

# Implications of Student Loan and Finance Management Skills for Undergraduate Students

#### Dr. Diana Yankovich

Data Analyst, Institutional Effectiveness Delaware State University, DE, USA

Dr. Nirmaliit Rathee

Professor & Director, Education Graduate Programs
Delaware State University, DE, USA

Dr. Vikramjit S. Rathee

Chief Scientific Advisor, Research & Development Department Nine Star Initiative, DE, USA

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#### **Abstract**

As the Presidential elections in 2024 are approaching, public opinions and politicians' statements about student loans are presented more often. To curb educational borrowing, the entire society is involved. Institutions of higher education are highly engaged in securing possible funds for scholarships and grants to provide their students with the best and most efficient education. States offer scholarships, and students are becoming more selective about their institution, study major, and lifestyle choices during their undergraduate studies. Many borrowers lack a clear understanding of loan terms and finance management skills. This study was conducted to determine the money management skills of undergraduates, their perceived amount of educational loans anticipated upon graduation, and its impact on their academic performance. A specifically designed survey instrument was administered to a total of 565 participants who were students at one of the US HBCUs in the North-Eastern region of the United States. The results revealed significant race differences in the perceived expected amount of debt upon graduation. The study further indicates a heightened requirement for academic

guidance for students whose undergraduate GPAs fall within the range of 2.00 to 3.00, aiming to enhance their retention until graduation within the present institution. Student athletes expressed a significantly higher financial self-efficacy than non-athletes.

**Keywords:** Student loan, Attitude towards debt, Perceived debt, Academic performance, Managing finance, Debt management, Student financial capability

#### Introduction

The current amount of student loans is over \$1.5 trillion (Malynski & Kiersz, 2019). Typically, it represents both the loan with the most rapid growth and the loan with the highest rate of default. Due to their amounts and growth rate, student loans are among the highest burdening loans and are set up to continue growing. Recently, new research, statistics, and news articles about student loans and their risk and treatment have been published. Some studies have discussed the importance of educating parents of high school students and undergraduate students about educational loans and financial behavior.

In Shaffer's (2014) research, the author delineates the financially precarious actions of students, delving into the category of Financially At-Risk students (FAR). The recommendation is for collaborative efforts between academic advisers and financial aid counselors to support these students in retaining and attaining academic success. In addition, the author emphasizes the importance of early identification and tracking of the FAR population and its financially risky behavior because it may jeopardize their academic achievements, and the behavior is likely to continue during their post-university career. Thus, higher education institutions should help students learn proper financial behavior besides the educational curricula.

Allen and Kinchen (2009) suggest that all colleges and universities should include introductory personal financial management courses as the graduation requirement. Such courses should teach students about basic understanding of credit, investing, and budgeting (p.112). Eichelberger et al. (2017) suggest that classroom learning, as well as workshops, research, and application of more intricate financial concepts, is needed for college students to master the necessary life and college financial skills (p. 81). The research also found that "access to financial information and aid is impeded" for special population groups and underrepresented groups, such as first-generation students, minorities, women, veterans, students with disabilities, and LGBTQ+. The authors suggest that the institutions should include members of the underrepresented groups in the institutional process of development of policies and program requirements for financial literacy (p. 80).

Simpson et al. (2012) found that freshmen students lacked knowledge about loans, coupled with unrealistic expectations about their income at graduation (p. 24). Also, they found that 13% of the freshman did not know the type of financial aid they were receiving, while almost 70% of those who reported that they received a loan did not know the type of loan received (p. 21-22). They also found that the freshmen who overestimated their income at graduation were equally reluctant to borrow compared to those who did not overestimate (p. 20). Furthermore, they are not eager to accumulate debt but view it as a requisite that allows them to pursue higher education.

Harrison and Agnew (2016) claim that postponing higher education, or diminishing academic performance, including temporary or indefinite withdrawal from higher education, are results of debt-avoidance attitudes or debt anxiety (p. 349). They cite the fear of debt as a significant determinant in demand for higher education, especially for prospective students with lower socioeconomic backgrounds (p. 334). As a result, the views on indebtedness might not accurately mirror the real amount of debt, but rather represent a self-assessment of one's debt situation at that particular moment (p. 349).

This study investigates the relationship between student loan perception and financial skills, self-efficacy, and self-esteem. The results of this study may help potential and current students develop a feasible financial plan for college. This can be achieved by urging higher education institutions to integrate information on educational loans and economic education into university seminar courses, thus facilitating a smoother transition for students from high school to college. It will also enable colleges and universities to assist students with quality financial planning.

# Methodology Research Design

An exploratory mixed-method study was conducted on the population of undergraduate students at a 4-year public historically minority institution. A survey instrument was developed by incorporating the conceptual framework of financial stress, self-efficacy, and financial help-seeking behavior of college students, as outlined by Lim et al. (2014). This instrument integrated elements from the Financial Self-Efficacy Scale (Lown, 2011) and the Student Attitudes Towards Debt scale (Lea, Webley, and Walker, 1995). Furthermore, the survey instrument contains questions regarding the students' demographics, their expected student loans by graduation, financial self-efficacy, financial stress, perceived academic success considering the loan, and attitudes toward debt. The pilot testing of the survey was performed on 15 randomly selected students. After verifying its content validity by obtaining feedback from the faculty experts, the survey was administered to the study participants to obtain data for this research.

#### **Participants**

The study involved 565 participants, who were 4-year students from a predominantly minority-serving institution. The participants were randomly sampled to ensure representation from each class category, including freshmen, sophomores, juniors, and seniors. A copy of the letter explaining the purpose of the survey, its confidentiality, and instructions were provided to the participants. The survey was voluntary, and the students were informed that they could withdraw from participation at any time. They were also assured that their data would be kept confidential. No personal data were collected, including students' ID, date of birth, name, or address. This research is characterized by categories, with the loan amount serving as a classification used to assess its correlation with the confidence level in academic performance.

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# **Survey Administration and Data Collection**

A survey was conducted in the summer and fall of 2018. The survey was administered by the researcher Diana Yankovich with the help of the administrators, staff, and faculty members from many departments all over the campus. The students were asked to answer the survey questions honestly and not to respond twice. High school students, graduates, or international students were advised not to participate in the survey. "Dreamers," i.e., students within the Deferred Action for Childhood Arrival status (DACA) population, were also included in the study. The survey responses were kept anonymous, and the students were informed about the anonymity. All data collected in paper and pencil form were entered into a Microsoft Excel spreadsheet for further data processing.

A total of 565 responses were collected. To determine that the sample represents the student population at the university, the proportions of the particular demographic groups (including the gender and class—new freshman, returning freshman, sophomore, junior, and seniors) were compared in the sample with the undergraduate university population. Utilizing the Chisquare test, the hypothesis stating that there is no difference between frequencies of demographic categories in the sample and the population could not be rejected (p-value > 0.05). Hence, this sample is considered the representative sample of the entire campus/university population of undergraduate students.

# **Potential Ethical Issues**

The survey was administered to the adult student population, and they are protected by the Belmont Report, the Family Educational Rights and Privacy Act (FERPA), and other laws. Participants were notified that the raw data would be accessible only to the researcher, and their responses would be

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kept confidential. No personal details or identifying information will be included in any report, and only the aggregate responses will be presented in the study. The results of the survey and the questionnaire have been kept anonymous and complete protection of the individual identity has been ensured.

#### **Data Analysis**

To establish the internal consistency of questions, Cronbach's alpha was computed using the psychpackage in R. The calculated alpha value for the question pair Q. 9 and Q. 16, along with a 95% confidence interval, is 0.59. In addition to descriptive analyses (Chi-Square and t-test), the Fisher Exact Test was employed to assess the association between responses to question pairs. The results of specific comparisons are given below in the results and discussion section.

# **Results and Discussion**

Table 1. Paired Results of Questions 1 and 9

*Q.* 1. *Gender?* 

Q. 9. Is it hard to stick to my spending plan when unexpected expenses arise? p-value < 0.005

p value < 0.005							
	Hard to stick with spending plan						
	Exactly True (%)	Moderately	Hardly	Not at All True			
Gender		True	True				
Female	40.62	45.57	11.20	2.60			
Male	32.14	44.64	14.29	8.93			

According to the analysis of data obtained from questions 1 and 9, it is indicative that 40.62% of the surveyed female students responded, "Extremely true" to the question (Q. 9), stating that it was hard for them to stick to their spending plan when unexpected expenses arise. Only 2.6% voiced that this was "Not true at all". Compared to the female students, this statement was found to be extremely true by 32.14% of the male students, while 8.93% mentioned that it was not true at all. These results suggest that when faced with unexpected financial eventuality, female students find it more difficult to deal with such as compared to male students. The results of the paired questions 1 and 9 are projected in Table 1.

Table 2. Paired Results of Questions 3 and 4

Q. 3. What amount of student loan will you acquire by the time you graduate? Q. 4. Do you pay the tuition fee as an In-State student or an Out-of-State student?

p-val	ue	<	0.	05
P	~~~	_	$\sim$ .	$\sim$

	In-State (%)	Out-of-State
Loan Amount (\$)		
0	53.39	46.61
1-10,000	57.14	42.86
10,001-20,000	55.93	44.07
20,001-30,000	43.37	56.63
30,001-40,000	55.38	44.62
40,001-50,000	38.46	61.54
More than 50,000	23.16	76.84

As depicted in Table 2 above, results of questions 3 and 4 show that 53.39% of the In-State respondents believe that they will acquire no debt (\$0) till graduation, compared to 46.61% of the Out-of-State students. Furthermore, only 23.16 In-State students indicated that they perceived themselves to owe more than \$50,000 by graduation, while 76.84% of the Out-of-State respondents held this belief. Therefore, Out-of-State students, who are likely to incur more debt due to the higher Out-of-State Tuition and Fees, which are twice the In-State rates, perceive a greater amount of student loans until graduation.

**Table 3.** Paired Results of Questions 9 and 16

Q. 16. I pay my bills on time every month = Y/N.

Q.9. It is hard to stick to my spending plan when unexpected expenses arise. p-value < 0.005

Yes/No	Exactly True (%)	<b>Moderately True</b>	Hardly True	Not at All True
N	52.88	34.62	8.65	3.85
Y	33.72	48.14	13.26	4.88

As seen in Table 3, only 33.72% of the students who promptly settled their bills affirmed that it is hard for them to stick to a spending plan when unexpected expenses arise. Conversely, a significantly higher number (52.88%) of the students who struggled with timely bill payments mentioned that they found it hard to stick to a spending plan when unexpected expenses arise.

Table 4. Paired Results of Questions 10 and 34

- Q. 10. When unsuspected expenses occur, I usually have to use credit.
- Q. 34. I plan ahead for larger purchases.

*p-value* < 0.005

I plan ahead for larger purchases							
When unexpected expense occurs, I have to use credit	Strongly Agree	Agree	Neither Agree/ Disagree	Disagree	Strongly Disagree		
Exactly True	30.19	28.3	7.55	18.87	15.09		
Moderately True	26.47	39.71	16.91	8.82	8.09		
Hardly True	31.78	42.64	12.4	6.98	6.2		
Not At All True	43.66	31.46	13.62	4.69	6.57		

As presented in Table 4, the results on questions 10 and 34 demonstrate that 43.66% of the students do not use credit even when unexpected expenses occur. They 'strongly agreed' that they plan ahead for larger purchases. Thus, these results reveal that the students with better self-efficacy plan ahead and do not favor taking loans even when they are faced with unexpected expenses. Even among those who mentioned that it was exactly true that they use credit when unsuspected expenses occur, 30.19% affirmed that they plan ahead for larger purchases.

Table 5. Paired Results of Questions 11 and 34

- Q. 11. When faced with a financial challenge, I have a hard time figuring out the solution.
- Q. 34. I plan ahead for larger purchases.

p-value < 0.005

p vaine < 0.003							
I plan ahead for larger purchases							
When faced with a financial challenge, I have a hard time figuring out the solution	Strongly Agree	Agree	Neither Agree/ Disagree	Disagree	Strongly Disagree		
Exactly True	23.19	36.23	14.49	8.7	17.39		
Moderately True	30.96	35.03	17.26	10.15	6.6		
Hardly True	35.75	40.93	11.92	6.74	4.66		
Not At All True	50.62	28.4	8.64	3.7	8.64		

These results certainly demonstrate a positive relationship between the financial self-efficacy of the students and their attitude toward debt. The results in Table 5 project a similar picture as seen in Table 4. Majority of students (50.62%) have demonstrated that better financial management is the key to financial challenges. When faced with a financial challenge, the

students who strongly agreed that they have difficulty figuring out the solution (23.19%) also strongly agreed that they plan ahead for larger purchases.

Table 6. Paired Results of Questions 12 and 30

- Q. 12. I lack confidence in my ability to manage my finances.
- Q.~30. Taking out a loan is a good thing because it allows you to enjoy life. p-value < 0.005

	Taking out a loan is a good thing because it allows you to enjoy life Measured by 5 points Likert Scale from Strongly Agree to Strongly Disagree						
I lack confidence in my ability to manage my finances Measured by 5 points Likert Scale from exactly true to not at all true	Strongly Agree	Agree	Neither Agree/ Disagree	Disagree	Strongly Disagree		
Exactly True	3.45	5.17	13.79	29.31	48.28		
Moderately True	1.83	7.93	37.8	26.83	25.61		
Hardly True	1.15	4.6	32.76	38.51	22.99		
Not At All True	2.01	6.04	32.21	23.49	36.24		

The result in Table 6 (regarding Q. 12 & 30) indicate that 48.28% of the students who felt that they lack confidence in their ability to manage their finances also strongly disagreed with the suggestion (Q. 30) that taking out a loan is a good thing because it allows them to enjoy life. The result also points out that only 3.45% of the students expressed a positive view regarding the question that taking out a loan is a good thing because it allows you to enjoy life.

**Table 7.** Paired Results of Ouestions 8 and 26

- Q. 8. Have you have received any scholarship, grant, work-study, or fellowship to support your college tuition and fees?
- Q. 26. How confident are you that you will remain at the university without interruption until your graduation? p-value < 0.005

, 	vaine < 0.003	T 1 0 0 01				
		Level of Confidence				
	<b>Received Grant</b>	Not Confident	Somewhat Confident	Mostly Confident	Very Confident	
	False	2.25	9.19	17.64	70.92	
	True	4.55	31.82	27.27	36.36	

As presented in Table 7, The results of the paired questions 8 and 26 indicate that 70.92% of the students who had not received any scholarship,

grant, work-study, or fellowship to support their college tuition and fees felt very confident that they will remain at the university without interruption until their graduation. However, 2.25% were not confident that they will remain at the university without interruption until graduation.

**Table 8.** Paired Results of Questions 9 and 7

Q. 09. Is it hard to stick to my spending plan when unexpected expenses arise? Q. 07. Are you a student-athlete?

p-val	ue	<	0	00	15
p-vui	ne	_	v.	$\sigma$	J

It is hard to stick to my spending plan when unexpected expenses arise	Student Athlete (Yes/No) (%		
	No	Yes	
Exactly True	92.34	7.66	
Moderately True	86.85	13.15	
Hardly True	80.88	19.12	
Not At All True	72	28	

The responses of student-athletes (Q. 7) and their ability to stick to their spending plan when unexpected expenses arise (Q. 9) were analyzed, and the results are presented in Table 8. The results reveal that it is easier for student-athletes to stick to their spending plans (caveat: the self-identification of students as athletes is not certain; maybe they were athletes during high school). The total number of athletes covered was 71, which seems unrealistically high. Alternatively, the athletes being residents and adhering to strict attendance requirements may have contributed to this symmetry. Therefore, the actual number of surveyed athletes may be correct. Out of the population who answered Q. 9, 92.34% of athletes answered "Exactly True", while 7.66% of non-athletes answered the same. Regarding the same questions, "Not at all true" was answered by 72% of the athletes vs. 28 percent of non-athletes.

Table 9. Paired Results of Questions 25 and 28

#### O. 25. GPA?

Q. 28. How confident are you that you will be performing academically to the best of your academic potential, given the educational debt you are going to acquire until graduation?

*p-value* < 0.001

	Confidence to perform to the best academic potential						
<b>GPA Range</b>	Not Confident (%)	Somewhat Confident	Mostly Confident	Very Confident			
<2	0	12.5	0	87.5			
≥2, <2.5	3.12	25	31.25	40.62			
≥2.5, <3	1.18	21.18	27.06	50.59			
≥3, <3.5	3.06	5.1	15.31	76.53			
≥3.5, ≤4	0	5	21.67	73.33			

Table 9 reveals that students with a GPA below 2 exhibit the highest percentage of "very confident" responses on questions 25 and 28, while those

with a GPA between 2 and 3 show the lowest percentages. Thus, these group of students may require additional academic resources.

**Table 10.** Paired Results of Questions 2 and 3

- Q. 2. What is your race?
- Q. 3. What amount of student loan will you acquire by the time you graduate? p-value < 0.00001

, , , , , , , , , , , , , , , , , , , ,	Race						
Loan Amount (\$)	African American	Asian	White	Hispanic	Native American	Two or More Races	Unknown
0	13.29	75	57.14	72.73	50	24.39	66.67
1-10,000	13.53	0	9.52	15.15	0	9.76	0
10,001-20,000	11.35	0	7.14	6.06	0	14.63	0
20,001-30,000	16.67	25	14.29	0	50	12.2	0
30,001-40,000	14.25	0	2.38	6.06	0	7.32	66.67
40,001-50,000	9.9	0	4.76	0	0	19.51	0
More than 50,000	21.01	0	4.76	0	0	12.2	0

There is a correlation between race and the perceived level of debt upon graduation (Q. 2 and Q. 3). According to Table 10, the p-value is less than 0.00001. However, the sample population has a very small number of American Indian/Alaska Native, Unknown, and two or more races, while the "Dreamer" population may be included either as Hispanic or two or more races. Evidently, 72.73% of Hispanics are aware that they would not have any financial obligations upon graduation, as the Opportunity Scholarship covers their educational expenses. Therefore, the representative sample race populations are Black/African American and White.

The result shows that 21.01% of African Americans expect to owe more than \$50,000, and 4.76% of whites expect the same. Furthermore, 13.29% of African Americans expect to graduate debt free, while 57.14% of whites expect the same. These findings agree with previous studies that race is a predictor of loan amount. Baker and Montalto (2019) examined the relationships between student loans, financial stress, and academic achievement. They found that race is associated with loan, and first-generation students are more likely to rely on loans. Also, they found that "students of color anticipating a graduation debt of \$40,000 or more had significantly lower GPA one year later compared to their peers".

#### Conclusion

The following findings were revealed in this study:

1. Female students face greater challenges in handling unexpected expenses compared to males. This result is in accordance with

- Yankovich et al. (2019), which shows that female literacy and money habits significantly differ from males (p. 197-198). Therefore, female students require additional practice in money management skills to enhance their competence in handling finances.
- 2. Students at the institution where the research was conducted are aware of the In-State and Out-of-State costs of tuition and fees. Therefore, Out-of-State Students expect a higher loan till graduation.
- 3. When unexpected expenses arise, more students who were tardy in bill payments (almost 53%) found it difficult to stick to the spending plan as compared to those (nearly 34%) who promptly paid their bills. Consequently, those lagging in timely bill payments would benefit from enhancing their money management skills. Planning ahead for larger purchases demonstrates a high level of money management skills and is the key solution to financial challenges.
- 4. Majority of students, regardless of whether they use credit when unexpected expenses occur, plan ahead for larger purchases. Almost 44% of the students, who do not use credit even when unexpected expenses occur, plan ahead for larger purchases. Therefore, the former group presents a higher level of money management skills. Almost 58% of those who use credit for unexpected expenses plan ahead for large purchases. This demonstrates that they also have good money management skills. However, they need to improve their budget planning skills. There is a positive relationship between financial self-efficacy and attitude toward debt.
- 5. Majority of students who reported lack of financial capability (78%) have an aversion to borrowing money, with 48% strongly disliking it. Conversely, only 9% exhibit a preference for borrowing, and 3% express a high level of certainty about their inclination.
- 6. 71% of the students who reported that they did not receive any scholarship or grant aid are very confident about graduating from their current university. In comparison, only 2% are not confident about their persistence and graduation.
- 7. Student-athletes are more capable of sticking to the spending plan than non-athletes. This is contrary to the claims of Levin et al. (2014) that student-athletes academically underperform compared to other students. Beron and Piquero (2016) analyzed NCAA data and found no evidence that student-athletes in Division I are more focused on athletics than academics. Furthermore, they found that being a student-athlete does not influence their academic performance negatively. Considering the importance of the student athletes' individual and team practice, tutoring, class, and other schedules, their financial responsibilities schedule may be developed as well. The athletic and

- other scholarships help to lower educational expenses, which aids their financial self-efficacy. Higher academic self-efficacy could stem from the tailored academic guidance and focused support offered to this demographic within the NCAA Division I-affiliated institution where the study took place. Consequently, in contrast to the findings of Levin et al. (02014), student-athletes might excel academically.
- 8. Given the students' perceived amount of educational loan, those with academic GPAs between 2.00 and 3.00 expressed the lowest confidence in performing at their best. Consequently, it is recommended that these students receive additional academic advising and other support resources.
- The perceived amount of educational loans and the student race are 9. correlated. Montalto et al. (2018) propose that enhancing students' ability to cope with financial stress through the implementation of new educational and financial policies can boost their financial selfefficacy and academic achievements (ps. 15-17). They claim that affordable student loans serve as good long-term financial vehicle in order to educate and develop reliable and financially responsible human capital with high financial capacity. Accordingly, more legislator improvement of the existing educational and financial policies is needed to achieve a better and more accessible education (p. 18). Nevertheless, the precise correlation between the optimal levels of student loan amounts, whether high or low, and their perceived impact on fostering healthy debt remains unclear. This relationship, if understood, could potentially enhance academic performance and broaden students' financial capacities. While the intention to take out a loan does not necessarily align with the loan amount, the results of this study indicate that as the loan amount increases, a greater number of students express reservations about the idea of borrowing money. Therefore, it is necessary to provide financial counseling to students as soon as they intend to enroll in college or university. Future research should compare the actual borrowed amount and the perceived amount in each academic year and at the time of graduation to determine the reason for the discrepancies (if any) between them.

In addition, future research may focus on first-generation students (the first in the family to attend college), financial aid type (scholarship, grants, donations), loan type, and the correlation between received aid and perceived amounts in comparison to similar trends across regional or national institutions. This approach aims to analyze and contrast patterns within individual institutions. Nevertheless, the findings of this study exclusively reflect the institution where the research was conducted. Hence, for

applicability across states, regions, nations, or other minority-serving institutions, it is essential to replicate the research using representative samples from the specific institutions where new investigations are to take place. Additionally, conducting longitudinal studies within the same institution can provide time-series trends, thus facilitating comparisons between actual and perceived ownership findings.

In order to proactively identify financially at-risk (FAR) students and support all students in achieving their academic, financial, and overall health goals, institutional leadership must foster effective communication and coordinated efforts among various stakeholders, including faculty, staff, counselors, academic and financial aid advisers, as well as students and parents. This necessitates the implementation of robust data analytics processes that continually monitor both academic and financial indicators for potential risks. Examining students' confidence in managing their finances, perceptions of debt, and attitudes towards borrowing could prove beneficial not just for their economic prosperity but also for their academic success. This involves providing prompt guidance, offering extra resources and financial safety nets for low-income students, incorporating services such as food banks, as well as delivering financial literacy courses and counseling. Continuous follow-up at each stage, instilling a positive mindset, and employing suitable counseling methods are crucial until each student achieves success. Implementing these strategies for all students, as recommended by Lipka (2019), is expected to contribute to institutional success.

**Conflict of Interest:** The authors reported no conflict of interest.

**Data Availability:** All of the data are included in the content of the paper.

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# **Declaration for Human Participants**

The research conducted has been approved by the Delaware State University Institutional Review Board, and the principles of the Helsinki Declaration were followed.

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