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Murray State University Honors College

### HONORS THESIS

## **Certificate of Approval**

The Importance of Teaching Personal Finance

Ryan Brewer

December 2022

Approved to fulfill the requirements of HON 437

Professor Chris Wooldridge, Director Economics and Finance

Approved to fulfill the Honors Thesis requirement of the Murray State Honors

Dr. Warren Edminster, Executive Director Honors College

## Examination Approval Page

<u>Author:</u> Ryan Brewer <u>Project Title</u>: The Importance of Teaching Personal Finance <u>Department:</u> Economics and Finance <u>Date of Defense:</u> November 29, 2022

Approval by Examining Committee:

(Professor Chris Wooldridge, Advisor)

(Dr. David Eaton, Committee Member)

(Dr. Leiza Nochebuena-Evans, Committee Member)

(Date)

(Date)

(Date)

The Importance of Teaching Personal Finance

Submitted in partial fulfillment of the requirements for the Murray State University Honors Diploma

> Ryan Brewer December 2022

#### Abstract

Personal finance is a foreign concept to many, yet it is an essential concept for all. This research project considers the impact of a personal finance course being taught in an organized, non-profit setting. A community church offers a finance course to their congregants on an annual basis that is designed to teach short- and long-term personal finance concepts to individuals and families to encourage adequate budgeting and investment practices. This specific project will evaluate the participants skillset and confidence in their financial goals before and after they are involved with the course. The data of study will be collected from a pre- and post-test given to each individual to assess the knowledge and skills related to financial goal setting. This research evaluates the impact of teaching personal finance through a structured curriculum. Before the course started, attendees were given a pre-test. Then, individuals were given a post-test to conclude the course. After data for the pre- and post-tests was matched by individual, the results showed an increase in scores therefore indicating that financial understanding after the personal finance curriculum increased.

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#### **Spending Life Cycle**

Humans are often known as predictable and habitual creatures that fall into societal patterns of development that translate from one generation to the next. There has been an increased emphasis on the spending habits of individuals over the course of their life within the last century. With that being said, the Life Cycle Hypothesis concludes that people are likely to borrow more money when they have a lower income and save when they have a greater income. This can often be looked at from the perspective of age. Younger individuals who are seeking to start their life, including their careers and families, are likely to take out a greater amount of debt to increase their quality of living from an early age. Conversely, those who are approaching retirement tend to hold on to their income more tightly to protect their life savings and to invest into secure investments to prepare for their next stages of life. The Life Cycle Hypothesis was developed in the 1950s where one would assume future growth of income will pay off current liabilities and increase personal equity. In consideration of the hypothesis, it is assumed that individuals plan out their spending for their life.

#### **Household Debt**

With consideration of the national deficit, it is important to also consider household debt. This includes most of the common sources of debt American households hold, such as home, auto, student loans, medical, and credit card debt. Historically, statistics show that these deficits have been on the incline. As a result, one can assess the importance of financial literacy in understanding the increasing complexity of personal finance. According to the New York Fed, household debt has reached \$16.17 trillion in 2022. There was an \$312 billion increase within the second quarter of 2022 alone. (Federal Reserve Bank of New York, 2022).

#### Mortgage Debt

The largest debt most Americans hold is a mortgage loan, which is how one finances a home, land, or other real estate. Typically secured by the collateral of the property, these loans can be paid over a period of time. Payments are a blend of principal and interest expenses. When applying for these loans, borrowers must meet a set of underwriting requirements that include their credit history and down payment. Through the extensive application process, the borrower and lender must agree on the loan terms, which indicate how it will be repaid. Terms of the loan can include fixed rate, adjustable rate, and interest only. If there is a failure to repay, the financial institute can foreclose on the property in efforts to retrieve their investment. (Kagan, 2022).

Over the last few years, mortgage interest rates have been at an all-time low. With that, mortgage balances were standing at \$11.39 trillion as of June 2022, which is up from \$10.44 trillion in 2018. According to the New York Fed, there was an increase of \$207 billion in the second quarter of 2022 alone. (Federal Reserve Bank of New York, 2022). This has accounted for approximately 71% of household debt. In December 2021, we have seen the housing market reach a record of \$6.12 million sales in 15 years; though, these numbers have fallen in recent months. For the month of September 2022, home sales were at \$4.71 million, which is the lowest we have seen since May 2020, according to TradingEconomics.com. (National Association of Realtors, 2022, as cited in Trading Economics, 2022). As housing prices have been on the rise due to limited homes on the market and inflation in the supply chain for new houses, the projections for the upcoming years have similar expectations. Freddie Mac projects a 10.4% increase in housing prices in the year of 2022 and a 5.0% increase in 2023. (Freddie Mac, 2022).

#### **Auto Debt**

Along with home mortgage trends, auto loans have been on the uphill climb as demand has been high while supply has been low. Additionally, market trends have encouraged more expensive and luxurious vehicles, therefore, causing auto payments to become larger for extended payback periods. Longer payback times with the same interest rates result in buyers paying more interest by the end of the payoff. As a result, the buyer has to pay on the vehicle longer until the used car is worth more than the amount left to be paid, often known as "positive equity". (Henry, 2022). In addition to this, when trading in a vehicle, borrowers may roll over any outstanding debt from the old car onto the new payment schedule. This can make payouts more unbearable and ultimately lead to an increase in loan defaults. The New York Fed stated that American auto debt was \$1.5 trillion after a \$33 billion increase in the second quarter of 2022. The trajectory is suspected to continue upward as it has been since 2011. (Federal Reserve Bank of New York, 2022).

#### **Student Debt**

With increasing interest rates, student debt has become a recent topic of discussion for many. In the United States, there are roughly 45 million people who are responsible for about \$1.75 trillion dollars of student loan debt, as of August 2022 according to the Federal Reserve Bank of St. Louis. That is approximately 1 out of 7 Americans has college debt. (Helhoski et al., 2022). The costs of higher education have been on a sharp rise over the last few decades at a faster rate than most household expenses and even inflation. One of the alarming issues with this is that government funding for institutions has been on the decline. This has caused more responsibility for funding college to shift to the students and their families. To address the debt issue that became alarming during the 2020 COVID19 pandemic, President Trump forced the student loan interest rates to zero, looking for ways to stimulate the repressed economy. This encouraged fewer loan defaults and more loan payments. More recently, President Biden's administration has issued similar policies that have lowered the loan balances and discouraged loan defaults. The Biden Administration has sought to eliminate the debt of about 20 million individuals and reduce others by 20 thousand dollars. These efforts are directed toward those of lower incomes. 14% of debt relief will go towards those with annual incomes below \$28,874, which is the lowest fifth of earners. On the other hand, only 2% of relief would go towards those who earn \$141,096 or more. (Koeze, E. & Russell, K., 2022).

In consideration of the impact of student debt, there was an article written in 2017 by David A. Price discussing the relation between young adult home ownership and student debt. According to Price, home ownership by those 30-years-old and younger moved downward from 31% in 2004 to 21% in 2016. Though it cannot be concluded that student debt is solely responsible for this regression, it can be assumed that it plays a significant role. For the average American at age 30, mortgage, auto, and credit card debt were all down. Meanwhile, student loan debt was up by 174%. (Price, 2017).

#### **Medical Debt**

In the midst of American debt, medical payments have taken their place in the running of household expenses. 50% of Americans have medical debt, which is up from the 46% in 2020, according to Debt.com, a consumer financial education company. Of this percentage, most of the debt is related to diagnostic tests, hospitalizations, and emergency room visits. RIP Medical Debt, a nonprofit, suggests that Americans may owe as much of \$1 trillion in medical debt. (Gordon, 2021). The worst part about this form of debt is that it is often unpredictable and

uncontrollable, as many value their families' health before their own financial position. Therefore, it leaves many families in unpredictable and often unfavorable circumstances. As a result, many consumers find these expenses to be difficult to repay, which results in a higher level of collection actions by creditors. For the past few years, bill negotiations have become a rising topic of conversation, as medical centers often accept a fraction of the debt for payment. Collectors would rather receive partial payments than to send bills over to collections for no payments.

### **Credit Card Debt**

Credit card debt is an outstanding liability that can be accumulated through opening accounts on credit. The borrower can use the revolving line for various purchases with the option to pay off the balance each month or allow it to acquire interest expenses. Oftentimes, purchasers are looking for an option to defer their payments from month to month when utilizing the credit. Borrowers' limits and payment history are tracked by credit bureaus. Benefits of owning a credit card include easy access lines of credit with flexible payment options to avoid interest costs. Although, it is important to note that credit card interest rates are quite high, considerably, some of the highest in the industry. (Kagan, 2021).

Credit card balances compound quickly creating economic concerns about rising costs and high inflation for cardholders. In 2020, approximately \$83 billion was paid on credit card debt in America due to a slowdown in spending and stimulus payouts. (Bhattarai, 2022). Unfortunately, there also has been record high rates of inflation and increased consumer costs, and Americans are back to their borrowing habits. Roughly half of individuals with credit cards have an average balance of \$5,270, according to CreditCards.com. (Sandberg, 2022). The survey also showed that 41% of cardholders and 51% of cardholders with debt would be seriously impacted if inflation continues at the current rates. In 2021, consumers reached back to \$86.2 billion in credit card debt. Though \$12.5 billion was paid down in the first quarter of 2022, an astonishing \$67.1 billion of new debt was added in the second quarter, according to WalletHub.com. (Comoreanu, 2022).

#### **Bankruptcy and Financial Stress**

Designed for people who can no longer pay their debt expenses, bankruptcy assists troubled households or businesses by liquidating their assets to pay off liabilities or creating a repayment plan. There are many laws and regulations for these situations to protect those filing, as cases are handled in the federal courts. Since it is a complex process that can have extended legal and financial consequences, potential filers are encouraged to get a lawyer to assist them through the process. However, it is not a requirement. (United States Courts, n.d.).

According to Mark P. Cussen, CMFC, there are five primary reasons people file bankruptcy. His analysis is based on a study ("Medical Bankruptcy: Still Common Despite the Affordable Care Act") that questioned Americans who had filed bankruptcy between the years of 2013 and 2016 on major influences on their circumstance. The most common reason was a loss of income, which was named by 78% of the survey results. As income pays bills, it would make logical sense that financial stress can appear after a paycheck stops, not to mention new bills that used to be covered by insurance through an employer. (Cussen, 2021). Vulnerability to medical expenses was the second highest reason people filed bankruptcy, as reported by 59% of the respondents. Many of the surveyed indicated that their medical condition also led to job loss, so the two issues seemed to have worked together. As already mentioned, mortgage and housing expenses were a leading cause of household debt, which showed to be another reason for bankruptcy. 45% of the survey expressed that unaffordable mortgage payments resulted in troubled finances. The next reason provided was living outside of one's means, which consists of poor spending habits like unnecessary shopping sprees and impulse buying. Lastly, the survey showed that 28% of participants found themselves in a financial struggle after assisting other family members. On a positive note, the number of filed bankruptcies has been on a downward slope for nearly a decade. In 2021, the total annual filings were 413,616, which was down from 544,463 in 2020. (Himmelstein, 2018).

Nevertheless, it is important to note that financial worries are still a leading cause in mental stress. According to a recent study by Bankrate and Psych Central, 42% of survey participants indicated that financial considerations left them with negative emotions and concerns. (Sandberg, 2022). The most prevalent concern is the capacity to cover any given financial outlays. These stressors appeared to affect adults of a wide range of ages. Young adults showed greater signs of financial stress negatively impacting their mental health. As medical debt is one of the primary reasons for bankruptcy, we can draw a relation between medical debt, financial stress, and mental health. (United States Courts, 2022). According to the Consumer Financial Protection Bureau, people with medical debt have three times the risk for mental health concerns, such as anxiety, depression, and stress. Consequently, individuals will delay or avoid medical treatment out of concern in the associated medical expenses. (Consumer Protection Financial Bureau, 2022). On the flip side, individuals have also reported being denied medical treatment due to unpaid bills. Medical debt accompanied with other expenses may have a significant toll on a households' physical and mental health. Unfortunately, few instances in one's life can merely impact the rest of their life and those they hold close.

#### **Economic Importance of Financial Literacy**

It is evident that there is a direct relation between financial literacy and financial decision making. As society becomes more and more complex, basics concepts of finance will become a necessity for all Americans to live a sustaining lifestyle, especially through their retirement. The average American will be faced with making higher level financial decisions on a day-to-day basis. Within the areas of debt previously discussed, knowledge in budgeting, investment, and lines of credit will be crucial for the success of any individual or family if it is not already. On a positive note, there are often more financial instruments entering the market. Although, this can provide more opportunity for poor decision making if the individual has a limited understanding in personal finance.

Exposure to risk of high-cost decisions is a common component of any decision, especially in regard to finance. For instance, one common risk for someone with limited finances is quick money through payday loans and pawn shops. These high interest loans oftentimes catch individuals in a cycle of needing the loan and paying the high interest on a regular basis instead of investing this extra cash into an asset with an actual return. Another risk of limited financial understanding is that of a secure retirement. Those who do not properly prepare for their future jeopardize their capacity to have a sustaining retirement plan. As these are only a couple of examples, limited financial understanding can not only be detrimental to the individuals and their families, but it can also create challenges for society. (Lusardi & Mitchell, 2011). With that, it is essential that financial illiteracy is addressed through a range of avenues to maximize opportunity and increase the normality of the subject.

#### **Financial Education**

Through one's life, a person's path can be narrowed down to a few key decisions made along the way. This is especially applicable when considering personal finance. In just a few decisions, one can determine the future of their wealth, which expresses the necessity of financial literacy. According to a 2019 Charles Schwab survey, 59% of Americans live paycheck to paycheck. (Modern Wealth Survey, 2019). Given that almost everyone needs a paycheck to pay their bills, it only takes an instance to throw the majority of American households off their track of life. This possibility alone demonstrates the importance of having the knowledge in the basics of personal finance. As financial literacy can be acquired through a range of avenues, whether it be college coursework, community classes, or personal advising, it is an attainable skillset that can help maximize one's wealth potential.

As a result of the 2008 financial crisis, many evaluated the reasons behind the economic recession. At the root of the cause, we can see a series of poor investments and deficient loans. Home values were going down while interest rates were on the rise. This meant that homeowners were starting to owe more than their home was worth. After some leading financial institutions failed, the recession began to take hold in the economy. In response to the downfall, evaluations have been made to determine the root cause with efforts to seek potential solutions to avoid another crisis. According to Jeffrey M. Lacker in his article, Financial Education in the Wake of the Crisis, he discusses two key responses to the issue. These included increasing financial education and strengthening lending regulations. With a broader approach to analyzing the concepts, Lacker has proposed some relevant concepts to the health of the economy. (Lacker, 2009).

In reflection on decisions made by households during the crisis, one can see the importance of financial literacy. As economists assume the average person will make rational decisions in their finances, the common information available to consumers must be assessed. This is because not all information available to households is accurate or valuable to their financial decision making. With this, it is essential that people learn to make rational judgements of any given sources of advice, as it can be difficult to discern between "good" and "bad" information if you have a limited understanding of the concepts. For instance, many see the 2008 crisis to be a consequence of poor regulations, especially in the mortgage lending sector, that led to many improper loans made to individuals who should have never received approval. (Singh, 2022).

On the other hand, it can be determined that many of these deficient loans hardly made sense for the consumer. Lacker uses the example of high interest loans for car repairs on a vehicle that may not have been worth the investment in the first place. This is often a result of what economists refer to as "asymmetry", which is where one party holds more understanding on the given information than the other. In a lender and consumer relationship, the consumer is commonly the party that lacks knowledge, which typically ends poorly and proves costly for the consumer. To balance this inequality, Lacker proposes a balance of appropriate regulation and adequate education can support the balance thereof. (Lacker, 2009). Even with that, it could be a more productive approach to inform and assist in the consumers understanding of financial products to support sensible decisions, instead of limiting their access thenceforth.

#### **Class Analysis: Course Overview**

Financial Peace University is a course designed by Dave Ramsey who has personally climbed his way out of millions of dollars of debt and bankruptcy. Through helping millions of

people with financial strongholds, the course is accompanied by podcasts, lesson plans, workbooks, videos, and more. The course series is based on the principle of becoming debt-free or remaining debt-free, as interest expenses are viewed as giving away free money. Though it is not the only accessible or proven personal finance curriculum, it is a recognized series that Lone Star Church chose to go with for this year's financial assistance coursework.

Through a series of pre- and post-test questions, attendees were analyzed to determine an increase in knowledge. Questions were pulled from a variety of chapters within the course, which included four multiple choice and three true/false. Principles to be applied were basic concepts of refraining from debt to effective methods of investment that were covered throughout the course. To strengthen the analysis, a control group was formed of individuals that have not taken the given financial course. Each group was given identical questionnaires to test their knowledge in the given areas of the course.

Beyond this, there was a third group used for the conclusions of this analysis. This group was subject to having prior participation in the same course. As the goal of the course is based within long-term benefits, open-ended questions were given to the subjects to assess their perception of the course. Questions were centered around benefits individuals have seen since participation, in addition to, any areas of improvement they may have identified for the course.

#### **Hypothesis**

I hypothesize that a personal finance course in a community church setting will increase participating members financial understanding. I also hypothesize this financial course has longterm benefits to those who have previously participated in the course and will continue having benefits to any future participant.

#### **Course Details**

This year, Lone Star Church provided two different opportunities in taking a personal finance course. The effectiveness of the courses was measured through a pre- and post-test given to the class participants. In addition to this, there were interviews given to those who have taken the course previously to observe the long-term benefits. For this study, the first option was an extensive 9-week evening course that met once a week for the months of June and July 2022. These were in the evening for approximately an hour each. In addition, the second option was a 4-week series that met on Sunday mornings for an abbreviated version that covered the course highlights for the month of August 2022. Class content was essentially the same for each course. However, the condensed course moved at a faster pace with less in-class videos and discussions. Coursework involved Dave Ramsey's 7-Baby-Steps to financial freedom.

- Step 1 encourages students to save \$1,000 for a starter emergency fund. This is designed to take care of unforeseen situations, which could be potential home or car repairs. Though, urgent needs can stem from a variety of possibilities. With this fund, stress can be limited because one will not have to agonize the expense, and they can focus on the circumstance at hand. Upon use of the fund, one should strive to replenish the account.
- Step 2 focuses on paying off all debt (except the house) using the debt snowball. This method starts with one's smallest debt then works towards the largest liability, which is often the home. Paying the minimum on each payment except for the lowest channels your energy towards knocking liabilities out one by one. As you get one bill paid, use these funds to pay off the next one at a faster rate.
- Step 3 is designed to save 3–6 months of expenses in a fully funded emergency fund. As step one introduces, life can often throw unexpected events. Moving beyond unforeseen

expenses, the fully funded emergency fund is geared toward a loss in income due to job complications, medical issues, etc. This will permit an ease in flow of a job transition or an extended disability. On top of this, it could cover a large expense, like the need for a new car, which would keep one from falling back into debt.

- Step 4 focuses on retirement planning by investing 15% of your household income. As you approach the later years in life, you should only have to work out of choice. Planning ahead can permit a secure and enjoyable retirement.
- Step 5 promotes saving for your children's college fund, which can be subjective depending on the individual and their life. As there are some tax benefits for education savings programs, it should be considered for the long-term success of one's family.
- Step 6 can save you a lot of money by means of paying off your home early. Interest expenses can be quite daunting when you analyze how much you spend over the course of a lifetime. The earlier one can get ahead of their mortgage; the more money they can have to invest and spend elsewhere.
- Step 7 of building wealth and giving generously can be the most exciting portion of the process. As you take care of your other obligations and liabilities, one can now have liberty to choose where they want to invest and give their money. As giving is an important function of the entire course, this final step works to maximize one's capacity to donate.

All of the given content was covered in both courses offered. Though, the extended course included more group discussions and class involvement, which included interactive questions, videos, and activities. Even with that, there was still equal opportunity of after class discussion

and questions. These opportunities were subject to the participants and any personal questions of advice they might have had for the instructors. (Ramsey Solutions, 2022).

#### **Sampling Process**

The sample of this study took place at Lone Star Church where signups for the financial peace course was made available to both congregants and guests for both courses offer. The objective of the course was to provide some fundamental advice for anyone that seen the course as an opportunity to grow. However, many younger families and individuals were highly encouraged to take part in the course. Ages primarily ranged from 18-30 years old. Though, there were also some middle-aged families and individuals approaching retirement. It can be assumed that volunteers attend or are connected to Lone Star Church. Advertising took place through the church app and regular announcement process of regular church functions. Beyond this, the course leader reached out to families she believed would benefit from the material. Then, others who have taken the class encouraged new participants as they deemed fit.

#### **Control Group**

To draw the most accurate conclusions, a control group was formed to create a basis of comparisons for the results. This group was composed of various individuals from a range of demographics. Some were single college students, single adults, middle-aged family caregivers, and soon-to-be retirees. 53% of the control group participants were between the ages of 18 and 30 years old. They came from various backgrounds of careers and levels of education, which was important to an adequate analysis and comparison. Though, there were no given financial professionals within the mix, so the group could be assumed to have little to no financial training. Selection was based through volunteers; therefore, little to no efforts were made to control the sample.

Mean:	31.4
Median:	29
Min:	19
Max:	53
STD.V:	11.84

 Table 1: Control Group Participants Age Demographics (in years)

The questions proposed to the control group participants were the same seven questions utilized for the pre- and post-test assessment. The results of this assessment were based on 15 individuals who have not participated in this specific course being evaluated. Participants were given a similar disclosure statement as the class. There would be no specific information collected and used for the purpose of this assessment that could be used to identify them or their families.

#### **Class Demographics**

Each informal option was available to anyone that was interested, as there were no stipulations or requirements to join the classes. There was a mixed group of individuals and families represented by the participants. As there were no stipulations or requirements for the course, there were a range of demographics represented amongst the group. This ranged from individuals approaching college as a single who still live with their parents to those who are approaching retirement. 47% of the class participants were between the ages of 18 and 30 years old. Both higher and lower middle-class incomes were represented. With this, portions of the class were applicable to some and less applicable for others. Though, this sampling permits a more accurate representation of the class and the related impacts.

Mean:	35.13
Median:	38
Min:	19
Max:	60
STD.V:	15.34

 Table 2: Class Participants Age Demographics (in years)

#### **Data Collection and Protection of Privacy**

The research did not require the review and oversight of the Institutional Review Board (IRB). Data submitted for approval included an abstract of the study, sample questions to be reviewed, and the approach to the data collection. As there was no required involvement of the IRB, determination review and approval were given and documented on May 6, 2022. The IRB will keep this form on file for three years. After this, the researcher and advisor continued with the process of the research.

At the first meeting of each course, after the introduction of the course, the researcher was given a brief amount of time to discuss the study and give a statement of disclosure and privacy. The analysis was briefly explained as an undergraduate student's study that did not have connection to their individual success in taking the course, as the pre- and post-tests were just an evaluation of the course itself. A paper copy of the questionnaire was given to the participants to complete while in the class. Therefore, there should be no chance of outside influence on the result. The only personal information collected was attendees' initials that are only accessible by the researcher. To conclude the courses, the researcher was permitted time to conduct the posttest. Class attendees were reminded of the assessment purpose and their protected privacy. In creating a control group, participants were approached individually, as the questionnaire did not take an extended period of time to complete. Questions were given to participants for completion and returned directly back to the researcher. Those involved in the financial course assisted with identifying those who have not taken part in the course. Upon contacting partakers, a privacy statement was given to assure the individuals that their personal information would be kept confidential and not used for the purpose of this study.

For the purpose of interviewees who have taken the course before, they were approached by the researcher via text, phone, or in-person. Responses were recorded according to the given approach of communication. This data is also collected privately by the researcher, and subjects' personal connection to their responses are only accessible by the student. A similar disclosure statement of participants' private information was given as previously mentioned. In regard to all three groups, participation and completion of the given form would assume the partakers consent. If a participant did not submit or complete any involved form, it would be assumed that the individual did not wish to be involved and the related data was not utilized.

#### **Control Group Results**

As the control group is designed to broaden the base of the study, the results were quite similar to the pre-test results of the individuals who participated in the financial course. As the demographics were quite closely related to the class participants, it can be assumed that similar results would occur if the control group was given similar opportunities as the class. The overall score for the group was 58%, which was a total of 61 correct answers given out of 105 possible answers.

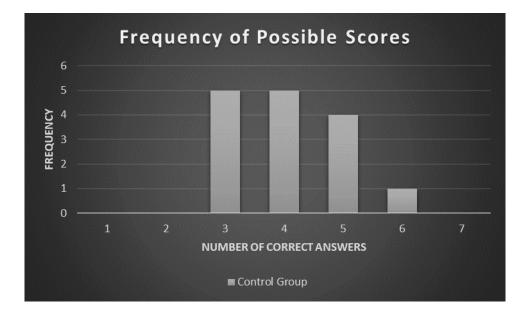


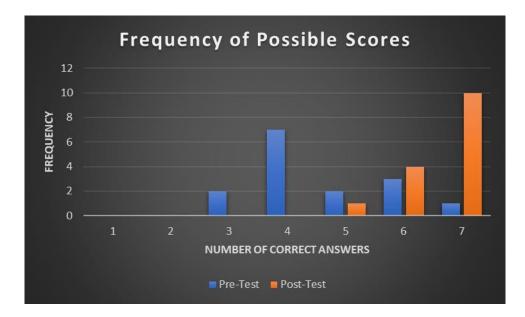
 Table 3: Control Group Scores

Possible Points	7
Mean:	4.07
Median:	4
Min:	3
Max:	6
STD.V:	0.96

#### **Class Results**

As predicted, the course had a positive impact on the participants' knowledge about the personal finance topics covered. Through the pre- and post-test assessment, the class percentage went from a 65% to a 94%, which shows to be a quite productive shift. There were 7 possible points for each taker, and there were 15 individuals involved. The total number of points possible for the class was 105. For the pre-test, there were 69 total points scored. In comparison to the

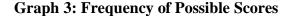
post-test, where there were 99 total points scored. Everyone involved in the assessment showed a positive or consistent shift from the start of the course to the end of it. As there were some that scored the same from one test to next, this could be the result of prior knowledge to the course if they scored perfect on both exams. Those that missed some of the same questions or missed different questions could have been influenced from distractions or guesswork.

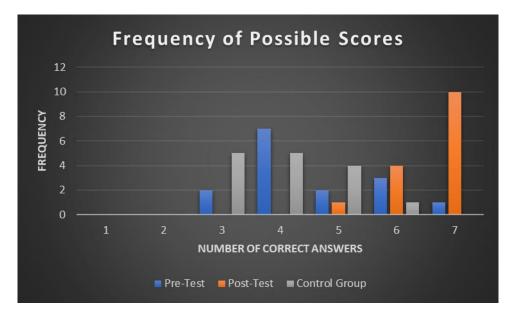


**Graph 2: Pre- and Post- Test Comparison** 

 Table 4: Pre- and Post-Test Scores

	Pre-Test	Post-Test
Possible Points:	7	7
Mean:	4.6	6.6
Median:	4	7
Min:	3	5
Max:	7	7
STD.V:	1.18	0.63





#### Interviews

Expanding course evaluation. There were a couple of individuals who have taken part in the given course in times past. They were asked questions that assessed the benefits they experienced from the course. Some of these were personally based, along with others in regard to their relation to the church. In addition to this, they were asked questions about the effectiveness of the course. These questions evaluated how the course could be improved from their perspective. A portion of these results are as follows.

Household A is composed of a married couple of approximately 30 years in age who have been married for nearly 7 years and now have 3 children. This couple took the course during the year of 2020; therefore, they have had approximately 2-years to put into effect the courses content. Positive impacts included that of paying off multiple bills, especially of higher interest rates. This was by applying the snowball effect principle. With that, they shared that they were able to give more to various functions of the church. This was in addition to their regular giving. The family considered this to be one of their biggest blessings as a result of the course. On the flip side, there were also some areas that Family A considered to be less pertinent. Primarily, the cash-based budget strategy. They expressed that with 3 children and a busy schedule, it was not convenient for their lifestyle. Somewhat using the \$1000 emergency fund tactic, this continues to take ongoing efforts and discipline to keep in effect. Though, that is not always the case. With that considering, they felt the course was tailored more towards the ideal couple prior to kids. They expressed, "If we knew about it and started it before getting married or as newlyweds, it would have been more than successful for us."

Household B consists of newlyweds in their early 20s and have been married for 2 years. After taking the course at the beginning of their marriage, they have also seen some benefits to the course that vary from the previous household mentioned. The gains from the course primarily stemmed from the budgeting function. Just getting into life, they did not have extensive debt to pay off. Therefore, this course was primarily eye opening to how to properly plan and prepare the process of building wealth over their lifetime. They discovered some various spending habits about themselves that they were able to improve, which permitted them to have extra cash to put back in savings or use for more important expenditures.

Household C consists of a young couple, in their late 20s, who were approaching marriage at the time of the course in 2021. Therefore, they were coming from a place of individual financial goals at the time of this course. Overall, they enjoyed the course and were able to utilize key points to start discussion amongst themselves in planning their new financial goals together. Budgeting was the highlighted section of the course for them. It stretched their thought processes and goals. With that, they still utilize some of their acquired skills to plan and accomplish financial strategies together. The identified area of improvement the household identified was real life examples. Even though it helped them with new techniques, they felt that additional guidance in the application process of these techniques would be beneficial.

Household D includes another young family with 2 young children. After taking the financial course in 2020, they have also seen some benefits in their finance routines and goals. The most relevant concept for them at the time of the course, and still to this day, is the focus to minimize debt. Anytime they feel financial stress, they refer back to this method. Beyond this, they now understand that giving is a solution for selfishness. Therefore, they look for more opportunities to give to support not only those around them, but also to promote self-health. This also includes reducing wasteful or unnecessary spending habits. With that, the interview was finished up with a final question on areas of improvement. Their suggestions were less about altering the course at hand and introducing a more in-depth follow-up course.

#### **Limitations and Future Research**

There are some observed limitations to the study that will be addressed in the future. Firstly, my limited sample size makes it difficult to determine whether the difference between groups is statistically significant as well as make conclusions of a population. Looking forward, it will be beneficial to evaluate this course across multiple settings to increase the sample size, whether it be more classes within the same church or across multiple churches. Efforts were made to expand the sample size for this specific study, but difficulties of cooperation with the other groups occurred.

Secondly, selection bias is present in my sample. Participants volunteer for this course, and those who sign-up for this class are the ones most interested in the course. Therefore, they are more likely to implement the concepts learned. As a result, my sample is not a true representation of the population given the participants are not randomly selected.

Thirdly, survivorship bias is present in evaluating the long-term benefits of the financial course (i.e., interviews). Because the contact information for some individuals who have previously taken the class was not available, this introduced bias in my qualitative approach. Unfortunately, there are no clear way to avoid this bias, but I will look into the survey methodology literature to see if there are any potential solutions.

Fourthly, I did not consider participants financial literacy knowledge nor demographics. This is an important limitation to address in future surveys because the participant's background may influence a participant's current financial knowledge and behavior. It would be beneficial to expand upon the specific questions asked, especially for the comparison to the control group. I propose a modified survey that addresses this limitation (see Appendix D).

Fifthly, there were some individuals who had external areas of influence: such as work, school, or other prior commitments. This showed variation in some of the class attendance levels over the course of the class. This could show impact in some of the results of the pre- and posttest. Similarly, there were some in-class distractions, like parents with children. Though, these were minimal. Potential solutions could include pre-course commitments and pledges towards participation and attendance. To evaluate this limitation, the questionnaire could ask, "how many full classes did you attend?" Then, to expand upon this study, I would consider the variation from the 4-week to the 9-week course results and how the non-profit setting would compare to other community locations.

Lastly, this study was descriptive in nature and did not put forth any statistical analysis. To address this limitation, I plan to take a more statistical approach to this topic. For example, this study would have been improved by conducting a sample t-test to determine whether the difference in means of my control and treatment groups as well as the pre- and post-treatment groups are statistically significant. Additionally, I can improve this study by using a propensity score matching approach to match my control and treatment group. This technique will allow me to control for any confounding effects. In collecting the data, it would have been beneficial to utilize Google forms or another survey software for the comparisons. Furthermore, the incorporation of a regression analysis will allow me to interpret if the attendance to financial literacy courses is effective in influencing financial behavior. For instance, does the participants' attendance to these financial courses reduce credit card debt or help build emergency funds? I propose using the following two models, which I borrow and slightly modify from Robb (2011).

**Credit Card Debt**<sub>t</sub> =  $\alpha + \beta_1$  Financial Literacy Course<sub>t-6</sub>

+  $\gamma Demographic Controls_t + \delta Financial Course_t$ 

**Emergency Fund**<sub>t</sub> =  $\alpha + \beta_1$  Financial Literacy Course<sub>t-6</sub>

+  $\gamma Demographic Controls_t + \delta Financial Course_t$ 

Where the dependent variables are credit card debt, the participant's current amount owed on credit cards, and emergency fund, the participant's savings balance designated for emergency use only, at time t. The main independent variable of interest is the financial literacy course, which is a dummy variable where it takes a value of 1 if the individual participated in the financial literacy course and 0 otherwise. I propose controlling for demographics, demographic controls, such as gender, age, ethnicity, education, marital status, and number of dependents. I also control for financial behavior, financial controls, such as household income, mortgage debt, auto debt, medical debt, student debt, credit card debt, previous financial literacy knowledge, and FICO score.

#### Conclusion

It is important to note that historically, financial stewardship has always been an important part of religious practices. This study was not merely designed to stress the religious significance of monetary commitments to an organization. It was, however, designed to emphasize the advantages of incorporating financial education into an association for the prosperity of the participants, the organization, and their community.

In evaluating the topic of teaching personal finance, we can assess that there is a great need in increasing an individual's financial understanding. Considering the ongoing credit system and the increasing complexity of personal finance it is vital that individuals seek financial advice. Since everyone does not understand the importance of a private advisor, the community style course permits opportunity for any sort of household to consider their finances and discover the next best step for the longevity of their wealth. The most obvious is the success of the individual and their immediate family. Though, this realm of advantage can overflow into any group or community within the individual's network of influence.

I hypothesized that the course would be beneficial to the participants and their households. In my methodology, I conducted a pre- and post-survey to measure the change in participants' financial understanding. In addition to this, I interviewed those who have previously taken the course to evaluate the long-term effects of the class. Given my current analysis, I conclude that offering personal finance classes have a positive impact on the involved participants and their households. Specifically, non-profit organizations can use this strategy to assist and promote financial health and wealth for their congregants and community.

In conclusion, I believe that communities should find ways to incorporate financial literacy into their outreach programs, education systems, and assistance programs. These programs should cover the basics of personal finance to build a foundation in making sound financial decisions. Introducing accessible courses and encouraging financial planning to community events could normalize the importance thereof. Then, requiring personal finance at a high school or GED level would help prevent the topic from becoming a foreign concept to the community at large. Personal financial understanding is an essential topic to any individual and maximizing its accessibility should never leave the table of discussion for any community.

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# Appendices

# Appendix A

Class Sign-Up Sheet Template



# Appendix B

Budgeting Tool Used in the Class

	Add up subjected column	Monthly Take-Home P	2017
	( \$ enter were	These icons represent good option	a set fribe en and as
CHARITY	Spent Budgeted	FOOD	Spent Budgeted
Tithes	a set of	Groceries	
Charity & Offerings		🕫 Restaurants	
	*10-15% TOTA		S-ISN TOTAL
			IS-ISK (ITOTALS)
SAVING	Spent Budgeted	T CLOTHING	Spent Budgeted
Emergency Fund		Adults	
Retirement Fund		Children	() () ()
College Fund		Cleaning/Laundry	
20.203.55 (10.102).203		the control of the control of the	
	Latona and		(*2-7% (TOTAL))
HOUSING	Spent Budgeted	TRANSPORTATION	Spent Budgeted
First Mortgage/Rent		Gas & Oil	
Second Mortgage		A Repairs & Tires	
Real Estate Taxes		License & Taxes	
Repairs/Maint	N	Car Replacement	2
Association Dues		Other	
	*25-35% TOTAL	CONSIGN CONS 12	*10-5% TOTAL
	(23-33-(10)1-2)	0.20	
も UTILITIES	Spent Budgeted	S MEDICAL/HEALTH	Spent Budgeted
Electricity		Medications	
Gas		Doctor Bills	
Water	W	Dentist	h
Trash		Optometrist	
Phone/Mobile		Vitamins	
Internet		Other	
Cable	· · · · · · · · · · · · · · · · · · ·	Other	
	(*5-10% (TOTAL)		IS-104 (TOTAL)

(Ramsey Solutions, 2022).

## Appendix C

Financial Course Survey (Original)

It should be noted that responses are confidential and will in no way be used to identify respondents or their households.

Please circle an answer for the following questions in regard to the course material:

1. How long should your emergency fund be able to support you and your family?

- A. 1-3months
- B. <mark>3-6months</mark>
- C. 6-12months
- D. 12-24 months
- 2. What percentage of household income should be placed toward retirement?
  - A. 5%
  - **B.** 10%
  - C. 15%
  - D. 20%
  - E. 25%

3. The purpose of insurance is to transfer \_\_\_\_\_\_ that we can't handle ourselves.

- A. Risks
- B. Checks
- C. Credit Card Debt
- D. Health Care Plans
- 4. Your mortgage payments, including HOA fees, insurance, and taxes, should be no more than \_\_\_\_\_% of your take-home pay.
  - A. 15%
  - B. 20%
  - C. 25%
  - D. 35%
  - E. 45%

Please mark TRUE (T) or FALSE (F) for each of the following:

- 5. \_\_\_\_ T\_\_\_ The 401(k), IRA, 403(b) and 457 are tax-deferred plans.
- 6. \_\_\_\_F\_\_\_\_ Diversification in mutual fund investments increases risks.
- 7. \_\_\_\_F\_\_\_\_ You should buy a house in the upper price range of your neighborhood.

### Appendix D

Financial Course Survey (Modified)

It should be noted that responses are confidential and will in no way be used to identify respondents or their households.

## Section 1

Please submit the most accurate answers to the following demographic questions:

1. What is your gender?

A. Male

- B. Female
- 2. What is your age? (years)
  - A. <19 years old B. 20-29 years old C. 30-39 years old D. 40-49 years old E. 50-59 years old F. 60 + years old
- 3. What is your highest level of education completed?
  - A. Some High SchoolB. High SchoolC. Bachelor's DegreeD. Master's DegreeE. Terminal Degree (e.g., PhD, MD, JD)F. Trade School
- 4. What is your ethnicity?
  - A. Caucasian
    B. African American
    C. Latino or Hispanic
    D. Asian
    E. Native American
    F. Native Hawaiian or Pacific Islander
    G. Two or More
    H. Other/Unknown

- 6. What is your current/legal marital status?
  - A. Single
  - B. Married
  - C. Separated
  - D. Divorced
  - E. Widowed
- 7. How many dependents do you have?
  - A. 1
  - B. 2 C. 3
  - C. 3 D. 4
  - D. 4 E. 5 +

## Section 2

Please respond to the following questions in regard to your household's current financial status:

- 1. What is your annual household income?
- A. < \$25,000
- B. \$25,000 \$50,000
- C. \$50,000 \$100,000
- D. \$100,000 \$200,000
- E. \$200,000 +
- 2. How much do you currently owe on your mortgage?
- A. None
- B. \$1 \$100k
- C. \$100k \$200k
- D. \$200k \$300k
- E. \$300k \$400k
- F. \$400k \$500k
- G. 500k +

3. How much do you currently owe on auto loan(s)?

A. None

- B. \$1 \$10k
- C. \$10k \$20k
- D. \$20k \$30k
- E. \$30k \$40k
- F. \$40k \$50k
- G. \$50k +
- 4. How much do you currently owe in medical bills?
- A. None
- B. \$1 \$5k
- C. \$5k \$10k
- D. \$10k \$20k
- E. \$20k \$30k
- F. \$30k \$50k
- G. \$50k +
- 5. How much do you currently owe in student loans?
- A. None
- **B**. \$1 \$5k
- C. \$5k \$10k
- D. \$10k \$20k
- E. \$20k \$30k
- F. \$30k \$50k
- G. \$50k +

6. How much do you currently owe in credit card debt?

- A. None
- B. \$1 \$999

- C. \$1k \$10k
- D. \$10k \$20k
- E. \$20k \$30k
- F. \$30k \$40k
- G. \$40k \$50k
- H. \$50k \$60k
- I. \$60k \$70k
- J. 70k +
- 7. What is your current FICO score?
- A. 300 629
- B. 630 689
- C.690 719
- D.720 850
- E. No Score
- 8. Do you prepare a monthly budget?
- A. Yes
- B. No

### Section 3

Please circle an answer for the following questions in regard to the course material:

- 1. How long should your emergency fund be able to support you and your family?
  - A. 1-3months
  - B. <mark>3-6months</mark>
  - C. 6-12months
  - D. 12-24 months
- 2. What percentage of household income should be placed toward retirement?
  - A. 5%
  - **B**. 10%

- C. 15%
- D. 20%
- E. 25%

3. The purpose of insurance is to transfer \_\_\_\_\_\_ that we can't handle ourselves.

- A. <mark>Risks</mark>
- B. Checks
- C. Credit Card Debt
- D. Health Care Plans

4. Your mortgage payments, including HOA fees, insurance, and taxes, should be no more than \_\_\_\_\_% of your take-home pay.

- A. 15%
- B. 20%
- C. 25%
- D. 35%
- E. 45%

Please mark TRUE (T) or FALSE (F) for each of the following:

- 5. \_\_\_\_\_ The 401(k), IRA, 403(b) and 457 are tax-deferred plans.
- 6. \_\_\_\_F\_\_\_\_ Diversification in mutual fund investments increases risks.
- 7. \_\_\_\_F\_\_\_\_ You should buy a house in the upper price range of your neighborhood.

Appendix E

**IRB** Determination Form



#### Institutional Review Board

328 Wells Hall Murray, KY 42071-3318 270-809-2916• msu.irb@murraystate.edu

TO:	Chris Wooldridge, Economics and Finance
FROM:	Jonathan Baskin, IRB Coordinator
DATE:	May 6, 2022
RE:	Human Subjects Protocol I.D. – IRB # 22-208

Project Title: The Importance of Finance Courses in the Church Setting. Principal Investigator(s): Ryan Brewer Determination: Program Evaluation - Activity is not research as defined in 45 CFR 46.102(I)

The Murray State University IRB has reviewed the information you supplied for the project named above. Based on that information, it has been determined that this project does not involve activities and/or subjects that would require IRB review and oversight. The IRB will keep your determination form on file for a period of 3 years.

Please note that there may be other Federal, State, or local laws and/or regulations that may apply to your project and any changes to the subjects, intent, or methodology of your project could change this determination. You are responsible for informing the IRB of any such changes so that an updated determination can be made. If you have any questions or require guidance, please contact the IRB Coordinator for assistance.

Thank you for providing information concerning your project.