
| 3.1 JUMP\$TART NATIONAL FINANCIAL LITERACY SURVEY | 10 |
| 3.1.1 SCORE DISTRIBUTION BY GENDER | 11 |
| 3.1.2 SCORE DISTRIBUTION BY FAMILY INCOME | 11 |
| 3.1.3 SCORE DISTRIBUTION BY PERSONAL FINANCE COURSE | 11 |
| 3.1.4 SCORE DISTRIBUTION BY ECONOMICS COURSE | 12 |
| 3.1.5 SCORE DISTRIBUTION BY STOCK MARKET GAME | 12 |
| 3.1.6 SCORE DISTRIBUTION BY FUTURE EDUCATIONAL PLANS | 12 |
| 3.2 ROCKEFELLER CENTER FINANCIAL LITERACY SURVEY | 13 |
| 3.2.1 HANOVER HIGH SCHOOL | 13 |
| 3.2.2 LEBANON HIGH SCHOOL | 14 |
| 3.2.3 MASCOMA VALLEY REGIONAL HIGH SCHOOL | 14 |
| 3.2.4 UPPER VALLEY SCHOOL COMPARISON | 14 |
| 4. EFFICACY OF PERSONAL FINANCE PROGRAMS | 15 |
| 4.1 EVIDENCE SUPPORTING EFFICACY | 15 |
| 4.2 EVIDENCE SUPPORTING INEFFICACY | 16 |
| 4.3 TEACHER TRAINING AND INSTITUTIONAL SUPPORT | 18 |
| 4.4 BEST PRACTICES | 18 |
| 5. POLICY RECOMMENDATIONS: A PLAN FOR NEW HAMPSHIRE | 19 |
| 5.1 SAMPLE PERSONAL FINANCIAL EDUCATION PILOT PROGRAM | 19 |
| 5.2 CONCLUSION: POLICY OPTIONS | 20 |
| 5.2.1 THE STATUS QUO | 20 |
| 5.2.2 PILOT PROGRAM IMPLEMENTATION | 20 |
| REFERENCES | 21 |

EXECUTIVE SUMMARY

In the spring of 2008, The Rockefeller Center Policy Research Shop published Policy Brief 0708-02, detailing statistics and policy options relevant to New Hampshire House Bill 1462, which sought to establish an Office of Personal Financial Education in the New Hampshire Treasury Department.

This policy brief expands upon the findings of PRS Brief 0708-02, primarily in exploring available data regarding the level of financial literacy of New Hampshire citizens and the need and efficacy of personal financial education in the New Hampshire public educational system.

The brief is based on the application and assessment of the basic theory underlying personal financial education:



Under this theory, when a New Hampshire citizen receives financial education, he/she will become financially literate, or knowledgeable of the basic skills, tools and systems involved in financial decision making. Once an individual has attained “Financial Literacy,” the theory then argues that he/she will be able to apply that literacy to achieve “Financial Capability,” or the ability to display sound judgment when faced with actual financial decisions.

This theory is explored throughout the brief, including its application to several relevant subsections of personal financial education such as:

- The State of Personal Finance in New Hampshire: Are New Hampshire citizens financially literate, and if so, are they then financially capable? Comparisons to national data reveal that New Hampshire consistently exceeds national financial indicators
- Personal Finance Programs and Curricula: What is the best level (student/adult) to implement personal finance programs? What kind of programs and curricula exist, and how do they go about fulfilling the theory? Public education provides the only guaranteed point of participation in these programs, and other states provide new models for New Hampshire to build upon.
- Data on Personal Financial Literacy: A national survey by the Jump\$Start Coalition as well as a new survey by the Rockefeller Center Policy Research Shop reveals that although students in New Hampshire exceed national averages, they still fail to demonstrate financial literacy on survey instruments.
- Efficacy of Personal Finance Programs: Current research and studies on personal finance suggest the efficacy of these programs is mixed and inconclusive.
- Policy Recommendations: If New Hampshire plans to implement a new personal financial education program, it should be complete, integrated, applied and institutionally supported.

1. THE STATE OF PERSONAL FINANCE IN NEW HAMPSHIRE

In order to provide an overview of financial literacy across the population of New Hampshire, the Policy Research Shop gathered statistics on several financial indicators to see if they suggested that citizens were making sound financial decisions. These financial indicators included: unemployment, declared bankruptcies, home foreclosures, student debt, and credit scores. Each of these statistics can offer insight into whether citizens are financially literate and demonstrating financial capability, as well as help determine if there is a lack of financial information among the population. After comparing these various financial indicators to their national counterparts, the Policy Research Shop could formulate an approximation of the general financial environment in New Hampshire. Overall, New Hampshire consistently exceeds national financial averages.

| Financial Indicator | United States | New Hampshire | NH vs. US |
|------------------------------------|---------------|---------------|-----------|
| Unemployment (March 2009) | 8.5% | 6.2% | - 27% |
| Bankruptcy (2008) | 0.09% | 0.07% | - 22% |
| Home Foreclosure (2008) | 1.01% | 0.7% | - 31% |
| Average Student Debt (2007) | \$20,098 | \$25,211 | + 25% |
| Credit Score (2007) | 692 | 715 | + 4 % |
| Average Credit Debt (2007) | \$17,014 | \$20,068 | + 18% |

1.1 Unemployment

In New Hampshire, unemployment has been consistently much lower than the rest of the nation. In September 2008, New Hampshire reported an unemployment rate of four percent. The national unemployment rate was six percent. However, the current economic recession is starting to affect the unemployment rate. In March of this past year, the Bureau of Labor Statistics reported an unemployment rate of 6.2 percent in New Hampshire. In the same month, the national unemployment rate rose to 8.5 percent. New Hampshire still maintains a lower unemployment rate than the national average.¹

1.2 Bankruptcies

The rate of declared personal bankruptcies in New Hampshire is also much lower than the national rate of personal bankruptcies. In the second quarter of 2008, New Hampshire's percentage rate of bankruptcy filings involved 0.07 percent of the population, which is 22 percent less than the national percentage rate of bankruptcy filings.²

1.3 Home Foreclosures

Home foreclosures in New Hampshire are also lower than the national home foreclosure rate. Historically, however, New Hampshire's rate of foreclosure initiations, or the rate at which citizens have begun to foreclose on their mortgages, has been the second lowest in

New England, with only Vermont at a lower rate. Presently, the foreclosure rate in New Hampshire is 0.7 percent. This foreclosure initiation rate is similar to the rate in New Hampshire in the early 1990s, during the last significant real estate recession. The national foreclosure rate is just over one percent, (1.01 percent), and is at a historic high. New Hampshire's foreclosure initiation rate is low in comparison to that of the United States.³ Although these statistics are significant and reassuring, the positive financial indicators of unemployment, declared bankruptcies and home foreclosures could signal a stable New Hampshire economy, and not necessarily widespread financial literacy.

1.4 Student Debt

Student debt is the amount of debt New Hampshire college students owe when they graduate. In 2007, seventy-four percent of New Hampshire college students (public and private) graduated in debt. New Hampshire also has the third highest rate of students in debt in the country. In 2007, the average debt level was \$25, 211 per student, the second highest average student debt in the nation. The national average debt per graduating student is \$20,089.⁴ New Hampshire college students are graduating with larger debt at higher rates than the rest of the nation, figures that could lead to financial difficulty and greater public and private costs as students enter the workforce without adequate financial literacy.

1.5 Credit Scores and Debt

New Hampshire citizens' credit scores do not show any definite pattern or indication of financial literacy among the population. New Hampshire citizens have significantly higher credit scores than the rest of the nation. The state's average credit score is 715, compared to the national average score of 692. In addition, New Hampshire citizens have lower average credit usage (the debt owed to credit limit ratio) than the rest of the nation. New Hampshire's average credit usage is 33.9 percent, while the national average credit usage is 34.7 percent. Although these two characteristics seem to indicate a higher level of financial capability in New Hampshire, the average debt of New Hampshire citizens is still much higher than the national average debt. New Hampshire citizens have an average credit debt of \$20,068. The national average credit debt is \$17,014, much lower than the average debt per New Hampshire citizen.⁵ The average credit score in New Hampshire compared to average credit debt illustrate potential gaps in financial literacy.

2. PERSONAL FINANCE PROGRAMS AND CURRICULA

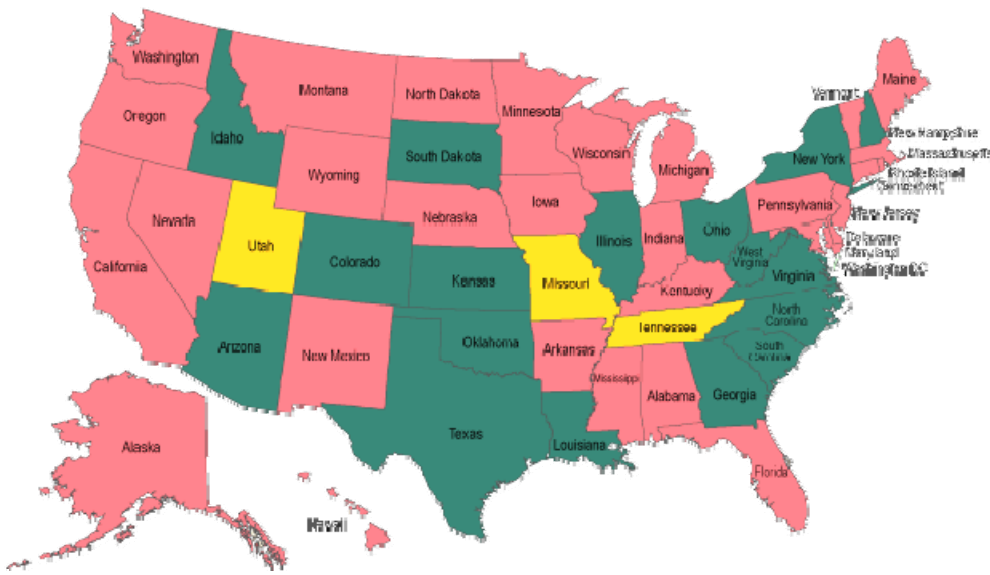
2.1 Two Levels of Personal Finance Education

Private and public personal finance programs exist primarily at two levels: the Student Level (public education) and the Adult Level (workforce, government-sponsored seminars and assistance, private state and community-based providers). Both levels work to accomplish the goal of attaining financial literacy and applying it to achieve financial capability, but each has benefits and disadvantages in the delivery of such services. This analysis is not meant to imply that one level should be valued above the other in terms of

functionality, as both are necessary for effective and sustainable financial education, but rather to determine which level is best suited for a greater amount of assistance and public resources from New Hampshire taxpayers.

2.1.1 The Student Level: Public Education

| + / - | Level Attribute |
|-------|---|
| + | Establishes early financial behavior, planning, and preventative strategies |
| + | Guaranteed point of public participation for citizens |
| + | Final point of intervention for 49% of citizens |
| - | Limited immediate financial application and impact |



Source: JumpStart Coalition for Financial Literacy www.jumpstartcoalition.org⁶

The Student Level works to establish financial literacy through the public school system. Currently, three states (Missouri, Tennessee, and Utah) require a half-credit (0.5) personal finance course as a graduation requirement. Additionally, seventeen states incorporate personal finance into other courses required for graduation such as economics, mathematics, and social studies. The remaining thirty-five states have no personal finance education or offer the subject as an elective.⁷ New Hampshire is included as one of these seventeen states due to HB 167 in 2007, which states that economics should be required as an area of assessment.⁸ New Hampshire schools also offers personal finance as an elective, an offering that is discussed in greater detail in section 2.4.2 of this brief.

As of March 2009, thirty-one states had legislation pending regarding personal financial education in the public educational system.⁹ On average, a state that either requires a personal finance course or incorporates it into the curriculum needs a four to five year development period before implementation of a graduation requirement. This means that if a state implements a personal finance

curriculum in 2009, the first graduating class that would graduate with the requirement in place would be the Class of 2013. If a K-12 program were implemented, as is recommended later in the briefing, the first class that would graduate having completed the entire program would be the Class of 2022.

2.1.2 The Adult Level: Workforce and Public/Private Providers

| + / - | Level Attribute |
|-------|--|
| + | Immediate financial application and impact on decision-making process |
| - | No guarantee of participation in programs regardless of success or funding |
| - | Financial illiteracy and poor financial behavior already established |
| - | Lack of organizing authority, which would require new regulation |

The Adult level of financial literacy efforts is much larger and more established than the public school system, with private and public providers of financial seminars, workshops, and personal assistance at the national, state, and community levels. Delivered online, through on-site training and by locally operated offices, adult financial literacy programs are readily available to the public, but the lack of an “organizing authority” to gather and consolidate these vast resources may be inhibiting their delivery. A study by Dartmouth Professor Annamaria Lusardi and Olivia Mitchell of the Wharton School show that these programs are not reaching most of the adult at-risk population due to poor attendance, and do not deliver results due to poor follow-up support and relatively short (1-2 day) administration.¹⁰

On the national level, the FDIC (Federal Deposit Insurance Corporation) sponsors Money Smart, a nationwide financial education service that offers online financial assistance, local counseling and workshops, and tips for financial decision making. A 2007 Longitudinal Survey conducted by the FDIC on Money Smart participants showed increased participation in savings programs and credit payment, as well as an annual participation rate of 1.1 million consumers.¹¹ NeighborWorks America is another national adult level program that operates in all fifty states to deliver financial counseling for potential homebuyers and interested homeowners. The program serves around 14,000 consumers annually, with 1,300 of those in New England and 400 New Hampshire.¹²

On the state level, the University of New Hampshire (UNH) Cooperative Extension provides financial assistance online as well as through local offices in all ten New Hampshire counties. In 2007, the Extension worked with 13,695 New Hampshire citizens on tax counseling regarding the Earned Income Tax Credit, and offered workshops on “Financial Fitness.” Besides resources available on the website, the Extension often charges a minimal fee of around twenty-five dollars for financial workshops and counseling.¹³

2.2 National Coordination Efforts

Beginning with in the early 1950s, a majority of American schools began offering personal financial education through Consumer/Home Economics courses. No nationally coordinated effort to establish standards and practices for personal financial education, however, would exist until 2002 with the establishment of the Office of Financial Education in the US Treasury Department.¹⁴ Seeking an “organizing authority” for financial education programs nationwide, the US Financial Literacy and Education Commission, established in 2003, created a national website for financial education, www.mymoney.gov, in 2007.¹⁵ The website has averaged around 31,000 visits per month since coming online.¹⁶ Additionally, the US Treasury, in cooperation with Citi Bank and the Jump\$tart Coalition for Financial Literacy, published a “model” finance curriculum, Money Math, which incorporates financial decisions into a mathematical context.¹⁷

| US Financial Education & Literacy Timeline: 2002-2009 | |
|---|--|
| 2002 | <ul style="list-style-type: none"> • Establishment of the Office of Financial Education in the Treasury Department • Treasury Department authors a <u>White Paper: Financial Education in Curricula</u>¹⁸ |
| 2003 | <ul style="list-style-type: none"> • Utah becomes first state to require a General Financial Literacy Course • Establishment of the US Financial Literacy and Education Commission |
| 2006 | <ul style="list-style-type: none"> • National Strategy for Financial Literacy: <u>Taking Ownership of the Future Implemented</u>¹⁹ |
| 2007 | <ul style="list-style-type: none"> • Creation of www.mymoney.gov under Taking Ownership of the Future |
| 2008 | <ul style="list-style-type: none"> • Formation of the President’s Advisory Council on Financial Literacy • US Treasury, Citi Bank, and Jump\$tart sponsor national <u>Money Math Curriculum</u> |
| 2009 | <ul style="list-style-type: none"> • S.94 passes Senate – April 2009 designated as “<i>Financial Literacy Month</i>”²⁰ |

2.3 State Models

There are currently twenty states with personal financial education included in their required curricular structures. Three of these states require a course to be taken in addition to other credit requirements, while seventeen more incorporate personal finance into existing credit requirements.²¹ Additionally, several states offer personal finance courses electively. Unique among these were seven states that took different approaches to addressing the issue of personal finance, including the three states with course requirements, two with incorporated credits, and one now offering an elective credit:

| State | Utah | Missouri | Tennessee | Colorado | Iowa | New Mexico |
|---------------------------|---|---------------------------------|-------------------------|----------------------|--|------------|
| Year | 2003 | 2006 | 2006 | 2008 | 2008 | 2008 |
| Curricular Structure | General Financial Literacy Course | Personal Finance Course | Personal Finance Course | Mathematics | 21st Century Learning Skills | Elective |
| Credit towards Graduation | 0.5 | 0.5* | 0.5 | N/A | N/A | 0.5 |
| Graduation Requirement | Yes C/O 2008 | Yes C/O 2010 | Yes C/O 2012 | Yes N/A | Yes C/O 2011 | No |
| Development | 5 years | 4 years | 5 years | 1 year | N/A | N/A |
| Funding | DOE: WPU (Weighted Pupil Unit) \$2,577 | DESE: Prof. Dev. \$2 million | Financial Literacy Fund | DOE | Financial Literacy Fund | DOE |
| Teacher Training | Yes | Yes | Yes | N/A | N/A | N/A |
| Institutional Support | Financial Literacy Passport | Missouri Model Curriculum | N/A | Resource Bank | N/A | N/A |

2.3.1 Personal Finance Courses (Utah, Missouri, Tennessee)

Three states, Utah, Missouri, and Tennessee, currently offer a half-credit course in Personal Finance/General Financial Literacy. These courses are all full-semester credits (0.5) that are required for graduation. Each course has been established with a full model curriculum and learning objectives/course requirements. Missouri has the most comprehensive “model curriculum,” complete with several lesson plans and evaluation methods.²² The courses are nearly identical in subject matter, covering the fundamental financial skill sets, tools and systems involved in personal finance and working to apply them to student finance. Mathematics, logic and strategic decision-making, economics, and social understanding are all identified as “core curricular concepts” addressed by each course, allowing for an integrated approach.²³

2.3.2 Curricular Structure Flexibility (Missouri, Colorado, Iowa)

Missouri’s curricular structure offers the most student-centered curricular structure for its personal finance course. Students are required to take the course, but may use the course as a social studies, mathematics, or elective credit towards graduation.²⁴ This allows more qualitative thinkers to take an applied mathematics course, and more quantitative thinkers to take a statistical approach to social studies. Additionally, Colorado’s personal finance program is built into the mathematics curriculum²⁵, and Iowa’s “21st Century Learning Skills” that are required for each subject area (language arts, math, science, social studies) include employability and financial literacy.²⁶

2.3.3 Financial Literacy Passport (Utah)

In terms of institutional and sustainable support, the Utah legislature approved in March of 2009 the creation of a Financial Literacy Passport. This Passport is presented to parents at the Kindergarten level, and provides information on the

financial decisions students should be making in coordination with their financial education at school. The passport also informs parents and families of the financial decisions they need to be making for their students in preparation for both secondary and post-secondary education.²⁷

2.3.4 Financial Literacy Resource Bank (Colorado)

Similar to the www.mymoney.gov website established by the US Financial Literacy and Education Commission in 2007, Colorado has created a Financial Literacy Resource Bank²⁸:

(http://www.cde.state.co.us/action/Financial_Literacy/index2.htm)

The Resource Bank helps support the implementation of their personal finance standards within the mathematics curriculum, offering modules and lesson plans.


2.3.5 Financial Literacy Fund (Tennessee, Iowa)

Both Tennessee and Iowa have used their partnerships with state and local business leaders and the financial sector to establish Financial Literacy Funds. These funds are gathered as partners are asked to donate when participating in discussions regarding curriculum, teacher trainings, and classroom tools. The Funds are then used to ensure teacher training and materials are available to educators delivering financial education.²⁹

2.4 New Hampshire

New Hampshire currently qualifies as a state that “incorporates financial literacy into other areas of the curriculum” due to its new economics requirement as determined by the Jump\$tart Coalition. However, in addition to this requirement, which itself does not involve personal financial instruction, New Hampshire’s K-12 Social Studies Framework recommends Personal Finance as a Curricular Standard, and at least 60 of the 89 high schools across the state offer a “Personal Finance” course electively.

2.4.1 K-12 Social Studies Curriculum Framework

| | |
|---|---|
| <p>K-12 Social Studies New Hampshire Curriculum Framework</p>  <p>June 2006 <small>www.ed.state.nh.us/frameworks</small></p> | <p style="text-align: center;">Standard</p> <p>SS:EC:6: Personal Finance</p> <p>Students will be able to explain the importance of money management, spending credit, saving, and investing in a free market economy</p> |
|---|---|

Source: *K-12 Social Studies New Hampshire Curriculum Framework*³⁰

In the New Hampshire K-12 Social Studies Curriculum Framework, Economics Standard 6 recommends Personal Finance instruction at both the middle school (7-8) and high school (9-12) levels.³¹ This recommendation effectively establishes the intent of HB 123, which sought to include personal finance as part of the economics established for New Hampshire in 2007. There is no enforcement or assessment of this Framework, but even if such an assessment existed, the standards outlined seem to reverse learning objectives for the respective levels.

As it exists now, the Framework recommends that 7th and 8th grade students, in courses not as relevant to personal finance as high school mathematics or economics, to acquire knowledge about financial decisions that most students do not personally engage in until the end of high school.³² Instead, high school students are assessed on broad principles of the financial structure that would be more suitable for a middle school personal finance component in 7th or 8th grade social studies and mathematics. Even if no action is made on a larger personal finance commitment, these priorities should be reversed in the Framework.

2.4.2 Personal Finance Courses in New Hampshire High Schools

| | |
|---|-----------------|
| 609 – Financial Literacy | 1 credit |
| This course will cover the basics of banking and investment planning, and include a thorough investigation of financial planning. Planning is a process that should be applied to all aspects of life, from choosing a career to finding yourself. Financial planning works best when you understand clearly your reasons for trying to build a strong financial structure. This course will help students begin to realize these reasons. | |
| Objectives: | |
| <ul style="list-style-type: none">• upon completing this course the student will be able to develop a personal budget.• students will be able to discuss how to read a newspaper stock listing.• students will be able to understand banking, balancing a checkbook, savings accounts, CD's, and various loan products.• students will be able to understand the basics of becoming a good investor. | |

Source: Hillsboro-Deering High School 2008-2009 Program of Studies, p.21

| | |
|---|--|
| Course #12901 Consumer Math | 1 credit/full year Grades 11-12 |
| During the first semester, the goal of the course is to prepare students to become productive participants in the work force by developing the necessary decision-making skills and exploring a variety of critical thinking strategies. Topics to be covered include earnings, gross versus net pay, personal banking, budgeting, determining the cost of a purchase, financing, and comparison-shopping. During semester two, the goal of the course is to prepare students to become productive participants in the work force by developing the necessary decision-making skills and exploring a variety of critical thinking strategies. Topics to be covered include investments, insurance, savings by means of conservation, renting an apartment, filing taxes, probability, and statistics. Student progress will be evaluated through homework, class projects, quizzes and tests. | |
| Prerequisite: Instructor approval is required. | |

Source: Epping High School 2009-2010 Program of Studies, p.39

After reviewing Programs of Studies from 62 of 89 New Hampshire high schools (with 27 unavailable for analysis), 60 schools (67 percent overall) offer some type of “Personal Finance” course as elective, with course names varying by location. As seen above, the credit can be given as an elective or applied to a subject area such as mathematics. Of the 60 courses, 60 percent were purely elective-based, 30

percent were mathematics-based, and 10 percent were based in social studies departments. While these courses are certainly a significant resource for further improvement, most will only enroll between 10-20 percent of each graduating class due to their limited and elective design.

3. THE DATA: PERSONAL FINANCIAL LITERACY STATISTICS

3.1 Jump\$tart National Financial Literacy Survey: US vs. NH

In 2008, the Jump\$tart coalition, led by Dr. Lewis Mandell, surveyed nearly 7,000 high school seniors to determine their level of financial literacy.³³ 154 students in the national survey were from New Hampshire. This national survey tested for knowledge of financial concepts such as credit card usage, student loans, health insurance and mortgages. The national average was 48.3 percent correct. The New Hampshire average was higher, 54.5 percent correct. The Policy Research Shop divided the data into specific demographics: gender, family income, future plans for education, and exposure to courses in money management, economics or stock market game theory. Within these demographics, comparing the national average with the New Hampshire average provides information on the financial literacy of New Hampshire students compared to high school students nationwide and on particular demographics that affect financial literacy. In general, the New Hampshire average percent correct was consistently higher than the national average, even when separated into the different demographics.

3.1.1 Score Distribution by Gender

When separated by gender, there is a significant difference between New Hampshire students and the national average. Nationally, there is a slight gender gap, with males scoring 49 percent correct and females only scoring 47 percent correct. In New Hampshire, however, females outscored males. Females scored an average of 54.7 percent correct, while males scored an average of 47.9 percent correct. This is a significant gap in score, but the fact that females outnumber males two to one in the survey sample could account for the large difference. Gender is the only demographic that shows such a great disparity between New Hampshire students and their national counterparts.

3.1.2 Score Distribution by Family Income

Family income is another important demographic, demonstrating a positive correlation between family income and percent correct in New Hampshire as well as nationwide. As family income increases, the percent correct increases for both New Hampshire students and their national counterparts. Nationally, the difference in score between the highest income level (52 percent) and the lowest income level (43 percent) was nine percentage points. In New Hampshire, this difference was eight percentage points (52 to 44 percent respectively). Despite this significant positive correlation between family income and percent correct,

however, even students raised in high-income families are failing to demonstrate adequate financial literacy.

3.1.3 Score Distribution by Participation in a Personal Finance Course

The Jump\$tart survey also provides interesting data on the performance of students who have been exposed to either an entire or partial course in money management or personal finance. It should be noted that these demographic distinctions were determined and selected by the students themselves, so any conclusions drawn from the data should only be cautiously applied to larger categories of courses and pedagogy. New Hampshire students who claimed to have taken an entire course in money management or personal finance averaged a score of 53, only one percent better than those who did not. However, of the 154 students surveyed in the state, only 23 (15 percent of the sample size) claimed to have taken such a course. Therefore, the average score for these students is both difficult to determine as well as statistically insignificant. These numbers, however, are consistent with data suggesting that personal finance courses offered as electives throughout New Hampshire only enroll between 10-20 percent of an average graduating class. On a national level, students who claim to have taken an entire course in money management or personal finance had an average score 1 percent less than the average of students who had not. In some cases, exposure to a full course of money management or personal finance has not helped, and even hurt, a student's level of financial literacy as measured by this survey. In other cases, a partial course in money management or personal finance does increase the average percent correct in New Hampshire and the United States. However, the increase is less than one percent. Overall, current personal finance and money management courses are not helping high school students perform better on financial literacy surveys, and are also limited in their impact and enrollment in New Hampshire.

3.1.4 Score Distribution by Participation in an Economics Course

Similarly, an entire or partial course in economics has mixed results. Nationwide, students claiming to have taken an entire course in economics averaged 49 percent, one percent higher than students that had not taken an economics course. However, in New Hampshire, students who had taken a full course in economics (71 percent of the sample size) had an average score of 55, nine percent higher than students without an economics course (29 percent of the sample). Comparatively, the 23 percent of New Hampshire students who claimed to have taken a personal finance score had an average score two percent less than the 71 percent of New Hampshire students who claimed to have taken an economics course. Both an economics or personal finance/money management course provide a statistically similar result on the survey instrument, but it appears that an economics course is either required or more accessible for most students than a specific course in personal finance. Overall, the survey provides little to no

compelling data for students looking to acquire financial literacy by enrolling in either type of course as they are currently taught and designed.

3.1.5 Score Distribution by Participation in a Stock Market Game

Stock market games, an example of simulation or project-based learning based on investing in the stock market, provided participating students nationwide with a three percent increase in average score when compared to non-participants. In New Hampshire, the increase is even greater, with students who had studied a stock game (27 percent of the sample) scoring eight percentage points higher than those students who had not participated (73 percent of the sample). These increases provide evidence supporting the theory that effective financial education courses and curricula incorporate applied concepts and “active” learning.

3.1.6 Score Distribution by Future Educational Plans

Students were also asked about their future educational plans. In general, as expected, students who were expecting to continue with their education after high school performed much better than students who were entering the workforce. There was a positive correlation between future plans for education and the average percent correct. The national difference between students who were choosing to continue with their education and those who had no future plans was 16 percentage points (51 to 35 percent, respectively). In New Hampshire, the difference between these two groups was 25 percentage points (54 percent to 29 percent, respectively). While students continuing their education have 2-4 more years of potential exposure to financial education, it is crucial that students who are not continuing their education receive effective K-12 financial education so they are capable of making critical financial decisions as they enter the workforce.

3.2 Rockefeller Center Financial Literacy Survey: The Upper Valley of New Hampshire

| High School | Class Offered | Median Income Per Capita | District Expenditure Per Student |
|--|------------------------------------|---------------------------------|---|
| Hanover High School | Personal Finance | \$30,393 | \$8,721 |
| Lebanon High School | Personal Finance and Planning | \$25,133 | \$7,686 |
| Mascoma Valley Regional High School | Introduction to Business Economics | \$23,054 | \$5,829 |

In addition to the national Jump\$tart data, the Policy Research Shop conducted its own survey in three diverse high schools in the Upper Valley region of New Hampshire: Hanover High School, Lebanon High School and Mascoma Valley Regional High School. After contacting teachers within each school, the Policy Research Shop distributed and collected a Personal Financial Literacy survey using questions adapted from the Jump\$tart survey as well as from a financial literacy questionnaire for incoming

freshman at Iowa State University. The schools vary greatly in expenditure per student, median income per capita, and geographic location. Each schools offers a personal finance course as an elective, though under different names, to its students. The Policy Research Shop surveyed around fifty students at each school about various financial decisions and terms to determine their level of financial literacy, as well as the financial literacy of the student body.

3.2.1 Hanover High School

Hanover High School is in the Dresden County School District. The average expenditure per pupil is \$8,721.³⁴ The median income per capita families in Hanover is \$30,393.³⁵ The Policy Research Shop contacted Ms. Amy Kono, who teaches the personal finance course offered in Hanover High School called “Personal Finance.” Forty-nine students in this Personal Finance course took the survey. The average score was 49 percent. There was no significant difference between gender and race in how students performed. The most interesting correlation for participants at Hanover High School was between students’ score and credit card usage. Students who did not have a credit card did significantly better than the rest of the students, getting more than half the questions right on average.

3.2.2 Lebanon High School

Lebanon High School is in Lebanon County School District. The average expenditure per pupil is \$7,686.³⁶ The median income per capita in Lebanon is \$25,133.³⁷ The personal finance course offered in Lebanon High School is called “Personal Finance and Planning.” Fifty-six students in a World Studies course taught by Mr. David Wallace participated in the survey. The average score was 41 percent. There was no significant difference in score when correlated by gender, race or credit card usage.

3.2.3 Mascoma Valley Regional High School

Mascoma High School is in Mascoma Valley Regional School District. The average expenditure per pupil is \$5,829.³⁸ The median income per capita in Mascoma is \$23,054.³⁹ The personal finance course offered in Mascoma High School is called “Introduction to Business Economics.” Fifty-eight students in Law Studies, Sociology, and American History courses taught by Nicole Scheer participated in the survey. The average score was 39 percent. There was no significant difference between gender, race and credit card usage in how the students performed.

3.2.4 Upper Valley School Comparison

| High School | Class Surveyed | Average Score |
|--|---|---------------|
| Hanover High School (N = 49) | Personal Finance | 49% |
| Lebanon High School (N = 56) | World Studies | 41% |
| Mascoma Valley Regional High School (N = 58) | Law Studies, Sociology and American History | 39% |

Comparing these three schools provides valuable information about the financial literacy of New Hampshire high school students and the possible connections between financial literacy and income. Hanover High School students performed the best, scoring 10 percent higher than Mascoma High School students. Hanover High School students were the only participants enrolled in the personal finance class offered at their high school during administration of the survey. Hanover High students were also in the best financial situation, with the highest expenditure per pupil, an amount nearly double the amount spent per pupil at Mascoma Valley Regional, and the highest median income per capita. As expected, students who attend Hanover High achieved the highest level of financial literacy. However, Hanover High School students still failed to achieve an average passing score on the survey, even though these students had taken the personal finance course. The state of financial literacy of Upper Valley New Hampshire high school students is quite poor, especially since students who have taken personal finance classes and attend well resourced schools did not pass a financial literacy test.

4. EFFICACY OF PERSONAL FINANCIAL EDUCATION

The theory of personal financial education posits that financial education leads to more financially literate citizens who in turn become financially capable, or able to make sound financial decisions with better outcomes.⁴⁰ No step of this chain has been conclusively proven to be universally true, nor has any step been proven conclusively false.

The jury is still out concerning the efficacy or appropriate delivery of high school financial literacy courses. Some research efforts have found statistically rigorous benefits to financial literacy education, and others have found little or no statistical improvements at all. The potential upside is well published: financial education can promote financial literacy, allowing consumers to make smarter financial decisions that reduce personal financial collapse and ease the corresponding burden on the state. Teaching financial literacy, however, is not a risk-free endeavor. Not only can investing in financial literacy education force policy makers to preclude other options⁴¹ but it can also promote a “blame the consumer” mentality when such an approach isn’t productive⁴² and maybe even promote consumer overconfidence.⁴³

Research on financial courses, especially at the high school level, remains in its infancy. Financial education is a relatively new development, and therefore the research is also limited to early, if not flawed, attempts at designing such programs. Trying to determine the causal effect of one course on decision making that involves multitudes of financial pressures and sources of information is complicated at best.⁴⁴ More nuanced research is a necessity, but for now the results are too varied and partial to make strong conclusions about the effectiveness of financial literacy courses.⁴⁵

4.1 Evidence Supporting Efficacy

The most convincing evidence supporting the efficacy of personal financial education is an analysis conducted by Bernheim, Garrett, and Maki based on the results of an economic survey administered to two-thousand individuals. The study found that individuals who attended high school in states which implemented mandatory personal financial education received higher exposure to the material, and had higher rates of saving and wealth accumulation as adults. The survey examined individuals making financial decisions long after their schooling, and comprehensively studied the effect of certain state financial requirements. Their findings were “consistent with the view that mandates are uncorrelated with preexisting inclinations to offer, require, and take courses that cover financial topics.”⁴⁶ This study is unique in its broad approach, analytical rigor, and focus on adult behavior rather than knowledge or behavior directly after receiving financial education.

A similar success story was found in analyzing the results of the High School Financial Planning Program. A large survey found that program participants were 40 percent more likely to begin saving and a third more likely to open a savings account.⁴⁷ The results of the 2008 National Jump\$tart Coalition survey conducted across 388 high schools nationwide showed a correlation between enrollment in a personal finance class and self described “thrift”.⁴⁸ An additional study of first-year college students found that a mandatory course credit led to some improvement on test scores, but not a statistically significant increase.⁴⁹

One specific method has shown to have a high level of effectiveness. The national Jump\$tart survey found that students who had played a stock game had significantly higher financial literacy scores. The author of the study, Dr. Mandell, suggests that this success may be due to the enjoyable and engaging nature of a stock simulation game. Stock market games are also, however, correlated with less thrift and a higher propensity to accept risks, perhaps because simulations are no-risk activities with a format that requires a high level of risk to compete for a win.⁵⁰

There are undeniably success stories in financial education, statistically proven and encouraging. Some analysis also suggests that high school financial education may improve financial *behavior* later in life (through memories and negative emotions connected to bad finances) without improving financial *literacy* in the short term.⁵¹ The

data, however, does not yet support broad conclusions but rather suggests that programs should be evaluated on a case-by-case basis.

4.2 Evidence Supporting Inefficacy

A large body of research also suggests that high school finance classes are ineffective, or minimally effective at best. Most persuasive is the Jump\$start national survey, which in 2008 found that the 21.4 percent of high school seniors who claimed to have taken a personal finance class performed slightly *worse* (47.5 percent correct) on the quiz questions than the national average (48.3 percent correct). Although this difference is not statistically significant (that is to say, there is little basis to claim that a personal finance class inhibits student knowledge), it certainly shows that the finance classes didn't help students perform any better.⁵² In fact, since the biannual survey's inception in 1997, 2004 was the only year when those students who took a finance class outscored the average.

A smaller and more detailed study of one school found that graduates who had taken a financial literacy program had no measurable difference in financial knowledge, tendency towards thrift, or financial behavior.⁵³ These results demonstrate that even when comparing members of the same high school against one another, a supposedly strong course in personal finance had no measurable impact on student's financial literacy. Dr. Mandell concludes that "there is no evidence whatsoever that courses in money management or personal finance, as they are now taught, improve the financial literacy of their students."⁵⁴

Other researchers have suggested that some existing studies were conducted with a predisposition towards finding success. Lauren Willis of Loyola Law School points out that many quantitative studies test knowledge not actual behavior; that a quiz might encourage people to respond as they've been taught rather than as they act; and that program follow-up surveys are likely to receive responses predominantly from those who took the program to heart.⁵⁵ As is true with all social science research, the methodology of financial literacy studies and survey instruments must be carefully considered.

While most researchers and commentators assume that these ambiguous or disappointing results prove that we haven't yet figured out how to teach personal finance, a second school of thought suggests that personal finance courses are categorically designed for failure. Willis suggests that most citizens are fundamentally unable to make smart decisions concerning modern financial instruments, which are too complex and evolving to fast. Essentially, personal finance courses are teaching to a moving target, where dated information can be damaging.⁵⁶ Also, the psychological factors involved in smart personal finance decisions may be hamper the effects of education. Smart planning for the future requires the comprehension of complicated economic principles, facing the realities of death and the potential for serious calamities, and the ability to weigh various (and disparate) emotionally charged costs and benefits.

Furthermore, perhaps no class could make up the gap between the average citizen and the complexity of financial decisions:

“Decisions about credit, insurance, and investments require, e.g., knowledge of concepts and terminology; extraction of information from text; understanding of arithmetic calculations; comprehension of fractions, percentages, and probabilities; predictions about one’s own future income, expenses, and health; and predictions about market factors such as interest rates, investment fund performance, and inflation. The gulf between the knowledge, comprehension, and skills of most American adults and those needed in today’s market cannot be bridged by financial literacy education.”⁵⁷

Even most adults, let alone high school students, are unprepared to deal with the math, analysis and reading skills required to make smart financial decisions: “even twenty-five years ago, when financial products were simpler, a review of life insurance policies found their technical language and tabular format placed their readability somewhere between *The Wall Street Journal* and Einstein’s *The Meaning of Relativity*.”⁵⁸ In fact, limited evidence hints that limited financial knowledge may cause overconfidence, making consumers more vulnerable to mistakes (studies have indicated that elderly victims of fraud and predatory lending tend to be more financially literate on average.)⁵⁹

There is no overwhelming evidence of failure in financial literacy, but plenty of literature to suggest that success is rare and uneven at best. The debate and analysis are both still young, and we do not yet know if current failures are due to classroom tactics or the strategy behind the theory of financial education.

4.3 Teacher Training and Institutional Support

High school teachers are not natural experts at personal finance. In fact, if teachers’ knowledge mirrors at all that of the overall population, many are themselves financially illiterate. A number of studies and surveys suggest that effective financial literacy classes will require a substantial investment in professional development. For instance, a study investigating various aspects of financial education in Ohio found that while teachers generally didn’t feel overloaded by the topic⁶⁰, the average score of teachers on a nine-question financial literacy was below 50 percent.⁶¹

Another nationwide survey of teachers found uneven results. Most teachers “are familiar with the term ‘Financial Literacy,’ but it is a concept that individuals define and interpret differently.”⁶² A teacher’s personal understanding of financial topics is just as vague, and many do not rate their own knowledge very highly.⁶³ Of the high school teachers surveyed, 62 percent claimed that financial literacy was taught in their classroom in some form.⁶⁴ However, the most-taught concepts are the most basic, such as saving and budgeting, while more complex topic such as financial planning and insurance are taught more rarely.⁶⁵ Teachers who do teach financial literacy topics cite lack of time, funding and materials as their main concerns. Those who do not teach financial literacy cite lack

of requirements, time and demand. Over a third (38 percent) of teachers who do teach financial literacy, and nearly a third (30 percent) of those who do not, say a lack of professional development prevent them from teaching financial literacy.⁶⁶

The common theme connecting research on teacher training is that teachers need institutional support. Simply requesting or even demanding that high school teachers instruct their students in financial education is unlikely to succeed. Teachers need explicit standards, funding, materials, allotted time, and professional development in order to succeed.

4.4 Best Practices

Current research has tentatively identified a few best practices for high school financial literacy classes, and for financial education overall. The following five recommendations for “youth financial education” are drawn from a summary report of a conference held by the New America Foundation and the Citi Foundation:

- 1) Rather than attempt to teach financial literacy in one course, the material should be introduced as early as possible and taught throughout a K-12 education.
- 2) Students are motivated when information is presented in an applied manner.
- 3) Financial literacy will not come from basics alone, but rather a curriculum that teaches the interplay between the many decisions individuals face in a lifetime.
- 4) State standards are essential to a widespread and equitable implementation of financial literacy classes.
- 5) Teacher support, including “training and professional development opportunities” is essential.⁶⁷

Additionally, many researchers and authors have noted that targeted and applied programs work far better than general ones. That is to say that on-the-job education about retirement options seems to result in better choices, as does home ownership counseling before purchase decisions, and credit counseling before people being using credit cards.⁶⁸ In contrast researchers have not found “conclusive evidence that, in general, financial education programs do lead to greater financial knowledge, and ultimately, to better financial behavior.”⁶⁹ This could mean that effective general programs are possible but not currently implemented, that general programs (like high school classes) are designed for failure, or that high school classes may only be effective at using targeted and applied curricula to prepare students for the decisions they will face after graduation (such as college loans, health and car insurance, and credit card issues.)

5. POLICY RECOMMENDATION: A PLAN FOR NEW HAMPSHIRE

5.1 Sample Personal Financial Education Pilot Program

The following is a sample Personal Finance Education pilot program, complete with a full K-12 integrated curricular structure, applied programs, and institutional support:

| Sample Personal Financial Education Pilot Program | | | |
|--|---|--|-------------------------|
| Level | Curricular Requirements | Institutional Support | Teacher Training |
| Elementary School K-5 | K-2 Simulation <ul style="list-style-type: none"> • Project-Based Learning 3-5 Simulation <ul style="list-style-type: none"> • Enterprise Village | Financial Literacy Passport Simulation Partnerships Financial Literacy Fund | Yes |
| Middle School 6-8 | Incorporated into: <ul style="list-style-type: none"> • Mathematics (6-8) • Social Studies (7-8) | Curricular Modules & Lesson Plans Lesson Partnerships | Yes |
| High School 9-12 | Capstone Personal Finance Course <ul style="list-style-type: none"> • (0.5 Credit) • Social Studies, Mathematics, or Elective Credit Stock Market Game required in Economics Financial Literacy Incorporated: <ul style="list-style-type: none"> • Information/Communications Technologies Education • Health Education • Driver Education | Model Curriculums: <ul style="list-style-type: none"> • Personal Finance • Stock Market Game • Integrated Subjects Resource Bank Financial Literacy Fund | Yes |

5.2 Conclusion: Policy Options

The Policy Research Shop was asked to assess the need and efficacy of personal finance education in New Hampshire public schools, specifically in regards to HB 123 requiring personal finance to be taught in the newly required Economics credit. New Hampshire public schools offer the only guaranteed level of public participation in personal finance education, and results on the efficacy of such courses and programs are mixed and inconclusive. After examining the scope of personal finance courses offered electively around the state, as well as the efficacy and best practices for financial education, this legislation is an unnecessary step towards financial literacy, as well as a far too limited effort in regards to effective financial education. Therefore, two policy paths exist:

5.2.1 The Status Quo

If no further legislative efforts are made, most New Hampshire schools will continue to offer personal finance as an elective credit available to nearly 70 percent of students around the state. However, only 10-15 percent of students will elect to take such a course, and 70-80 percent will graduate without exposure to financial education. There is no immediate cost to waiting for stronger national

trends to emerge, but due to the projected 4-5 year development period, New Hampshire will likely fall behind national trends that are tending towards increased financial education. HB 123 will likely cause more harm than good, with personal finance given undue attention in an already condensed economics curriculum. Based on surveys and data, requiring a Stock Market Game in the economics curriculum would likely produce better results (if any) without significantly disrupting the established curriculum.

5.2.2 Pilot Program Implementation

Should New Hampshire choose to move forward with implementing a complete, integrated, applied, and supported financial education program, it is advised that such a program be designed and implemented on a limited scale through 3-4 pilot program districts to examine for efficacy. A complete curricular program, integrating financial education vertically through the K-12 pipeline as well as horizontally along subject matter at each level, should be designed in consultation with educators currently teaching personal finance electively throughout the state. These educators should be asked to identify best practices as well as flaws in their current courses, and a facilitated effort should be made to bring them together with Department of Education consultants in the Business, Social Studies, and Mathematics Departments of Study. Additionally, the program should be student-centered, allowing for a personal finance credit to fulfill several core curricular credits such as social studies, mathematics, or an elective. Finally, the program must be provided with institutional support including teacher training and model curricula. This support should be accessible, and efforts should be made to reach out to the business/financial sectors for partnerships and the potential creation of a Financial Literacy Fund to help finance training and course materials.

REFERENCES

- ¹ The Henry J. Kaiser Family Foundation, "New Hampshire: Unemployment Rate (Seasonally Adjusted), 2007 – 2008". Available at <http://www.statehealthfacts.kff.org/profileind.jsp?ind=23&cat=1&rgn=31>
- ² American Bankruptcy Institute, "Quarterly Non-Business Filings by District (2006 – 2008)" Available at http://www.abiworld.org/Content/NavigationMenu/NewsRoom/BankruptcyStatistics/Bankruptcy_Filings_1.htm
- ³ The New Hampshire Housing Financial Authority. "Mortgage Delinquency, Foreclosures, and Sub-prime Lending in New Hampshire, Update July 2008" Available at http://www.nhhfa.org/r1_docs/housingdata/SubprimeStudy_07-08.pdf
- ⁴ Project on Student Debt, "Student Debt and the Class of 2007". Available at <http://projectonstudentdebt.org/files/pub/classof2007.pdf>
- ⁵ The Experian National Score Index. Available at <http://www.nationalscoreindex.com/AreaScore.aspx>
- ⁶ JumpStart Coalition for Financial Literacy. "State Requirements" retrieved from: www.jumpstartcoalition.org, 2009.
- ⁷ JumpStart Coalition, 2009.
- ⁸ New Hampshire House of Representatives. HB 0167 "An act relative to areas of assessment required under the statewide improvement and assessment program," 2007.
- ⁹ National Conference of State Legislatures. "2008 Financial Literacy Legislation" retrieved from www.ncsl.org, 2008.
- ¹⁰ Annamaria Lusardi and Olivia Mitchell, "Financial Literacy: Evidence and Implications for Financial Education." National Bureau of Economic Research, March 2009.
- ¹¹ Federal Deposit Insurance Corporation, "A Longitudinal Evaluation of the Intermediate-term Impact of the Money Smart Financial Education Curriculum Upon Consumers' Behavior and Confidence." Federal Deposit Insurance Corporation, 2009.
- ¹² NeighborWorks America, "NeighborWorks Organizations Productions by Activity Summary: FY 2008" p. 1
- ¹³ University of New Hampshire, "University of New Hampshire Cooperative Extension: Program Highlights," 2008, p. 14
- ¹⁴ United States Treasury Department, "Office of Financial Education" retrieved from <http://www.treas.gov>, 2009
- ¹⁵ United States Financial Literacy and Education Commission, "MyMoney.gov" retrieved from www.mymoney.gov, 2009
- ¹⁶ Quantcast Corporation, "Mymoney.gov Site Traffic," retrieved from www.quantcast.com, 2009.
- ¹⁷ United States Treasury Department, et al, "Money Math: Lessons for Life," US Treasury Department, 2008.

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- ¹⁸ United States Treasury Department, "Integrating Financial Education into School Curricula: Giving America's Youth the Educational Foundation for Making Effective Financial Decisions Throughout Their Lives by Teaching Financial Concepts as Part of Math and Reading Curricula in Elementary, Middle, and High Schools," Treasury Department 2002.
- ¹⁹ United States Financial Literacy and Education Commission, "Taking Ownership of the Future," 2006.
- ²⁰ JumpStart Coalition, 2009.
- ²¹ JumpStart Coalition, 2009.
- ²² Missouri Center for Career Education et al, "Missouri Personal Finance Curriculum," 2006.
- ²³ Missouri Center for Career Education et al, 2006.
- ²⁴ Missouri Department of Elementary and Secondary Education, "Missouri Education Code: Graduation Requirements for Students in Public High Schools," 2005, p. 2.
- ²⁵ JumpStart Coalition, 2009.
- ²⁶ Iowa State Senate, "Senate Bill 2216," 2008.
- ²⁷ Patricia Jones et al, "Financial and Economic Literacy Education Amendments: 2009 Utah General Session," 2009.
- ²⁸ State of Colorado, "Personal Finance Resource Bank," retrieved from: http://www.cde.state.co.us/action/Financial_Literacy
- ²⁹ JumpStart Coalition, 2009.
- ³⁰ New Hampshire Department of Education, "K-12 Social Studies New Hampshire Curriculum Framework," p. 54 and p. 86, 2007.
- ³¹ New Hampshire Department of Education, 2007.
- ³² New Hampshire Department of Education, 2007.
- ³³ Lewis Mandell, "JumpStart Data Coalition 2008".
- ³⁴ New Hampshire Center for Public Policy, "Big School, Little School: How Course Offerings and Graduation Requirements Vary Across New Hampshire's High Schools". Available at <http://www.nhpolicy.org/reports/biglittle.pdf>
- ³⁵ US Census Data, "New Hampshire Quick Data". Available at <http://quickfacts.census.gov/qfd/states/33000.html>
- ³⁶ New Hampshire Center for Public Policy, "Big School, Little School: How Course Offerings and Graduation Requirements Vary Across New Hampshire's High Schools". Available at <http://www.nhpolicy.org/reports/biglittle.pdf>
- ³⁷ US Census Data, "New Hampshire Quick Data". Available at <http://quickfacts.census.gov/qfd/states/33000.html>
- ³⁸ New Hampshire Center for Public Policy, "Big School, Little School: How Course Offerings and Graduation Requirements Vary Across New Hampshire's High Schools". Available at <http://www.nhpolicy.org/reports/biglittle.pdf>
- ³⁹ US Census Data, "New Hampshire Quick Data". Available at <http://quickfacts.census.gov/qfd/states/33000.html>
- ⁴⁰ Ian Hathaway and Sameer Khatiwada, "Working Paper 08-03: Do Financial Education Programs Work?" Federal Reserve Bank of Cleveland, April 2008. 1
- ⁴¹ Lauren E. Willis, "Against Financial Literacy Education," University of Pennsylvania Law School paper 208, 2008. (<http://lsr.nellco.org/upenn/wps/papers/208>) 50
- ⁴² Willis, 2008. 45-46
- ⁴³ Willis, 2008. 44
- ⁴⁴ Hathaway and Khatiwada, 2008. 17
- ⁴⁵ Hathaway and Khatiwada, 2008. 19
- ⁴⁶ B. Douglas Bernheim et al, "Education and saving: The long-term effects of high school financial curriculum mandates," *Journal of Public Economics* 80, 2001. 462
- ⁴⁷ Hathaway and Khatiwada, 2008. 10
- ⁴⁸ Lewis Mandell, "The Financial Literacy of Young America Adults: Results of the 2008 National JumpStart coalition Survey of High School Seniors and College Students", For the JumpStart Coalition. 6
- ⁴⁹ Hathaway and Khatiwada, 2008. 29
- ⁵⁰ Lewis Mandell, "Financial Literacy: If It's So Important, Why Isn't It Improving?" Networks Financial Institute At Indiana State University Policy Brief, April 2006. 7
- ⁵¹ Lewis Mandell, "The Impact of Financial Education in High School and College on Financial Literacy and Subsequent Financial Decision Making" Presented at the American Economic Association Meetings, Jan 2009.
- ⁵² Mandell, 2008. 17
- ⁵³ Mandell, 2006. 6
- ⁵⁴ Mandell, 2008. 17
- ⁵⁵ Willis, 2008. 6
- ⁵⁶ Willis, 2008. 9
- ⁵⁷ Willis, 2008. 12
- ⁵⁸ Willis, 2008. 13
- ⁵⁹ Willis, 2008. 44
- ⁶⁰ Cazilia Loibl, "Survey of Financial Education in Ohio's High Schools: Assessment of Teachers, Programs, and Legislative Efforts," The Ohio State University P-12 Project, 2007. 24
- ⁶¹ Loibl, 2007. 33
- ⁶² David Godsted and Martha Henn McCormick, "National K-12 Financial Literacy Research Overview," Networks Financial Institute at Indiana State University Report, August 2007. 3
- ⁶³ Godsted and McCormick, 2007. 3
- ⁶⁴ Godsted and McCormick, 2007. 5
- ⁶⁵ Godsted and McCormick, 2007. 7
- ⁶⁶ Godsted and McCormick, 2007. 6
- ⁶⁷ Alejandra Lopez-Fernandini and Karen Murrell, "The Effectiveness of Youth Financial Education," New America Foundation, Dec. 2008 (http://www.newamerica.net/publications/policy/effectiveness_youth_financial_education_1)
- ⁶⁸ Hathaway and Khatiwada, 200814
- ⁶⁹ Hathaway and Khatiwada, 200819