Spring 3-2-2019

The Financial Literacy of High School Graduates in the Bay Area

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for

EMPA 396 – Graduate Research Project in Public Management

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March 2, 2019

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Abstract

In an increasingly complex financial market, financial literacy rates in the United States are low. Financial literacy is crucial when it comes to avoiding high levels of debt, foreclosures, making daily financial management decisions, saving for retirement, and the stability of the economy. The Champlain College's Center for Financial Literacy graded all 50 states and the District of Columbia (D.C.) on their efforts to produce financially literate high school graduates (2017). California received an F in their efforts to financially educate their students, because personal finance is not included in the graduation requirements, either as a standalone course or embedded in another course (Champlain College, 2017). The Consumer Financial Protection Bureau (CFPB) (2018d) suggests that financial education can help consumers improve their financial situations and ultimately, financial well-being, by helping them to improve their financial skill and financial behavior.

Measuring the impact of education programs on financial decision making is difficult and literature provides mixed reviews (Hastings, Madrian, Skimmyhorn, 2013). The research conducted focused on whether participants believe that finance education should be implemented as one semester in high school as a graduation requirement. Over 90% of respondents believe that finance education should be implemented in high school, but would increase in effectiveness if it was taught progressively for grades K-12.

Chapter 1 - Introduction

Background of the Problem

Young people and many adults do not understand debit and credit cards, mortgages, banking, investment and insurance products, payday lending, credit scores or the stock market (Lendingpoint, 2018). The Champlain College's Center for Financial Literacy graded all 50 states and the District of Columbia (D.C.) on their efforts to produce financially literate high school graduates (Champlain College, 2017). They found the U.S.A. still has a long way to go before becoming a financially literate nation (Champlain College, 2017). Further, California received an F in their efforts to financially educate their students, because personal finance is not included in the graduation requirements, either as a standalone course or embedded in another course.

The Programme for International Student Assessment (PISA) (2015) in an assessment of the financial literacy of 15-year olds in countries around the world released in by the Organization for Economic Co-operation and Development (OECD) (2017) found that students in the U.S. ranked between seventh and ninth in financial literacy among the 15 participating OECD countries and economies. For the U.S. sample, 21.6 percent, or just over one in five 15-year olds, did not reach the baseline level of proficiency in financial literacy (OECD, 2017). The need for financial literacy is apparent as many teenagers struggle to understand money matters (OECD, 2017). They are unable to make even simple decisions on everyday spending and very few understand complex matters like income tax (OECD, 2017). According to the Financial Industry Regulatory Authority (FINRA) (2016) this lack of knowledge translates into difficult adult lives as they struggle to balance monthly income and expenses or deal with everyday financial matters. Comparing financing options when buying a car, exploring loan choices when buying a house, understanding that some deals are really too good to be true, or calculating the payments student loans will result in later down the road are important life skills (PISA, 2015).

Statement of the Problem

Individuals can make informed financial decisions only if they possess sufficient knowledge about the decision contexts that they are facing and the skills to apply this knowledge (Erner, Goedde-Menke, & Oberste, 2016). Individuals who are not financially literate carry a higher risk of making decisions that are harmful to their financial well-being (Cole, Sampson, & Zia, 2011). There is compelling evidence based on household surveys that demonstrates a strong association between financial literacy and household well-being (Cole el al., 2011), however, only 17 states currently require students to take a high school course in Personal Finance and only five states require a stand-alone course in personal finance for high school graduation (Council for Economic Education, 2016). California is not one of those states.

Next Gen Personal Finance (NGPF) (2019a) is a non-profit organization with the mission to revolutionize the teaching of personal finance in all schools by connecting educators with free resources, personal finance curriculum, professional development and advocacy tools to equip students with the knowledge and skill to lead financially successful and fulfilling lives. In a nationwide study of 13 million students across 11,000 high schools on who has access to financial education in America today, they found that only one in six U.S. high school students is guaranteed access to a personal finance course (NGPF, 2019b). Only 16.4% of students nationwide are required to take a personal finance course and students from low-income backgrounds are half as likely to take a personal finance course compared to their wealthier peers (NGPF, 2019b). NGPF (2019b) reiterates that “students must learn to manage money, create budgets and build good credit habits to become financially secure adults in the real world” (p. 4). They further explain that “without exposure to these skills in school, they often learn them by making costly mistakes with lasting consequences” (NGPF, 2019b, p. 4). With their latest study they hope to inspire the nation’s power-brokers to build a better financial future for America’s young people by implementing the Gold Standard, which they established to be “at least one semester of required personal finance coursework for high school graduation” (NGPF, 2019b, p.6). They clarify that “the coursework is not embedded in other classes, but solely dedicated to financial concepts and decision making” (NGPF, 2019b, p.6). Only eight California high schools are on the listing of Gold Standard schools, resulting in an F grade for California’s efforts to financially educate their students (NGPF, 2019b).

According to the Council for Economic Education (2016) four in ten millennials say they are overwhelmed with debt, more than half say they are living paycheck to paycheck unable to save for the future, 75% of credit card carrying college students were unaware of late payment charges, 43% use costly non-bank borrowing methods like payday loans, pawn shops, and rent-to-own stores, and nearly one in four adults admits that they do not pay their bills on time.

In comparison, the Council for Economic Education (2016) claims that students from states where a financial education course was required were more likely to display positive financial behaviors and dispositions. They are more likely to save, more likely to pay off credit cards in full each month, less likely to be compulsive buyers, take on reasonable financial risk, and state financial education requirements also have a meaningful impact on students' financial condition later in life (Council for Economic Education, 2016).

California receiving an F in their efforts to financially educate their students is alarming and should compel parents, students, teachers and policy makers to demand improvement in personal financial education.

Purpose of the Study

The 2008 recession showed that a lack of financial literacy can have devastating economic impacts. Consumers obtaining subprime, adjustable-rate mortgages they couldn't afford caused the collapse of the housing market, bank closures and widespread unemployment (Randazzo & Young, 2010). Delinquency and default rates on individual home mortgages reached unprecedented levels due to a "combination of a deep recession, a burst housing bubble, and ill-advised financial choices by home borrowers" (Agarwal, Amromin, Ben-David, Chomsisengphet, & Evanoff, 2010, p. 1). The least creditworthy and first time homeowners were particularly effected (Agarwal et al., 2010). Two key approaches emerged from the lessons learned as preventive measures: stricter oversight of mortgage lenders and "concerted efforts to educate prospective homebuyers to ensure sustainability of their financial commitments" (Agarwal et al., 2010, p. 1). Resulting research showed the "gross inadequacies in financial literacy and the consequential nature of resulting mistakes" (Agarwal et al, 2010).

The CFPB (2018c) was created through the Dodd-Frank Wall Street Reform and Consumer Protection Act, which was passed in 2010 by President Obama in response to the financial crisis of 2007-2008. The CFPB's (2018c) mission is to protect consumers in the financial sector, which includes banks, credit unions, payday lenders, mortgage-servicing, debt collectors and other financial companies operating in the USA. The CFPB (2018c) holds companies accountable for illegal practices and has returned $12.4 billion in relief to consumers from enforcement actions. Over 1.5 million complaints were handled and over 31 million consumers received relief (CFPB, 2018c).

While consumer protection is a big part of what the CFPB does, financial education is a critical component of their work as well. The CFPB wants to empower consumers to make informed financial decisions (CFPB, 2018d). The CFPB's (2018d) webpage for measuring a child's progress on the building blocks of financial capability emphasizes that "developing financial capability during youth is an important stepping stone on the path to adult financial well-being" (Banh, 2018). The CFPB's tools and resources can help teach financial literacy across the curriculum (CFPB, 2018a).

Measuring the impact of education programs on financial decision making is difficult and literature provides mixed reviews (Hastings, Madrian, Skimmyhorn, 2013). The research conducted will focus on whether one semester of personal finance education should be added to the high school curriculum as a graduation requirement in the Bay Area.

The purpose of the study is to examine if personal finance education in high school can remedy financial illiteracy. Budgeting and credit management skills could result in a more stable economy. Questions investigated in this study include:

1. Will taking a financial education class in high school set students on the right path to develop their financial literacy throughout their lives and create a more resilient economy?
2. Will having one elective course in high school be enough?
3. What is the perspective of the importance of personal finance education in high school?
4. What curriculum would be most effective?
5. How many hours of training would be most beneficial?

Significance of the Study

Lack of financial literacy not only leads to difficult adult lives but impacts the stability of the economy. The study is significant in that it seeks to improve financial education in the Bay Area to benefit not only the individual but the community. In a 2004 article “Financial Illiteracy in America: A Perfect Storm, a Perfect Opportunity” William L. Anthes, PhD, explained that “just as individuals must have basic reading and math literacy to navigate today’s world, they also need basic money-management skills” (p. 49). He cautioned that “financial illiteracy is rampant, leading experts to warn that unless the trend is reversed, a financial crisis awaits Americans and, by extension, their communities and the nation itself” (Anthes, 2004). Even after the 2008 recessions most Americans seem to be unaware of the financial illiteracy problem, which makes the call for financial education even more urgent.

Fewer than 20% of teachers report feeling competent to teach personal finance topics (Council for Economic Education, 2016). Their need for support and professional development will be elevated as it is key for successful integration. Anthes (2004) explains that “despite the availability of financial education programs developed for youth many schools decline to teach the subject because teachers themselves don't understand it” (p.51). The increasing complexity of the financial market makes it even more difficult to understand.

More than one in six students in the United States does not reach the baseline level of proficiency in financial literacy and 72% of parents experience at least some reluctance to talk to their kids about financial matters (Council for Economic Education, 2016). Just as teachers struggle to understand the increasingly complex financial market, so do parents. This study aims to open up the conversation and improve baseline levels of proficiency.

Research Question and Hypotheses

The main research question examined in this study is whether one semester of financial literacy education should be added to the high school curriculum as a graduation requirement in the Bay Area. Currently, only five states - Alabama, Missouri, Tennessee, Virginia and Utah - have a financial education graduation requirement (Champlain College, 2017). South Carolina, Florida and Kansas are the latest states to file a bill to make it a graduation requirement for high school students to take a standalone personal finance class (Naquin, 2019; LaTurner, 2019). If passed, the bill would be effective beginning with the 2020-2021 school year in South Carolina and 2019 in Florida. Jake LaTurner (2019), Kansas State Treasurer added his testimony to support a bill that would require financial education be added to the curriculum. His testimony asks readers to imagine if every student who graduates is well-versed in interest rates, well informed of the practices of predatory lending, knows about credit scores, knows the importance of creating a budget, knows about compound interest and how to make their money work for them – would that knowledge help them make the behavioral choices that studies show could save them hundreds of thousands of dollars in the course of their lifetime and help them achieve financial well-being (LaTurner, 2019)? South Carolina lawmaker Luke Rankin, Horry County

Senator, filed the bill to require a class to cover subjects like budgeting, insurance, taxes, retirement planning, banking and how to avoid too much debt (KRON, 2019). Dr. Christopher St. John, Certified Financial Planner at Carolina Wealth Advisors, states that "you can put yourself in a really bad hole that you're gonna be digging yourself out of the rest of your life" (KRON, 2019). The Florida Senate Bill 114 reads in part “in light of economic challenges nationwide, sound financial management skills are vitally important to all Floridians, particularly high school students” (WFTS, 2019). The Florida bill would require the class to include instructions on:

- Types of bank accounts offered, opening and managing a bank account, and assessing the quality of a depository institution’s services
- Balancing a checkbook
- Basic principles of money management, such as spending, credit, credit scores, and managing debt, including retail and credit card debt
- Completing a loan application
- Receiving an inheritance and related implications
- Basic principles of personal insurance policies
- Computing federal income taxes
- Local tax assessments

- Computing interest rates by various mechanisms
- Simple contracts
- Contesting an incorrect billing statement
- Types of savings and investments
- State and federal laws concerning finance (WFTS, 2019)

As other states are slowly adding personal finance classes to the curriculum it poses the important question, should California follow suit?

The following research sub-questions were also examined in this study:

1. What is the perception of the importance of financial education in high school? The question was selected to assess if parents and high schools feel that finance education is important and perceive it as necessary and beneficial.
2. What is the parent's perception of their child's/children's financial skill level? This question is important to assess because if parents feel that their child is an expert in finance matters, they may not see the need for a class. Alternatively, they may realize the lack of financial management skill and understand that there is a need.

3. When should personal finance be taught?

   This question is particularly important to assess whether on semester in high school is seen as most effective.

The main hypothesis examined in this study is completing at least one semester of financial education as a graduation requirement in high school will prepare students in the Bay Area to make better financial decisions. Literature overwhelmingly agrees that financial literacy is an important life skill, however, the effectiveness of financial education is difficult to evaluate. Therefore, the hypothesis needs to evaluate if financial education in high school will be beneficial.

Assumptions and Limitations

The study is limited to data collection in the Bay Area. The assumption is that what applies to one state or country would have a similar effect in the Bay Area. E.g. financial education implementation has shown a positive effect on financial behavior and improving financial well-being, therefore the same positive influence should be expected in the Bay Area.

Definition of Terms

Financial literacy is defined as “people’s ability to process economic information and make informed decisions about financial planning, wealth accumulation, debt, and pensions” (Lusardi & Mitchell, 2014, p. 6).

Financial well-being is a person's ability to meet current and ongoing financial obligations, feel secure in their financial future, and make choices that allow enjoyment of life (CFPB, 2018b).

Operational Definitions

Financial education – Developing financial capability like money management, financial planning, goal setting, and financial research through classroom activities. The CFPB's (2018a) website for reviewing youth financial education curricula points out that "a strong financial education curriculum should teach students essential knowledge and skills, as well as offer them opportunities to practice and develop financial habits and norms so they can learn to actively manage their financial behavior". The following learning objectives should be covered:

- Identify, define, and explain the major types, functions, and importance of financial service organizations, as well as occupations and trends in the financial service industry.
- Identify socioeconomic influences on personal financial planning, develop a set of financial goals, and create a plan for making personal financial and career decisions.
- Develop a workable budget, create a personal balance sheet and plan to connect money management techniques to a financial goal, and prepare a federal income tax form.
- Compare and contrast services and types of financial institutions and different types of payment methods.

- Summarize strategies for safe and informed purchases of items such as a motor vehicle, and evaluate possible home renting, purchasing and selling options.
- Identify types of risks and risk management methods, and develop a risk management plan, including health care, motor vehicle, disability and life insurance.
- Identify a variety of investment opportunities, assess benefits of long-term over short-term investments, and evaluate different types of investments such as stocks and bonds.
- Analyze assets and liabilities, estimate retirement costs, and develop a balanced budget for retirement, as well as the personal and legal aspects of estate planning. (James Madison High School, 2018, Appendix D)

The CFPB (2018a) also provides resources for lesson plans and a Curriculum Review Tool.

Graduation requirement in high school – In order to graduate from high school students must complete the course and take a final exam. The final exam should be indicative of the ability to make better financial decisions.

The Bay Area – The San Francisco Bay Area is an extensive region in northern California comprised of nine counties: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano and Sonoma (Plan Bay Area, 2018). Major cities include San

Francisco, Oakland and San Jose (Plan Bay Area, 2018). For the purposes of this study data collection will be focused on those three major cities.

Make better financial decisions – Making informed financial choices to enhance their financial well-being, which includes being able to pay all monthly bills on time, being able to cover an emergency expense, conducting research before taking on debt, and saving for retirement. According to the latest study by the CFPB (2018b) the inter-connected pathway to financial well-being suggests that financial education can help consumers improve their financial situations and ultimately, financial well-being, by helping them to improve their financial skill and financial behavior. Therefore, financial education improves financial skill, which influences financial behavior, which in turn influences the individual's financial situation and ultimately improves the financial well-being. Financial well-being is the individual's ability to meet financial obligations, feel secure in their future, and make choices that allow enjoyment of life (CFPB, 2018b).

Expected Impact of the Research

The potential impact/benefits are to bring awareness to the topic and make it a subject of discussion between students and parents, providing educators with impactful curriculum and involve policy makers to improve California's F grade in financial education.

Chapter 2 - Literature Review

The scholarly literature and practitioner studies examined in this research thesis includes insight of the difficulties people encounter who lack financial literacy and include the following themes: (1) the background and history on why financial literacy matters; (2) financial education impact on financial behavior and decision making later on in life; (3) high school curricula of schools that require financial education is reviewed, and (4) an overview of financial literacy worldwide. Each theme is described and evaluated in the sections below.

Background and History on Financial Literacy – Why It Matters

In the article "Building the Case for Financial Education" (Fox, Bartholomae, & Lee, 2005) the impact of low financial literacy levels among Americans is described as "burdensome consumer debt, low savings rates, and record bankruptcies" (p. 1). Annamaria Lusardi and Olivia Mitchell (2014) define financial literacy as "people's ability to process economic information and make informed decisions about financial planning, wealth accumulation, debt, and pensions" (p. 6). When measuring financial literacy with three simple questions about investments and risk diversification they found that only 1/3 could answer the questions correctly. Another interesting finding was that there is often a substantial mismatch between people's self assessed knowledge versus their actual knowledge (Lusardi & Mitchell, 2014). People generally overestimate how much they know (Lusardi & Mitchell, 2014). Their studies link financial literacy and economic decisions as variables. The more financially savvy people are the more likely they are to manage their day-to-day finances well, invest in stock markets, and undertake retirement planning (Lusardi & Mitchell, 2014). In turn, the least financially literate make costly financial mistakes, fall prey to scams, have costlier mortgages, borrow more and accumulate less wealth (Lusardi & Mitchell, 2014). In addition, they pay higher transaction costs, higher fees, use high-cost borrowing and have excessive debt loads (Lusardi & Mitchell, 2014). They are more likely to engage in costly credit card behavior and borrow against their 401 (k) and pension accounts (Lusardi & Mitchell, 2014). Lusardi and Mitchell (2014) also found that numerical ability was a strong predictor of mortgage defaults. The cost of financial ignorance is substantial and further explains wealth inequality in the United States (Lusardi & Mitchell, 2014).

Richard Cordray (2013), former director of the CFPB, points out that "by failing to start young people on a path to successful personal money management, we leave a legacy of consumers who are ill-prepared to understand the risks and consequences of financial products, services, and decisions" (p. 11). Cordray (2013) further points out that "young people are not prepared to manage their finances when they reach adulthood" (p.11). They struggle to make informed financial decisions in an increasingly complex financial services marketplace (Cordray, 2013). Cordray (2013) recommends that "we should start young people on the road to continuous money management practice by systematically introducing age-appropriate financial education lessons and activities during the K-12 school years" (p. 6). He further explains that "school-based financial education has the potential to reverse the current trend of poor financial preparation for future generations of American consumers" (Cordray, 2013, p. 5). In agreement with Cordray (2013) is Federal Reserve Board Chairman Ben Bernanke (2010). He stated in a speech to the National Bankers' Association that "helping people better understand how to borrow and save wisely and how to build personal wealth is one of the best things we can do to improve the well-being of families and communities" (Bernanke, 2010, p. 1). The key points here are that financial savviness is an important life skill and that financial illiteracy causes people to make costly mistakes that not only impacts their own lives but the communities they live in as well as the economy.

Financial Education Impact

According to the latest study by the CFPB (2018b) the inter-connected pathway to financial well-being suggests that financial education can help consumers improve their financial situations and ultimately, financial well-being, by helping them to improve their financial skill and financial behavior. Therefore, financial education improves financial skill, which influences financial behavior, which in turn influences the individual's financial situation and ultimately improves the financial well-being (Tang & Peter, 2015). Financial well-being is the individual's ability to meet financial obligations, feel secure in their future, and make choices that allow enjoyment of life (CFPB, 2018b).

The common challenge is the need to show that finance education makes a difference (Fox et al., 2005). Lusardi and Mitchell (2014) also agree that it is difficult to measure the effectiveness of financial education. To determine if behavior has changed or a desired outcome like savings was achieved each individual household must be evaluated. Their concern is that,

> since such a large portion of the population is not financially knowledgeable about even the basic concepts of interest compounding, inflation, and risk diversification, it is unlikely that short exposure to financial literacy training would make much of a dent in consumers' decision-making prowess" (Lusardi & Mitchell, 2014, p. 30).

However, this statement is contradicted by the study of Sharon Tennyson and Chau Nguyen (2001) who found that when students were mandated to take a financial education course, they performed much better than students in states with no personal finance mandates" (as cited in Lusardi & Mitchell, 2014, p.31). In the article "Building the Case for Financial Education" (Fox et al., 2005) the authors also agree that the strongest evidence of impact comes from a study done by Bernheim, Garrett and Maki published in 2001. When comparing those who attended schools in states with a current statewide mandate for personal financial education and those who did not live in a mandate state, a positive effect of financial education state mandates on savings rates and net worth during peak earning years (age 35-49) can be found (Bernheim, Garrett, & Maki, 2001). In the article "Education and saving: The long-term effects of high school financial curriculum mandates" (Bernheim et al., 2001) they found that "the evidence indicates that mandates have significantly raised both exposure to financial curricula and subsequent asset accumulation once exposed students reached adulthood".

Lusardi and Mitchell (2014) further argue that depending on the quality of teaching in these courses “there is reason to believe that mandating personal finance education may, in fact, be effective in increasing student knowledge—but only when it requires significant exposure to personal finance concepts” (p31). The challenge lies in having teachers that are knowledgeable enough and willing to teach financial concepts as even states that mandate financial education do not necessarily provide or promote teacher training (Lusardi & Mitchell, 2014).

Tennyson and Chau (2001) examined the variables of curriculum mandates in personal financial management and higher student scores. They found that “students in states that required specific financial education course work scored significantly higher than those in states with either a general mandate or with no mandate” (Tennyson & Chau, 2001, p. 241). However, they caution to carefully evaluate how effective a policy to mandate financial education in high schools would be. Mandates may create a negative learning environment and teachers may be untrained in the subject. Tennyson’s and Chau’s (2001) study found a relationship between mandates and student knowledge through carefully designed courses which demonstrates a significant positive impact. The study focused on states that have requirements specifically for personal finance education that includes income and its determinants, money management and budgeting, saving and investing, and credit and debt (Tennyson & Chau, 2001). Their empirical methodology included assessing the impact of personal finance curriculum mandates by examining the relationship between state education requirements and student scores on a test of personal financial literacy (Tennyson & Chau, 2001). The test was administered to twelfth grade high school students in randomly selected high schools throughout the country. It consisted of 31 multiple choice questions pertaining to terminology, facts, and decisions related to personal financial management (Tennyson & Chau, 2001). The tests were administered to 1643 students in 65 schools in 31 states. The results showed that because curriculum mandates vary across states, there may be an important difference in the implementation and effectiveness of state mandates which is why the data did not show that the existence of a mandate is related to students' test scores (Tennyson & Chau, 2001). However, when states mandated a specific course, mean student scores were significantly higher (Tennyson & Chau, 2001). The data shows that in order to be effective, a mandate must be specific and require "significant exposure to personal finance concepts" (Tennyson & Chau, 2001, p. 205).

Nathan Peach and Haowen Yuan (2017) further stress that a one-size-fits-all teaching approach is not effective. The variables they studied are undergraduates' financial knowledge, behaviors, and attitudes. They collected data via a survey in a private university in the United States and found that "a higher level of knowledge, in and of itself, does not lead to prudent financial behavior" (Peach & Yuan, 2017, p. 1). It is the behavior that also needs to be addressed in financial education classes. Twenty-five percent of young adults hold revolving credit card debt and 21% have been late on payments in the last year, student loan debt is increasing, and 34% have used high-cost methods of borrowing like payday loans or pawn shops (Peach &

Yuan, 2017). Further criticism of financial education was also voiced by Farinella, Bland, and Franco (2017), who found that the results of their study indicated that “high school student’s financial literacy has not improved after taking a money management course” (p1). The criticism was mirrored by Fernandes, Lynch and Netermeyer (2014) who did not find that finance education made a significant difference. However, they did find that financial literacy does improve if the information is imbedded in another course and makes a student more likely to avoid debt (Farinella et al., 2017). According to their study taking a money management course does not lower a student’s willingness to avoid debt (Farinella et al., 2017). They find that “the evidence indicates that high school courses devoted to money management are not effectively teaching students” (p. 1). The difficulty to effectively teach finance management and measure its effectiveness is a repeated theme similar to Peach and Yuan (2017). However, they do agree that “financial education should begin at a young age so young adults can begin their careers making prudent financial decisions that will help them achieve financial success” (Farinella et al. 2017, p. 1).

Contradicting the study of Farinella et al. (2017) are several studies investigating the causal effect of financial education on debt accumulation. They find that financial education generally decreases reliance on non-student debt and improves repayment behavior (Brown, Grigsby, van der Klaauw, Wen, & Zafar, 2016; Jappelli & Padula (2013); Cole, Paulson, & Shastry, 2014). Rather than asset accumulation, avoiding debt and participating in the financial market is a main concern for young adults (Brown, et al., 2016). Brown et al. (2016) find that "young people who are in school after the implementation of a financial education requirement have higher relative credit scores a lower relative delinquency rate than those in control states" (p. 1). Cole et al (2014) find that finance education financial market participation and "dramatically reduces the probability that an individual declares bankruptcy" (p. 1). Walstad, Urban, Asarta, Breitbach, Bosshardt, Heath, O'Neill, Wagner and Xiao (2017) review the effectiveness of financial education and find that the impact must consider different socioeconomic groups. Certain groups like military, low income, or college students must be measured differently than high income groups, for example (Walstad et al., 2017). They find that that "financial education can be especially important for high school students who are not bound to attend a college or university as it may be their only chance in life to receive formal instruction about personal finance" (Walstad et al., 2017, p. 4).

Behrman, Mitchell, Soo, and Bravo (2012) examined the link between wealth accumulation and financial literacy, by which they mean "the ability to process economic information and make informed decisions about household finances" (p.1). They found that while some reported positive correlations between financial literacy and wealth accumulation, others raised questions of causality. They find that human nature or characteristics play an important part in financial behavior and point out that,

> individuals who fail to save due to some underlying and usually unobservable factor such as impatience may also be financially illiterate due to the same factor, making it difficult to assess whether boosting financial education would, in fact, enhance household wealth accumulation" (Behrman et al., 2012, p. 1).

The common theme again is the questioning of human characteristics versus education, similar to Peach and Yuan's (2017) study pointing out that knowing better doesn't necessarily translate into doing better. Ultimately, Behrman et al. (2012) find through their empirical analysis that "by investing in financial literacy, individuals, firms, and governments can enhance household wealth and well-being" (p. 4). Further, they find in their linear model based on least squares that "the estimated effects for financial literacy-schooling interactions are positive and substantial for wealth" (Behrman et al., 2012, p. 4). Key points here are the difficulties in measuring effectiveness of state mandated finance education and showing evidence of long-term positive impact on behavior in the financial marketplace. Further, specific curriculum with significant exposure to finance concept is deemed most effective, however, the appropriate length of training is not addressed.

Justina Cross (2010), Goldman School of Public Policy, UC Berkeley, finds the following in her working paper for community development

> Youth financial education may not be a panacea for improving consumer finances, but it is critical for increasing the decision-making capabilities of young people. The current economic downturn and the proliferation of complicated financial products and services provide a signal that consumers are having trouble navigating their personal finances and are not making optimal decisions in today's financial marketplace. On a local level, California lags behind other states in providing youth with financial education, particularly in a school-based setting. (p. 38)

She further finds that funding finance education is a challenge as she states, "limited education funding means that financial education programming would have to compete with other programs for dollars" (Cross, 2010, p. 11). However, there is a plethora of free resources, which are mentioned at the end of this paper under Recommendations.

U.S. States with Financial Education Graduation Requirements

Utah requires all high school students to take a half-year financial literacy course as a graduation requirement (Champlain College, 2018). They have very robust specific competency based standards which include

- Students will understand how values, culture, and economic forces affect personal financial priorities and goals.

    - Analyze the role of cultural, social, and emotional influences on financial behavior.
    - Define a rational decision-making process and the steps of financial planning.
    - Explain how setting goals affects personal financial planning.
- Students will understand sources of income and the relationship between career preparation and lifetime earning power.
    - Identify sources of income and specific employability skills.
    - Understand and begin preparation for career and post high school training.
- Students will evaluate saving methods and investment strategies.
    - Describe and discuss financial institutions and demonstrate how to manage personal financial accounts.
    - Discuss the dynamics of saving and investing.
    - Understand the role of risk management in asset protection.
- Students will understand principles of personal money management including budgeting, managing accounts, and the role of credit and impacts on personal finance.
    - Identify and explain the process of budgeting based on calculated income.
    - Describe and discuss the impact of credit and debt on personal money management.
    - Explain and understand credit reports and scores.

  - Define rights and responsibilities of buyers and sellers under consumer protection laws.
  - Students will understand the role of government in protecting the consumer (Utah Education Network, 2018)

According to Champlain College (2018) Utah passed a law in 2014 that added requirements to its preexisting high school education mandate. As a result of this law, they find that Utah is clearly the leader in the nation in high school personal finance education (Champlain College, 2018). The new law requires that

- The general financial literacy course must address (in addition to a broad list of topics already legally required) the costs of going to college, student loans, scholarships and the Free Application for Federal Student Aid (FAFSA), and technology that relates to banking, savings and financial products
- The State Board of Education makes available to teachers online resources for financial and economic literacy education, including modules with interactive activities and turnkey instructor resources
- High schools administer an online, end-of-course assessment to students who take the general financial literacy course, and fund the creation of such assessment by a third-party expert provider

- The State Board of Education provides professional development opportunities in financial and economic literacy
- The State Board of Education implements a teacher endorsement in general financial literacy, which includes course work in financial planning, credit and investing, consumer economics, and personal and family economics. This means that educators must have demonstrable expertise in the subject matter before they are allowed to teach the general financial literacy course. (Champlain College, 2018)

Utah's A+ score in the Champlain College's report card is further set apart by the 2014 bill requiring instructors to obtain 16 credit hours of training in order to teach personal finance management (Jacobsen, 2015). Morgan Jacobsen (2015), writer for the Deseret News Utah, explains that "those credits could include personal finance, economics, math and related electives offered through the Utah Education Network and accredited through Southern Utah University" (p.1). The bill further requires students to pass a 72-question online finance test in order to graduate (Jacobsen, 2015). Teachers can take the classes online at $21 per credit hour (Jacobsen, 2015). The bill was a funded mandate providing $450,000 to implement the changes and bring teachers up to speed (Jacobsen, 2015). However, while praises are high, some are critical of the requirements. One teacher points out that the additional credit hours needed to teach the course put a strain on his already full schedule and it makes it difficult to find teachers to teach the finance course (Jacobsen, 2015). Some schools offer the program entirely online because they cannot find any qualified teachers (Jacobsen, 2015). While bills and policies mean well, the implementation always remains to be the most difficult part.

Another state that scored an A on the Champlain Colleges score card is Virginia. This state requires that one full-year course, titled Economics and Personal Finance be taken in order to graduate high school (Champlain College, 2018). The graduation requirement went into effect the beginning of the 2011-2012 school year (Virginia Department of Education, 2018). Virginia Standards of Learning point out that “students need a strong foundation in economics and personal finance to function effectively as consumers, workers, savers, investors, entrepreneurs, and active citizens (Virginia Department of Education, 2009). To measure the success of students in the concepts of personal finance an assessment via W!SE Personal Finance Certification test is available. High schools that teach a course in financial literacy can partner with the W!SE program, which provides instructional resources including webinars, detailed curriculum outline aligned with national and state standards, online practice quizzes and personal finance certification for educators and students (W!SE, 2018). The program also gathers data on students’ personal finance behaviors. The found that “results have consistently shown that the program improves their personal finance behavior – more students are budgeting, setting financial goals, opening bank accounts and saving after instruction, a strong indication they are applying what they learned in the classroom outside of school” (W!SE, 2018). Key points here are that the standards for personal finance courses are robust in Alabama, Missouri, Tennessee, Virginia and Utah all scoring an A on the Champlain College's grading scale, followed by several states scoring Bs and Cs. California along with Alaska, South Dakota, Wisconsin, Pennsylvania, Connecticut, Massachusetts, Hawaii and Washington D.C. scored an F due to no personal finance education requirements or standards (Champlain College, 2018).

Financial Literacy Worldwide

The report *Financial Literacy Around the World* (Klapper, Lusardi, van Oudheusden, 2015) shows that only 57% of Americans can answer questions about risk diversification, inflation, interest, and compound interest correctly. Thirty percent of homeowners with an outstanding mortgage could not answer the question about interest correctly and were not able to correctly calculate the interest on their mortgage payments. Those findings were based on the data collected via the Standard & Poor's Ratings Services Global Financial Literacy Survey (S&P Global FinLit Survey) from "more than 150,000 nationally representative and randomly selected adults in more than 140 economies during 2014" (Klapper et al., 2015, p. 4). Countries that scored high were Denmark, Norway, and Sweden (71%), Israel and Canada (68%), followed by the U.K., Netherlands, Germany, Australia, and Finland, New Zealand, Singapore, and the Czech Republic (Klapper et al., 2015). The U.S was tied in fourteenth place with Switzerland (Klapper et al., 2015). Cupak, Fessler, Silgoner, and Ulbrich (2018) examined the financial literacy of adults from 12 countries and found large differences. Their research examined why large gaps in financial literacy exists between countries and concluded that next to the obvious socioeconomic differences “individual characteristics should be taken into account when comparing financial literacy across countries” (Cupak et al., 2018, p. 2). They find that financial literacy not only contributes to the financial well-being of the individual, but the financial system as a whole around the globe (Cupak et al., 2018).

Conclusion

The overall consensus is that financial literacy should be taught in school. Teachers of these courses should receive specialized training in personal finance and should be given a quality curriculum and lesson plans. Students can greatly benefit from financial education to improve their financial skill and behavior, which leads to greater overall financial well-being.

Chapter 3 – Research Methods

The purpose of this study is to examine, analyze and evaluate the impact of personal finance education in high schools in the Bay Area. A mixed methods research design was used for this study to determine whether or not adding finance education for high school students might lead to a higher level of financial literacy. Opinions, beliefs, experiences and attitudes were collected via over the phone interviews and surveys and polls posted on social media. The interviews aid in the phenomenological study (Leedy & Ormrod, 2015) to understand experienced people's perceptions and perspectives relative to the current state of the financial literacy of students. Experienced or professional people include teachers, volunteers who taught finance and other personnel knowledgeable in education. The surveys and polls are used to collect data on the parents' experiences and attitudes towards finance education. Surveys and polls serve as the primary quantitative approach with interviews taking a supplementary role. Combining those methods provides triangulation (Leedy & Ormrod, 2015) to make a more convincing case for conclusions.

Research Question, Hypothesis, and Variables

The basis for developing the surveys and interview questions is the research question: Should one semester of financial literacy education be added to the high school curriculum as a graduation requirement in the Bay Area? Of particular interest is how professionals and parents rated students' current financial literacy. If there is no perceived problem, people may not see the need for finance education in high school. The data collection is formulated to answer the sub-questions:

- What is the perception of the importance of financial education in high school?
- How do parents and professionals rate students' financial literacy?
- When should personal finance be taught?

These questions lay the foundation in selecting the target groups and methods to collect data for the study. It is important to get the parents' views as well as the professionals' views to determine if they line up in similar observations to support or reject finance education. The ultimate goal of financial education is improved personal finance management skills to make better decisions in the financial marketplace. This goal forms the hypothesis: Completing at least one semester of financial education as a graduation requirement in high school will prepare students in the Bay Area to make better financial decisions. The independent variable is completing at least one semester of financial education as a graduation requirement in high school. The dependent variable is will prepare students in the Bay Area to make better financial decisions. The hypothesis leads to the questions regarding study participants' thoughts on finance education causing improved behavior in the financial marketplace.

Data Collection Plan Overview and Procedure

To measure the views of parents of high school students throughout the Bay Area a web-based survey was designed. The decision to collect data via a web-based survey was based on wanting to reach a broad number of participants, limited personal contacts in the target group and increased popularity of social media sites. The survey was created via the web-based system AllCounted. A web link to the survey was posted on social media sites like Nextdoor, Twitter, Facebook and Instagram. The survey consisted of ten multiple choice questions with questions number four through eight in Likert scale format to assess the perceived rating of finance education impact and students' current financial skill. Questions number one through three determined if the respondent was in the target group, whether they knew that finance education was not a graduation requirement, and if they wanted a finance course to be a graduation requirement. Questions number nine and ten were quantitative questions to determine how many hours of finance education would be sufficient to result in increased student financial literacy and how often personal finance management was discussed at home. Each question allowed for selecting a response and adding a comment. In addition, three individual poll questions were posted on Nexdoor to give people the ability to directly respond to questions in their news feed rather than having to click on a link to respond to the survey. This was done to increase participation for people that may be hesitant to click on links to avoid malware.

Structured interviews with teachers, advisors, principals, school boards, co-workers who previously taught finance in schools, and non-profit groups supporting financial literacy in the Bay Area were conducted via phone. The interview consisted of five questions to collect supplemental qualitative data to determine the rating of students' finance skill and the intricacies of possibly implementing personal finance education. Question number four was adjusted depending on who the interviewee was. If it was a professional in the high school system, it was asked what they are doing today to educate students on personal finance management. If it was a volunteer who previously taught personal finance management, the question was adjusted to ask about their experiences teaching.

Population Sampling Strategy

Parents were surveyed as their opinion is most important when it comes to educating their children. Teachers were interviewed as they would also be impacted having to meet the education requirement should it be implemented. Further subject matter experts were volunteers who taught personal finance management, members of the Board of Education, members of the California Department of Education, and local nonprofit organizations involved in financial education. The combined target for survey and poll responses was 100. The target for interviews with subject matter experts was five. Key informants included co-workers who volunteered previously to go into schools and teach personal finance management.

Data Processing and Analysis

The interviews and surveys produced extensive data which was examined for trends, patterns and common themes. Surveys were examined for trends and majority votes for implementation of finance education. Interviews were examined for in depth experience in financial education and patterns in experience of teaching personal finance. The literature review supported data collected in surveys and interviews by further pointing out common themes experienced by subject matter experts.

Controlling for Internal and External Validity

According to Leedy and Ormrod (2015) "the internal validity of a research study is the extent to which its design and the data it yields allow the researcher to draw accurate conclusions about the cause and effect on other relationships with the data" (p.85). The research looked for a relationship between finance education – the independent variable – and the hoped-for result of improved student finance management skill – the dependent variable. To control for threats to internal validity, triangulation was applied by collecting multiple sources of data to see if they converge to support the hypothesis. Another threat to internal validity was the limited willingness of participation from professionals in high schools due to limited rapport of the researcher as an outsider to the education administration.

Once the question of internal validity had been addressed and a beneficial effect or no effect of finance education was found, external validity was the next concern. Threats to external validity, the extent of the research findings being generalized or applicable to other groups (Leedy & Ormrod, 2015), were countered by selecting a representative sample in a real-life setting. As Leedy and Ormrod (2015) pointed out, human beings are incredibly complex in terms of culture, parenting, educational opportunities and characteristics. However, parents around the world want their children to do well in life. Therefore, replication of the study in a different state or country should yield similar conclusions.

Dependent and Independent Variables

The independent variable examined in this study is one semester of finance education in high school. The dependent variable examined is preparing students in the Bay Area to make better financial decisions. The variables impacting the finance course are the topics being taught, when the course should be taught, and the course being an elective or a mandatory graduation requirement.

The researcher expected to find a positive correlation between taking a finance course in high school and increased financial management skill. Since understanding how money works is a fundamental life skill like reading and math, providing personal finance management education should increase the ability to participate in the financial marketplace and therefore make better financial decisions. Caution was applied in concluding that correlation is causation (Leedy & Ormrod, 2015). Since finance education is not a requirement in California, only the expected effect of implementation in the high school curriculum as part of the cause-and-effect relationship was examined.

Limitations

Surveys were posted on social media and may have only reached a limited demographic. The surveys may not have reached the population struggling with financial literacy the most, which would be reflected in poor financial well-being and limited access to the internet.

Conclusion

The mixed method research design allowed the researcher to collect extensive data over a broad spectrum. The following chapter provides insight on the expected impact of implementing personal finance management education and improved financial decision making.

Chapter 4 - Results and Findings

Objectives of the Results and Findings

The objective of the study is to determine whether personal finance management education should be a graduation requirement in high school and if study participants expect improved financial skill and decision making. For this study, primary data was collected via a web-based survey, a web-based poll, and phone interviews with key informants. The survey (Appendix A) was created via AllCounted.com, which is a free system on the internet that enables the user to generate surveys and distribute them through a link that can be shared on social media. Responses are captured and tallied in charts in a summary tab only accessible to the survey creator. The poll questions (Appendix B) are displayed directly in the newsfeed of Nextdoor.com. This method allows for a direct anonymous response of an individual question, rather than having to click on a link to participate in the entire survey. Primary data is displayed via charts and graphs, and secondary data from literature reviewed was added to supplement findings.

Research Questions/Assumption/Hypothesis

- Research question:

  Should one semester of finance education be added to the high school curriculum as a graduation requirement in the Bay Area?

- Sub-questions:

What is the perception of the importance of financial education in high school?

How do parents and professionals rate students' financial literacy?

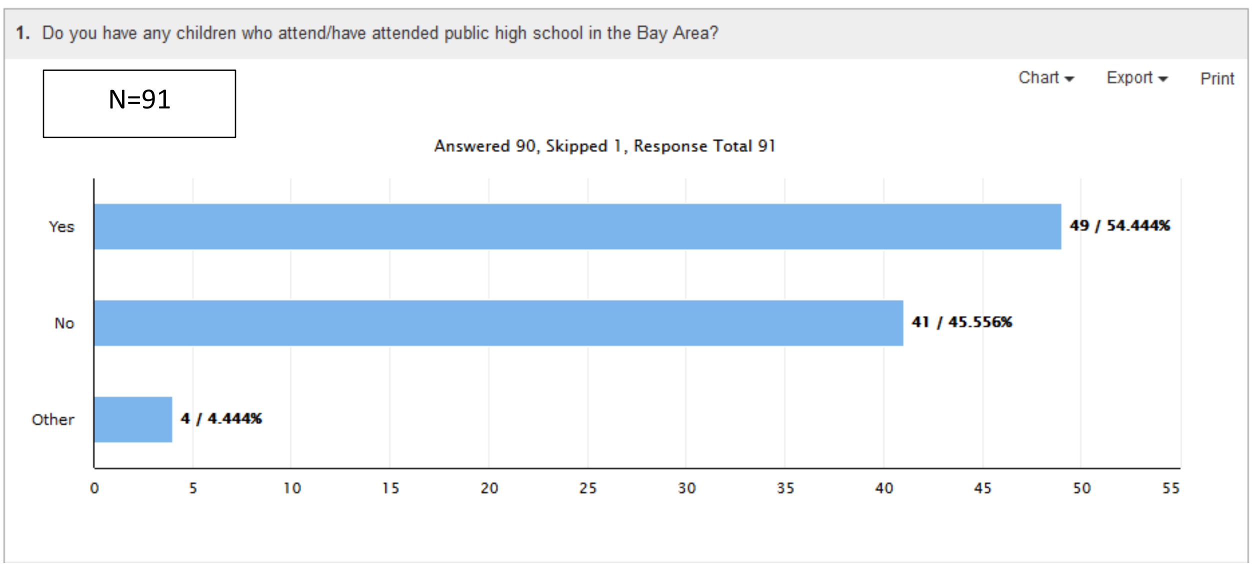
When should personal finance be taught?

- Hypothesis:

  Completing at least one semester of financial education as a graduation requirement in high school will prepare students in the Bay Area to make better financial decisions.

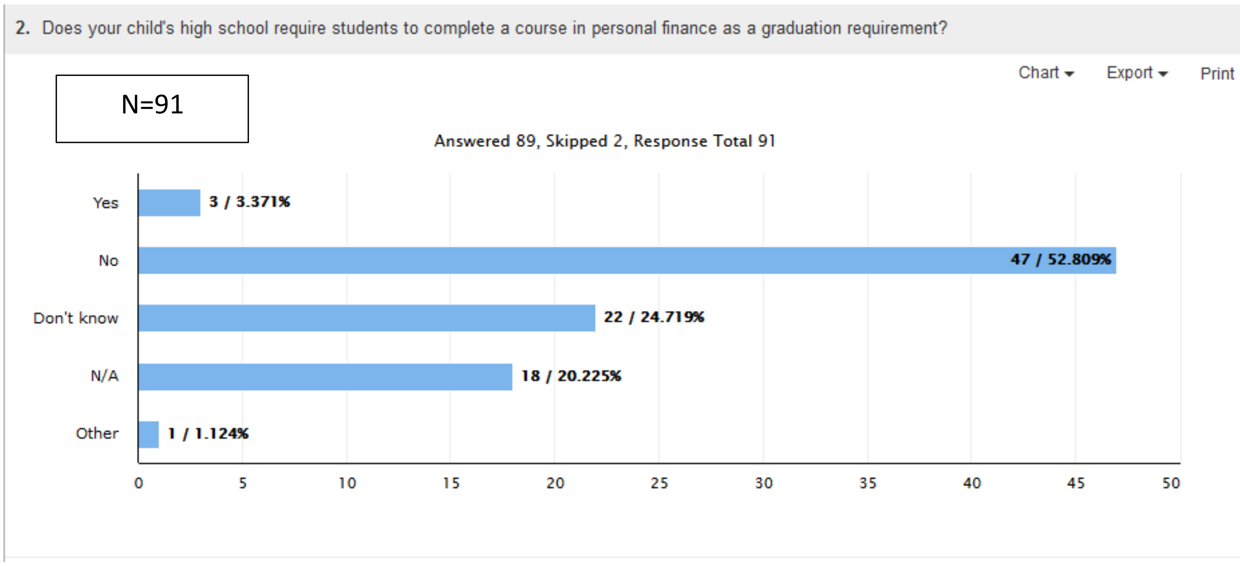
Primary Data Results and Findings

Survey data. Overall, 91 people responded to the 10-question online survey. Each question is listed below followed by a graph and analysis of the raw data.



Survey question #1: Do you have any children who attend public high school in the Bay Area?

The first question was meant to determine if parents of children in public high school were answering the survey. The responses show that 54% the 91 respondents were in the target group. However, respondents also had children in private school or they had children who were already out of high school. Some didn't have children but still had an opinion on the subject. It was decided to include all responses in the analysis to have a more diverse and inclusive picture of the findings.

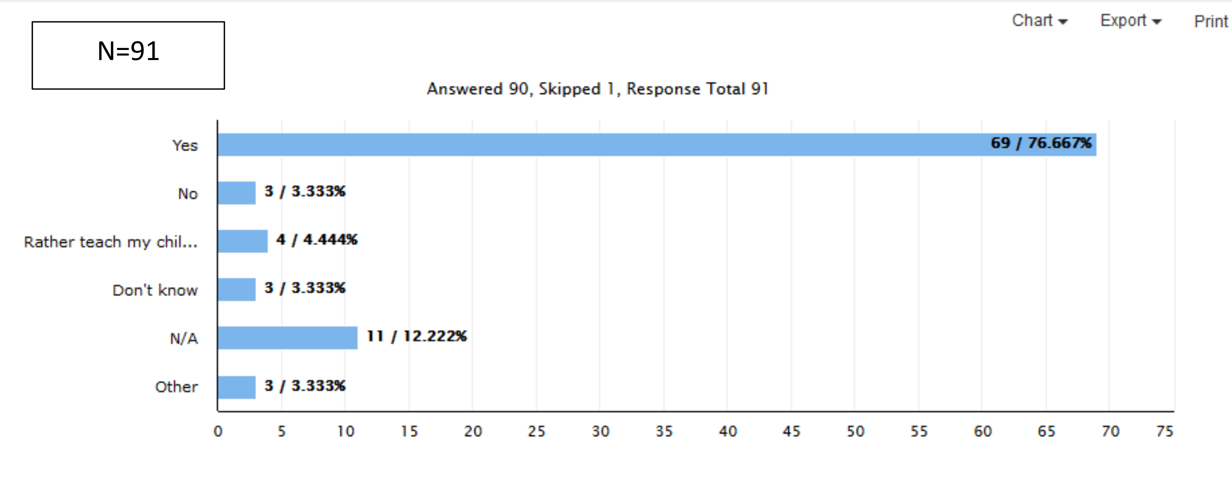


Survey question #2: Does your child's high school require students to complete a course in personal finance as a graduation requirement?

The second question was posed to determine if respondents were aware that there is no course in personal finance as a graduation requirement in Bay Area high schools. Over half of the 91 respondents, 53%, confirmed that most parents knew that there was no requirement.

Interestingly, 25% of respondents did not know whether or not there was a requirement. This is an indicator that many parents may not be aware of the issue.

3. Do you want your child's high school to have a personal finance course as a graduation requirement?

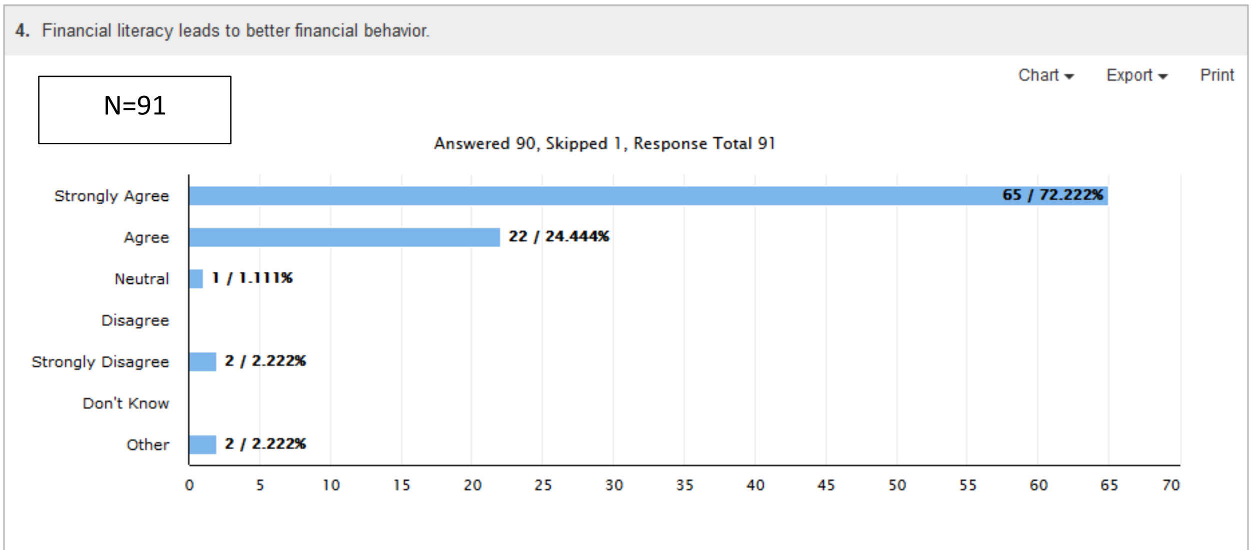


Answered **90**, Skipped **1**, Response Total **91**

Answer Choice	Selections	% All Question Responses	% All Survey Responses
Yes	69	76.667%	75.824%
N/A	11	12.222%	12.088%
Rather teach my child myself	4	4.444%	4.396%
No	3	3.333%	3.297%
Don't know	3	3.333%	3.297%
Other	3	3.333%	3.297%

Survey question #3: Do you want your child's high school to have a personal finance course as a graduation requirement?

An overwhelming majority of 77% of the 91 respondents want to have a personal finance course in high school. This shows that there is a disconnect between what parents want and what schools provide. Further, the argument that parents would rather teach their children themselves was not supported in the response rate of only 4%.



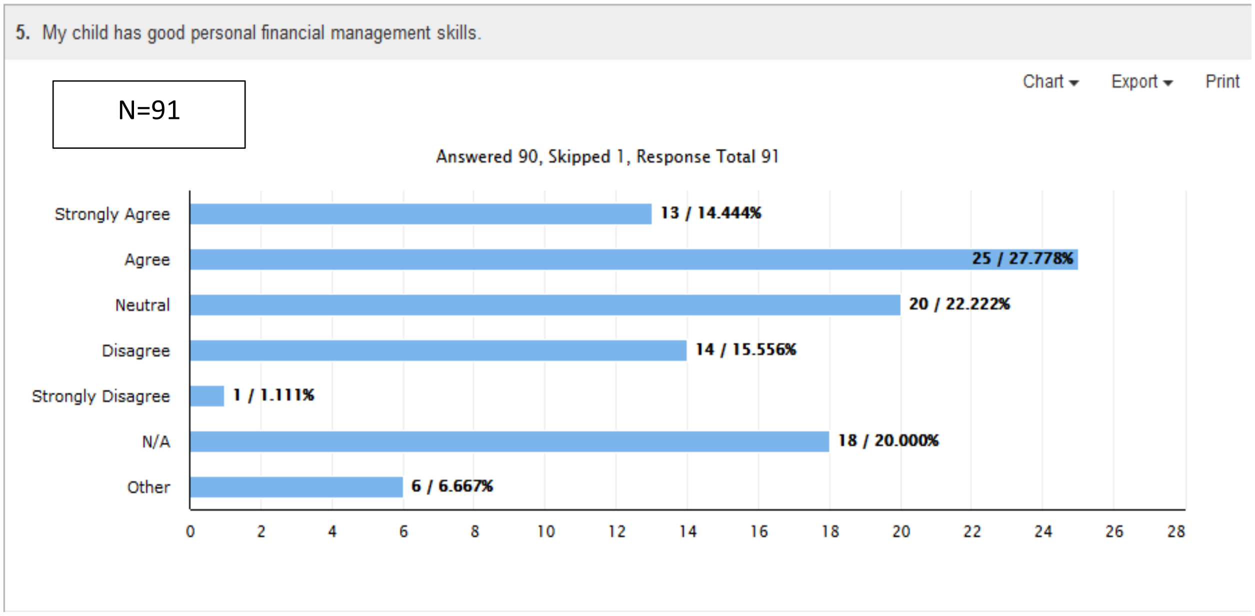
Answered **90**, Skipped **1**, Response Total **91**

Answer Choice	Selections	% All Question Responses	% All Survey Responses
Strongly Agree	65	72.222%	71.429%
Agree	22	24.444%	24.176%
Neutral	1	1.111%	1.099%
Disagree			
Strongly Disagree	2	2.222%	2.198%
Don't Know			
Other	2	2.222%	2.198%

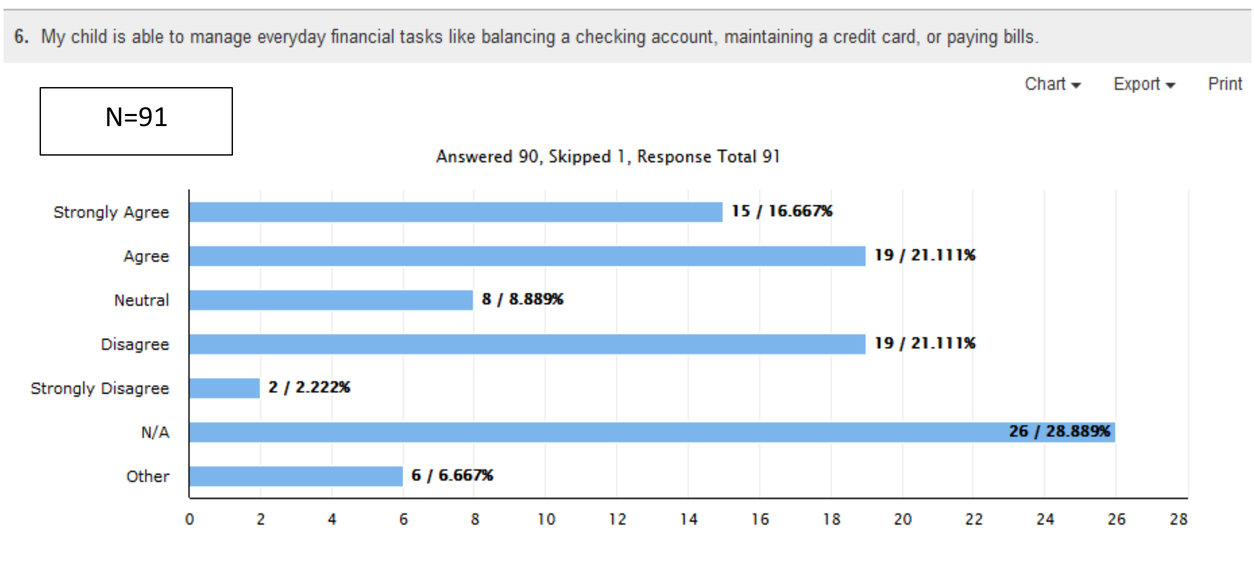
Survey question #4: Financial literacy leads to better financial behavior.

The question was asked to test the hypothesis that completing at least one semester of financial education as a graduation requirement in high school will prepare students in the Bay Area to make better financial decisions and answer the sub-question of the perception of the importance of financial education in high school. The majority of the 91 respondents, 72%, strongly agreed and was followed by 22% agreeing that financial literacy leads to better financial behavior. Therefore an overall 94% of respondents are in agreement with many authors like Tennyson and Chau Nguyen (2001) who do believe that knowing better will result in doing better when it comes to financial decision making. Two percent of the respondents were skeptical and voiced their concerns in the comments. One stated that it should but is not a given and the other stated that financial discipline is more of an indicator of behavior than literacy. These two respondents are in agreement with some authors like Nathan Peach and Haowen Yuan (2017) who believe that human nature or characteristics play an important part in financial decision making. Given the ratio of positive responses for finance education to positively impact behavior the hypothesis is supported by public opinion. This in turn shows the perception of the importance of finance education as respondents do believe it will make a difference.

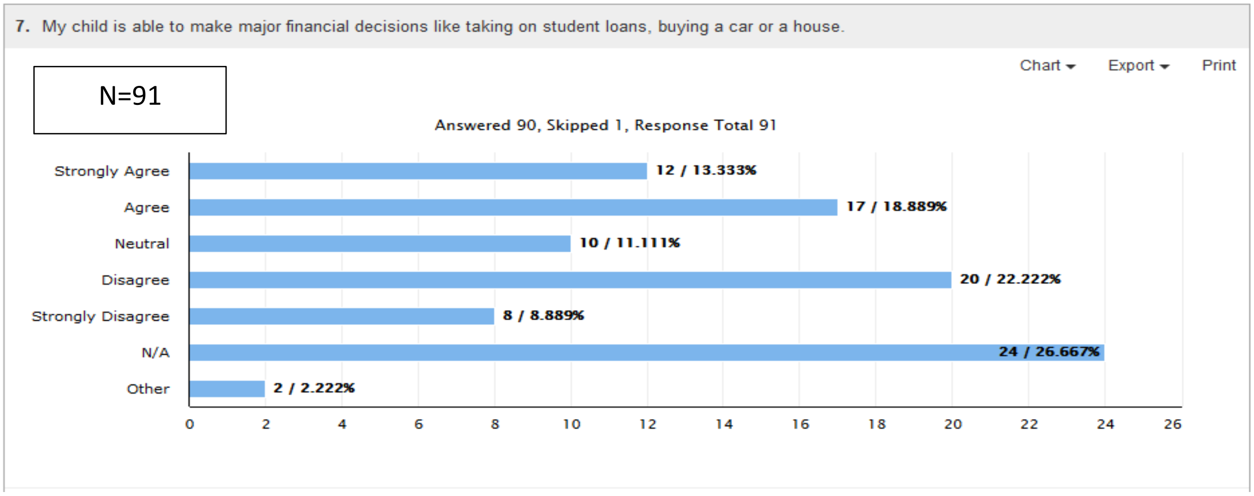
Survey Question #5-7 are grouped together as they pertain to how parents rate their children’s financial literacy.



Question #5: My child has good personal financial management skills.

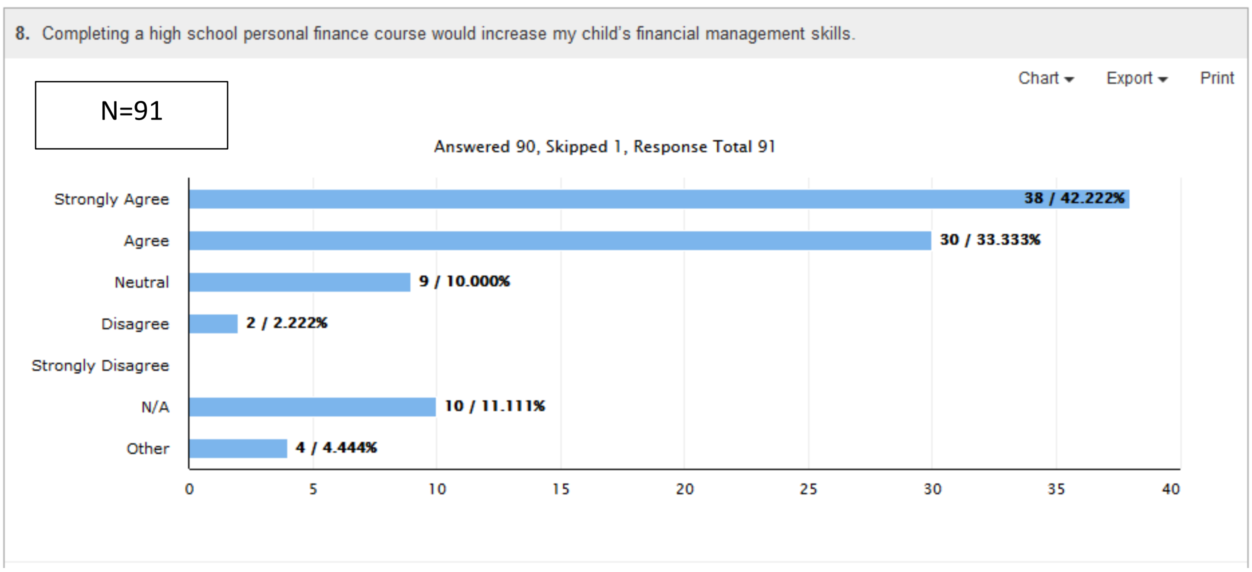


Question #6: My child is able to manage everyday financial tasks like balancing a checking account, maintaining a credit card, or paying bills.



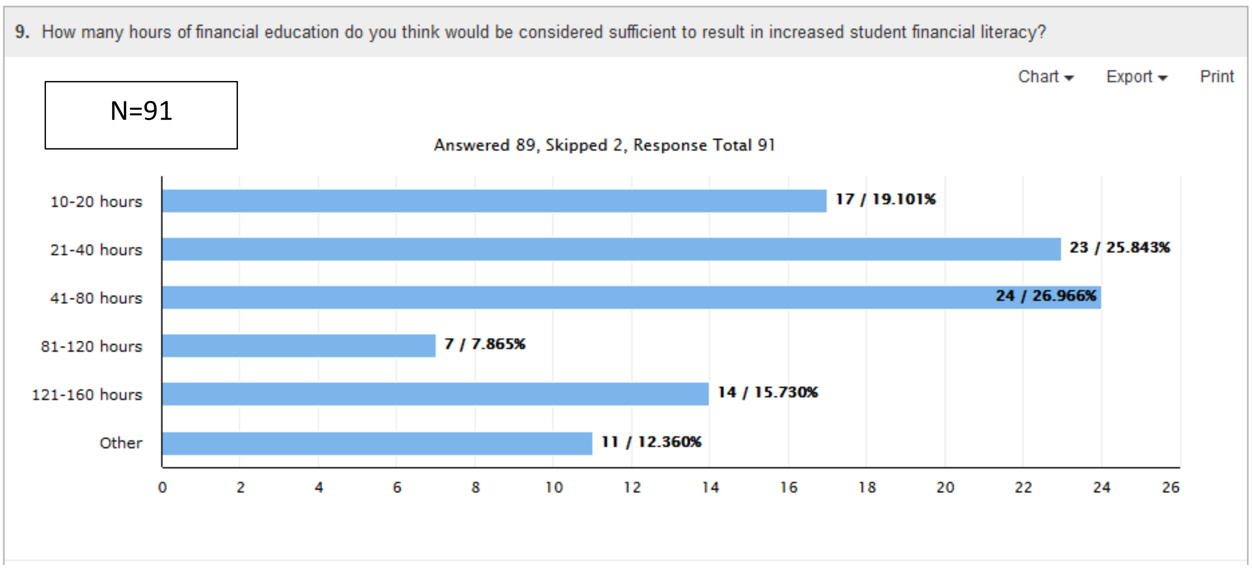
Question #7: My child is able to make major financial decisions like taking on student loans, buying a car or a house.

The majority of N/A responses are from parents of younger children that would not have to deal with finance management yet or respondents who do not have children. Fourteen percent of the 91 respondents strongly agree and 28% agree that their children have good personal financial management skills. The overall score of 42% rating their children's financial literacy high then drops down to 38% when asked about being able to manage their credit cards or pay bills. It drops even further to 32% when asked if they could make major financial decisions like taking on student loans. This finding supports Lusardi and Mitchell (2014) who point out that there is often a substantial mismatch between people's self assessed knowledge versus their actual knowledge. The same mismatch seems to apply when parents assess their children's knowledge. Still, an average of 20% disagrees followed by an average of 4% strongly disagreeing that his/her child is capable to manage their personal finances. Therefore, a good proportion of parents do find their children's finance management skills lacking and should want to seek improvement. An average of 13% remain neutral in rating their children, which may be an indicator of overall reluctance to address financial literacy. Interestingly, some parents of siblings commented that one child is better than the other when it comes to prudent spending or managing finances, which would further support the finding that financial behavior is influenced by human characteristics.



Question #8: Completing a high school personal finance course would increase my child's financial management skills.

This question follows up on question #4 in the belief that financial literacy leads to better financial behavior but addresses the question if respondents believe that one course in high school would in fact make an impact. The majority of the 91 respondents, 42%, strongly agree followed by 33% agreeing that completing a personal finance course would increase their child's financial management skills. Ten percent remained neutral on the subject and only 2% disagreed. Therefore, 75% of parents are in favor of a finance course in high school. Some even commented that it must be mandatory and it seems like a no-brainer that every high school graduate should have an understanding of finances.



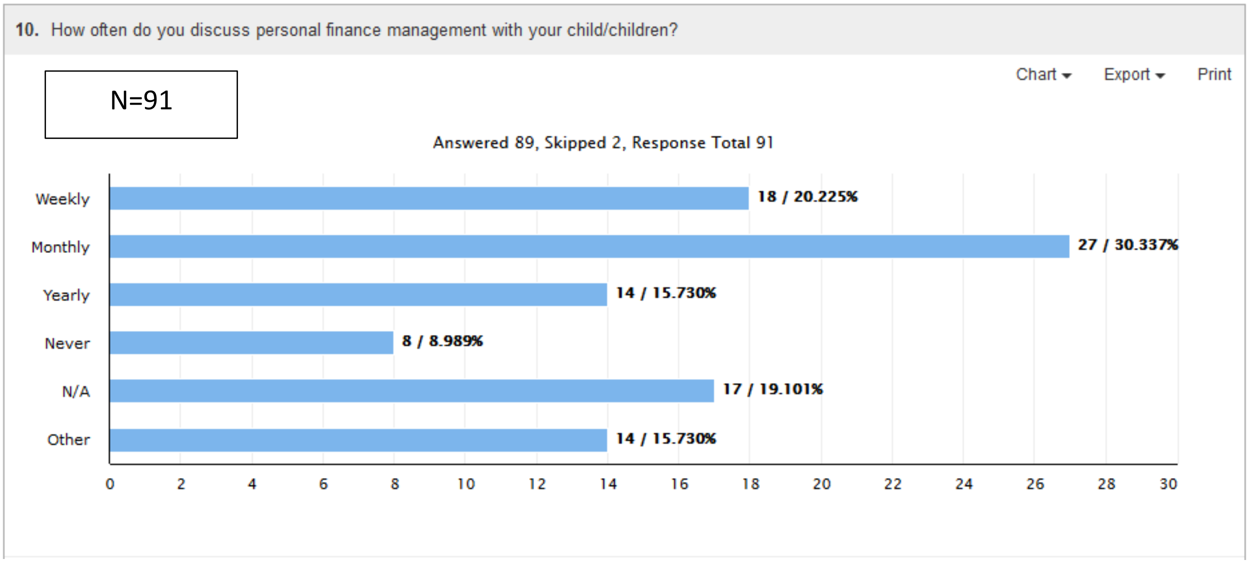
Question #9: How many hours of financial education do you think would be considered sufficient to result in increased student financial literacy?

Some of the most interesting comments came from this question. Most voted for either 21-40 or 41-80 hours at 26% and 27% respectively. Some comments:

- I'd say the high number. People need practice over time for things to stick.

- Should be lifelong learning from kindergarten up
- Basic literacy would be sufficient however personal wealth management would require far more time
- Finance Management needs to be comprehensive. So I believe they should start at Elementary through High School.
- Financial management is not effective with just one class. It is like brushing your teeth. Repetition is critical to establish good habits as we are a product of our environment and if we didn't witness good financial decision making we are likely to struggle without any support.

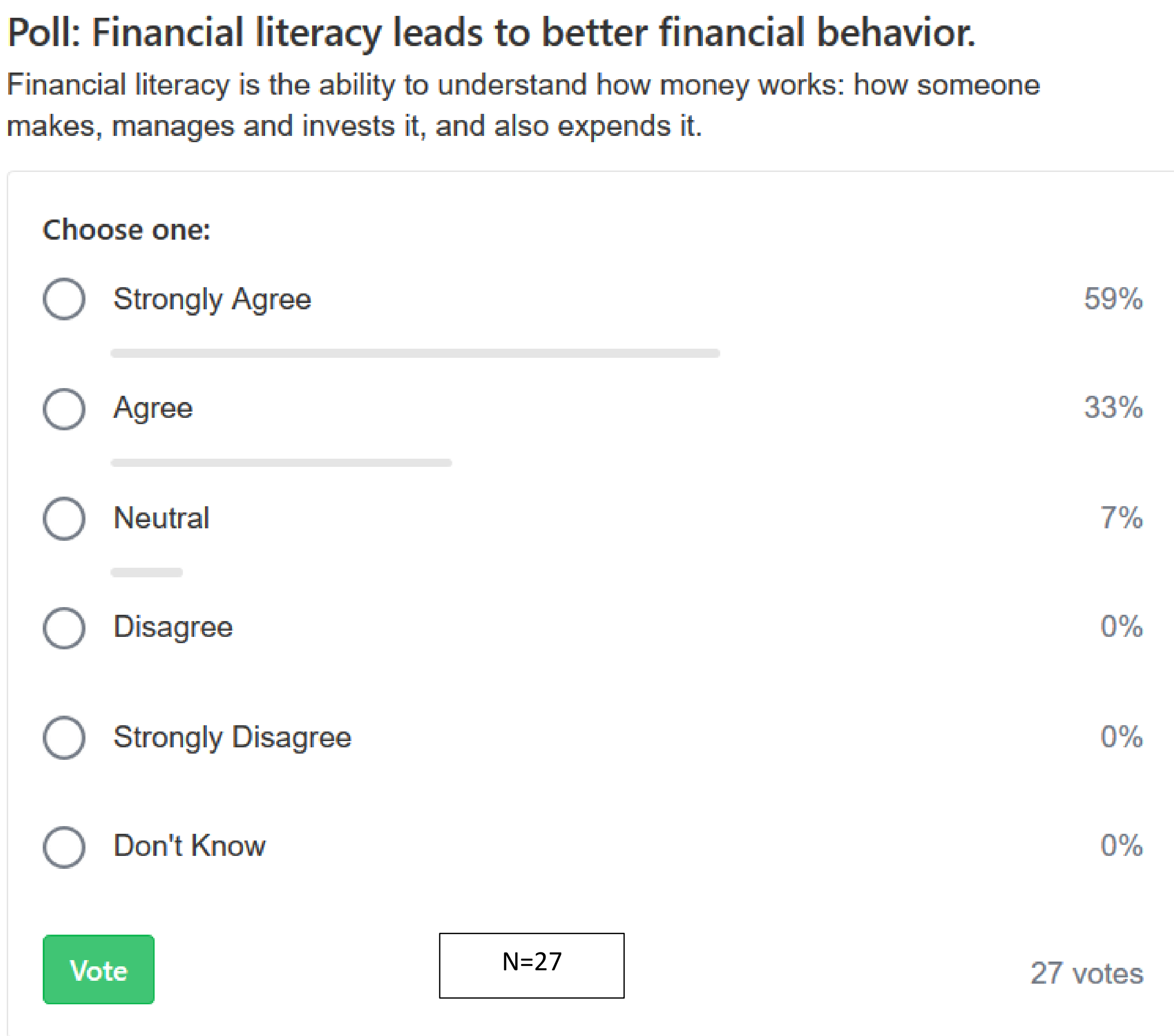
The results show respondents do believe a substantial number of hours is necessary, but more importantly, many believe that it should be repetitious learning to form habits from kindergarten to high school.



Question #10: How often do you discuss personal finance management with your child/children?

The majority of the 91 respondents, 30%, discuss finance management with their children monthly followed by 20% discussing it weekly. There is a correlation between finance management being discussed at home and parents rating their children's financial management skills higher. Fourteen percent discuss finance management annually and 9% do not discuss it at all. These respondents also rated their children's finance management abilities low. This indicates that parents are aware of the lack of knowledge but are reluctant to discuss the subject, which may be due to lack of knowledge on their side or cultural/parental norms to not discuss money.

Poll data. The three individually posted poll questions mirror the outlook of the survey respondents. The results are posted below for triangulation purposes. Voting results are shown in percentages followed by respondents' comments.

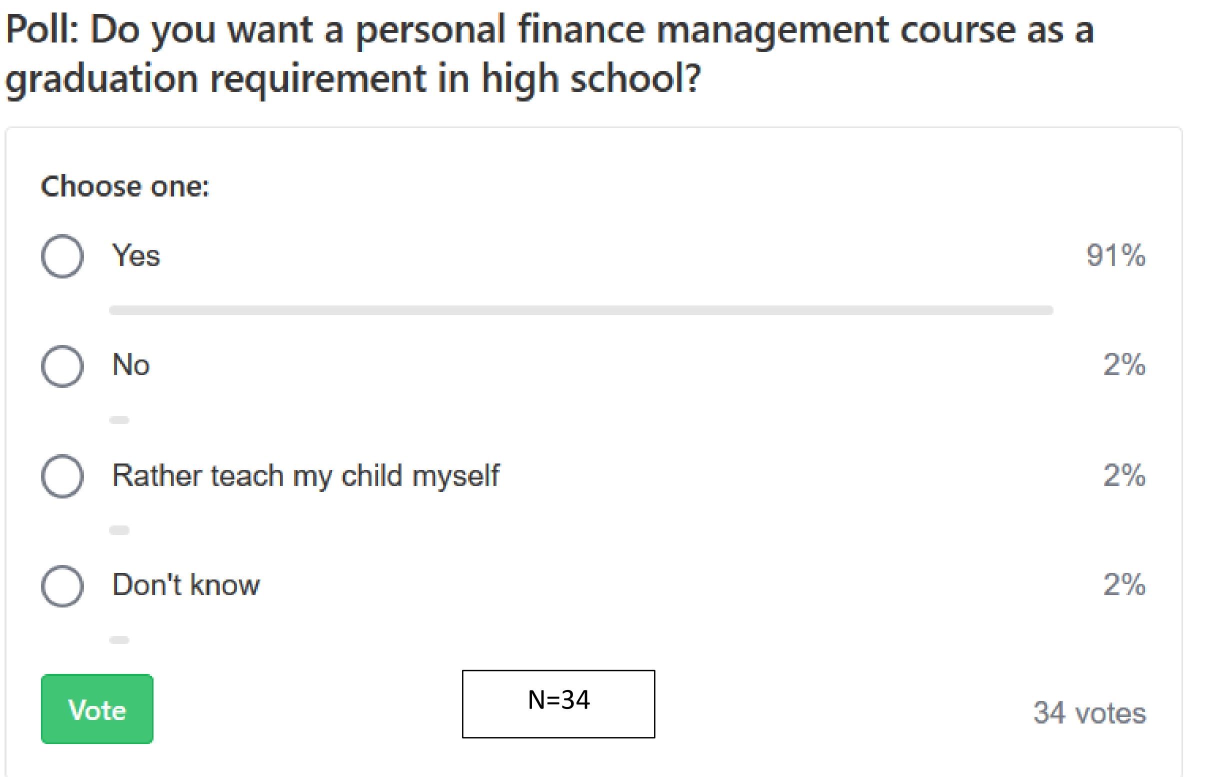


Poll question #1: Financial literacy leads to better financial behavior.

Comments:

- You can be financially literate but financial behaviors may not be prime.

- Financial literacy, just like any other form of education, gives a person a better foundation on which to base decisions. Making good decisions, however, requires a number of other personal qualities that go above and beyond their education.

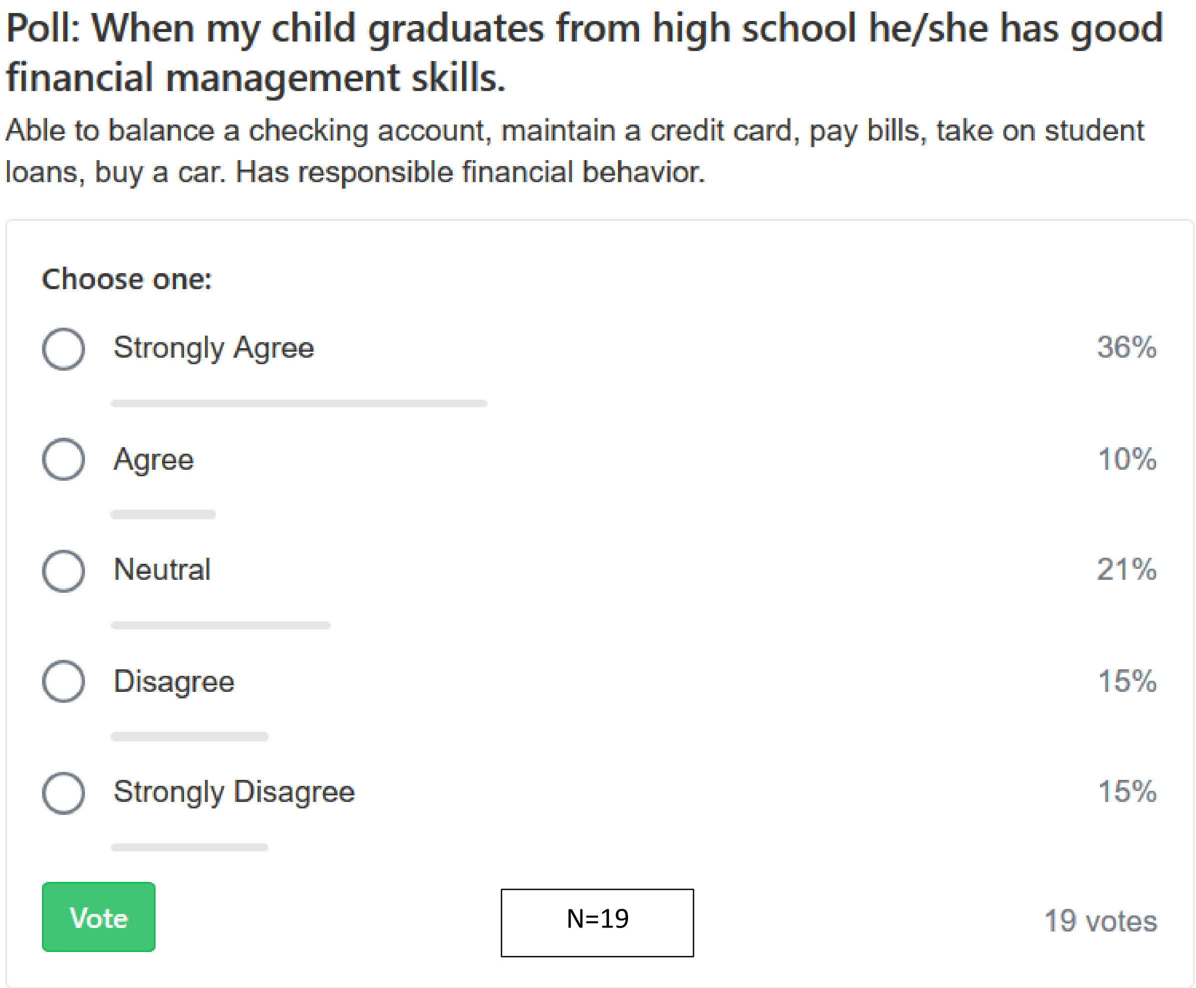


Poll question #2: Do you want a personal finance management course as a graduation requirement in high school?

Comments:

- If a high school can instruct and encourage students to fill out a FAFSA form, they can surely teach the implications of them if they indeed accept any kind of aid and what it takes to be able to pay it back. Most learn the hard way after the fact stuck in debt and low paying jobs.

- Whether or not they use the skills, they will go into adulthood with tools that they will be able to utilize when they eventually learn that money is an important tool.



Poll: When my child graduates from high school he/she has good financial management skills.

Comments:

- This question needed a response of "sometimes." I have two children and one knows how to manage money and the other doesn't, thus I had to answer "Neutral," which will not help you when you analyze the results since it has a different meaning.
- I agree. My two kids are very different in their money management.

The voting results of the individual polls show that 91% of the 34 respondents do want a finance education course in high school and that they are aware that behavior also needs to be addressed. Over 92% of the 27 respondents believe that financial literacy leads to better behavior.

Significant survey and poll data findings. The survey and poll data show that parents support finance education in high school. Parents may overestimate their children’s finance management skills but are also aware that money needs to be a subject of discussion at home. Parents believe that financial literacy leads to better financial behavior but also caution that it depends on human characteristics. Overall, respondents believe that finance education would give students the tools to make better decisions.

Interview data. Five key informants were interviewed via a structured five question interview. The key informants were

- R1 = A current algebra high school teacher (anonymous)
- R2 = A former co-worker who volunteered to teach finance in a private high school

(anonymous)

- R3 = A former teacher who taught for 14 years and then went into financial literacy education outreach (anonymous)
- R4 = Vice President of the Oakland Board of Education Jody London
- R5 = Jump Start President & CEO Laura Levine

The interview data is displayed by listing the question followed by answers and the analysis of the answers.

Question #1: What is your high school/organization doing today to educate students on personal finance management? A variant of this question is what the respondents experience in teaching students on personal finance management is.

R1 has added financial applications to his advanced algebra class to apply math to meaningful situations. R2 taught basic budgeting, savings, credit scores and some financial pitfalls in a course that lasted half a day at a private school. R3 is creating a report on financial well-being in the United States. Resources are provided for all educators to teach financial management at grades 9-12 across the curriculum. R4 explains that finance education has no place in the curriculum so it doesn't happen and it depends on the teacher and whether they want to teach it. R5 explains that the Jump$tart coalition promotes financial literacy and supports financial education with multiple resources and providing best practices for personal finance education materials and national standards in K-12 Personal Finance Education. They host national conferences for teachers and provide a model on how educators can become teachers of financial education.

The question was posed to get an understanding of the background of the respondent and the level of expertise in the subject of finance education. The interviewees were able to give their subject matter opinion and describe their experiences over a broad spectrum of finance education background.

Question #2: How would you rate the financial literacy of high school students?

R1 finds that most of his students are very naïve about personal finance. He explains that most of their prior knowledge comes from ideas that they perceive to be true. The information comes from their parents, friends, and many misconceptions they have heard. R2 further explains that it depends on the socioeconomic background and many students didn't understand the trouble they could get into. R3 finds that children are not being advised well and the assumption that parents teach their kids is invalid. R3's experience is that parents are not discussing finance with their children. R4 believes that it depends on what the students are getting at home. R4 refers to studies that rate US students as average and finds that average is not good. In R4's opinion students do not know enough and it is seen in mistakes they make in managing credit cards, taking on student loans, and not saving. R4 finds that young adults are not very knowledgeable and therefore high school students know even less.

The overall consensus of the interviewees is that the burden of finance education is at home but they may not get the right information at home or it is not discussed at all. This correlates with the survey findings were parents were split on rating their children's finance management skills high or low depending on whether they discussed it at home or not.

Question #3: When should students be educated on personal finance management?

R1 believes that students can learn the basic concepts of personal finance as early as kindergarten and continue throughout a student's educational years. R2 and R3 believe that it should start as early as possible and state that research shows that educational building blocks can be used for age three and up. R4 would start from first grade on while R5 quotes Kiplinger's Personal Finance magazine editor in chief Knight Kiplinger by stating that the time to teach kids about money is when they are old enough to understand not to put it in their mouth. R5 further stresses that it is not correct to wait until they are adults to learn about finance. She further explains that while small children aren't able to learn in a sophisticated way they do understand what money is and are forming their habits and opinions. Therefore finance management should be introduced as early as possible so that children can form a healthy attitude and habits. They should not have to learn from scratch. However, she states that there is also an official answer, which is that learning benchmarks are for kindergarten and up.

The interview responses strongly correlate with the comments to survey question # 9 about how many hours of financial education would be considered sufficient to result in increased student financial literacy. Interviewees and survey respondents generally believe that finance education should start early on and progress throughout the school years. This finding is also reflected in the interview responses to question #4 below.

Question #4: How many hours of financial education do you think would be considered sufficient to result in increased student financial literacy?

R1 is of the opinion that all students should be required to take a class in personal finance. He explains that students are in his classroom 4.5 hours per week but receive homework and projects that extend their learning beyond the classroom. R2 finds it hard to determine a specific number and R3 concurs as she finds that it is not about the number of hours but what they learn and repetition. She explains that planning, problem solving skills, and building internalized financial habits take years to develop. R4 recommends to build finance education into the math curriculum for lower grades followed by a semester of finance education in high school. Similar recommendations are made by R5, who refers to Jump$tart recommending a minimum of one semester consisting of 70 content hours and previous education in elementary and middle school. R5 also counters critics of financial education who claim that is doesn't work by stating that they first need to know how much financial education they received and what was taught before effectiveness can be measured correctly.

Interviewees as well as survey respondents generally believe that more is better. Peach and Yuan's (2017) study criticizing the usefulness of finance education is directly countered by R5's comments on measuring the effectiveness correctly. Largely, there is a consensus that finance education should progress throughout the school years.

Question #5: What do you consider the major roadblocks to offering high school students a financial literacy course?

R1 explains that students already have a very loaded class schedule and many students op out for less demanding classes. Students do not understand the time horizon and see saving for retirement decades away. They do not realize that finance topics like dealing with banks, purchasing a vehicle, student loans, and saving affect them now. In agreement with that opinion is R2. He reiterates that there are competing demands and most high school teachers would agree that finance education is great, but there is too much to squeeze into the curriculum. It is difficult to prioritize what is more important. R3 states that there are four years of math required but they do not include financial education. Priority should be given to what they will use every day for the rest of their lives. Would it be calculus or financial literacy? In addition, R4 finds that it can be hard to find teachers knowledgeable in the subject. In agreement with all the statements is R5 as she points out that there are so many things like STEM, art, and sports competing for time. The difficulty is to find sufficient time and budget to teach effectively.

All respondents agree that roadblocks to implementing financial literacy include limited time available and competing priorities. Further difficulties are setting priorities, finding competent teachers and budgeting.

Significant interview findings. Experts in the field of finance education agree that the burden of finance education is currently at home where students may not receive the right information, if any at all. The finding shows that a lack of finance education is also a social injustice issue as children in low income households are most likely not receiving the same level of finance information as their wealthier counterparts. Students should receive education in finance from grades K-12 with building blocks progressing throughout the school years. The main perceived difficulty in implementing finance education is to make it a priority and find time in the already packed student schedule.

Significant secondary data results and findings. California scores an F in financially educating students (Champlain College, 2017). According to NGPF (2019b) only one in six students has access to a financial education course. Individuals who are not financially literate carry a higher risk of making decisions that are harmful to their financial well-being (Cole, et al., 2011). The cost of financial ignorance is substantial and further explains wealth inequality in the United States (Lusardi & Mitchell, 2014). Young people are not prepared to manage their finances when they reach adulthood (Cordray, 2013). The impact of low financial literacy levels among Americans is burdensome consumer debt, low savings rates, and record bankruptcies (Fox, et al., 2005). Scholars believe that finance education can have a long term positive impact on financial behavior.

Overall significant findings. All students, regardless of their socioeconomic background, deserve to receive the best education to prepare them for adulthood in an increasingly complex financial market. They need to be able to make informed choices and understand the consequences of their financial decisions. Financial literacy will allow students to build financial well-being throughout their lives. Effectively managing financial resources will not only enable them to cover an unexpected emergency expense without risking to fall prey to predatory payday lenders, but allow them to plan for life events to feel secure in their future. Creating financially capable consumers will not only enhance the individual's life, but form a more stable community and economy.

Chapter 5 - Conclusions and Recommendations

Conclusions

Based on the literature review, survey data, and interview results one semester of finance education should be added to the high school curriculum as a graduation requirement for students in the Bay Area. However, finance education would increase in effectiveness if it were introduced progressively through lessons and activities during the K-12 school years. Scholars and study participants do support the hypothesis that completing at least one semester of financial education as a graduation requirement in high school will prepare students in the Bay Area to make better financial decisions. Conversely, some respondents stress that it also depends on human characteristics, which is why it is so important to start finance education early to form healthy habits. Therefore, the answer to when personal finance should be taught is as early as possible. Parents are split on rating their children either capable of finance management or lacking these skills, while professionals generally believe that students graduate high school without the necessary skills and tools to manage their finances. Regarding the perception of the importance of finance education in high school, the majority of respondents agreed that it would provide important life skills and could prevent costly mistakes.

Recommendations

Incremental implementation at the local level. Policymakers should meet with parents, teachers and administrators to review and create awareness regarding what actions, if any, should be considered on secondary finance education policy. Often policy decisions are incremental because a dramatic change may cause too great of a reaction by those affected by the policy (Dye, 2013). There is a belief that policy is actually shaped by the elite because the masses tend to be apathetic and ill-informed about public policies (Dye, 2013). Therefore, the parents' awareness of the issue must be raised. This should be done by implementing a financial well-being session at work, which would not only raise awareness, but may have a trickle-down effect by passing some knowledge on to the children. Exposure on TV through public/private partnerships and raising awareness via social media should be applied simultaneously. A viral video challenge can be a powerful tool. The Ice Bucket Challenge, for example, helped to promote awareness of amyotrophic lateral sclerosis (A.L.S.) – also known as Lou Gehrig's disease – and raised $115 million for the A.L.S. Association (Rogers, 2016). With the help of some celebrities a similar video challenge for finance education could be an influential game changer and promote the adoption of finance education at the district level. With incremental implementation by school districts in the Bay Area, legislation to require a statewide standalone finance education graduation requirement would be more realistic to operationalize.

Operationalize the structure. Beginning in School Year 2019/2020, district school boards in the Bay Area should solicit parent, teacher and administration participation to design a finance education curriculum for their high school. Established <u>standards</u> provided by Jump$tart (2017) should be adopted to define what students should know at each level and to make the initiative measurable. Standards allow for evaluation of the student's financial knowledge and determine effectiveness of the training (CFPB, 2015). Implementation requirements are set by Assembly Bill No. 66 to include financial education as part of another course, which should further be enhanced to add one standalone course of finance education as a graduation requirement starting with graduating classes of 2023.

Assembly Bill No. 66 (2013) of California legislation states "California does not have an official statewide policy or educational plan for the teaching of financial literacy" (p. 1). However, efforts to design a structure for advancing K-12 finance education were made:

> In 2013, California's governor signed into law Assembly Bill No. 166, which called for the state board of education to include financial preparedness topics into social studies, health, and mathematics textbooks and curriculum frameworks when they are revised. This legislation tasked the state board with including topics such as budgeting, managing credit and debt, and student loans for the seventh through the 12th grades. In conjunction with textbook revisions, the state board of education must also develop a financial education curriculum framework. (CFPB, 2015)

Nevertheless, the structure has failed to operationalize their objectives. Further, it does not meet the gold standard of a standalone finance course as identified by NGPF (2019b). In addition, the curriculum promoted by Jump$tart is considered the standard for the common core. However, it is not mandatory to use these standards in California. To successfully implement finance education, CFPB (2015) has identified four primary interconnected parts: educational content standards and requirements, teacher training, high quality classroom resources, and rigorous initiative evaluation.

Teacher training. By 2021 teachers should attend a financial education workshop. Effective teacher professional development is essential to prepare educators to teach a finance course that meets the standards (CFPB, 2015). There are several online teacher training programs at no cost to the educator. Further teacher training should be obtained through programs like the Jump$tart Teacher Training Alliance (JSTTA), the Federal Reserve Bank platform Click, Learn, and Teach, and CFPB's youth financial education website. Another networking opportunity between educators and financial professionals is provided by the annual Jump$tart Educator Conference.

High quality classroom resources. School districts should inventory and determine what resources already exists to support classroom training of financial education and eliminate the need to create new classrooms and materials. Local businesses and community based organizations should help and support schools by modernizing existing classrooms and donating updated instructional materials. Several organizations like the CFPB, the Jump$tart coalition, and NGPF should be contacted and encouraged to participate in this endeavor. A guiding coalition of interested parents, teachers, and administrators should collaborate to determine classroom lesson plans and activities. To maximize effectiveness and avoid duplication of efforts they should take advantage of financial education information provided on various websites like the Jump$tart Clearinghouse, mymoney.gov, or Utah's Finance in the Classroom website (CFPB, 2015). Money as You Learn provides tools for educators to integrate personal finance into teaching the Common Core for grades K-12. Resources and curricula should align to the contend standards, be easy to implement in the classroom, and allow teachers to make adjustments to instructions based on the needs of the student (CFPB, 2015).

Initiative evaluation. Implement standardized testing of finance education. The landscape of finance is changing far more than any other subject, therefore, the content kids are getting and the effectiveness of the material need to continuously be assessed (Levine, 2019). Further, there is no motivation if students are not required to do well and just take some voluntary course (Levine, 2019). Standardized testing as a graduation requirement must be implemented, not only to examine the effectiveness of training but also to motivate students. In addition, long-term effects of exposure to finance training should be researched to address doubts voiced by other scholars and justify funding. Resources for student testing are also provided online. Two examples are the National Endowment for Financial Education (NEFE) Evaluation Toolkit, which supports K-12 educators, and the Council for Economic Education (CEE) Online Assessment Center, which is a free service that allows teachers to test students and analyze the effectiveness of their instructions to adjust accordingly (CFPB, 2015).

Incentivize. The fair payment of teachers in the Bay Area is outside of the scope of this paper, however, “the reimbursement system provides little incentive to carry out the mandates efficiently and the effectiveness of implementing the mandated activities are often unknown” (Cross, 2010, p. 13). Monetary stipends should be implemented to be a motivator.

Finance education must be made a priority. With the overabundance of free resources, the funding of finance education is a subordinate issue compared to freeing up time in an already packed student schedule.

In summary, implementation of finance education in the Bay Area is a community effort. With the help of parents, teachers, the administration, businesses, and foundations, the necessary adjustments can be achieved to give children the crucial knowledge to make informed financial decisions for their financial well-being.

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APPENDIX A

Personal Finance Education Survey
Created by Eva at Golden Gate University
*Indicates a response is required.

Online Survey

An Investigation of personal finance education in the Bay Area and the potential to integrate financial education in high school.

Purpose of the Study:

This is a study in public administration that is being conducted by a graduate student in the executive public administration program at Golden Gate University in San Francisco, CA. The purpose of this study is to examine whether personal finance education should be integrated as a graduation requirement in high school. Your responses will be kept completely confidential.

1. Do you have any children who attend/have attended public high school in the Bay Area?

☐ Yes
☐ No
☐ Comments

2. Does your child's high school require students to complete a course in personal finance as a graduation requirement?

☐ Yes
☐ No
☐ Don't know
☐ N/A
☐ Comments

3. Do you want your child’s high school to have a personal finance course as a graduation requirement?

☐ Yes
☐ No
☐ Rather teach my child myself
☐ Don't know
☐ N/A
☐ Comments

4. Financial literacy leads to better financial behavior.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- Don't Know
- Comments

5. My child has good personal financial management skills.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- N/A
- Comments

6. My child is able to manage everyday financial tasks like balancing a checking account, maintaining a credit card, or paying bills.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- N/A
- Comments

7. My child is able to make major financial decisions like taking on student loans, buying a car or a house.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- N/A

- [ ] Comments

8. Completing a high school personal finance course would increase my child's financial management skills.

- [ ] Strongly Agree
- [ ] Agree
- [ ] Neutral
- [ ] Disagree
- [ ] Strongly Disagree
- [ ] N/A
- [ ] Comments

9. How many hours of financial education do you think would be considered sufficient to result in increased student financial literacy?

- [ ] 10-20 hours
- [ ] 21-40 hours
- [ ] 41-80 hours
- [ ] 81-120 hours
- [ ] 121-160 hours
- [ ] Comments

10. How often do you discuss personal finance management with your child/children?

- [ ] Weekly
- [ ] Monthly
- [ ] Yearly
- [ ] Never
- [ ] N/A
- [ ] Comments

APPENDIX B

Poll: Financial literacy leads to better financial behavior.

Financial literacy is the ability to understand how money works: how someone makes, manages and invests it, and also expends it.

Choose one:

- ◯ Strongly Agree
- ◯ Agree
- ◯ Neutral
- ◯ Disagree
- ◯ Strongly Disagree
- ◯ Don't Know

Vote View results (27)

Poll: When my child graduates from high school he/she has good financial management skills.

Able to balance a checking account, maintain a credit card, pay bills, take on student loans, buy a car. Has responsible financial behavior.

Choose one:

- ◯ Strongly Agree
- ◯ Agree
- ◯ Neutral
- ◯ Disagree
- ◯ Strongly Disagree

Vote View results (19)

Poll: Completing a high school personal finance course would increase my child's financial management skills.

Choose one:

- ◯ Strongly Agree
- ◯ Agree
- ◯ Neutral
- ◯ Disagree
- ◯ Strongly Disagree
- ◯ N/A

Vote View results (31)

Poll: Do you want a personal finance management course as a graduation requirement in high school?

Choose one:

- ◯ Yes
- ◯ No
- ◯ Rather teach my child myself
- ◯ Don't know

Vote View results (34)

Poll: How often do you discuss personal finance management with your child/children?

Choose one:

- ◯ Weekly
- ◯ Monthly
- ◯ Yearly
- ◯ Only when problems arise
- ◯ Never
- ◯ N/A

Vote View results (20)

APPENDIX C

Interview Questions

What is your high school/organization doing today to educate students on personal finance management? (Variant: what is your experience teaching financial literacy?)

How would you rate the financial literacy of high school students?

When should students be educated on personal financial management?

How many hours of financial education do you think would be considered sufficient to result in increased student financial literacy?

What do you consider the major roadblocks to offering high school students a financial literacy course?

APPENDIX D

Syllabus for Personal Finance

Welcome to CE011 and CE012: Personal Finance parts I and II!
Please read the information in this syllabus before proceeding to the course materials.
Credits: 1.0
Prerequisite: None

Instructional Team

Teacher Contact Information

tutors@ashworthcollege.edu
Our Academic Advisors are also available to help you when you need it. They are trained to provide tutoring in all subjects or answer your questions about the course or program.
Phone: 1-800-224-7234
Hours: 8:30AM – 8:30PM EST Monday-Friday

Textbook

Kapoor-Dlabay-Hughes. Personal Finance, 8e
New York: The Mcgraw-Hill Companies, 2007.

Course Description

Personal Finance equips students with the material necessary to understand, plan, and manage their financial affairs. This course focuses on the development of practical methods for organizing financial information, interpreting financial position and cash flow, developing achievable and worthwhile goals, and implementing actionable plans and risk management techniques to meet those goals. Specific topics covered include money management, insurance, and investing. Assessments in this course are designed to help students gauge their understanding of the course materials through the grading process. Exams and assignments vary in size and number and include multiple-choice, essay writing, and/or short answer assessments.

Course Learning Objectives

Upon completion of this course, you should be able to:

- Identify, define, and explain the major types, functions, and importance of financial service organizations, as well as occupations and trends in the financial service industry.
- Identify socioeconomic influences on personal financial planning, develop a set of financial goals, and create a plan for making personal financial and career decisions.
- Develop a workable budget, create a personal balance sheet and plan to connect money management techniques to a financial goal, and prepare a federal income tax form.
- Compare and contrast services and types of financial institutions and different types of payment methods.
- Summarize strategies for safe and informed purchases of items such as a motor vehicle, and evaluate possible home renting, purchasing and selling options.
- Identify types of risks and risk management methods, and develop a risk management plan, including health care, motor vehicle, disability and life insurance.
- Identify a variety of investment opportunities, assess benefits of long-term over short-term investments, and evaluate different types of investments such as stocks and bonds.
- Analyze assets and liabilities, estimate retirement costs, and develop a balanced budget for retirement, as well as the personal and legal aspects of estate planning.

Course Lessons

The following lessons are covered in CE011: Personal Finance Part I:
Lesson Read/Submit Topics
Lesson 1 Read Employment Opportunities in the Financial Services Industry
Exam 1
The Financial Planning Industry

Lesson 2 Read Chapter 1 and Chapter 2
Quiz 2
Planning to Succeed
Lesson 3 Read Chapter 3 and Chapter 4
Quiz 3
Money Management and Taxes
Lesson 4 Read Chapter 5, Chapter 6, and
Chapter 7
Quiz 4
Savings and Consumer Credit
Lesson 5 Read Chapter 8 and Chapter 9
Quiz 5
Consumer Purchases and
Housing Decisions
The following lessons are covered in CE012: Personal Finance Part II:
Lesson Read/Submit Topics
Lesson 1 Read Chapter 10, Chapter 11, and Chapter 12
Quiz 1
Insurance
Lesson 2 Read Chapter 13, Chapter 14, and Chapter 15
Quiz 2
Investing Basics and Stocks and Bonds
Lesson 3 Read Chapter 16 and Chapter 17
Quiz 3
Mutual Funds and Real Estate
Lesson 4 Read Chapter 18 and Chapter 19
Quiz 4
Retirement and Estate Planning