COLLEGE STUDENTS' PERSONAL FINANCE SKILLS AND THE ROLE OF EXTERNAL INFLUENCES

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Abstract

This study examines the methods college students use to become financially literate and the manner in which they will approach unfamiliar financial situations in the future. Using survey responses from 192 undergraduate students at a large, public university, this study investigates what students know about personal finance, where they obtained their current knowledge, and where they plan to go in the future when they have financial questions. The results show college students tend to be, on average, financially literate. Results also show that students learn about personal finance from their parents and their own experience more than any other sources and that they will seek financial knowledge primarily from their parents, online, and from financial advisors when they have financial questions in the future.

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Introduction

Studies show college students are a group that is disadvantaged financially due to a lack of understanding and familiarity with traditional financial services (Williams & Oumlil, 2015). Financial concepts can be difficult for college students to understand and require reinforcement at home, school, and elsewhere. College students may be ill-informed on financial matters because of the lack of accessibility to financial education.

East Carolina University (ECU) is a large, public university located in Eastern North Carolina. At this University, there is one personal finance class (FINA 1904) that students can take as an elective course. A maximum of 504 seats are available for Personal Finance each semester. The class is taught by finance department faculty and is open to all majors. Topics for this class include: investing and retirement planning, career planning, money management and budgeting, taxes, consumer credit, and purchasing strategies (home, auto, insurance). There are other financial management courses that are offered through ECU's College of Business. However, students do not have access to these classes unless they fulfill the prerequisite requirements for the courses. Hence, only business majors or business minors take these courses.

The lack of availability and accessibility to financial literacy courses at ECU may leave students uninformed of the financial skills needed to succeed in life. Students who major in areas outside of the College of Business are unable to take most of the financial management courses due to prerequisite requirements. As a result, students who desire to learn about managing money and making financial decisions are unable to do so. This study aims to investigate what undergraduate college students at ECU know about managing finances, what external factors have influenced their financial knowledge and financial decisions thus far, and what external factors will influence their financial decisions in the future.

Background

Financial education is something that everyone can benefit from throughout life: from paying for college, to buying a house, to saving for retirement. Most college students have never received any formal financial guidance or instruction before heading off to college (Hartford Financial Services, 2007). College is usually the first time that students are away from home for extended periods of time. During their time away, they complete several financial transactions (Gutter, 2009). There are many recurring expenses that students are responsible for paying for such as insurance and rent. A significant number of students take out student loans to pay for college. These financial concepts are new to almost all college students (Hartford Financial Services, 2007). Factors such as payment history, accounts owed, and types of credit in use have a significant impact on the credit scores of students. Often, students become more indebted than necessary. This happens because many students lack a general understanding of loans, budgeting, saving, and debt amongst other topics. One survey showed that seventy-six percent of college students wish that they had more help preparing for their financial future (Hartford Financial Services, 2007). Financial choices that students make in the present can follow them throughout the rest of their lives.

Literature Review

Students as a Disadvantaged Group

As noted in the Introduction of this paper, there have been several studies which show that college students are a group that is disadvantaged financially due to their lack of understanding or familiarity with traditional financial services. A literature review that was composed by Alvin J. Williams and Ben Oumlil in 2015 shows many students lack the required amount of financial knowledge to avoid financial pitfalls. Additionally, the literature review showed that vulnerable groups, including students, are more likely to be excluded from the formal, regulated financial sector are not able to take advantage of mainstream financial service providers. Students lack access to credit and insurance, amongst other financial services. This is due to, in part, a lack of understanding and familiarity with traditional financial services (Williams & Oumlil, 2015).

Understanding the shortcomings of financial education in the current generation provides college administrators a comprehensive and integrative way to enhance overall financial knowledge of college students. As the need for financial knowledge grows, college students seem to be less equipped to resolve financial challenges than other groups.

Financial Mismanagement Related to Lack of Financial Knowledge

Over the last couple of decades, the gap has been widened between the financial knowledge and the financial responsibility of young adults. For most young people, college is the beginning of financial independence. This time of life leads to a greater responsibility for individuals to make sound financial decisions. While away from home, young adults are faced with many new financial challenges that require a high level of responsibility. Once at college, many individuals are confronted with financial challenges such as paying rent, writing checks, and taking out loans for the first time. If students are not properly educated on these basic financial tasks, they are at risk for financial failure (Lyons et. al, 2006).

University Education

Formal financial education courses are the most common way for financial information to be presented to young adults. Many universities see it as their responsibility to help students succeed upon graduation. One way this can be accomplished is through financial education. Many universities have a set curriculum that they believe is best for portraying personal finance information. However, most do not have the resources to implement financial learning in the proper manner. The major challenge with implementing college-wide finance courses is most colleges do not get the support needed to make personal finance courses mandatory for students. As such, the course is usually offered as an elective course with very few sections. Although there is a high demand for personal finance classes, the resources are not available even at the best institutions (Neidermeyer & Neidermeyer, 2010).

Additionally, many prestigious universities such as Princeton and Harvard do not offer personal finances classes because they believe the material covered is not difficult enough for students. Since learning personal finance material in a college setting increases the retention rate and applicability to real life financial situations, there should be an increase of resources given to the personal finance curriculum at universities, resulting in an increase in the number of courses offered (Blanton, 2011).

Associated Factors

There have been several studies which show that college students are a group that is disadvantaged financially due to their lack of formal financial education and understanding of the financial services industry. A literature review written by Alvin J. Williams and Ben Oumlil in 2015 concluded that many students lack the required amount of financial knowledge to avoid financial drawbacks in the future. One study that Williams and Oumlil’s review mentions the 2012 National Financial Capability in the United States Study, which showed that young Americans have trouble managing their finances and demonstrating their learned knowledge in financial matters (FINRA, 2013). A more recent but similar report released in 2015 showed that measures of financial capability proved to be much lower amongst young Americans (FINRA, 2015) (Williams and Oumlil, 2015).

Human learning takes place in a social setting and is affected by several factors. There are many factors that have been theorized to have an impact on the financial knowledge of college students including parents, peers, educators, the media, and religion (Shin, 2010).

Parental Influence

Many young adults turn to their parents for financial education. A study completed in 2010 by Bryce Jorgensen and Jyoti Slava tested the perceived parental influence on the education of the financial literacy of college students. Jorgensen and Slava’s study found that parental income had a significant influence on the perceived parental influence of financial knowledge of students. Parents earning higher incomes had their children perceive a greater amount of influence that they had on their financial literacy and the more positive that their children's financial attitudes and knowledge tended to be. The study also indicated that students who reported learning about finance explicitly from their parents had better financial attitudes, yet lower financial knowledge than students who reported learning only implicitly about finances from their parents. These findings were attributed to the fact that parents with higher incomes have a greater number of opportunities to interact with their children in diverse financial transactions than parents with lower incomes, such as buying a car or renting a college apartment (Jorgensen and Savla, 2010).

A separate study showed that high school and college students who observed their parents in their financial experiences had a greater amount of financial investment knowledge and savings. Interestingly, students who were surveyed as a part of the study said, on average, their families saved money at an average rate compared to other families. However, observing parents save money, in general, was deemed to be an important factor when looking at the savings rates of students (Peng et al., 2007).

Peer Influence

Studies have shown that peer groups contribute to effective learning and consumption regarding monetary values and social motivation. Peer groups can influence adolescent consumption by spreading awareness, changing beliefs and information on a product, recommending products, and showing how needs can be met with a certain product (Hayta, 2008).

Social interactions also play a significant role in shaping the consumer attitudes, beliefs, and knowledge of the youth. Peers can substantially impact the way that children acquire skills, especially when parental influence is weak. This improved awareness of the consumer environment may, in turn, contribute to active peer interactions about financial consumption (Shin, 2010).

Educator Influence

Children begin to spend more time in school with teachers and friends than they do with their parents, starting in adolescence and continuing to their later school years. School is a formalized social institution to which pupils learn the necessary skills and knowledge in many areas including consumption. Most high school and college-level students have had the option to take a personal finance course at some point in their education (Hayta, 2008).

A survey completed by Peng et al. found that respondents who had taken a college-level personal finance class scored significantly higher than others on a financial education test than those who had only taken a high school course. The study found that personal finance courses that are offered on a college-level improve adults' investment literacy. The findings also suggested that a greater amount of investment knowledge was gained from college personal finance class rather than a high school personal finance class (Peng et al., 2007).

Religious Influence

Lisa Keister completed a study in 2003 that insisted that religion directly influences wealth accumulation. Keister found that people of the Jewish religion are less likely to own homes than those who are Protestant or Catholic. However, they tend to own more valuable homes when they do purchase a residence. She also found that Jewish people held more assets than other families. She also found Catholics tend to inherit less money than those of other religious backgrounds. Therefore, she says that Catholics have had to save and invest more to attain wealth levels that are on pat with Protestants (Keister, 2003).

Media Influence

Mass media has a longstanding reputation for having effects toward audience thought, attitudes, and behavior. As adolescents grow older, their socialization agents and interaction patterns occur rapidly. They begin utilizing mass media tools (such as television, newspaper, and the internet) more frequently. As adolescents age, they able to better distinguish exaggeration in advertisements, and can develop positive or negative attitudes toward advertisements (Hayta, 2008).

Methodology

Procedure

To help determine financial literacy rates amongst ECU Students, an IRB approved joint survey was distributed to ECU undergraduate students. The joint survey was composed of sixty financial education questions. The survey was distributed online via Qualtrics. A print version of this survey was not available. The survey was advertised primarily through four main outlets; social media postings on popular student pages, flyers hung in campus buildings, the Honors College Listserv, and the Listserv for ECU's Fall Personal Finance class. Students also had the ability to share a link to the survey with their friends. Students could stop the survey at any time, but their completed answers were saved to the database.

Sample

The study's sample comprised 192 undergraduate students of all majors from East Carolina University. Most students were in the Thomas Harriot College of Arts and Sciences (26%), the College of Health and Human Performance (19%), the College of Nursing (17%), or the College of Business (15%). The sample included 26% first-year students, 23% second-year students, 31% third-year students and 20% fourth-year students. Of the students in the sample, 71% were female and 29% male. Nearly half of the sample set had never studied personal finance before (41.67%). Most students were employed part time during the school year (54%). About half of the students surveyed were members of the Honors College (53%). Table One, on the next page, displays all the demographic information that was collected.

Table One

Education	**College**		**Count**
		Allied Health Sciences	9
		College of Business	28
		College of Education	6
		College of Engineering and Technology	12
		College of Fine Arts and Communication	13
		College of Health and Human Performance	36
		College of Nursing	33
		Thomas Harriot College of Arts and Sciences	50
		Other	5
	Class Rank		
		Freshmen	50
		Sophomore	45
		Junior	59
		Senior	38
Demographics	**Gender**		
		Female	136
		Males	56
	Race		
		Caucasian	154
		African American	14
		Hispanic	7
		Asian	8
		Pacific Islander	1
		Other	8
Experience	**Past Education**		
		Never Studied Personal Finance	80
		Personal Finance Class in High School	49
		Personal Finance Class in College	38
		Personal Finance Seminar or Information Session	5
		Other	9
		No Response	11
	Work Status		
		Full Time	2
		Part Time	103
		Does Not Work During School Year	87
Income	**Self-Reported Income**	> $120,000	51
		$90,000 - $119,999	48
		$60,000 - $89,999	35
		$30,000 - $59,999	19
		< $30,000	12
		Unsure	27
Honors College		Yes	102
		No	90

Questionnaire

The survey collected data about the students, their educational backgrounds, their parent's educational backgrounds, and their attitudes toward personal finance. The survey asked questions about where students obtained the knowledge that they already have, whether it be from instructors, parents, friends, videos online, or some other source. Following, financial math questions were presented to students. These questions did not require a calculator to complete and were multiple choice. The choice "I don't know" was an option in addition to three numerical options. The mathematical questions from this survey where be obtained from the International Network on Financial Education (INFE). Next, a series of true or false questions were given to the student. These questions helped determine what the student knows about managing personal finances. The accuracy of the students' answers on the financial true or false and math sections will be correlated to how they learned what they know about personal finance. The responses from each student were used to calculate the mean and median percentage of correct scores for the financial math and true or false questions. If a student stopped taking the survey at a midpoint during the survey, their answers are not included in the average answers for questions.

Imagine that five brothers are given a gift of $1,000. If the brothers have to share the money equally how much does each one get?

- $100
- $200
- $250
- I don't know

Now imagine that the brothers have to wait for one year to get their share of the $1,000 and inflation stays at 3 percent. In one year's time will they be able to buy:

- More with their share of the money than they could today
- The same amount
- Less than they could buy today
- I don't know

You lend $25 to a friend one evening and he gives you $25 back the next day. How much interest has he paid on this loan?

- 100%
- 50%
- 0%
- I don't know

Suppose you put $100 into a no fee savings account with a guaranteed interest rate of 2% per year. You don't make any further payments into this account and you don't withdraw any money. How much would be in the account at the end of the first year, once the interest payment is made?

- $98
- $100
- $102
- I don't know

High inflation means that the cost of living is increasing rapidly

- True
- False

It is usually possible to reduce the risk of investing in the stock market by buying stocks in many different companies

- True
- False

An investment with a high return is likely to be low risk

- True
- False

Results and Discussion

Overall Test Results

A total of 176 students finished the survey. Of these 176 students, the average grade was a 74.7%. The standard deviation was 27.6. 150 students scored above a 70 on the test, which constitutes as passing. Only 25 students failed the test. 48 students made an “A” on the test, 64 students made a “B” on the test, 38 students made a “C” on the test, and 25 failed. 17 students did not answer any test questions. Their scores were not analyzed in the data set. The score breakdown for each question is shown in Table Two below. Overall, students did much better than expected.

Table Two

		Average Score			
		Fail	C	B	A
Financial Math	Division of Money				94.9
	Time Value of Money	50.3			
	Interest Paid on a Loan				97.7
	Interest + Principle				94.7
True / False	Definition of Inflation			85.2	
	Diversification		71		
	Risk and Return			83	

Test Question by Demographic

Table Three, listed on page 15, shows the score break down by individual question and demographic information. Surprisingly, College of Business students did not have the overall highest averages. Instead, students in the Thomas Hariot College of Arts and Sciences had the highest overall average. This may be because 9/12 survey responses collected from Thomas Hariot College of Arts and Sciences students were members of the honors college. Only 4/27 College of Business students were members of the honors college. Unsurprisingly, students who were seniors scored higher than students of other classes. Freshmen had the lowest overall score. For the most part, females had averages that were well below the averages of males, except in three categories where female scores were higher (inflation) or essentially the same (division of money, interest paid on a loan). Students that took personal finance in college had lower scores than students who studied personal finance using other methods or had never taken personal finance before. This may represent a selection bias where those who think they need financial education most were currently enrolled in the personal finance class and the survey was distributed close to beginning of the semester. Students who worked full time did better than students who worked part time or did not hold a job at all. Students who fell in the lowest (< \$30,000) and highest (> \$120,000) income brackets averaged the same over all scores and did worse than students in any other income bracket. Honors college students scored better overall that non-honors college students and performed better in all categories except the definition of inflation.

Table Three

	Division of Money	Time Value of Money	Interest Paid on A Loan	Calculation Interest + Principle	Definition of Inflation	Diversification	Risk and Return	Overall
College								
College of Allied Health Sciences	1	0.5	1	0.88	0.63	0.75	0.88	0.8
College of Business	0.93	0.33	0.96	0.89	0.85	0.74	0.78	0.78
College of Education	1	0.5	1	1	1	0.5	1	0.86
College of Engineering and Technology	0.83	0.5	1	1	0.75	0.83	0.75	0.81
College of Fine Arts & Communication	0.9	0.5	0.9	1	1	0.7	0.7	0.81
College of Health and Human Performance	0.97	0.45	1	0.88	0.82	0.7	0.85	0.81
College of Nursing	1	0.35	0.97	0.87	0.87	0.68	0.74	0.78
Thomas Harriot College of Arts and Sciences	0.96	0.61	1	0.96	0.87	0.74	0.93	0.87
Other	0.8	0.4	0.8	0.8	1	0.4	0.8	0.71
Class Rank								
Freshman	0.91	0.43	0.98	0.93	0.75	0.75	0.82	0.8
Sophomore	0.98	0.52	1	0.9	0.88	0.6	0.86	0.82
Junior	0.93	0.4	0.95	0.89	0.95	0.73	0.76	0.8
Senior	1	0.54	1	0.94	0.8	0.77	0.91	0.85
Gender								
Female	0.95	0.42	0.97	0.89	0.87	0.67	0.77	0.79
Male	0.94	0.58	1	0.98	0.81	0.81	0.96	0.87
Race								0.75
Caucasian	0.94	0.49	0.98	0.94	0.86	0.72	0.85	0.82
African American	0.92	0.23	1	0.85	0.85	0.69	0.69	0.75
Hispanic	1	0.5	1	0.67	0.67	0.83	1	0.81
Asian	1	0.43	1	0.86	0.86	0.43	0.71	0.76
Pacific Islander	1	0	1	1	1	1	0	0.71
Other	1	0.57	0.86	0.86	0.86	0.71	0.86	0.82
Past Education								
Never Studied Personal Finance	0.97	0.53	0.97	0.94	0.85	0.71	0.81	0.82
Personal Finance Class in High School	0.96	0.52	1	0.92	0.85	0.79	0.9	0.85
Personal Finance Class in College	0.86	0.22	0.97	0.86	0.86	0.56	0.75	0.73
Personal Finance Seminar or Information Session	1	0.2	1	1	0.6	1	1	0.83
Other	1	0.78	0.89	0.89	1	0.78	0.89	0.89
Work Status								
Full Time	1	0.5	1	1	0.5	1	1	0.86
Part Time	0.95	0.45	0.98	0.93	0.87	0.66	0.81	0.81
Does Not Work During School Year	0.95	0.48	0.97	0.9	0.84	0.77	0.84	0.82
Self-Reported Income								
> $120,000	0.89	0.36	0.98	0.89	0.86	0.73	0.8	0.79
$90,000 - $119,999	0.96	0.53	1	0.96	0.78	0.8	0.89	0.84
$60,000 - $89,999	0.97	0.61	0.97	1	0.85	0.52	0.94	0.84
$30,000 - $59,999	0.94	0.41	0.94	0.76	0.88	0.88	0.76	0.8
< $30,000	1	0.18	1	0.91	1	0.73	0.91	0.82
Unsure	1	0.5	0.96	0.88	0.88	0.65	0.65	0.79
Honors College Student								
Honors College	0.97	0.59	1	0.97	0.82	0.77	0.88	0.86
Not Honors College	0.93	0.33	0.95	0.85	0.89	0.65	0.77	0.77

Future Advice

Table Four displays students' responses to the question, "When you have questions regarding personal finance in the future, where do you think that you will go to for advice? (Choose all that apply)". Nearly all students said they would go to their parents, followed by online sources and a financial advisor. This makes parents the most common external factor studied.

Table Four

Terms Students Selected	
Parents	158
Online	91
Financial Advisor	87
Friends	54
Other Relatives	29
Books	25

External Influencer and Average Grade

Table Five shows the students' test averages grouped by the strength they perceived each individual factor to influence their financial knowledge. Students who perceived their parents to have a "great deal" of an influence of their knowledge of personal finance scored higher, on average, than students who ranked their parents to have any other amount of influence on their financial knowledge. Interestingly, students who ranked the media and their peers to have a "great deal" of an influence on their knowledge of personal finance failed the test, scoring 61.22% and 65.71%, on average, respectively.

Table Five

External Influencer Strength and Average Grade

	1	**2**	**3**	**4**	**5**
Parents	71.43%	81.82%	81.20%	79.91%	82.86%
Relative	83.33%	86.49%	77.34%	81.87%	79.70%
Instructor	84.42%	84.47%	83.73%	77.23%	74.88%
Peer	82.14%	82.46%	80.95%	81.99%	65.71%
Media	82.61%	80.67%	84.64%	78.95%	61.22%
Online	76.19%	81.97%	83.14%	84.45%	78.99%
Own Experience	100.00%	81.63%	81.11%	78.47%	84.24%
Religion	82.86%	83.04%	77.02%	78.57%	80.61%

Factors Influencing Student Knowledge and Financial Decisions

Students were asked to rank, on a Likert Scale, seven factors that may have influenced their knowledge of personal finance and their financial decisions. Tables Six and Seven show the results. For both questions, students answered parents more than any other factor, and their own experience coming in a close second place. For both questions, religion was, on average, least likely to be chosen.

Table Six

Influence of factors on students' knowledge of personal finance:

	Parents	Own Experiences	Instructors	Other relatives	Online Resources	Peers	Media	Religion
5	81	71	30	20	18	5	7	15
4	65	69	33	27	34	23	20	23
3	21	32	38	60	52	53	55	23
2	12	7	47	37	43	59	51	33
1	2	2	33	37	34	41	48	87
Avg.	*4.166*	*4.105*	*2.89*	*2.757*	*2.773*	*2.403*	*2.376*	*2.149*

Table Seven

Influence of factors on students' financial decisions:

	Parents	Own Experiences	Peers	Media	Other relatives	Online Resources	Instructors	Religion
5	90	79	12	13	16	9	20	12
4	60	66	34	25	28	23	13	17
3	22	28	59	57	40	47	31	24
2	6	6	44	38	42	47	46	38
1	3	2	32	48	55	55	71	90
Avg.	*4.260*	*4.182*	*2.724*	*2.541*	*2.492*	*2.359*	*2.254*	*2.022*

Confidence in Test Answers

After being given the financial literacy test, students were asked how confident they felt in their scores. Students who made a 100% on the test were the most confident on the test. Students who did the worst on the test were the second most confident in their test scores. Students who made a 71% were least confident in their test scores.

Table Eight

Test Score	Average of Confidence in Financial Literacy Questions	Count of Test Grade
0.285714286	4	2
0.428571429	3.125	8
0.571428571	3.333333333	15
0.714285714	3.263157895	38
0.857142857	3.454545455	66
1	4.063829787	47

Further Investigation

This study showed parents to be the strongest external factor in influencing student's knowledge of personal finance and financial decisions. Researchers should investigate each financial literacy question further by distributing a financial literacy questionnaire to parents to determine if parental financial knowledge impacted the overall financial literacy score of each student, correlating the score to the intensity of parents as an external influencer. A second study could also be completed to see if students do, in fact, go to parents with future financial questions and how the advice of their parents pays off for them in the long term.

Conclusion

Throughout this research, insight has been gained into what students know about personal finance, where students obtain their personal finance knowledge, and where they will go to with future financial questions. Overall, this study found students to be financially literate based on their scores on a financial literacy test. The study shows that parents are more likely to influence students' knowledge of personal finance as well as their financial decisions than any other studied factors. Similarly, students responded that they are most likely to go to their parents with future financial questions. This makes parents the most significant external factor studied in this research project.

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