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Financial Literacy in College Today: Is It Needed?

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Financial Literacy in College Today: Is It Needed?

A Thesis
Presented to
The Faculty and the Honors Program
Of the University of San Diego

By
Jasper Tatsuya Lem
Finance
2023

Abstract

Californians are facing several financial crises, headlined by 4.5 million Californians falling below the poverty line, a 4.2% unemployment rate, and the fall of Silicon Valley Bank in early March 2023. In the face of these perilous circumstances, it is worth asking if California's education system could be improved to accommodate more financial literacy classes. Currently, the Golden State does not mandate a financial literacy course in any level of education, kindergarten through senior year of college. Previous research indicates that financial literacy courses would be more effective if mandated in college courses rather than high school. However, there has been no extensive research performed in an accredited California college or university regarding the financial literacy levels of enrolled students. This study aims to determine the level of financial literacy that students at the University of San Diego possess. Using a survey distributed via a QR code or a link, participants are asked a series of demographic questions, questions about previous financial literacy courses they have potentially taken, and a series of personal finance classes. The data is then organized via Stata into t-tests to efficiently organize the results. Analysis revealed that most of the demographic groups surveyed had little or no statistical difference regarding financial literacy. These results could help lay the foundation for future California colleges and universities to expand their general education to include financial literacy.

Financial Literacy in College Today: Is It Needed?

Financial literacy has never been more important to Californians than now. With the collapse of Silicon Valley Bank (SVB) and its subsequent takeover by the Federal Deposit Insurance Corporation (FDIC) on March 8th, 2023, concerns of a widespread banking sector failure became prominent in the public sphere (Rojas-Suarez, 2023). However, this recent macroeconomic event alone is not the sole factor that contributes to California's financial literacy shortcomings. About 4.5 million Californians remain under the California Poverty Measure (CPM) poverty line of \$36,900 for a family of four (Bohn, 2019). As a result, 28.7% of the Golden State's residents were poor or near poor in Fall 2021 (Bohn, 2019). Additionally, California has one of the highest unemployment rates in the nation, resting at 4.2% as of January 2023 (bls.gov, 2008). Several safety net programs, such as the CalFresh Supplemental Nutrition Assistance Program (SNAP), have aided underserved communities and have staved off the poverty crisis (Public Policy Institute of California, 2018). However, these efforts may not be sustainable for some Californians to have a positive financial future in the Golden State. Between 2019 and 2020, 500,000 Californians moved out of the state (California Policy Center, 2021). A University of California Berkeley IGS Poll in 2019 indicates that the high cost of living and high taxes are the top two reasons people are leaving California (DiCamillo, 2019).

These economic statistics highlight a deficiency in financial knowledge among Californians. One of the potential reasons for this shortfall of knowledge could be

attributed to the lack of institutionalized financial literacy programs in California's education system. Financial literacy is important for teenagers and young adults, as many life-changing financial decisions occur during this stage of life. "They decide what type of post-secondary education they want to pursue and how to finance it... if they enter the workforce right after high school, they search for jobs and careers that give them both personal satisfaction and financial security" (Breitbach, E., & Walstad, W.B., 2016). Institutionalized financial literacy's relevance can be found in retirement-age individuals. For instance, without financial literacy or personal finance education, students would not be aware of the inner workings of their 401ks and the power of compound interest. Unfortunately, California has not mandated a financial literacy class for any level of education. The closest equivalent of such a program would be an economics course required to graduate high school. "In order to graduate from a California high school, each student must take a one-half credit economics course. [However,] California has not adopted its own Financial Literacy standards..." (Nation's Report Card). However, recent efforts have attempted to introduce improvements to this shortfall. Congressman Kevin McCarthy has submitted a new bill, AB-984, to California's Congress for approval on February 15, 2023 (leginfo.legislature.ca.gov). "This bill would add the completion of a one-semester course in personal finance to the graduation requirements commencing with pupils graduating in the 2028-2029 school year, including pupils enrolled in charter school" (leginfo.legislature.ca.gov). Adding a mandated high school financial literacy class may not be effective in resolving the financial illiteracy crisis. A study by Mandell and Klein in 2009 found that a personal

finance course did not systematically impact the students' financial behavior. Their research has also been supported by a study from Holmes and Israelsen in 2019 that found a similar result. However, "In contrast, college classes (either personal finance or accounting) have a very significant impact" (Brau, Holmes, Israelsen, 2019). Therefore, it is in higher education's best interest to review the current list of general education courses and add financial literacy to their list. No extensive research has been performed on California's undergraduate students to determine if such an action is necessary and productive. This study probes undergraduate students at the University of San Diego as the first step in providing an academic basis for the addition of financial literacy courses statewide.

Literature Review

Previous efforts to add an institutionalized financial literacy course in undergraduate studies nationwide have not yielded promising results. The first issue is determining a definition for financial literacy. “Unlike health literacy, which is typically measured using one of the three standardized tests, there are currently no standardized instruments to measure financial literacy” (Huston, 2010). However, financial literacy typically incorporates 6 different topics: financial responsibility and decision-making, income and careers, planning and money management, credit and debt, risk management and insurance, and saving and investing (Breitbach, E., & Walstad, W. B., 2016). The lack of a standard definition has caused universities and colleges to be hesitant to adopt personal finance and financial literacy classes. A study by Crain in 2013 found that, of a pool of 435 universities surveyed, only 37 universities showed the course as an elective. Additionally, 41.3% of the surveyed higher education institutions have tried to include some form of financial education but were unsuccessful. Some of the primary reasons for this failure cited in the study, according to administrators of the surveyed institutions, were the following: “[Financial literacy] does not represent classical liberal arts... {the} course is not academic but rather [reflects] life-skills...is developmental in nature and should be covered in high school... is not appropriate for an entire course... [and] students are too well-informed already about personal finance...” (Crain, 2013).

These rationalizations have allowed universities to avoid addressing financial literacy courses for decades, and the effects in previous generations have been disastrous.

About 30% of college-educated Baby Boomers (aged-51-66) could correctly compute a compound interest calculation (Lusardi and Mitchell, 2007). Additionally, in 2005, about 150,000 young adults between 18 and 24 declared bankruptcy (Bush, McGatha, Bay-Williams, 2012). These statistics, coupled with the lack of effectiveness of mandated high school finance courses, have reinforced the urgency to mandate financial literacy courses in undergraduate studies. Financial literacy for current college students is critical, as an institutionalized class can provide a plethora of benefits for young adults as they enter their lives. These classes have an even greater significance since previous literature states that, "It does not appear that experience, based on age alone, increases financial literacy" (Breitbach, E., & Walstad, W. B., 2016). The lack of classes and its consequences are already being observed. Only 27% of young adults know about inflation and can compute simple interest rate calculations (Lusardi, Mitchell, and Curto, 2010).

Previous studies highlight some important discrepancies regarding the financial literacy of various groups. A study conducted by Zissimopoulos, Karney, and Rauer in 2008 revealed that only 20% of middle-aged college-educated women could answer a basic compound interest question. This is a drastically lower percentage than middle-aged college-educated men who successfully answered the same question with a 35% success rate. The main reasons for this discrepancy are cited to be a growing complexity of financial products and that men often specialize in financial decisions, thus acquiring more financial knowledge through experience (Fonesca, Zamarro,

Zissimopoulos, 2012). However, in 2021, 53.1% of adults aged 25 or older who had earned a bachelor's degree identified as women (Bureau U.S., 2022). With the rise of more women graduating with higher education than men, it is possible that women could have significantly narrowed the financial literacy gap during the most recent decade. This assumption is supported by a study of financial literacy among college students in 2013, with the researcher finding that there is no longer a statistical significance between men and women (Martinez, 2016). This is further supported by a study that found that female students with at least one credit card are, "...more financially knowledgeable regarding numeracy and money illusion concepts" (Annabi, Gonzalez-Ramirez, Muller, 2018).

First generation college students have also suffered from a lack of institutional financial literacy education. The study conducted in 2018 by Annabi found that first generation female college students are about 10% less likely to understand interest accumulation. The same study also found that male first-generation college students are 19% less likely to understand compound interest. Overall, these students are not likely to perform well on various numeracy questions and are suspected of having less exposure to financial education or personal financial matters. The study also found that a key component of personal financial literacy is interaction with parents and their financial dynamics.

During this study, our survey asked participants what their academic grade level was to determine if there would be a statistically significant difference between classes. A study conducted by Ehrlich and Guilbault in 2017 differs in the scope and type of participants who engaged. Their study had a wide spread of participants from both public and private schools, as well as possessing a strong underclassmen presence in the study. The survey conducted for this paper had mostly upperclassmen from the University of San Diego. Additionally, the Ehrlich and Guibault study took place in New Jersey, which is not the target state of this paper's study. In New Jersey, efforts to include financial literacy have already been made. "High school and middle school financial literacy instruction required: K-8 financial literacy standards by grade bands; financial literacy website". (*New Jersey | Report Card | Vision 2020*, n.d.) As a result, the participants' potential background could have already been financially literate, thus affecting the results of the study.

All students at a university can benefit from financial literacy courses, especially business majors. There has been a study conducted at a single university with only business students. That study found that the average financial literacy pre-score test was 61.17% with a median score of 59.09%. Upon completion of the course, the average score was 71.21% with a median score of 70.45%. This is a noteworthy result, considering that this previous study also conducted a t-test to determine if there is a statistically significant difference, just as this paper's study has done. The 2016 survey found that "A t-test of average means indicates that scores improved significantly (at the

1% significance level)” (Martinez, 2016). This demonstrates that all students, not just business students, would benefit from an amendment to the core curriculum to include personal finance.

Survey Question Details

We began by collecting demographic data. We asked participants to state their preferred gender identity, their major, which year they are currently enrolled in, their status as a first-generation college student, if they were a finance major, and if they had previously taken a financial literacy course.

If participants stated that they had previously taken a financial literacy course, we followed up with: “Did you take your financial literacy course in California?”, “Was this financial literacy course core/required?”, and “In which phase of your education did you take this course?” These questions were asked regarding California’s lack of standardized financial literacy. By assessing where participants had acquired their institutionalized personal finance course, a potential comparison between Californian and non-Californian students could be evaluated.

We then asked questions related to financial literacy perception. The first question asked participants their familiarity with various financial terms. Participants were prompted to rank each term on a three-choice scale, with the choices being, “Never heard of it”, “Heard of it, but I don’t recall the meaning”, and “Learned about it, and I know what it means”. The terms that our study inquired about were the following: budgeting, interest rate, inflation, credit score, income tax, stocks, retirement savings, dividends, college loans, 401k, and The New York Stock Exchange (NYSE). The questions were based on a survey from the National Center for Education Statistics

(NCES). These questions were asked to gauge participants' perception of their own financial literacy to compare to their answers for questions found later in the survey.

The second question reads as follows: "You went to dinner with 4 of your friends and the bill came to \$80. You decide to split the check evenly amongst all of you. How much would your share of the bill be, excluding tip and taxes? Please insert a numerical value below (ex. 50)". This question was a basic numeracy question testing participant's mathematical reasoning and was based on a form created by the Organization for Economic Co-operation and Development (OCED).

We then asked participants a question regarding interest rates. "You lend \$25 one evening and they give you \$28 back the next day. How much interest have they paid on this loan? Please insert the dollar (numerical) amount below, not a percentage (ex. 50)". This question was modified from the same OCED survey. This question was essential to include in this paper's study due to the findings of previous literature citing the importance of understanding interest rates. Only 27% of adults aged 18-35 understand the nuances of inflation and can compute simple interest calculations (Lusardi, Mitchell, and Curto, 2010). However, knowledge of interest rates, the types of interest available, and how interest functions has been observed to affect one's retirement planning decisions. The correct answer is 3.

Our next question was similar to the simple interest question with a focus on participants' knowledge of compound interest rates. The question in our survey reads as follows: "Suppose you had \$1,000 in an investment account that offers 5% returns annually. How much money would you have in the account after ten years if you left the initial amount untouched?" This question was based on a survey created by the Global Financial Literacy Survey and with the supervision of the World Bank Development Research Group. According to the researchers of this survey, they included compound interest as a gauge to test participants' knowledge of complex financial theories. Their logic in including the question in the survey was further reinforced by a similar study conducted two years later. "Those who understand compound interest and can do a simple lottery division are much more likely to have planned for retirement" (Rose & Morrison, 2017). By asking this simple interest rate question, our study can conclude if California students are sufficiently prepared to handle the larger financial challenges they will face later in their lifetime. In our survey, the correct answer was more than \$1,000.

Our study wanted to test our participants' knowledge of inflation and the time value of money, which states that money becomes worthless over time if it is left alone due to increased inflation over time. The decision to add a question like this was due to the finding from the study in 2010 that featured Lusardi, Mitchell, and Curto. Their study found that, "only 27% of young adults know about inflation and are able to compute simple interest rate calculations". Seeing that this statistic fit into our target population's

main demographic, it was vital to include an inflation-based question in our study. The question on our survey reads as follows: “Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After one year, your ability to buy something with the money in the account would be more than today, exactly the same as today, less than today, or I am not sure”. The correct answer to the question in our survey is less than today.

Our next question reads as follows: “Suppose you put \$100 into a no fee savings account with a guaranteed interest rate of 2% per year. You don’t make any further payments into this account and you don’t withdraw any money. How much would be in the account at the end of the first year, once the interest payment is made? Please enter a numerical value below (ex. 50)” (*Measuring Financial Literacy: Questionnaire and Guidance Notes for Conducting an Internationally Comparable Survey of Financial Literacy*, n.d.). Earlier in the survey, we had asked participants a series of interest payment questions. One was in a format with interest returned to a person while the second focused on compound interest as a percent return annually. This question aims to test participants’ knowledge of how percentages can be applicable to real dollar values in a practical setting. The correct answer is 102.

Following the series of numerical questions, our survey asked participants two True or False questions. The first reads as follows: “True or False: Maintaining a credit card balance can improve your credit score.” With large quantities of people utilizing credit

cards, our study wanted to observe if California's college students have a working knowledge of how a credit card functions. For the first question, the correct answer is False. The second question focuses on participants' knowledge of the consequences of misusing credit cards. The question on our survey reads as follows: "True or False: Maxing your credit card won't hurt your score as long as you make your payments on time." Regarding the second question, the correct answer is False.

The last question in the survey studies participants' knowledge of the tax system. The question reads as follows: "You worked at La Paloma in 2022 and earned \$10,000 over the year. Should you file for taxes?" This question addresses a misconception about how the tax system operates. For the most recent fiscal year (2022) at the time of this writing, the IRS mandates that taxpayers whose gross income was at least \$12,950 for the year, must file a tax return (*Publication 501 (2022), Dependents, Standard Deduction, and Filing Information | Internal Revenue Service, n.d.*). Analyzing our participants' knowledge regarding taxes could offer one lens to measure financial literacy throughout the University of San Diego. The correct answer to this question is False, at least for the fiscal year 2022.

Research Methodology

Google Forms, a software program formulated to distribute surveys online, was utilized due to its common usage among college students. This step was taken in the hopes that participants could quickly acclimate to the software's easy-to-use features. To distribute the survey, faculty from various departments and student organizations across the University of San Diego were contacted. Each faculty member was given a cover letter containing a QR code that linked to the survey, a PowerPoint for presenting the survey, if needed, and a short email describing the goal of the study. The participating faculty were instructed to ask undergraduate students to complete the survey at their convenience. The project was then submitted to and approved by the University of San Diego's Institutional Review Board (IRB) on March 2, 2023. With the IRB's approval, data collection began on March 15, 2023, and concluded on April 14th, 2023.

When the time came to collect the data, all the anonymous responses were exported to a Google Sheets spreadsheet. From here, a copy of the survey results was created in Excel and adjusted to operate in Stata, a computing software program. Once in Stata, the data was used to complete various t-tests for data analysis. Primarily, our study aims to discover if there are statistically significant differences between various demographic groups and their perceived and actual financial literacy results.

Since there is no formal definition or methodology to measure financial literacy, our study formulated a way to gauge participants' financial literacy. The first step was to

quantify our participants' perception of their own financial literacy. To do so, each term taken from the question that asks participants their familiarity with various financial terms was assigned a point system. There were 0 points assigned for an answer stating that the participant had no prior knowledge of the term. 1 point was given for an answer stating that the participant had heard the term but forgot the definition or meaning of the term. 2 points were allotted for participants who stated that they had heard the term and knew what it stood for. The terms tested were the following: Budgeting, Interest Rate, Inflation, Credit Score, Income Tax, Stocks, Retirement Savings, Dividends, College Loans, 401k, and The New York Stock Exchange (NYSE). The total points that participants could have earned was 22. We summed the total points that each participant was apportioned, divided by 22, and obtained a percentage. This percentage represented our participants' perceived financial literacy, according to them.

To quantify our participants' actual financial literacy results, each question was assigned 1 point. If the participant answered the question correctly, they were given a point. If they had not answered the question correctly, they were not given a point. Each participant's score was divided by 8, the total amount of "actual financial literacy" questions available on the survey. All participant's results were summed up and divided by the total, which provided a percentage. This percentage represents the participants' actual financial knowledge, according to our survey.

To compare the participants' perceived level of financial literacy with their actual results, Stata was used. After coding each participants' answers to fit the software's algorithm,

groups were created based on the demographics section of the survey. The various groups that we compared are the following: First generation students and non-first-generation students, gender, finance and non-finance majors, and business and non-business majors. These groups were compared to the participants' self-predicted financial literacy and their actual financial literacy results from the survey. While utilizing Stata, various t-tests were created that analyze if there is a statistical significance regarding the various groups.

Results

Results are based on two groups: the self-predicted financial literacy results and the actual financial literacy results. Both sets of results were compared using t-tests with the various demographic sections that we had asked for earlier in the survey. However, for Stata to accept these sections, groups had to be formulated. The groups inputted into Stata are the following: business majors and non-business majors, gender, first-generation students and non-first-generation students, finance majors and non-finance majors, people who had taken a previous financial literacy course and those who did not take the course, if the financial literacy course is mandatory or not, and when participants took the course.

There were 38 respondents in total. 71% (27) of respondents stated that they were a business major, with about 60% (16) of those business students pursuing a finance major. This number includes individuals with a double major with one of the majors being in business. About 21% (8) of our respondents identified as first-generation college students. 60% (23) of respondents identified as male. About 24% (9) of our respondents stated that their financial literacy course was mandated by their institution (either in high school or college). 34% (13) of respondents stated that they had taken a previous financial literacy course.

Initial analysis of the data presented focused on the participants' self-predicted financial literacy. A t-test between an individual's perceived financial literacy and them having

taken a previous financial literacy course found that the two groups have a weak positive correlation that is not statistically significant, as the p-value for this statistic is close to 0.09. This data is not surprising, as people tend to apply their previous life experiences to their financial knowledge, and having an institutionalized class will likely increase their confidence about financial terminology and theory. Additionally, most of our respondents are business majors. Therefore, it is possible that the weight of the business majors who participated in this study are likely to rely on their previous financial knowledge and are thus confident in their abilities.

Surprisingly, a t-test between respondents who stated that they had taken a financial literacy course and their perceived financial literacy showed no significant correlation. One possible explanation is that the business or finance majors who participated in the study received their financial literacy education through the University of San Diego's School of Business. With about 70% of our survey consisting of business majors, their increased rates of exposure to financial terminology could have impacted their self-predicted results. Therefore, it is possible for business students to have underestimated their own financial literacy via imposter syndrome. The results of our survey show that previous financial experience, including institutionalized classes, could negatively affect one's perception of financial literacy. This hypothesis is further supported by the actual financial literacy results when compared to previous financial literacy knowledge.

Two-sample t test with equal variances								
	obs1	obs2	Mean1	Mean2	dif	St Err	t value	p value
Predictive LR by ~0	25	13	0.886	.951	-.066	.037	-1.75	.09

Two-sample t test with equal variances								
	obs1	obs2	Mean1	Mean2	dif	St Err	t value	p value
Actual LR by Previ~1	25	13	0.560	.635	-.074	.068	-1.1	.28

A t-test comparing the participants' financial literacy and business major status found no correlation for both self-predicted and actual results, as the p-values for both groups were well over 0.30. The same was true for finance majors and non-finance majors, whose statistics can be found below the business majors' set of data. This shows that one's business major status does not influence one's self-perceived or actual financial literacy. This can be explained due to the content covered in business classes, as more exposure to institutionalized education can cause one to be more certain in their financial knowledge. Additionally, most of our participants were from the School of Business, thus weighing our participant pool to already possess high levels of financial knowledge. To gain a more accurate data reflection, more diversified participants should be conducted in a future survey. This proves that financial literacy does not stem from one's choice of major, but how they chose to apply their knowledge to real circumstances. However, it does not disprove that institutionalized financial literacy classes are irrelevant.

Two-sample t test with equal variances								
	obs1	obs2	Mean1	Mean2	dif	St Err	t value	p value
Predictive LR by B~:	11	27	0.934	.897	.036	.041	.9	.373

Two-sample t test with equal variances

	obs1	obs2	Mean1	Mean2	dif	St Err	t value	p value
Actual LR by Busin~1	11	27	0.637	.565	.072	.072	1	.323

Two-sample t test with equal variances

	obs1	obs2	Mean1	Mean2	dif	St Err	t value	p value
Predictive LR by F~1	22	16	0.911	.903	.007	.037	.2	.838

Two-sample t test with equal variances

	obs1	obs2	Mean1	Mean2	dif	St Err	t value	p value
Actual LR by Finan~1	22	16	0.563	.617	-.054	.066	-.85	.412

A t-test between the self-predicted financial literacy results and first-generation college students presents that first-generation students have no correlation with their self-predicted financial literacy scores. This could be explained by first-generation students potentially having a working knowledge of some basic financial terms that they might have heard earlier in their life. Students from this background are not likely to receive any institutionalized financial education and are thus challenged regarding financial terminology and the application of financial knowledge. A study conducted in 2018 by Annabi found that students are likely to obtain financial knowledge through their parents, and loose conversations about the topic through childhood could have affected this statistic. These findings could benefit from a future study with a larger participant pool.

Two-sample t test with equal variances

	obs1	obs2	Mean1	Mean2	dif	St Err	t value	p value
Predictive LR by F~1	30	8	0.916	.875	.042	.045	.9	.361

Two-sample t test with equal variances

	obs1	obs2	Mean1	Mean2	dif	St Err	t value	p value
Actual LR by First~1	30	8	0.575	.625	-.05	.08	-.6	.536

A t-test between participants' self-predicted financial literacy and gender reveals that there is no correlation. However, the actual financial literacy results showed that women are less financially literate than men on a statistically significant level, as the p-value was found to be 0.0527. These results reflect those of earlier studies that found that women tended to struggle with some financial concepts. Additionally, these results differ from our study differ from those of the Martinez study, which found that men and women have no statistically significant difference in financial literacy. However, these results would be different if there were more participants in a future study. Additional research needs to be conducted to reach a strong conclusion.

Two-sample t test with equal variances								
	obs1	obs2	Mean1	Mean2	dif	St Err	t value	p value
Predictive LR by G~1	15	23	0.885	.923	-.038	.037	-.1	.317

Two-sample t test with equal variances								
	obs1	obs2	Mean1	Mean2	dif	St Err	t value	p value
Actual LR by Gende~1	15	23	0.509	.636	-.128	.064	-2	.052

The t-tests have also revealed that there is a weak correlation between participants' self-predicted financial literacy if they had taken a finance course in California, as the p-value was found to be at 0.0957. However, their actual results showed that there is no correlation between their actual financial literacy and if they had taken the course in California. This proves that taking an institutionalized personal finance course in California would not positively affect one's actual financial literacy and could inherently harm one's self-confidence in their financial literacy. These results are logical, given that

California does not currently mandate any financial literacy class. The lack of standardization throughout financial literacy classes is likely to cause discrepancies between courses, thus providing students with a wide variety of various terms that other college students at different California colleges may not know or understand.

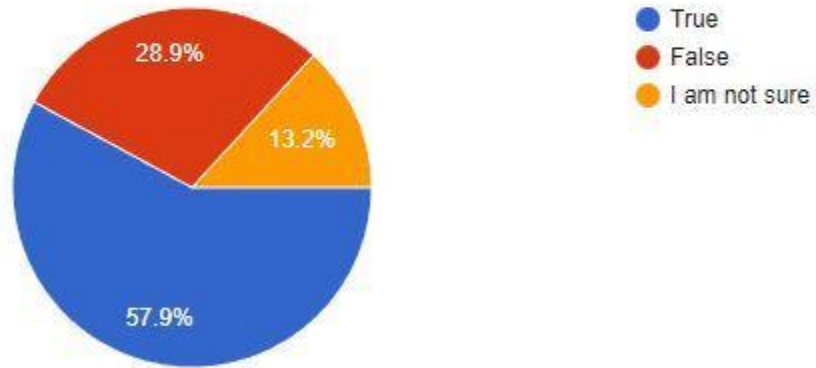
Two-sample t test with equal variances								
	obs1	obs2	Mean1	Mean2	dif	St Err	t value	p value
Predictive LR by C~1	28	10	0.890	.959	-.07	.041	-1.7	.096

Two-sample t test with equal variances								
	obs1	obs2	Mean1	Mean2	dif	St Err	t value	p value
Actual LR by Cours~1	28	10	0.558	.662	-.104	.072	-1.45	.158

Regarding the participants, most of the financial literacy questions were answered with relative accuracy. However, our participants struggled with questions regarding credit cards and taxes. Several of our participants were not aware that maintaining a credit card balance can improve your credit score or that maxing out your credit could harm your credit score. Investopedia recommends users to, “Keep credit card balances below 15% - 25% of your total available credit” (Fontinelle, 2019). The reason is because the amounts owed constitute 30% of the factors affecting your line of credit. As for the tax question, participants were not aware that income earners who earned \$12,950 or more are required to file for taxes (IRS, n.d.). However, those who earned less than \$12,950 are not required to file a tax return. All graphs depicting the results of these three questions are below. In addition, a final overview of the regression results of all groups has been provided below.

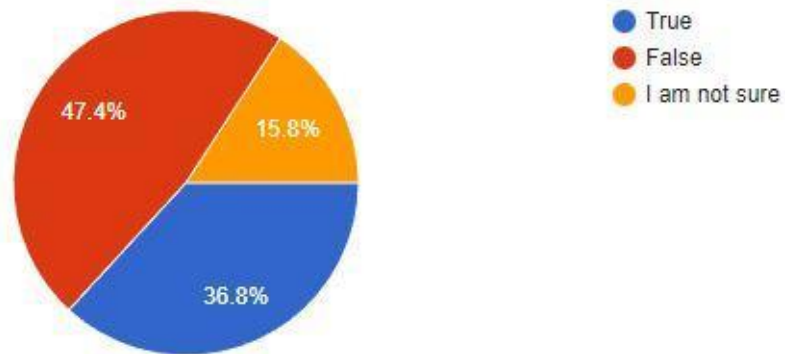
True or False: Maintaining a credit card balance can improve your credit score.

38 responses



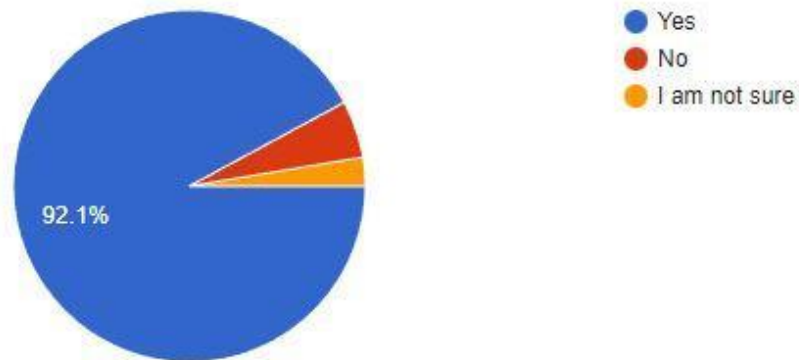
True or False: Maxing your credit card won't hurt your score as long as you make your payments on time.

38 responses



You worked at La Paloma in 2022 and earned \$10,000 over the year. Should you file taxes?

38 responses



Source	SS	df	MS	Number of obs	=	38
Model	.559918906	10	.055991891	F(10, 27)	=	1.66
Residual	.912120568	27	.033782243	Prob > F	=	0.1434
Total	1.47203947	37	.039784851	R-squared	=	0.3804
				Adj R-squared	=	0.1509
				Root MSE	=	.1838

Actual_LR	Coefficient	Std. err.	t	P> t	[95% conf. interval]
Gender	.0721008	.0772716	0.93	0.359	-.0864474 .2306489
Business_Major	-.1335848	.0867555	-1.54	0.135	-.3115923 .0444227
Year	.040537	.0448384	0.90	0.374	-.0514639 .1325379
Firstgen	.0508534	.0778934	0.65	0.519	-.1089706 .2106774
Finance	.0884682	.0878688	1.01	0.323	-.0918238 .2687601
Previous_FL	-.028841	.1578636	-0.18	0.856	-.3527504 .2950685
Course_CA	.078341	.1413348	0.55	0.584	-.211654 .368336
Mandatory	-.0167637	.1230011	-0.14	0.893	-.2691412 .2356138
When	.0398375	.1670873	0.24	0.813	-.3029974 .3826723
Predictive_LR	.5540327	.3289075	1.68	0.104	-.1208297 1.228895
_cons	-.0051737	.2791972	-0.02	0.985	-.578039 .5676916

Conclusion

Financial literacy efforts in California have been stagnating in recent decades. However, increased awareness of the issue has brought a revitalized effort to add financial literacy education to mainstream focus. Our survey conducted at the University of San Diego yielded some intriguing results and others that reaffirmed previous literature. First generation students tended to overestimate their financial literacy when compared to their actual financial literacy results. Women and men have no statistically significant difference regarding financial literacy, but trends still show that women may be slightly more disadvantaged than men. Business majors could potentially be influenced by the “curse of knowledge,” which thus affected their perceived and actual financial literacy. There is no statistically significant difference between being a business major or not regarding financial literacy. If the survey were to be conducted again, a larger pool of participants would be recruited for data collection purposes. Additionally, our survey was slightly reliant on different interpretations of interest, both simple and complex. Thus, the survey would benefit from a wider variety of questions.

Financial literacy is a difficult subject to quantify due to the lack of a formal definition. However, improvements to the education system would boost efforts promoting financial literacy. This could help alleviate the Golden State’s growing economic issue of poverty and inequality. Greater emphasis should be placed on educating the public about personal finance, investment decisions, and basic budgeting. However, these efforts will only be fruitful if higher education institutions participate in adding these types of

courses to their core curriculum. Various earlier studies have found that college courses are more likely to implant vital financial information in students. According to our survey, the University of San Diego should continue its traditions of being a changemaker campus and implement personal finance as a mandatory course. This would benefit several different communities throughout the university, including women and first-generation college students. If the University of San Diego were to mandate a financial literacy course, it could establish a new standard for financial education in the Golden State.

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