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A Measure of Financial Literacy among College Students

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Abstract

In America, most people canlearn about financial literacy, whether they are taught by their family members, high school teachers, or as a college student.The lack of financial literacy can affect how students manage their finances after graduating fromcollege.However, students who have financial literacy knowledge tend to manage their student and personal debts better, budget to save more money, and make smarter investments. People who are financially literate people contribute to the economy and help to reduce poverty.In this study, the importance of financial literacy and the impacts that it has on college students will be highlighted. This capstone aims to provide a study of financial literacy by measuring financial literacy knowledge on a sample of students at a historically black college or university.

Keywords: Financial literacy, personal finance, financial behavior, financial inclusion, investing, savings,

Introduction

Financial literacy (or financial knowledge) is frequently used as a parameter in models that predict the need for financial education and explain differences in financial results. Understanding the educational impact as well as the hurdles to good financial decision-making requires defining and assessing financial literacy. Many studies have been conducted to test the effect of financial literacy among college students. In the early years of America, financial literacy was not taught in schools. People received tips about financial literacy from family, friends, and professional mentors. Many, if not most, students lack the financial literacy needed to make major financial decisions in their own best interests, according to those who study financial literacy.

Students in college need to learn more about their personal money and the economy. Early financial decisions form difficult-to-break habits and have an impact on children's potential to become financially secure adults.

Financial literacy has been taught under different names including household finances, family finances, and consumer economics. According to Rose (2021), the idea for introducing financial literacy into these classes came from the University of Chicago by a professor of finance, Alexander Lowry.

In modern-daytimes, financial literacy is advanced and is now taught throughout schools and colleges. One such program, Junior Achievement, prepares students by experiential lessons to connect learning to earning. Other programs that teach personal finance are not-for-profits such as the JumpStart Coalition, credit unions and banks, and colleges (Rose, 2021). According to OppLoans, many students enter college without any knowledge of financial literacy. In response, most colleges have begun to add more financial literacy courses that cover budgeting, credit/debit cards, student loans, and salary packages (Rose, 2021).

Students' financial decisions in college have a significant impact on their financial condition after graduation.While it is crucial to understand college students' financial status, most of the studies on college students and their finances has focused on gender.Educators, policymakers, and university administrators have concentrated their attention on one facet of college students' financial habits: their use of credit, particularly credit cards (Cude et al., 2006).

Statement of the Problem

The purpose of this research paper is to determine if college students' financial literacy knowledge is affected by various characteristics. I investigated a sample of undergraduate college students' personal literacy by researching how their knowledge, attitudes, and behavior are affected by gender, class rank, and socio-economic status (SES).

Research Questions

1. Is the financial literacy of college students affected by the SES, gender, and class rank?
2. Is there a correlation between college students' financial habits and their financial knowledge and attitudes?

The structure of this research paper follows the sequence of Introduction, Review of Literature, Methodology, Results, Discussion, Conclusion, and References. Within the introduction, the purpose of this research and the research questions are stated. In the review of literature, the financial literacy, early education of financial and personal financial literacy, gender differences, and race influences are discussed.The methodology section of this paper describes the data collection analysis methods, and it explains the main study variables. The results section will consist of description of participants (e.g. demographics), and present key findings in relation to the study subject at hand. The discussion and conclusion will describe the study's major findings and examine the main findings considering past research.

Review of Literature

Financial Literacy

The JumpStart Coalition for Personal Financial Literacy originally supported financial literacy as a construct in its 1997 study JumpStart Survey of Financial Literacy Among High School Students, according to Hastings et al (2012). Financial literacy refers to the capacity to comprehend and apply a variety of financial concepts, such as personal financial management, budgeting, and investing. Financial literacy is the bedrock of your financial relationship, and it's a lifelong process (Fernando, 2022).

Many significant financial decisions, such as saving and investing for retirement, choosing a mortgage, or investing in education, are made infrequently and have long-term ramifications that are vulnerable to massive random shocks (Hastings et al., 2012). Furthermore, financial literacy has an impact on people's investing decisions, including risk/reward ratios, as well as how resources are allocated in the economy. Financial literacy is a necessary foundation for avoiding and resolving financial problems, which are necessary for living a wealthy, healthy, and happy life.

Understanding basic financial principles is critical for maximizing wealth and security while investing and managing assets. Individuals must be aware of the numerous borrowing and investment choices available to them. This knowledge includes reading prospectuses and yearly statements, calculating compound interest, and postponing the use of cash for consumption.

Financial literacy, according to Vitt et al. (2000) (as cited in Sarigül, 2014, p. 209), “is the ability to read, analyze, manage, and communicate about personal financial conditions that influence material well-being. It includes the ability to make solid financial decisions, discuss money and financial topics without (or despite) discomfort, plan for the future and respond appropriately to life events that affect every day financial decisions, such as economic events”(Sarigül, 2014, p. 209).

As specified by Grohmann et al. (2015), many financial decisions, such as interest rates and inflation, necessitate a basic understanding of financial concepts. A person's financial literacy has been connected to several things. These characteristics include socio-demographic variables, such as education, age, and income, all of which are linked to higher financial literacy.The literature on financial socialization separates three or four socialization agents: family or parents, school, work experiences, and the media (Gudmunson& Danes, 2011). A substantial number of educational attainments, as well as better life outcomes such as greater lifetime wages, have been connected to the family background and education of the parents. Parents' education and family background have been linked to variables related to financial decision-making and risk attitudes. After a change in compulsory schooling regulations that raised parents' education, studies suggest that better education of parents leads to higher risk tolerance (Grohmann et al., 2015).

There is no doubt that a shortage of people with a firm understanding of financial literacy has an impact on people's daily behavioral decisions when it comes to spending and shopping. Not only could a lack of financial literacy have a role in people's poor financial planning and the availability of limited funds once they retire, younger peoples' views and behaviors in the areas of spending and financial management will most likely be influenced by their lack of financial understanding for maturity when they transition from school to work lives, such as their spending attitudes, habits, and personal financial management. Budgeting when living away from parents, saving and investing, maximizing the use of banking services and other financial duties are all affected (Madrian et al., 2012).

Early Education of Financial Literacy and Personal Finance

Prior research on high school pupils has regularly revealed that they are not obtaining a good education in personal financial foundations and have limited understanding. Mendell (1997) conducted research in which 1,509 students were assessed in areas such as income, money management, savings and investment, and expenditure, and only 57 percent received the right responses. It has been shown that most students are incapable of making important financial decisions. Another study, conducted by KPMG (1995), investigated the issue of workers being illiterate when it came to making investing and retirement decisions (as cited in Chen & Volpe, 1998). Employees pay just approximately 5% of their salary to 401K plans, according to KMPG's research, even though the typical plan provides for a 14 percent contribution. Employees are not maximizing their perks, according to the evidence.

In research from Solomon et al. (2018), personal financial literacy for school-aged children has emerged as a critical intervention in the fight against difficulties relating to adolescent saving, investing, and spending habits, as well as how these habits may affect their future financial behavior. Incompetent money management will have a detrimental impact on their future lives due to their lack of financial skills. The inability of the school curriculum to impart personal financial literacy skills to pupils will likely result in people who have higher levels of personal and household debt, preparing less for retirement, and ineffectively managing wealth. People cannot be expected to make sensible financial decisions without sufficient training and discipline, and financial markets cannot be trusted to produce economic equilibrium without the conscious involvement of the human mind. It proposes that problems like rising debt, unemployment, and homelessness are indicators of a deeper problem of a lack of personal financial awareness(Solomon et al., 2018).

Financial literacy is becoming increasingly important to many educators, community groups, corporations, government agencies, and lawmakers. Analyzing the data of college students who may or may not have been exposed to financial literacy will help to develop financial workshops within the community and on-campus. These results will highlight the appropriate information in terms of students being able to plan for retirement, savings, investments, and spending. Bernheim, Garret, and Maki (1997)(as cited in Herman &Maniam, 2007) investigated the consequences of financial education being enforced in schools.Their research looked at the results of a household survey as well as the difference in curriculum mandates across states and over time to see if the mandated curriculum has any effect on adult financial behavior(Herman &Maniam, 2007).

They discovered that mandates considerably improve financial education, resulting in persons saving at higher rates and accumulating more wealth throughout their lives, based on regression analysis on factors related to consumer education in high school and adult financial behavior. Furthermore, the impact of financial management strategies on a household's financial situation is not limited. Poor money management can hurt a person's mental and physical health. This is especially true for young families, who face more financial difficulties in their early years when their earning potential has not yet been realized (Herman &Maniam, 2007).

Gender Differences in Financial Literacy

Gender roles in our society play an important role. According to Adeleke (2013), The disparity between men and women in the United States appears to be better explained by the more relative degrees of education assigned to family decision-making responsibilities rather than by gender. Gender roles in the United States may have an even higher impact on men’s and women's financial literacy than previously thought, with men typically making family financial choices and thus gaining the requisite information early, while women typically specialize in other household activities.

Chen and Volpewere among the first to note that there were significant variations in financial literacy skills among male and female college students. Female students got 51 percent right replies in their poll of 924 students, while male students scored 57 percent on the survey covering numerous financial themes. This tendency of male individuals scoring higher than female participants persisted throughout all categories and even in the overall findings, with statistically significant disparities (Adeleke, 2013).

While past research has suggested that women know less about personal finance than males in general, they have only provided limited evidence of the areas where women's knowledge is lacking. According to Chen and Volpe (2002), males know more about insurance and personal loans than females, but females know less about total financial management according to Danes and Hira (1998). Their findings show that men may know more about personal finance in some areas than women do in others (Chen & Volpe, 2002).

As stated byGoldsmith (2006), gender is a social phenomenon. According to Hira and Mugenda (2000), educational programs should focus on gender disparities in actions and their effects. Others agree with this conclusion because research shows that financial decisions are influenced by social and psychological variables as well as economic reasons (Faber,1992). Women were less confident in their abilities to undertake financial analysis than men, according to Webster and Ellis (1996). A second component of the issue of financial literacy is how to improve it, particularly among women (Goldsmith, 2005). According to Lown (2004), (as cited in Goldsmith & Goldsmith, 2006), conducted eight focus groups with women in their forties and fifties and discovered that some women wanted to learn about financial planning for retirement in a group setting, while others chose to learn on their own. She discovered that younger women favored self-directed learning and online lessons over older women who preferred classroom or seminar settings (Goldsmith & Goldsmith, 2006).

As stated by Andrade et al. (2014), when it comes to retirement planning, women have special considerations that are often disregarded. Women must consider factors such as reduced time working owing to motherhood, caregiving, and spouses' social security (since women live longer than men). Allocating or neglecting to allocate costs for any of the points might have a significant impact on a person's retirement. According to studies, 68.5 percent of women are unaware of the short-term expenses of caring for others, and 83.5 percent of caregivers are unaware of the long-term financial consequences of caring for others (Orel et al, 2004).Gender influences retirement planning through financial literacy, since men have a higher level of financial knowledge than women. Despite having greater financial knowledge than women, males are more likely to view retirement as a natural development in life (Grace et al, 2010). Because of this attitude, males frequently underestimate the importance of retirement preparation, leaving them in the same situation of retirement insecurity as their female colleagues. Females are acutely aware that unanticipated challenges may arise throughout their lives, potentially jeopardizing their financial security in retirement (Andrade et al., 2014).

Race influences on Financial Literacy

African Americans and Hispanics have less financial understanding than other ethnic groups, such as Caucasians and Chinese, which is linked to their low savings and investment habits. Researchers discovered that schooling has the same impact on minority group members' retirement savings as receiving an inheritance, having a bank account, or having a long-term retirement plan (Andrade et al., 2014).

Financial illiteracy is ubiquitous, although it is especially prevalent among some groups, such as women, Blacks, Hispanics, and people with a poor level of education. Financial literacy was also associated with cognitive capacity, time preferences, instructor involvement in pupils, parental background, and peer characteristics. Even among the young, financial understanding should not be taken for granted. Among various groups, such as minorities and women, financial illiteracy is more severe. Even though young women are now more likely than men to earn a college diploma and participate actively in the labor market, their financial literacy remains low. The effectiveness of financial education programs will increase by targeting them to the populations that need it the most (Lusardi et al., 2009).

Methodology

Study Design

This study measured financial literacy among college students. This research examined how learning about financial literacy at an earlyage helps students to make smart and reliable financial literacy decisions after they graduate from college.Based on collected data, the research contains quantitative analytical data on the number of students exposed to financial literacy. Those with higher educational attainment are more likely to be mindful of financial decisions, according to research. Age and income come to mind when considering the talents that contribute to improved understanding.

Study Participants

The research procedures began by obtaining approval from the Claflin University Institutional Review Board (IRB) for research involving human subjects. Once IRB approval was obtained the study was initiated. Undergraduates were recruited as a convenience sample on the university campus for this study.

Data Collection

This study's data analysis was divided into two stages. The JumpStart survey was used to assess financial literacy and administered to HBCU college students. It was preferable to use this survey because it is used in multiple research publications, allowing us to compare our results to those of other research studies. Research findings will be compared to Chen and Volpe (2002).The first stage is the data preparation, where the questionnaire results were cleaned and organized for analysis. The survey data was downloaded to Excel, where I converted all responses to numeric answers.Financial knowledge was tested in four main areas: general knowledge, savings and borrowing, investments, and insurance. For financial literacy questions, the responses were coded as A=1, B=2, C=3, and D=4. The demographic questions were also coded the same way as the financial literacy questions with some adding E=5 and F=6.

The second data analysis phase consisted of analyzing the cleaned and coded data using Excel to create ANOVAs and Summary of Statistics. Also, the SPSS program was used to further clean and analyze data. In SPSS, the F-tests and ANOVAs are used to calculate the mean percentage of correct answers in each of the categories and corresponding financial questions between males and females. The mean percentage of accurate answers for each question, each area of General Knowledge, Savings and Borrowing, Insurance, and Investments, and the entire survey are computed using the responses of each participant. The results are then broken down by gender, parts of the above-mentioned sections, and scoring categories. According to the mean proportion of correct responses from survey participants, the scores are divided into three categories. The first group comprises scores ranging from 0 to 39% (poor level of knowledge), the second 40 to 59 percent (mid-level of knowledge, around the average of correct replies), and the third 60 to 100% (relatively high level of knowledge). The differences in personal finance between male and female individuals are determined using an analysis of variance.

This research employs a thorough questionnaire that covers all important aspects of personal finance. It covers general financial literacy, savings and borrowing, insurance, and investments. Participants in the survey are asked to answer 56 questions, including 31 multiple-choice questions about their financial literacy skills, as well as their opinions and decisions, and 25 demographic questions.The questionnaire is being utilized in a pilot study to fine-tune the tool. The survey's validity and clarity are further assessed by one person with experience in personal finance. The questionnaire contains multiple-choice questions regarding the respondents' financial knowledge, opinions of personal finance knowledge, education, and other demographic data. A copy of the questionnaire can be found in the Appendix.

Data Analytical Results

Table 1 shows that 88 responses were collected using the questionnaire, representing a response rate of 100% to all questions. In terms of gender, male participants account for 28.41% of the sample, and female participants account for 71.59%. About 19% of the participants are business majors, and the other 81% are non-business majors. The largest proportion of the participants (31.82%) is the senior class. The second-largest proportion is the sophomore class (26.14%). The lowest proportion of the participants in the freshman class, having a percentage of 19.32%. Among the participants, the highest race group was Black or African-American (98.86%). Hispanic Americans had a percentage of 1.14%. These Asian-American, American Indian, Alaska Native, or Hawaiian, other, groups have 0%.

When asked about any history taking courses dealing with personal finance or economics, the questionnaire reported that 59.1% of the participants had taken a portion of personal finance (personal money) in high school, and 28.41% had taken an entire economics course in high school. In addition, the participants were asked about any history taking a university course in finance, economics, or accounting. 56.81% of the participants have taken none of the previously listed courses, while 18.18% have taken a finance course, 13.63% have taken an accounting course, and the remaining 11.36% have taken an economics course.

Additionally, the participants were asked about their parents' total income regarding the 2021 year.The majority of the participants reported that their parents made between $20,000 to $39,999 in 2021 at 29.55%. The next highest number of participants reported that their parents made between $40,000 to $79,999 at a percentage of 21.59%. Post-graduation, a reported 36.37% expect to make $50,000 or more, while 34.09% expect to make between $30,000 to $39,999.Table 1 shows the characteristics of the sample by gender. There are two noticeable differences. First, a higher proportion of female participants are higher in freshman, sophomore, junior, and senior class ranks. Second, more female participants expect to earn a higher income than male participants post-graduation. For example, 22.73% of women expect to earn an annual income of $50,000 or more, while only 13.64% of men are in the same income group. About 6.82% of men expect to earn under $30,000 compared with about 13.64% of women.

Similar research reports that 85% of respondents were White students. According to their study, there was a higher percentage of males in participants in junior, senior, and graduate class ranks. More male participants earned a higher income than female participants (Chen & Volpe, 2002).

Table 2 summarizes the survey responses and shows differences in financial literacy by gender. The first column presents the section number of the financial literacy topic designated by a regular number corresponding to the section (e.g. 1= General Knowledge), the question number in the section, and a short description of the survey question. The results of the survey are reported in the topical section of the survey. The first portion contains eight questions about general personal financial knowledge, the second contains thirteen questions about savings and borrowing, the third contains three questions about insurance, and the fourth contains four questions about investments (12 questions). There are also results for each part and question. The questions in the sections are not in any particular order. The average score of male participants is listed in column "M," whereas the average score of female participants is listed in column "F." The F statistic as well as the level of significance are shown.

Table 2 also indicates inequalities in financial literacy levels between men and women in certain sections. Scores ranging from 0%to 39% indicate a poor degree of knowledge, 40% to 59% indicate a medium level of knowledge, and 60% to 100% indicate a relatively high level of knowledge. Section 1 and section 2, General Knowledge and Savings and Borrowings, include the majority of the higher scores with an average between 60% to 100% (highest mean averages). Section 2, Savings and Borrowings, contains the majority of the lowest scores with an average between 0% to 39%.The majority of the averages between 40-59% are found in section 2, Savings and Borrowings. Female participants scored higher than male participants in the high level of expertise category. In all four areas in the low level of knowledge range, female participants received more accurate responses than males.

According to Chen and Volpe (2002)the majority of the highest scores (60-100) are found in section 1, General Knowledge. Section 4, Investments, has the lowest score (0-39). They also claim that the male participants outperform their female counterparts (Chen & Volpe, 2002). However, both of our studies show that there are statistically significant disparities in financial literacy between male and female individuals.

Table 3 shows the relationship between financial literacy and the participants' gender, race, class standing, major, parents' income, and participants' expected income post-graduation. The independent variables' mean, standard deviations, and correlation coefficients are reported. The correlation coefficients are poor, as demonstrated. They're all under 0.30. Because of the low correlation, multicollinearity does not appear to be a concern in the analysis. There would be a major multi-collinearity concern if the correlation coefficients were 0.60 or higher. In comparison, this study and Chen and Volpe (2002) studies had similar low correlation coefficients. Chen and Volpe, on the other hand, had high RACE and NATION (-0.497) and EXP and AGE correlation coefficients (0.362). (Chen & Volpe, 2002). This study did not include work experience, age, or nation in the questionnaire.

Conclusion

When we look at gender disparities in personal finance knowledge, we find that men are less knowledgeable than women on average. In 31 of the 31 questions tested, men underperformed women. Gender is linked to financial literacy, according to the study's findings. Even after controlling for other variables, we find that gender is statistically significant, implying that men have less financial expertise than women. We can see from the findings that men have less knowledge of personal finance than women; thus, the reason being is because more women completed the survey than men. However, if more men answered the given questionnaire than the result would be different.

We also noticed that things like education and experience are related to financial literacy. For the whole sample, the coefficients of the major fields of study for both men and women are significant, indicating that business majors are more likely than non-business majors to know about personal finance. In this case, non-business majors filled out the survey in greater numbers than actual business majors. Regardless of their undergraduate major, female participants have a higher level of financial literacy than male participants. Participants who have spent more time in college are more likely to have a better grasp of personal financial literacy. Participants with a higher class rank score higher on the survey.

It is hard to think that someone who is not interested in personal finance may learn about it by taking non-personal finance programs in college. Many of the participants learned financial information through informal channels rather than formal education, as we discovered. Only about 28% of high school pupils learn, and only 43% of college students learn. It appears to imply that either parents are unaware of or are failing in their informal teaching and learning process with their children. Men have a lower interest in finance than women, and their knowledge of the subject may be lacking. The participants in this study were mostly undergraduate students at a historically black college or university. More research with a larger sample of people may be needed. While the purpose of this study is to explain why there is a gender gap in personal financial literacy, the findings should be viewed as preliminary. More study is needed to improve our grasp of this subject. More research into financial planning and management processes might offer new light on the gender gap in personal financial knowledge.

Future research should focus on ways to increase both men's and women's financial knowledge and abilities to manage their finances. Given the importance of personal finance in increasing people's quality of life, educators must consider and implement effective strategies to improve people's knowledge of personal finance.

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Appendices
Appendix 1: Tables/Figures

Table 1: Characteristics of Sample

	Male Participants		Female Participants		Entire Sample	
	Frequency	%	Frequency	%	Frequency	%
A. Demographic Characteristics						
1. Race						
a) White or Caucasian	0	0	0	0	0	0
b) Black or African American	24	27.27	63	71.59	87	98.86
c) Hispanic American	1	1.14	0	0	1	1.14
d)Asian American	0	0	0	0	0	0
e) American Indian, Alaska Native, or Hawaiian	0	0	0	0	0	0
f) other	0	0	0	0	0	0
2. Gender						
a) Male	25	28.41	0	0	25	28.14
b) Female	0	0	63	71.59	63	71.59
B. Education						
1. Academic Disciplines						
a) Business majors	5	5.68	12	13.64	17	19.23
b) Non-business majors	20	22.73	51	57.95	71	80.68
2. Class Rank						
a) Freshman	5	5.68	12	13.64	17	19.32
b) Sophomore	5	5.68	18	20.45	23	26.14
c) Junior	5	5.68	15	17.05	20	22.73

d) Senior	10	11.36	18	20.45	28	31.82
e) Graduate	0	0	0	0	0	0
3. Expected Level of Education						
a) Associate Degree (2yr)	0	0	2	2.27	2	2.27
b) Bachelor Degree (4 yr)	10	11.36	28	31.82	38	43.18
c) Masters Degree	5	5.68	16	18.18	21	23.86
d) Doctorate, law or professional	10	11.36	17	19.32	27	30.68
4. University personal finance courses taken						
a) Economics	3	3.41	7	7.95	10	11.36
b) Finance	4	6.82	12	13.64	16	18.18
c) Accounting	5	5.68	7	7.95	12	13.63
d) None	13	14.77	37	42.05	50	56.81
5. High School courses taken						
a) Portion of personal finance (personal money)	0	0	0	0	0	0
b) Entire course in economics	5	5.68	20	22.73	25	28.41
c) Portion of economics course	17	19.32	35	39.77	52	59.1
d) Course where stock market game was played	3	3.41	8	9.1	11	1.56
C. Income						
1. Parents' total income 2021						
a) Less than $20,000	4	4.55	6	6.82	10	11.36
b) $20,000 to $39,999	11	12.5	15	17.05	26	29.55
c) $40,000 to $79,000	4	4.55	15	17.05	19	21.59
d) $80,000 or more	3	3.41	12	13.64	15	17.05
e) Don't know	3	3.41	15	17.05	18	20.45
2. Expected income post-graduation						
a) Under $30,000	6	6.82	12	13.64	18	20.46
b) $30,000 to $39,999	6	6.82	24	27.27	30	34.09
c) $40,000 to $49,999	1	1.14	7	7.95	8	9.09
d) $50,000 or more	12	13.64	20	22.73	32	36.37

Table 2: Mean Percentage of Correct Responses by Gender

Section #, Question #, and summary of each question	Mean % 39 or Lower			Mean % between 40 and 59			Mean % between 60 and 100		
	M	F	F Test	M	F	F Test	M	F	F Test
1, 1, Personal Financial Literacy				10	26	0.012			
1, 2, Sales Taxes	11	15	3.567						
1, 7, Net Pay	9	26	0.203						
1, 13, Federal Income Taxes	12	22	0.991						
1, 14, Primary							18	41	0.381

Sources of Income									
1, 20, ATM Machine				13	29	0.250			
1, 21, State Tax Effects on Jobs				11	34	0.701			
1, 27, Financial Institutions							19	41	0.972
2, 3, Saving College Money							20	41	1.871
2, 5, Borrowing Money				17	26	5.310*			
2, 6, Checking Credit History				12	26	0.324			
2, 9, Saving Emergency Money				12	25	0.449			
2, 10, Amount of Time to accumulate Savings							12	41	2.184
2, 11, Highest Growing Financial Instrument	7	22	0.381						
2, 12, Credit Card Risk Reduction	11	23	0.416						
2, 15, Credit Counseling Service				14	30	0.494			
2, 19, Missing Credit Cards	6	6	3.229						
2, 23, Finance Charges After Borrowing Money				8	31	0.055			
2, 25, Savings Programs	7	21	0.230						
2, 30, Finance Charge Rate Reduction	8	18	0.099						
2, 31, Interest on Savings Account	10	18	1.066						
3, 17, Health Insurance Coverage				13	31	0.055			
3, 22, Automobile Insurance	11	17	2.400						

3, 26, Life Insurance				15	30	0.055
4, 4, types of Investments to Save Purchasing Power	8	25	0.443			
4, 8, Retirement Income Paid by Company	4	16	0.889			
4, 16, Retirement Account	9	21	0.055			
4, 18, Future Growth of Money				12	27	0.188
4, 24, College Degree vs. High School Diploma	9	13	2.260			
4, 28, Credit Card Charges	7	15	0.164			
4, 29, Bank Loans				9	34	2.321
Entire Survey	14	13	0.543			

Notes: The section numbers are represented as: 1 = General Knowledge, 2 = Savings and Borrowing, 3 = Insurance, 4 = Investments. Numbers following the section numbers represent the question number in the survey. Mean percentages are ranked by those of male and female participants combined. M = Male participants, F = Females participants, F Test = F Statistics, and * = significant at 0.05 level or less.

Table 3: Summary Statistics and Correlation Coefficients

Variables	*Mean*	*S.D.*	*Income 1*	*Income 2*	*Gender*	*Race*	*Class*	*Major*
Income 1	2.545455	0.756718	1					
Income 2	2.613636	1.178659	0.007029	1				
Gender	1.715909	0.453565	-0.28009	0.071832	1			
Race	2.079545	0.460424	-0.15895	0.078464	0.054415	1		
Class	2.670455	1.121592	0.200681	-0.12351	-0.07318	0.051345	1	
Major	0.920455	1.156904	-0.08116	-0.19981	-0.15309	-0.0743	0.11788	1

Note: MAJOR = Participants' major field of study. It is coded as "1" if a participant is non-business major, "0" business major.

CLASS = Participants' grade. It is coded as "1" if participant is a freshman, "2" Sophomore, 3 Junior, and "4" Senior.

RACE = Participants' ethnic background. It is coded as "1" White or Caucasian, "2" Black or African-American, "3 Hispanic", "4" Asian-American, "5" American Indian, Alaska Native, or Native Hawaiian, "6"Other.

GENDER = Participants' sex. It is coded "1" Male, "2" Female.

INCOME 2 = Participants' expected income post-graduation. It is coded as "1" Under $30,000, "2" $30,000 to $39,999, "3" $40,000 to $49,999, "4" $50,000 or more.
INCOME 1 = Participants' parents' total income. It is coded as "1" less than $20,000, "2" $20,000 to $39,999, "3" $40,000 to $79,999, "4" $80,000 or more, and "5" Don't Know.

Appendix 2: Financial Literacy Questionnaire
Part 1 - 31 Questions

1. Inflation can cause difficulty in many ways. Which group would have the greatest problem during periods of high inflation that last several years?
   a.) Older, working couples saving for retirement.
   b.) Older people living on fixed retirement income.
   c.) Young couples with no children who both work.
   d.) Young working couples with children.

2. Which of the following is true about sales taxes?
   a.) The national sales tax percentage rate is 6%.
   b.) The federal government will deduct it from your paycheck.
   c.) You don't have to pay the tax if your income is very low.
   d.) It makes things more expensive for you to buy.

3. Rebecca has saved $12,000 for her college expenses by working part-time. Her plan is to start college next year and she needs all of the money she saved. Which of the following is the safest place for her college money?
   a.) Locked in her closet at home.
   b.) Stocks.
   c.) Corporate bonds.
   d.) A bank savings account. *

4. Which of the following types of investment would best protect the purchasing power of a family's savings in the event of a sudden increase in inflation?
   a.) A 10-year bond issued by a corporation.
   b.) A certificate of deposit at a bank.
   c.) A twenty-five-year corporate bond.
   d.) A house financed with a fixed-rate mortgage.

5. Under which of the following circumstances would it be financially beneficial to you to borrow money to buy something now and repay it with future income?
   a.) When you need to buy a car to get a much better paying job.
   b.) When you really need a week vacation.
   c.) When some clothes you like go on sale.
   d.) When the interest on the loan is greater than the interest you get on your savings.

6. Which of the following statements best describes your right to check your credit history for accuracy?
   a.) Your credit record can be checked once a year for free.
   b.) You cannot see your credit record.
   c.) All credit records are the property of the U.S. Government and access is only available to the FBI and Lenders.
   d.) You can only check your record for free if you are turned down for credit based on a credit report.

7. Your take home pay from your job is less than the total amount you earn. Which of the following best describes what is taken out of your total pay?
   a.) Social security and Medicare contributions.
   b.) Federal income tax, property tax, and Medicare and Social Security contributions.
   c.) Federal income tax, social security and Medicare contributions.*
   d.) Federal income tax, sales tax, and social security contribution.

8. Retirement income paid by a company is called:
   a.) 401 (k).
   b.) Pension.*
   c.) Rents and profits.
   d.) Social Security.

9. Many people put aside money to take care of unexpected expenses. If Juan and Elva have money put aside for emergencies, in which of the following forms would it be of LEAST benefit to them if they needed it right away?
   a.) Invested in a down payment on the house.*
   b.) Checking account.
   c.) Stocks.
   d.) Savings account.

10. David just found a job with a take-home pay of $2,000 per month. He must pay $900 for rent and $150 for groceries each month. He also spends $250 per month on transportation. If he budgets $100 each month for clothing, $200 for restaurants and $250 for everything else, how long will it take him to accumulate savings of $600.
   a.) 3 months.
   b.) 4 months.*
   c.) 1 month.
   d.) 2 months.

11. Sara and Joshua just had a baby. They received money as baby gifts and want to put it away for the baby's education. Which of the following tends to have the highest growth over periods of time as long as 18 years?
   a.) A checking account.
   b.) Stocks.*
   c.) A U.S. Govt. savings bond.
   d.) A savings account.

12. Barbara has just applied for a credit card. She is an 18-year-old high school graduate with few valuable possessions and no credit history. If Barbara is granted a credit card, which of the following is the most likely way that the credit card company will reduce ITS risk?
   a.) It will make Barbara's parents pledge their home to repay Karen's credit card debt.
   b.) It will require Barbara to have both parents co-sign for the card.
   c.) It will charge Barbara twice the finance charge rate it charges older cardholders.
   d.) It will start Barbara out with a small line of credit to see how she handles the account.*

13. Chelsea worked her way through college earning $15,000 per year. After graduation, her first job pays $30,000. The total dollar amount Chelsea will have to pay in Federal Income taxes in her new job will:
   a.) Double, at least, from when she was in college.*
   b.) Go up a little from when she was in college.

c.) Stay the same as when she was in college.
d.) Be lower than when she was in college.

14. Which of the following best describes the primary sources of income for most people age 20-35?
a.) Dividends and interest.
b.) Salaries, wages, tips.*
c.) Profits from business.
d.) Rents.

15. If you are behind on your debt payments and go to a responsible credit counseling service such as the Consumer Credit Counseling Services, what help can they give you?
a.) They can cancel and cut up all of your credit cards without your permission.
b.) They can get the federal government to apply your income taxes to pay off your debts.
c.) They can work with those who loaned you money to set up a payment schedule that you can meet.*
d.) They can force those who loaned you money to forgive all your debts.

16. Rob and Mary are the same age. At age 25 Mary began saving $2,000 a year while Rob saved nothing. At age 50, Rob realized that he needed money for retirement and started saving $4,000 per year while Mary kept saving her $2,000. Now they are both 75 years old. Who has the most money in his or her retirement account?
a.) They would each have the same amount because they put away exactly the same
b.) Rob, because he saved more each year
c.) Mary, because she has put away more money
d.) Mary, because her money has grown for a longer time at compound interest*

17. Many young people receive health insurance benefits through their parents. Which of the following statements is true about health insurance coverage?
a.) You are covered by your parents' insurance until you marry, regardless of your age.
b.) If your parents become unemployed, your insurance coverage may stop, regardless of your age. *
c.) Young people don't need health insurance because they are so healthy.
d.) You continue to be covered by your parents' insurance as long as you live at home, regardless of your age.

18. Don and Bill work together in the finance department of the same company and earn the same pay. Bill spends his free time taking work-related classes to improve his computer skills; while Don spends his free time socializing with friends and working out at a fitness center. After five years, what is likely to be true?
a.) Don will make more because he is more social.
b.) Don will make more because Bill is likely to be laid off.
c.) Bill will make more money because he is more valuable to his company.*
d.) Don and Bill will continue to make the same money.

19. If your credit card is stolen and the thief runs up a total debt of $1,000, but you notify the issuer of the card as soon as you discover it is missing, what is the maximum amount that you can be forced to pay according to Federal law?
a.) $500
b.) $1000
c.) Nothing.
d.) $50*

20. Which of the following statements is NOTcorrect about most ATM (Automated Teller Machine) cards?
a.) You can generally get cash 24 hours-a-day.

b.) You can generally obtain information concerning your bank balance at an ATM machine.
c.) You can get cash anywhere in the world with no fee.*
d.) You must have a bank account to have an ATM Card.

21. Matt has a good job on the production line of a factory in his home town. During the past year or two, the state in which Matt lives has been raising taxes on its businesses to the point where they are much higher than in neighboring states. What effect is this likely to have on Matt's job?
a.) Higher business taxes will cause more businesses to move into Matt's state, raising wages.
b.) Higher business taxes can't have any effect on Matt's job.
c.) Mark's company may consider moving to a lower-tax state, threatening Matt's job.*
d.) He is likely to get a large raise to offset the effect of higher taxes.

22. If you have caused an accident, which type of automobile insurance would cover damage to your own car?
a.) Comprehensive.
b.) Liability.
c.) Term.
d.) Collision.*

23. Scott and Eric are young men. Each has a good credit history. They work at the same company and make approximately the same salary. Scott has borrowed $6,000 to take a foreign vacation. Eric has borrowed $6,000 to buy a car. Who is likely to pay the lowest finance charge?
a.) Eric will pay less because the car is collateral for the loan. *
b.) They will both pay the same because the rate is set by law.
c.) Scott will pay less because people who travel overseas are better risks.
d.) They will both pay the same because they have almost identical financial backgrounds.

24. If you went to college and earned a four-year degree, how much more money could you expect to earn than if you only had a high school diploma?
a.) About 10 times as much.
b.) No more; I would make about the same either way.
c.) A little more; about 20% more.
d.) A lot more; about 70% more. *

25. Many savings programs are protected by the Federal government against loss. Which of the following is not?
a.) A U. S. Savings Bond.
b.) A certificate of deposit at the bank.
c.) A bond issued by one of the 50 States.*
d.) A U. S. Treasury Bond.

26. If each of the following persons had the same amount of take home pay, who would need the greatest amount of life insurance?
a.) An elderly retired man, with a wife who is also retired.
b.) A young married man without children.
c.) A young single woman with two young children.*
d.) A young single woman without children.

27. Which of the following instruments is NOT typically associated with spending?
a.) Debit card.
b.) Certificate of deposit.*
c.) Cash.
d.) Credit card.

28. Which of the following credit card users is likely to pay the GREATEST dollar amount in finance charges per year, if they all charge the same amount per year on their cards?
    a.) Jessica, who pays at least the minimum amount each month and more, when she has the money.
    b.) Vera, who generally pays off her credit card in full but, occasionally, will pay the minimum when she is short of cash
    c.) Megan, who always pays off her credit card bill in full shortly after she receives it.
    d.) Erin, who only pays the minimum amount each month.*

29. Which of the following statements is true?
    a.) Banks and other lenders share the credit history of their borrowers with each other and are likely to know of any loan payments that you have missed.*
    b.) People have so many loans it is very unlikely that one bank will know your history with another bank
    c.) Your bad loan payment record with one bank will not be considered if you apply to another bank for a loan.
    d.) If you missed a payment more than 2 years ago, it cannot be considered in a loan decision.

30. Dan must borrow $12,000 to complete his college education. Which of the following would NOT be likely to reduce the finance charge rate?
    a.) If he went to a state college rather than a private college. *
    b.) If his parents cosigned the loan.
    c.) If his parents took out an additional mortgage on their house for the loan.
    d.) If the loan was insured by the Federal Government.

31. If you had a savings account at a bank, which of the following would be correct concerning the interest that you would earn on this account?
    a.) Earnings from savings account interest may not be taxed.
    b.) Income tax may be charged on the interest if your income is high enough.*
    c.) Sales tax may be charged on the interest that you earn.
    d.) You cannot earn interest until you pass your 18th birthday.

Part 2 - Classification Questions

32. What is your gender?
Male
Female

33. What is the highest level of education you expect to achieve?
Associate degree (two-year).
Bachelor degree (four-year).
Master's degree.
Doctorate, law or professional (six year or more)

34. What is your best estimate of your parents' total income last year? Consider annual income from all sources before taxes.
Less than $20,000.
$20,000 to $39,999.
$40,000 to $79,999.
$80,000 or more.
Don't know.

35. What is the highest level of schooling your father or mother completed?
Neither completed high school.
Completed high school.
Some college.
College graduate or more than college.
Don't know.

36. How do you describe yourself?
White or Caucasian.
Black or African-American.
Hispanic American.
Asian-American.
American Indian, Alaska Native, or Native Hawaiian
Other

37. When you start to work full-time, after you finish your education, how much do you expect to make per year before deductions for taxes and other items?
Under $30,000.
$30,000 to $39,999.
$40,000 to $49,999
$50,000 or more

38. How many credit cards do you use, including store credit cards?
None.
One.
Two.
Three.
Four.
Five or more.

39. Which of the following statements best describes the way in which you make payments on your credit cards?
I always pay off the total balance each month.
I occasionally do not pay off the balance for a month or so when I am short on funds.
I generally have an outstanding balance but occasionally am able to pay it off.
I seldom, if ever, pay off all my balances, but try to pay them down when I can.
I generally pay only the minimum required payment each month.

40. What is the outstanding balance on all of your credit cards?
Under $1,000
$1,000 to $2,499
$2,500 to $4,999
$5,000 to $9,999
More than $10,000

41. When did you get your first credit card?
Before graduating high school
When I graduated from high school
When I started college
During my first year in college
After completing my first year of college

42. How often are you late paying your credit card bills?
Never
Once or twice since I've had credit cards
Once or twice per year
More than two times per year

43. When you finish your undergraduate education, how much do you expect to owe in student loans?
Nothing
Less than $5,000
$5,000 to $9,999
$10,000 to $19,999
$20,000 to $29,999
$30,000 to $49,999
$50,000 or more

44. Aside from any credit card debt or student loans you might have, what other types of debt do you have? (check ALL that apply)
Auto loans
Home Mortgage
Personal debt or other debt

45. Do you have a checking account?
Yes
No

46. How often have you bounced a check (had it returned for insufficient funds)?
Never
Once or twice in my lifetime
Once or twice per year
More than twice per year

47. How often do you balance your checkbook?
After every check, deposit and ATM withdrawal
About once a week
About once a month
Several times per year
Once or twice per year
Never

48. In what form do you hold for your savings and investments? (Check ALL that apply)
Savings account.
Certificates of deposit.
U. S. Savings Bonds.
Stocks.
Mutual funds.
Bonds other than U. S. Savings Bonds.
Retirement accounts such as 401k's and IRAs.

49. How would you rate the savings and investments that you have?
Adequate for my needs right now

Slightly less than I should have right now
Much less than I should have right now
50. How much do you worry about your debts?
Never
A little
Sometimes
Often
Nearly all the time

51. Who prepares your income taxes?
I do it myself by hand
I do it myself using a computer program
A tax preparer
My parents

52. Which of the following classes did you have in high school? (Check ALL that apply)
An entire course in personal money management or personal finance.
A portion of a course where at least a week was focused on personal money management or personal finance.
An entire course in economics.
A portion of a course where at least a week was focused on economics.
A course in which we played a stock market game.

53. Which of the following classes have you had in college? (Check ALL that apply)
A semester-length course in personal money management or personal finance
Coverage of money management or personal finance (including part of freshman orientation)
Economics
Finance
Accounting

54. Which of the following best describes your status as a student?
I am a full time undergraduate student at a Four-year college or university
I am a full time undergraduate student at a Two-Year college or university

55. What is your class standing?
Freshman
Sophomore
Junior
Senior

56. Which of the following best describes your major or area of interest in college?
Arts
Business or economics
Engineering
Humanities
Nursing
Science
Social Science
Other