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The Case for Financial Literacy

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I. Abstract

Financial Literacy is a very critical part of maintaining financial stability. Unfortunately, many Americans and young adults lack the skills to help manage their finances, causing many of them to go into debt and not be able to afford their lifestyles without incurring even more debt. Some major areas in which young adults lack financial literacy, aside from personal finances, are taxes, consumer policy, homeownership, and stock market investment. Failure to make financial decisions has been a detrimental cause of the various financial issues we see among young adults. The reason most young adults are unable to make good financial decisions is largely due to them not having a financial education class in high school or college, which led them astray to develop poor financial habits. As a result, they now live paycheck to paycheck, tend to rent rather than own at much higher rates, and do not understand how to make the right financial decisions. Statistics show that if there are financial education classes at an earlier age for people, such as the time they are in high school, more people will learn how to be financially literate and stable. This would be an overall benefit for the people and the economy.

II. Introduction

The broad topic of financial literacy finds a way to affect the lives of the adult population around the world, in one way or another. Money is the driving factor behind this concept, but the desirable commodity itself has created a world where the vast majority of it lacks the knowledge on how to handle and retain it. According to the National Foundation for Credit Counseling, a staggering 62% of adults in the United States have sustained some amount of credit card debt in the last year.[1] This and other concerningly high statistics like it stem mainly from the lack of adequate education in the subject of financial literacy, which can be broken down into the following subtopics.

III. Financial Management

Financial decisions impact the future of the economy as well as the lives of every individual in society. However, this subject remains rather concerning, particularly to those who have to struggle through their daily lives with loans and debts. Statistics show that nearly 80% of Americans live from paycheck to paycheck[2], presenting the significance of the need for financial management for such a large population of people with limited amounts of monetary supply.

The investment of capital in different areas requires people to understand the market and the resources they hold. According to the American Debt Help Organization, American household debt reached 13.21 trillion dollars in 2018, leaving 300 million people worried about their financial landscape[3]. By March 2019, the cost of a higher education led student loans to hit 1.5 trillion dollars. All these large numbers place financial paths towards great instability, mainly for the millennial group who range from the ages of 25-37. Between this age range, this group of young adults can be found finishing up their education career and stepping into society with many unknowns of their financial situation. A large portion of the group have no plans for financial management like saving money for emergency usage, with only 41% of millennials having an emergency fund, far less than older workers.[4] High debt levels and low savings, emphasized the importance of financial literacy for people to prosper in modern society.

IV. Taxes

Taxes are an integral part of most of the world's economies: aside from a few exceptions, they apply to the vast majority of adults across the globe. Despite this, tax knowledge is incredibly low, especially amongst young adults. In the United States, according to a study conducted by Harris Poll, when asked about common deductions and various saving plans, as a

[1] "2020 Annual Financial Literacy Survey." *NFCC*, The Harris Poll, 23 Mar. 2020, www.nfcc.org/resources/client-impact-and-research/2020-consumer-financial-literacy-survey/.
[2] Glink, I., & Tamkin, S. J. (2020, August 05). Perspective | A breakdown of what living paycheck to paycheck looks like. Retrieved November 07, 2020, from https://www.washingtonpost.com/business/2020/08/17/breakdown-what-living-paycheck-to-paycheck-looks-like/
[3] Writer, A. (2020, July 24). Consumer Debt Statistics & Demographics in America. Retrieved November 07, 2020, from https://www.debt.org/faqs/americans-in-debt/demographics/
[4] Hasler, Andrea. *Millennials and Money: The State of Their Financial Management and How Workplaces Can Help Them*, 2018, www.tiaainstitute.org/sites/default/files/presentations/2020-08/TIAA%20Institute_Millennials%20and%20Money_T%26I_Lusardi_02%2020.pdf

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group, taxpayers only answered 25% of the questions correctly[5]. In the United Kingdom, statistics were also disappointing - roughly 80% of young adults said they had not received any information about how the tax system worked at the time of their graduation from secondary school, and 37% did not know how to apply for a student loan[6]. In Japan, only 30% of people were able to correctly answer one question about tax literacy. This number dropping to 3% when all three tax literacy questions were considered[7].

The lack of tax literacy across the globe is an alarming problem, as the absence of such knowledge can lead to poor, mismanaged financial decisions. In many countries, failure to file taxes correctly can result in fines of thousands of dollars, bringing many younger adults into financial ruin. According to the results of a study from Princeton Survey Research Associates International, 57% of Americans did not have the savings to cover a $500 surprise expense[8], much less a $5000 one. Paying taxes is an inherent part of adulthood in many countries, and thus, tax literacy is an essential skill that ought to be taught to everyone as a part of the school system in order to prevent major mishaps and avoid a variety of other issues.

V. Consumer Policy

Consumers today operate in increasingly complex markets, challenged by growing amounts of information and an expanding choice of products[9]. Making the right decisions and protecting self-interests requires a broad range of skills and knowledge, hence consumer education being imperative in this regard. It is defined as the process of ameliorating skills and knowledge to make more informed and well-reasoned choices—choices that take social values and standards into account. Consumer education also helps develop critical thinking and raise financial awareness, thereby enabling consumers to become more proactive in their endeavors. Learning about consumer policy, in general, is an important vehicle for building the confidence that consumers need to operate in increasingly complex markets.

Today, consumer policy education covers more diverse areas than it has in the past. It now covers, for the most part, consumer obligations and rights, personal finance, sustainable consumption, and digital media plus technology[10]. Such additions should be viewed as a step forward in helping consumer decision-making and financial skills.

[5] Voigt, K. (2017, June 22). Survey: We're Missing Out on Free Tax Software. Retrieved November 07, 2020, from https://www.nerdwallet.com/blog/taxes/americans-missing-out-on-free-tax-software-dont-know-basic-irs-facts/

[6] Young Persons' Money Index: The London Institute of Banking & Finance. (2019). Retrieved November 07, 2020, from https://www.libf.ac.uk/study/financial-education/young-persons-money-index

[7] Iwasaki, K., Ph.D., Nakashima, K., Ph.D., & Kitamura, T., Ph.D. (2019). Tax Literacy, Time and Risk Preference, and Retirement Planning in Japan. Retrieved November 07, 2020, from http://www.abef.jp/conf/2018/common/doc/oral/H3_PR0037.pdf

[8] Cornfield, J. (2017, January 12). Survey: 41 Percent Of Americans Pay For Unexpected Expense With Savings. Retrieved November 07, 2020, from https://www.bankrate.com/finance/consumer-index/money-pulse-0117.aspx

[9] "Consumer Policy," 2009. https://www.oecd.org/digital/consumer/.

[10] "Consumer Policy," 2009. https://www.oecd.org/digital/consumer/.

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Recognizing the increasing importance of consumer education, the Organisation for Economic Co-operation and Development (OECD) established the Committee on Consumer Policy (CCP) in 1969. The CCP's primary objective is to address the broad range of consumer issues that societies face in addition to helping public authorities enhance the development of effective consumer policies[11]. In 2008, the CCP launched a major project to examine how countries are providing consumer education. An analytic report was then prepared to evaluate the structural and institutional frameworks supporting consumer education, the role of non-governmental stakeholders, and the plethora of approaches being pursued in different countries.

Covering 27 countries, the CCP project report identified four key issues and challenges for governments: i) overall education strategies are lacking in most countries, ii) there is a need to improve the quality of education, iii) there are limited opportunities for consumer education to exist in school curriculums, iv) there is a dire need to enhance the motivation to learn about consumer policy in school[12].

Below are some of the statements concluded in the report:

- Consumer education should begin at an early age and should immediately be integrated into educational programs where appropriate.
- Consumer education should be developed in a balanced and cohesive way by considering regulatory and governmental policies.
- Consumer education programs should be varied and diverse so that there are elements that address the needs and wants of different groups, their socio-economic environments, and their demographic[13].
- The Internet should be exploited more fully to promote consumer awareness.

All in all, the Committee concluded that consumer education is an integral part of financial and economic awareness and that countries must develop more effective consumer education policies.

[11] "Consumer Policy," 2009. https://www.oecd.org/digital/consumer/.
[12] "Consumer Policy," 2009. https://www.oecd.org/digital/consumer/.
[13] "Consumer Policy," 2009. https://www.oecd.org/digital/consumer/.

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International Socioeconomics Laboratory™

VI. Home Ownership

RESIDENTIAL VACANCIES AND HOMEOWNERSHIP THIRD QUARTER 2020

Rental Vacancy Rate 6.4%

Homeowner Vacancy Rate 0.9%

Homeownership Rate 67.4%

Next release: February 2, 2021

Data are not adjusted for seasonality.
Source: U.S. Census Bureau,
Current Population Survey/Housing Vacancy Survey, October 27, 2020

Figure 1
Quarterly Rental and Homeowner Vacancy Rates for the United States: 1997-2020

Source: U.S. Census Bureau, Current Population Survey/Housing Vacancy Survey, October 27, 2020

Table 1. Rental and Homeowner Vacancy Rates for the United States: 2017 to 2020

Year	Rental Vacancy Rate (percent)				Homeowner Vacancy Rate (percent)			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
2020……	6.6	5.7	6.4		1.1	0.9	0.9	
2019……	7.0	6.8	6.8	6.4	1.4	1.3	1.4	1.4
2018……	7.0	6.8	7.1	6.6	1.5	1.5	1.6	1.5
2017……	7.0	7.3	7.5	6.9	1.7	1.5	1.6	1.6

All comparative statements in this report have undergone statistical testing, and unless otherwise noted, all comparisons are statistically significant at the 90 percent significance level. For an explanation of how the rates are calculated, please see the Explanatory Notes at the end of the press release.
Explanations of confidence intervals and sampling variability can be found on the CPS/HVS website at: <www.census.gov/housing/hvs>
Source: U.S. Census Bureau, Current Population Survey/Housing Vacancy Survey, October 27, 2020.

Homeownership (owning your own home instead of renting it from a landlord) has been an important means for people to gain wealth. About 70% of American families own a home,, but when you look at different races and demographics, there are major differences. For many, owning a home becomes an important asset, and in order to build up adequate savings to buy a home, one must be financially prepared in saving money and developing creditworthiness. Many students have parents who own a home, and are able to teach them how to be financially literate and also become future homeowners. However, that is not the case for many Americans. This issue is mainly prevalent in minorities, students who completed high school or college, and anyone that does not know how to manage money properly.

There is a major gap between different races of people in the U.S. who own a home. Home ownership among white households has been at the highest rate at around 73% of whites owning a home in the second quarter of 2019. However at the same time, Hispanic and Black households are drastically lower, with Hispanic homeownership only at around 47% of hispanics owning a home and Black ownership at about 41% of blacks owning a home. Hispanic and Black homeownership are at similar rates for the most part, however Black ownership has been decreasing since 2004, from 50%, down to 40.6% in 2019.[14] Though Black ownership decreased, Hispanic home ownership shows to be increasing along with other minority groups. Native

[14] "The 'heartbreaking' Decrease in Black Homeownership." *Washington Post*, 28 Feb. 2019, www.washingtonpost.com/news/business/wp/2019/02/28/feature/the-heartbreaking-decrease-in-black-homeownersh

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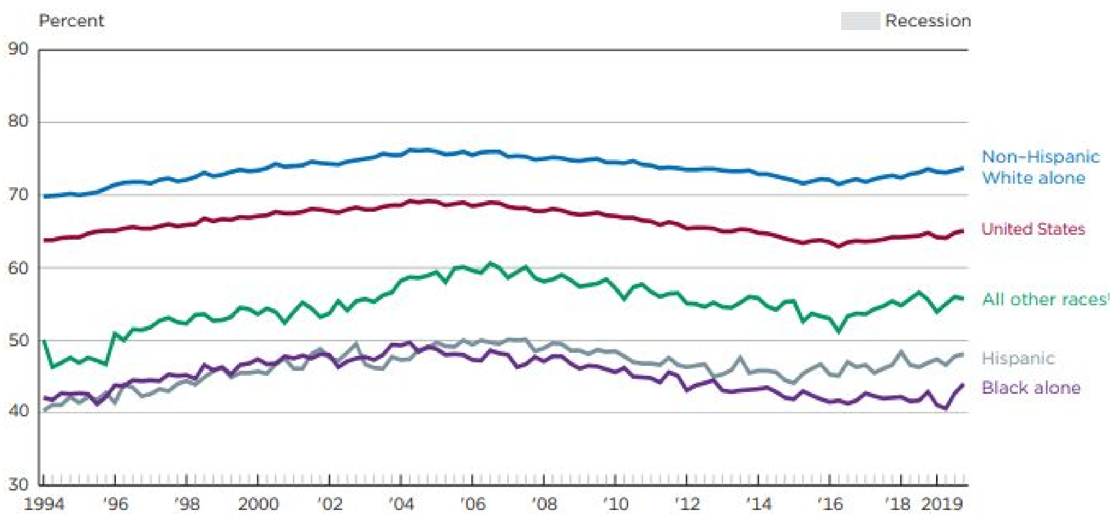
American home ownership is at about 51 percent and Asian homeownership close to 58 percent.[15]

Figure 8.
Quarterly Homeownership Rates by Race and Ethnicity of Householder for the United States: 1994–2019



¹Includes Asian, Native Hawaiian and Other Pacific Islander, American Indian and Alaska Native, and Two or More Races.
Source: U.S. Census Bureau, Current Population Survey/Housing Vacancy Survey, March 10, 2020; recession data from the National Bureau of Economic Research, <www.nber.org>.

Courtesy of census.gov

Homeownership is a major component of one's wealth in America, and racial disparities in homeownership often play a major role in determining how wealth is distributed across different demographic groups. The gap is typically wider in cities, with only 25 percent of black families owning a home in Minneapolis compared with 76 percent of white families. This is the widest gap, in U.S. cities with more than 1 million residents, according to a study done by Redfin real estate brokerage found. This is the case in multiple areas around the entire U.S. Black people have been disproportionately hurt by racist policies for hundreds of years. One of these policies called redlining was a major factor that caused a decrease in black homeownership. The racist housing policy of redlining assigned grade levels and color codes to neighborhoods to indicate local lenders' perceived credit risk-based in large part on the residents' race and ethnicity, and it was outlawed in the 1960s.[16] This created segregated communities and even after it was

[15] "Inequality in U.S. Homeownership Rates by Race and Ethnicity -Liberty Street Economics." *Libertystreeteconomics.Newyorkfed.Gov*, 8 July 2020, libertystreeteconomics.newyorkfed.org/2020/07/inequality-in-us-homeownership-rates-by-race-and-ethnicity.html.

[16] Lerner, Michele. "One Home, a Lifetime of Impact." *Washington Post*, 23 July 2020, www.washingtonpost.com/business/2020/07/23/black-homeownership-gap/?arc404=true.

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outlawed, real estate agents often didn't give black buyers information to make buying a home easier or they would steer them away from a white, rich neighborhoods. As a result, the value of a home in an area that was redlined with mostly blacks is worth substantially lower, at 50 percent less than greenlined areas with more white people. As a result, even with a decent amount of financial education, it is five times harder for a black person that had origins in a redlined neighborhood to move to a green lined neighborhood, because the price gap was so big because of racial inequality.[17]

Millenials have faced a decrease in home ownership compared to previous generations. Many millennials often stay with their parents as they get older into their twenties and thirties, and are unmotivated to get married as quick. In addition, lack of financial education, and student debt from college is hindering them from being able to afford their own home. Since their lives in a way are delayed, it takes a longer time to be able to develop an ample budget to buy a home and an affordable price.[18] 50 percent of Americans under the age of 36 have financial trouble when it comes to buying a home because of student debt. Millennials often tend to move to areas of tighter concentration. Many of them go to big cities and rent apartments, because they don't have the means to buy. As a result of not being financially educated, millennials develop bad financial habits and tend to be behind previous generations in terms of finances and way of life. This often seems to be true in poorer areas, often with people of color who tend to also lack financial education they are not taught in school or at home. Many poorer people in poor communities lack financial means so if there are generations of poor financially unstable people, the future generations mimic those patterns and stay poor, financially uneducated, and lack homeownership.[19]

VII. Stock Market & Investing

The global stock market value is $80 trillion. The stock market is currently on a record breaking 10 year bull market.Over 80% of the stock market is automated. The US represents about 40.01% of the total global stock market capitalization. And about 52% of the US adults have money in the stock market. Additionally, about 10% of US households hold international equities.[20]

The Stock Market Size in 2020 based off of the entire world's stock exchanges has a capitalization of USD 80 trillion, trending up from $25 trillion in 2009, a 320% increase. The US

[17] USAFacts. "US Homeownership Rates by Race." *USAFacts*, 16 Oct. 2020, usafacts.org/articles/homeownership-rates-by-race.
[18] Hanki, Aaron. "5 Reasons Millennials Aren't Buying Homes." *Investopedia*, 1 Sept. 2020, www.investopedia.com/news/real-reasons-millennials-arent-buying-homes.
[19] Hyman, Michael. "The Impact of Financial Literacy on Homeownership." *Www.Nar.Realtor*, 4 Mar. 2019, www.nar.realtor/blogs/economists-outlook/the-impact-of-financial-literacy-on-homeownership-financial-literacy-indicators.
[20] Ifta, Barry Moore CFTe Certified Financial Technician. "102 Amazing Stock Market Statistics/Trends 2020 +Infographic." *Liberated Stock Trader - Learn Stock Market Investing*, 19 Oct. 2020, www.liberatedstocktrader.com/stock-market-statistics.

stock exchanges (NYSE & NASDAQ) combined makeup 39% of the entire global stock market value – with a market capitalization of USD 31 Trillion. The NYSE & NASDAQ combined are bigger than the next seven exchanges combined (Japan, China, Euronext, London, Hong Kong & Canada). In the last 20 Years from 1999 to 2019 – The Best Performing Major Index has Been the NASDAQ 100 with a meteoric return of 300%. The next best is the Dow Jones Industrial Average with 196%, the German DAX with 150%, and the S&P 500 with 154%. The UK FTSE has managed a dreary 36% and the Nikkei 225 a 48% return.[21]

However, US companies still dominate The World's Market in 2020. For example, Microsoft Domination: Microsoft (Ticker: MSFT) is the world's largest company valued at $1.05 Trillion. Microsoft Corp. is worth more than the entire Brazilian B3 Stock Market $938 Billion, or the Taiwan Stock Exchange valued at $866 Billion. Microsoft Corp. under the leadership of Satya Nadella overtook Apple Inc. in 2019. The Power of the FAANGs: The combined value of Microsoft Corp., Amazon.com Inc., Apple Inc., Alphabet Inc, Netflix, and Facebook Inc. are worth more than most stock exchanges.

The large gains made by US companies and global stock markets as a whole push the case for financial literacy even more. If the average American was properly educated on how to save money, open a brokerage account, dollar cost average, and invest into a proper index fund that represents these stock market gains, they would have capitalized greatly on this period of prosperity. If the average American were to put away 7% of his annual income every year (7% of $63,000 as of 2020) which is $4,410, into the stock market every year, without ever receiving a raise, then at the end of the average 40 year worklife, he or she would have $1,002,201.25 saved in the stock market.[22] This is what learning very basic principles such as saving, dollar cost averaging, and opening up an investment account could accomplish. If simple financial education has the power to create millionaires out of almost any American, then this is a concept that should definitely be examined further.

VIII. Financial Education in School

It is evident that there is an alarming lack of financial literacy in the world's adult population. This trend of financially illiterate individuals is present not only in the specific topics discussed here–financial management, taxes, consumer policy, home ownership, and stock market and investing–but in all areas of finance; and it is a trend that continues to grow as

[21] Mitova, Teodora. "19+ AMAZING Stock Market Statistics to Know in 2020." *SpendMeNot*, 21 June 2020, spendmenot.com/blog/stock-market-statistics/#:%7E:text=Over%2080%25%20of%20the%20stock,US%20households%20hold%20international%20equity.
[22] "Compound Interest Calculator | Investor.Gov." *Www.Investor.Gov*, www.investor.gov/financial-tools-calculators/calculators/compound-interest-calculator.

financial matters become increasingly complex with the development of technological use in financial institutions. The plain truth is: in all countries of the world, adults lack the adequate knowledge on how to manage their finances and thus, only a fragment can really achieve a financially stable lifestyle. A Kansas State University research study conducted for the assessment of "help-seekers" (those who seek financial guidance and education) vs "non help-seekers" exhibited that help-seekers tend to be older individuals with higher credit card debt, lower net worth, less preparation for financial emergencies, lower financial and income satisfaction and overall lower levels of financial knowledge.[23] Those who poorly manage their finances and are faced with economic emergencies, will be unable to readily handle them. As a result, they may turn to look for alternative income sources or loans, which will cause stress and even elevate levels of anxiety or depression. In short, along with the previously mentioned financial disadvantages, the need of financial literacy can even take a toll on one's mental health.

A concerning bulk of the young adult population, whose ages range between 18-23 years old, have little to no knowledge about taxes, credit, mortgages, automobile loans, and many other essential financial concepts which will likely come into play at some point in their lives. Many go to college lacking basic financial assets such as a bank account, which is harmful to them in the future when they face college debt and loans on top of overall financial matters. In general, young adults and teenagers are as poorly educated as to lack understanding of the basic difference between a credit and debit card. Financial literacy tests administered to high school seniors have demonstrated that they have poor knowledge of basic financial concepts such as banking products, credit cards, taxes, savings and investment. Results from lower-income consumers have projected they are even more illiterate and their lack of involvement in banking along with their overall unpreparedness to enter the adult world and deal with finances makes them incapable of making sound financial decisions. The Jump$tart Coalition for Personal Financial Literacy has conducted various surveys in which a trend of decreasing financial knowledge is visible. In 1997, 57.3% of the population "passed" the assessment of financial literacy, but in 2000 this declined to 51.9%. 2 years later, there was another drop to 50.2%. Again 2 years later, the survey yielded a slightly higher overall score to 52.3%, but even this result indicates little improvement as 65.5% of the participants still failed and of those who passed, only 6.1% achieved a grade of a C or higher. Interestingly, the American Savings Education Council (ASEC) discovered in a study it conducted on financial literacy in teenagers, that parents are not adequate educators or role models for financial education. Of the parents involved in the study, only 25% felt they were *very* suitable forms of guidance for their children. Only 32% of the students surveyed said their parents talked to them regularly about money

[23] Durband, Dorothy, and Sonya Britt. *Student Financial Literacy: Campus-Based Program Development*. 2012th ed., Springer, 2012.

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matters.[24] It is reasonable to conclude parental guidance is an insufficient source of financial literacy education. This would be in major part because again, most of the adult population does not have enough financial knowledge to be able to pass onto children; and that is why there is such emphasis on the implementation of financial literacy education into formal education curriculums.

The majority of financial literacy experts and educators, if not all, agree this is an issue that must be addressed prior to adulthood, in K-12 education, or before the end of a student's post-secondary (college) education. However, the development of financial literacy educational programs to be implemented in school curriculums nationwide has not been sufficiently successful. The proposal of programs for financial literacy education are in no way a new concept, but what exactly is meant by financial literacy education?

Student Financial Literacy: Campus-Based Program Development, a guide to crafting effective financial literacy programs on college campuses by Dorothy B. Durband and Sonya L. Britt, utilizes the Merriam Webster Dictionary definitions of education as "knowledge and development, resulting from an educational process" and literacy as "having knowledge or competence" to define financial literacy education itself as having "a certain level of understanding" of financial matters in companionship with "the ability to use or apply [said] knowledge."[25] The University of Michigan's monthly *Survey of Consumers* drew the conclusion that there is an essential distinction between providing information and providing an education of financial literacy. Financial literacy education is not simply giving students definitions and statistics; it is the use of meaningful and engaging materials and techniques to create changes in their financial management practices, so they may be better equipped to make sound money decisions in the future.[26] Other research studies conducted on how to make financial literacy educational programs more effective reasoned that a "culture of saving" needs to be instilled from a young age, since most adults will not feel compelled or see any real benefit to save their money. To be more specific, there is an emphasis on teaching the youth *why* it is essential to save, not just how to do so.[27]

Student Financial Literacy: Campus-Based Program Development highlights two main challenges in providing programs for financial literacy education in college: identifying the appropriate office to serve as the provider of these services and the lack of holistic, professional development and training for it. It goes in depth to explain that a "student affairs" office would be best equipped to deal with the former while the need for a "centralized clearinghouse of

[24] Varcoe, K., Martin, A., Devitto, Z. and Go, C., 2005. *Using A Financial Education For Teens*. 1st ed. [PDF] Association for Financial Counseling and Planning Education. Available at: <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2255109>
[25] Durband, Dorothy, and Sonya Britt. *Student Financial Literacy: Campus-Based Program Development*. 2012th ed., Springer, 2012.
[26] Varcoe, K., Martin, A., Devitto, Z. and Go, C., 2005. *Using A Financial Education For Teens*. 1st ed. [PDF] Association for Financial Counseling and Planning Education. Available at: <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2255109>
[27] Toussaint-Comeau, Maude. "Policy Studies." *Delivery of Financial Literacy Programs*, 2007, citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.196.6645&rep=rep1&type=pdf.

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information from which aid administrators can tap into and identify resources" could be supplemented by the development of specialized committees to study issues in professional associations and create a central portal for "resources from governments, community based organizations, religious organization, professional associations, banking and lending organizations, and educational institutions."[28] The book also places key emphasis on the success of financial education programs being in a school's ability to tailor itself to the needs of it's student body. This is a theme also presented by programs developed for junior high and high schools students. Characteristics such as race, ethnicity, culture, and socioeconomic status must all be considered. It has been found that immigrants and minorities have less trust in formal financial institutions. As a result, they are more likely to borrow money from friends or family members rather than a bank. These specific groups of people need programs that will help them foster a more positive relationship with financial institutions, so that they can have more access to credit for buying a house or a car in the future. To add on, research also shows that those who use alternative financial services (such as check cashing outlets) are of lower income urban areas, lesser education, and are usually part of a minority. They require more education focusing on consumer practices, so that they can make more cost-effective financial decisions. Lower income people have also demonstrated more need to learn about budgeting, personal finances and keeping records.[29] One specific study involving the *Money Talks: Should I be Listening?* Curriculum developed for 13-18 year olds demonstrated that hispanics needed a heavier emphasis on savings accounts as only 41% reported having one as compared to 59% of non hispanics. On a more general guide, it has been learned that "personal finance is taught most effectively to high school students if it is both interactive and relevant."[30] Teenagers are, by nature, more interested in learning about consumer and financial issues that are most salient in their lives at the current moment; this is another important factor to consider when attempting to create programs for financial literacy education in high schools.

Thereupon the administration of financial literacy education programs, there are plenty of positive results. Almost immediately (within a couple months or less of receiving financial education), 30% of participants begin a savings program; 15% increase the amount they save; 40% gain skills on tracking spending, investments, cost of credit, and money management skills; 60% increase their knowledge of car insurance, cost of credit and investments; 59% change spending patterns; and 60% change their saving patterns. Long term, studies demonstrate a 1.5%

[28] Smedley, David R. "Book Review: Student Financial Literacy: Campus-Based Program Development." *Journal of Student Financial Aid*, vol. 42, no. 2, 2012, www.academia.edu/4951399/Book_Review_Student_Financial_Literacy_Campus_Based_Program_Development_Durband_and_Britt_eds_.

[29] Toussaint-Comeau, Maude. "Policy Studies." *Delivery of Financial Literacy Programs*, 2007, citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.196.6645&rep=rep1&type=pdf.

[30] Varcoe, K., Martin, A., Devitto, Z. and Go, C., 2005. *Using A Financial Education For Teens*. 1st ed. [PDF] Association for Financial Counseling and Planning Education. Available at: <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2255109>

asset accumulation amount increase later in life for those who receive financial education in high school. The rates at which people save and accumulate during their adult lives are significantly boosted.[31] On the whole, individuals who are exposed to some form of financial education at some point during junior high or high school lead much more financially fulfilling lives.

But what about elementary level students? Is there an age that can be considered as the "too young" barrier for one to learn about finance and economics? It is particularly troublesome to determine as there is no simple way to assess children; multiple choice tests require a certain level of reading comprehension while interviews are time costly and uneasy to standardize, but research dating as far back as 1969 suggests that children certainly *can* learn financial concepts. Laney 1989 research shows that young students can learn with carefully designed instruction based more on real world examples than vicarious experiences; Suiter 2006 proved that students who were taught personal finance and economics as part of their math classes did not score worse on math tests, but did better on economics tests; Watts 2005 noted that students learn economics when their teachers understand the curriculum and incorporate high quality materials in class. In Chicago, during the 2010-11 school year, the Chicago Public Schools (CPS) organization and Money Savvy Generation Foundation joined efforts to provide financial literacy lessons from Level C of Money Savvy Kids' financial curriculum. 2,553 pre and post tests were administered in 110+ elementary schools in Chicago, with "agree," "unsure," or "disagree" answer options to questions that measured the beliefs of kids about saving habits, handling money, donating, etc. A notable piece of this program was the incorporation of the "Money Savvy Pig," a 4 slot piggy bank to aid in a visual teaching of saving, spending, investing, and donating concepts. The results of this study reflected a big positive change in attitude in the kids; they felt more positive about handling money, financial institutions, and donating.[32] The most significant conclusion drawn from these studies, however, is that financial education is possible and *effective* at all levels of education.

The reason programs like these have not been embedded as a mandatory requirement in schools nation-wide is because it is difficult to place a monetary value on their implementation. The Higher Education Opportunity Act (HEOA) was amended in 2008 to require that guarantors work with schools to make high quality education programs and materials to train students about budgeting, financial management and financial literacy available before, during and after their enrollment.[33] But these programs are usually funded by guarantor's reduction or prevention accounts (for example, the USA Funds' Life Skills or Texas Guaranteed). Many state

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[31] Davis, Kimberlee, and Dorothy Bagwell Durband. "Valuing the Implementation of Financial Literacy Education." *Financial Counseling and Planning*, vol. 19, no. 1, 2008, poseidon01.ssrn.com/delivery.php?ID=&EXT=pdf.
[32] Varcoe, K., Martin, A., Devitto, Z. and Go, C., 2005. *Using A Financial Education For Teens*. 1st ed. [PDF] Association for Financial Counseling and Planning Education. Available at: <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2255109>
[33] U.S. Department of Education. "Higher Education Opportunity Act - 2008." *Www2.Ed.Gov*, 25 June 2010, www2.ed.gov/policy/highered/leg/hea08/index.html.

governments and departments of the United States government have developed financial literacy programs and services that provide content for professional audiences and curriculum requirements for K-12. For instance, in New York State, there are financial education courses offered to students. However, because such programs are not *mandatory*, they have little success in improving financial literacy among the youth. High schoolers and first time college students have yet to learn about the harsh realities and burdens of the financial world, so they are not very likely to find such courses appealing, pressing or at all necessary during their high school education. Thus, it is crucial that financial literacy education be emphasized and really *integrated* into school curriculums the way core subjects like math and english are, in order for them to be effective in improving the rate of financial literacy. In closing, to concisely stress the importance of financial literacy education in schools, the National Financial Council (as reported by the Atlantic) stated, “Financial education programs benefit 100% of students. Compare this to only 19% of need [for] high school algebra in their job.”[34]

IX. Conclusion

Financial Education, as we have examined throughout this paper, is undeniably beneficial. Debt continues to be one of, if not the major worry of hundreds of millions of Americans, and our research has shown that Financial Literacy Courses have the ability to not only help people control their debt, but to also help people lower their debt. Secondly, financial literacy also has the power to increase awareness about taxes, and help people avoid any costly accidents when filing their taxes. However, the benefits of financial education do not only benefit the individual, as they can also benefit the nation as examined with knowledge on consumer policy. Basic knowledge on investing has the ability to produce millions of millionaires and lift millions more out of poverty. Finally, we have found that creating just an optional financial course is not enough, and a mandatory, tested, financial class, just like algebra or english, would be the only way to guarantee all the benefits of financial literacy are fully realized.

[34] “Youth Financial Literacy Statistics.” *Financialeducatorscouncil.Org*, 2017, www.financialeducatorscouncil.org/youth-financial-literacy-statistics.