

Financial Knowledge and Student Loan Usage in College Students

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Abstract

The purpose of this study is to examine the level of knowledge students have pertaining to credit cards and student loans. College tuition has increased over time. Consequently, the number of students requiring financial aid in the form of student loans has increased. This study measures the level of knowledge students have about these loans to assess whether or not financial knowledge and other demographic information predicts the level of student loan debt. The results indicate that students in a later year in school and students with lower grade point averages are more likely to have higher student loan debt levels. Additionally, the results indicate that in-state students have a lower probability of having higher loan values. Race is also a predictor of student loan debt levels. African American students are more likely to have higher levels of student loan debt than other races. Higher levels of credit-card debt and financial independence are also related to higher levels of student loans.

1. Introduction and Background

College students are faced with the managing of financial challenges and increasing debt is the biggest concern of those challenges. Many studies have examined the rise and impact of credit card debt among college students (See Lyons, 2004; Norvilitis et al., 2006; Pinto & Mansfield, 2006 for recent examples). The cost of attending college has increased significantly in the last 10 years. The average cost of attending a public 4-year institution¹ was \$11,496 in 2001-2002. A decade later, 2011-2012, the average cost of attending college had increased by nearly 50% to \$17,131. Overall, the average cost of attending college increased an average 5.6% per year beyond the rate of inflation over the last ten years (College Board, 2012).

Consequently, the number of students requiring financial aid has increased. Coinciding with the rising cost of attending college is the rising amount of student loan debt among college students. In fact, by 2010, the amount of student loan debt was greater than the amount of credit card debt in the United States (Levin, 2011). Additionally, in 2010, two-thirds of graduating seniors had student loan debt, compared to less than half in 1993. In 2011, students left college with an average of \$25,250 in student loan debt. That is five percent higher than the \$24,000 in 2009 (Project on Student Debt, 2011). It is important that students understand the ramifications of taking student loans. Although there have been several studies that examine student's ability to repay loans, few have examined the determinants of the level of student loans (Harrast, 2004; King & Frishberg, 2001; Pinto & Mansfield, 2006). The heavy debt burden that many graduates face may prove to drain the economy because students could potentially have less to invest in building an independent life outside of their parents home.

There is considerable evidence that college students lack adequate financial knowledge (Chen & Volpe, 1998; Mandell, 2008). Some studies suggest that environment can often

¹ The cost of college is the sum of published prices for tuition, fees, room and board in constant 2011 dollars.

influence a person's decision making when it comes to credit or financial matters. For example, Hilgert, Hogarth, and Beverly (2003) look at the link between knowledge and behavior in four categories of financial activity: cash-flow management, credit management, savings, and investment. The authors found strong links between knowledge and behavior by using the results of a financial knowledge test in combination with questions about financial practices. This suggests that having accurate financial knowledge may encourage better financial practices.

The United States Department of Education is taking a more active role in providing information about students' rights and responsibilities with respect to student loans. For example, students who receive federal student aid are required to complete entrance counseling and exit counseling through the U.S. Department of Education's website, StudentLoans.gov. Many colleges provide links to access this site through their institutional financial aid websites. In addition to the entrance and exit counseling, there is also information about financial awareness available on the site. Much of this information is contained in self-study programs.

The purpose of this study is to examine the key determinants of the level of student loan debt. This study measures students' knowledge level about student loans and other financial topics and assesses whether or not other methods should be used to educate them about financial issues and student loans. Additionally, the study seeks to determine if the key determinants for student loan debt are similar to those for credit card debt.

2. Methodology

This paper examines the determinants of the level of student loan debt. It is posited that financial knowledge will be negatively related to student loan debt. Also, lower income levels will be positively correlated to student loan debt. Additionally, the demographic variables, credit card debt, levels of other debt, grade point average, race, first generation status, major and

classification will predict student loan debt levels.

The survey methodology similar to that of Lyons (2004, 2007) is used for this study. In Fall 2011, a survey was launched to obtain information regarding student loan usage, credit card usage, and financial knowledge of students at a mid-size state university in the Southeast. The 53 item survey is in the Appendix.

All registered students enrolled in Fall 2011 were invited via email to participate in the survey. In an effort to obtain as many responses as possible, the survey was open to all undergraduate and graduate students. In all, there were 13,860 students invited to participate. Mass emails were sent to students on three separate occasions over an eight week period. The first email was the initial invitation and two reminders were sent two-weeks apart. The survey was available beginning in September for 8 weeks. Additionally students who completed the survey were provided the option to participate in a drawing for three \$50 Wal-Mart gift cards. The three winners were randomly selected from the group of students who submitted their email addresses to participate in the drawing.

3. Sample

The response rate for the survey is 521 students or (3.8%). Fourteen international students responded to the survey. These observations are dropped from the analysis, leaving 506 observations. See Table 1 for a summary of the demographic and financial characteristics of the full sample and specific subsamples. Of the 506 students in the sample, 83.6% report having some type of financial aid that includes student loans, scholarships, tuition waivers, grants, and/or work-study. Additionally, 68.3% of the final sample report having some type of student loan. Of the students receiving financial aid, 77.8% report owing students loans and 37% report owing \$20,000 or more in student loans.

Insert Table 1 Here

Table 1 provides general demographic information. The first column of Table 1 reports figures for the entire sample. With respect to gender and ethnicity, 78.0% of the students are female, 76.3% were White, 15.61% are African American, 1.4% are Hispanic, 2.77% are Asian, 0.79% are Native American, and 3.16% identify themselves as other. Upon additional investigation, those students identify themselves as biracial or multiracial. Additionally, nearly 80% report having a grade point average of 3.0 or higher.

With respect to classification, 14.4% of sample are freshmen, 11.1% are sophomores, 17.4% are juniors, 23.52% are seniors, 31.8% are graduate or medical students, 0.59% had just graduated the previous semester, and 1.98% classify themselves as other. In all cases, the 1.98% classified as other are students completing a second Bachelors' degree.

Not surprisingly, the majority of the respondents, 82.7%, are in-state residents. While 71.9% of the respondents are single, 28.1% are married. A large portion of the respondents are also independent from their parents. Specifically, 61.2% report being financially independent of their parents such that they could not be claimed as a dependent on their parents' income tax returns. Respondents living arrangements vary, 14.6% live on-campus, 37.0% rent an apartment or house, 21.4% live with parents or relatives, 24.6% report owning a house, and 2.38% report other living arrangements. Also, 84.7% report that their parents own their own home.

The employment and income statistics indicate that 63.5% of the respondents worked 20 hours or less per week. Moreover, 56% earn less than \$500 per month. In addition, about 55.4% of those surveyed indicate that their hometown has a population greater than 20,000. Many of the students (26.7%) also indicate that they are first generation college students.

Other columns in Table 1 provide information related to subsamples i. e., students receiving

financial aid, students with student loans, and students who do have any student loans. The subsamples' characteristics mirrored those of the total sample on the likelihood of being female, white, not employed, an in-state resident, and from a family that owned their home.

4. The Model

In this section, a regression analysis is conducted to assess the determinants of the level of student loan debt. Specifically, a Probit regression is estimated to the different levels of student loan debt. The model of student loan debt level is:

$$= X_i' \beta_i + u_i, \text{ where } D_i^* = 1 \text{ if } D_i^* \geq \$10,000 \text{ and } 0 \text{ otherwise for } i = \{1, \dots, I\}. \quad (1)$$

D_i is the discrete dependent variable that is equal to one if the i^{th} student holds student loan debt level of \$10,000 or more and zero otherwise. An alternative specification where the loan debt level was \$20,000 or more was also used. D_i is determined by the continuous, latent variable D_i^* , the actual amount of student loan debt held by the student.

The factors that determine D_i^* , and thus D_i , are represented by the vector X_i . Included in X_i are factors that account for student's financial characteristics, financial knowledge, and controls for demographics.

The error terms, u_i , are assumed to be normally distributed with mean of zero and variance of one. The results of the probit model regression are presented in Tables 2 and 3. For the current analysis, the model was estimated for students with student loans. Marginal effects were also estimated at the mean values.

5. Results

Tables 2 and 3 report the results for the probability of students having more than \$10,000 and \$20,000 respectively, in student loan debt. Each table reports the marginal effects and the standard errors for the probit regressions to assess the likelihood of having students loans above

the threshold values. There are some findings that are interesting to note. As hypothesized, key demographic variables predict the level of student loan debt. For example, students that owe student loans are more likely to be African American, first generation college students, financially independent, have lower incomes, and have a lower grade point average.

Probability of student loans greater than \$10,000

Table 2 provides evidence that suggests that students in a later year in school (indicated by higher classification) and students with lower grade point averages are more likely to have loans over \$10,000. Additionally, the results indicate that in-state students have a lower probability of having higher loan values, perhaps because in-state tuition is less expensive for in-state students.

Insert Table 2 About Here

Race also seems to be a predictor in having higher levels of student loans. In particular, African-American students are 20.9% more likely to have student loans over \$10,000. Variables identifying Hispanic and Asian students are dropped from the model because they predicted success or failure perfectly. An alternative specification is discussed later. Also, first generation college students are more likely to have loans totaling more than \$10,000. Specifically, students that are first in their immediate families to attend college are 9.68% more likely to have \$10,000 or more in student loans. Students with monthly incomes between \$1,000-\$1,999 are 22.4% more likely to have more than \$10,000 in student loans, while students with monthly incomes between \$4,000-\$4,999 have a lower probability of having student loans above \$10,000. This suggests that the students with the higher income levels may be able to pay for college without taking out loans. No other student monthly income levels are significant at predicting the

probability of having loans over \$10,000. The income level \$3,000 - \$3,999 is dropped from the model because it predicted failure or success perfectly. An alternative is discussed later in this paper.

With respect to financial knowledge, the subjective financial knowledge score is insignificant. This subjective financial knowledge score is the average of student's sentiment about various financial topics. Another measure of financial knowledge, the objective financial knowledge score measures a student's knowledge about financial topics and student loans. This is the student's percentage of financial and student loan questions answered correctly in the survey. The results indicate that students with higher objective financial knowledge scores have a higher chance of having more than \$10,000 in student loans. This suggests that even though students may exhibit high financial knowledge, there may be other factors that are stronger and also influence the amount of student loans that students may take on to finance college such as the lack of other funds to pay for school. Next, are the results of the analysis at higher debt levels.

Probability of student loans greater than \$20,000

As mentioned earlier more and more students are leaving college with higher levels of student loan debt. The average level of student loans for recent graduates, is \$25,250 (Project on Student Debt, 2011). Table 3 reports the results of the probit model that assesses the probability of students having debt levels over \$20,000. The probability of higher student loan levels is related to higher levels of credit card debt. Specifically, students with more than \$1,000 in credit card debt are 13.9% more likely to have student loans totaling \$20,000 or more. Financially independent students are also more likely to have loans over \$20,000.

Insert Table 3 Here

Race also seems to be a predictor in having \$20,000 or more in student loans. In particular, African-American students are 12.5% more likely to have student loans over \$20,000. The variables identifying Hispanic students is dropped from the model. An alternative specification is discussed later. Also, first generation college student are 10.2% more likely to have more than \$20,000 in student loans.

The student's major may also be a predictor of the level of student loan debt. For example, students who major in Health Profession are less likely to have student loans over \$20,000. Additionally, it seems that working students are less likely to have loans over \$20,000. Specifically, students with monthly incomes between \$500-\$749 and monthly incomes between \$750-\$999 are less likely to have student loan debt over \$20,000. This lower likelihood may indicate that these students are working to help finance their education, while taking less in student loan funds.

Alternative Specification: Probability of student loans greater than \$10,000 (\$20,000)

As mentioned earlier, variables identifying Hispanic and Asian students are dropped from the previous model. An alternative specification is discussed in this section. The number of students identifying themselves as Hispanic, Asian, and Native American is small. Combined they make up less than 5% of the sample. The alternative specification combines these groups. Specifically, a new binary variable is created so that Hispanic, Asian, and Native American students are combined with the group identified as Other. Thus, there are three racial/ethnic groups, White, African American, and Other. Also the income level between \$3,000-\$3,999 is combined with the level of \$4,000 or higher to create the new level \$3,000 or higher. The results

are provided in Table 4 for loans over \$10,000. Under this new specification, the results are similar to the original specification. Students in later years in school and students with lower

Insert Table 4 Here

grade point averages are more likely to have loans over \$10,000. In the original specification, the major variables are all insignificant. In the alternative specification, Education majors are more likely to have loans over \$10,000. As in the original specification, in-state residents are less likely to have loans over \$10,000, while students with incomes between \$1,000 to \$1,999 and students with higher objective scores are more likely to have loans over \$10,000. The first generation status is insignificant in the alternative specification.

The results for loans over \$20,000 under the alternative specification are provided in Table 5. The results are essentially the same. There are some differences, however. As in the original specification, students with more than \$1,000 in credit card debt, financially independent students, and African American students are more likely to have student loans totaling \$20,000 or more. Unlike the original specification, students in a later year in school are more likely to have loans over \$20,000. This higher likelihood is present in both specifications for loans over \$10,000.

Insert Table 5 Here

First generation is not significant at predicting the likelihood of loans over \$20,000 in the alternative specification. However, like in the original specification, students who major in Health Profession are less likely to have student loans over \$20,000. Additionally, it seems that

working students are less likely to have loans over \$20,000. Specifically, students with monthly incomes between \$250-\$499, incomes between \$500-\$749, and incomes between \$750-\$999 are less likely to have student loan debt over \$20,000.

6. Conclusion

The level of student loan debt has increased significantly over the years. This continued increasing trend is cause for concern. Moreover, it is important that students understand the ramifications of taking student loans. Although the data for this study is from one mid-size state university in the Southeast, it highlights some important characteristics of students with student loans and high levels of student loan debt.

Overall, the results of this study indicate that students take on more debt the longer they are in school. Correspondingly, students with lower grade point averages have higher levels of student debt. Additionally, evidence suggests that first generation college students and African Americans students are more likely to have high levels of student loan debt. Moreover, students with high credit-card debt levels and students who are financially independent are more likely to have higher student loan levels. Many of the characteristics are also strong predictors of having high levels of credit card debt.

Financial aid administrators and guidance counselors may use this information to continue to develop programs to educate all students about debt and student loans and specifically target those students who may be at-risk of having high levels of student loans. There is some evidence here that students are taking higher levels of loans, even when they have a good understanding of financial topics, perhaps because they cannot afford to finance their education any other way. Therefore, efforts need to be taken to reduce the cost of higher education so that the next generation of students is not buried in student loan debt.

APPENDIX: SURVEY

Section 1: Student Loan Usage and Knowledge:

1. What type(s) of **Financial Aid** have you received? (Check all that apply)

- No Financial Aid at this time
- Perkins
- Stafford Subsidized loans
- Stafford Unsubsidized loans
- Parent PLUS loans
- Alternative loans (private student loans)
- Grad PLUS loans
- Federal work-study
- Need-based grants (i.e. PELL, MAP)
- Scholarships
- Tuition waiver
- Not sure

2. How much do you currently owe with respect to **financial aid loans**?

- \$0, I have no financial aid loans
- \$1 - \$4,999
- \$5,000 – \$9,999
- \$10,000 - \$19,999
- \$20,000 - \$29,999
- \$30,000 - \$39,999
- \$40,000 - \$49,999
- \$50,000 or more
- Not sure

3. Are there school items (i.e. textbooks, tuition, fees) that you charge to your credit card(s), because student financial aid is **not enough to cover the cost**?

- Yes
- No

4. What **other type(s) of loans** do YOU personally have (do not include loans for which you are NOT personally responsible for the repayment)? (Check all that apply)

- No other loans at this time
- Car loan
- Mortgage
- Installment loan (i.e. for stereo, PC, other electronics, furniture)
- Informal loan from family/friends
- Private loan from a financial institution (bank, credit union)
- Other _____

Section 2: Current Credit Usage and Knowledge:

5. Do you have a **credit card**?

- Yes (if “Yes,” continue to **QUESTION 6**)
- No (if “No,” **SKIP to QUESTION 17**)

If your answer to question 5 is “No,” skip to question 17. If your answer to question 5 is “Yes,” continue to question 6.

6. **How many** credit cards do you have in your name? (Include bank cards, store cards, etc.)

- One
- Two
- Three
- Four
- Five or more

7. How **frequently** do you use your credit card(s)?

- Almost daily
- A few times a week
- A few times a month
- Rarely
- Emergency only

8. When did you obtain your **first credit card**?

- Before beginning college
- First year of college
- After first year of college

9. What is the **TOTAL amount** you currently owe on ALL of your credit cards?

- \$0 (I do not owe any money)
- \$1 - \$499
- \$500 - \$999
- \$1,000 - \$2,999
- \$3,000 - \$4,999
- \$5,000 - \$9,999
- \$10,000 or more
- Not sure

10. In the last few years, have you ever been **late** on any of your credit card payments by 2 months or more?

- Yes
- No

11. How often do you **pay off** the ENTIRE BALANCE on your credit card(s)?

- Almost always
- Sometimes
- Never

12. How often do you **"MAX OUT"** your credit card(s)?

- Almost always
- Sometimes
- Never

13. How did you **acquire** the credit card you use the MOST?

- A mail application
- At a campus table
- At a bank/financial institution
- At a retail store
- Over the phone
- Online
- Parents
- Other _____

14. What is the “**Annual Percentage Rate**” (APR) for the credit card you use the MOST?

- Less than 5% APR
- 5% - 9% APR
- 10% - 14% APR
- 15% - 20% APR
- Higher than 20% APR
- Not sure

15. What is the total “**maximum amount**” you can charge on the credit card you use the MOST?

- \$0 - \$499
- \$500 - \$999
- \$1,000 – \$2,999
- \$3,000 - \$4,999
- \$5,000 or more
- Not sure

16. What do you usually **purchase** with your credit card(s)? (Check all that apply)

- Textbooks/school supplies
- Tuition and fees
- Clothes and other personal items
- Groceries
- Eating out
- Entertainment (movies, dance clubs, etc.)
- Gas/auto maintenance/auto repair
- Travel (airfare, hotel, rental car)
- Rent/utilities
- Other bills (cable, internet, cell phone)
- Expenses related to Fraternity/Sorority/Professional organizations
- Other _____

17. NOT including credit card debt and financial aid loans, approximately **how much other debt** do you currently owe?

- \$0
- \$1 - \$999
- \$1,000 – \$2,999
- \$3,000 - \$4,999
- \$5,000 - \$9,999
- \$10,000 - \$19,999
- \$20,000 or more
- Not sure

Section 3: Financial Education

18. How well is your **understanding** of each financial topic? Please rank on a scale from 1 to 5 with 1 being complete understanding and 5 being no understanding at all.

- Personal financial management and budgeting ____ 1 ____ 2 ____ 3 ____ 4 ____ 5
- Credit cards and terms ____ 1 ____ 2 ____ 3 ____ 4 ____ 5
- Shopping for a car loan ____ 1 ____ 2 ____ 3 ____ 4 ____ 5
- Financing a college education ____ 1 ____ 2 ____ 3 ____ 4 ____ 5
- Saving and investing ____ 1 ____ 2 ____ 3 ____ 4 ____ 5
- Planning for retirement ____ 1 ____ 2 ____ 3 ____ 4 ____ 5

19. Do you currently make payments on your student loans?
 Yes
 No
20. Student loan debt can be discharged in bankruptcy proceedings.
 True
 False
21. Student loans must be repaid whether or not the student graduates.
 True
 False
22. There are caps on the amount of Federal Student Loans
 True, the amount I can borrow is based on your grade level and your dependency status as a student.
 False, I can borrow an unlimited amount of funds.
23. Defaulting on a student loan can result in (Check all that apply)
 Placing academic records on hold
 Losing eligibility for loan deferment
 Losing eligibility for additional student loans
 Withholding federal and state income tax refunds
 Wage garnishments
 There is no penalty for defaulting
24. With compound interest, you earn interest on your interest and the principal.
 True
 False
25. A 15-year mortgage typically requires higher monthly payments than a 30-year mortgage, but you will pay less interest over the life of the loan.
 True
 False
26. Which of the following types of investments would best protect the purchasing power of a family's saving in the event of a sudden increase in inflation?
 A twenty-five year corporate bond
 A house financed with a fixed-rate mortgage
 A 10-year bond issued by a corporation
 A certificate of deposit at a bank
27. Which of the following statements best describes your right to check your credit history for accuracy?
 All credit records are the property of the U.S. government and access is only available to lenders.
 You can only check your record for free if you are turned down for credit based on a credit report
 You can check your credit report once a year for free.
 You cannot check your credit report.
28. Have you taken or are you currently taking any courses in high school or college related to **personal finance**?
 No, course
 Yes, High school course
 Yes, College course

Section 3: Some Information About You:

29. What **year** are you in school?

- Freshman
- Sophomore
- Junior
- Senior
- Just graduated (Fall 2010 or Spring 2011)
- Graduate Student
- Other _____

30. What is your major?

- Business Administration
- Health Profession
- Nursing
- Education
- Arts and Sciences
- Computer and Information Sciences
- Engineering
- Computer and Information Technology
- Other _____

31. What is your **age**?

- 18
- 19
- 20-21
- 22-23
- 24-25
- 26-29
- 30-39
- 40-49
- 50 or older

32. What is your **gender**?

- Male
- Female

33. What is your primary **ethnic background**?

- African American/Black
- Asian
- Hispanic
- Native American
- White
- Other

34. What is your **marital status**?

- Single with no children
- Single with children
- Married with no children
- Married with children
- Living as a couple

35. What is your current **GPA**?

- 3.6 - 4.0 +
- 3.0 - 3.5
- 2.6 - 2.9
- 2.0 - 2.5
- Lower than 2.0

36. How many **credit hours** are you registered for this semester?

- Less than 6 hours
- 6-12 hours
- 13-15 hours
- 16-18 hours
- 19 or more hours

37. Are you the **first person** in your immediate family to go to college?

- Yes
- No

38. What is your **father's** level of education?

- Less than high school
- Completed high school
- Some college
- College degree (B.A., B.S.)
- Graduate school or professional degree (i.e. M.A., M.B.A, Ph.D.)

39. What is your **mother's** level of education?

- Less than high school
- Completed high school
- Some college
- College degree (B.A., B.S.)
- Graduate school or professional degree (i.e. M.A., M.B.A, Ph.D.)

40. Are you **financially independent** from your parents (i.e. parents do not claim you on their tax return)?

- Yes
- No

41. What is your **residential status**?

- In-state student
- Out-of-state student
- International student

42. What type of **housing** do you currently live in?

- Residence Hall
- Fraternity/Sorority
- Apartment (rent)
- House (rent)
- Live at home with parents/relatives
- Other _____

43. What is the **population** of your home town?

- Rural area with population under 2,500
- Town/City with population 2,500-19,999
- City with population 20,000-99,999
- City with population over 100,000

44. Are you currently a **full-time or part-time student**?

- Full-time
- Part-time
- Other

45. On average, how many **hours a week** do you work?

- 0 hrs/wk, I am not employed at this time
- 1-10 hrs/wk
- 11-15 hrs/wk
- 16-20 hrs/wk
- 20-29 hrs/wk
- More than 30 hrs/wk

46. On average, what is YOUR **monthly income** from work?

- \$0 (I am not employed at this time.)
- \$1-\$249
- \$250--\$499
- \$500-\$749
- \$750-\$999
- \$1000-\$1999
- \$2000-\$2999
- \$3000-\$3999
- \$4000-\$4999
- More than \$5000

47. What is YOUR PARENT(S) **annual income**? (Give an approximate amount)

- Less than \$25,000
- \$25,000--\$49,999
- \$50,000-\$74,999
- \$75,000-\$99,999
- \$100,000 or more
- Not sure

48. Do your parent(s) own or rent the residence they live in?

- Own
- Rent
- Other _____

49. Have you ever **reduced the number of credit hours** you were taking so that you could work more hours to pay your expenses?

- Yes
- No

50. Have you ever **dropped out** for a semester so that you could work more hours to pay your expenses?

- Yes
- No

51. Does your financial situation affect your **ability to concentrate** on your studies?

- Yes
- No

52. Which parent are you more likely to go to for **financial advice**?

- Mother
- Father
- Both

53. Which parent is more likely to **pay the bills in your family**?

Mother

Father

Both

Section 4: Contact Information for Prize Drawing

Please review your answers to this survey. All information you have submitted will be kept strictly confidential. Only authorized members of our staff will have access to the data for analysis. Results of the survey will be analyzed as a whole and no references will be made to any individual's information.

If you would like your name to be included in the random drawing for one of three \$50 gift cards to Wal-Mart, please fill in the box below with your campus e-mail address.

Your e-mail address will not be linked to your survey information and will be immediately erased from the database following the drawing.

Winners will be notified by e-mail within 4-6 weeks of the closing date.

54. Please enter my name in the random drawing (optional).

My **email address** is: _____

Thank you for completing our survey!

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Table 1 Demographic Information

Variable (mean/percentage)	All Students N=506	Students receiving Financial Aid N = 424	Students with Student Loans N= 347	Students who owe no Student Loans N =144
<i>Demographics</i>				
Freshman	14.43	15.80	13.29	14.58
Sophomore	11.07	12.03	10.69	10.42
Junior	17.39	16.98	17.63	17.36
Senior	23.52	23.11	24.86	20.83
Graduate Student	31.03	29.96	30.93	34.03
Other	1.98	1.65	2.02	2.08
Age >25	38.93	37.83	43.52	28.67
Female	78.02	78.91	77.39	79.86
White	76.28	74.94	75.72	81.25
African American	15.61	16.78	17.63	6.94
Hispanic	1.38	1.65	1.16	1.39
Asian	2.77	2.13	1.73	5.56
Native American	0.79	0.95	0.58	1.39
Other	3.16	3.55	3.18	3.47
Married	28.06	26.18	29.40	26.57
GPA: 3.6+	45.42	47.38	42.44	53.52
GPA: 3.0-3.5	34.46	33.33	36.05	30.28
GPA: 2.9-2.6	12.95	12.62	13.08	11.97
GPA: 2.0-2.5	6.57	6.19	7.85	3.52
GPA: 2.0 or lower	0.60	0.48	0.58	0.7
In-state resident	82.67	84.32	83.14	79.58
Out-of state resident	17.33	15.68	16.86	20.42
First generation college student	26.69	26.07	29.28	21.28
Independent	61.24	60.19	66.76	49.30
On-campus	14.60	16.27	14.12	13.89
Parents own home	84.66	84.32	83.14	88.03

Table 1 Demographic Information (Continued)

Variable (mean/percentage)	All Students N=506	Students receiving Financial Aid N = 424	Students with Student Loans N= 347	Students who owe \$0 Student Loans N =144
<i>Employment</i>				
Not working	39.29	40.43	39.88	35.92
Working 1-10hrs/wk	7.54	7.80	7.51	7.04
Working 11-15hrs/wk	6.15	6.15	5.78	7.04
Working 16-20hrs/wk	10.52	10.87	9.25	13.38
Working 21-30hrs/wk	9.13	9.22	9.25	9.86
Working 30+hrs/wk	27.38	25.53	28.32	26.76
<i>Monthly Income</i>				
\$1-\$249	6.40	39.71	38.19	36.88
\$250-\$499	11.00	6.46	6.71	4.96
\$500-\$749	8.40	11.00	9.62	14.89
\$750-\$999	7.20	8.37	8.16	9.22
\$1000 or more	28.40	34.45	37.32	33.31
<i>Regional information</i>				
Rural area (pop. Under 2,500)	13.10	12.77	13.54	12.06
Town/City (pop. 2,500-19,999)	31.55	31.68	31.41	30.50
City (pop 20,000-99,999)	27.58	27.66	26.22	32.62
City (pop 100,000 or more)	27.78	27.90	28.82	24.82

Table 2 Probability Student has More Than \$10,000 in Student Loans

Variable	Marginal Effect	Standard Error
Other debt \geq \$1,000	-0.0104	0.0728
Credit card debt \geq \$1,000	-0.0022	0.0695
Financially Independent	0.0694	0.0564
Sophomore	0.1416	0.0961
Junior	0.2718	0.0865***
Senior	0.4223	0.0822***
Graduate Student	0.4828	0.0911***
African American	0.2085	0.0712***
Hispanic	.	.
Asian	.	.
Native American	-0.1441	0.2274
Other	0.0265	0.1525
GPA: 3.0-3.5	0.1397	0.0579**
GPA: 2.9-2.6	0.2968	0.0938***
GPA: 2.5 or lower	0.1219	0.0879
Major: Health Profession	0.1314	0.1008
Major: Education	0.1589	0.1114
Major: Nursing	0.0610	0.1000
Major: Arts and Sciences	0.0871	0.0914
Major: CIS	-0.1113	0.1389
Major: Engineering	0.1072	0.1273
In-state resident	-0.1909	0.0845**
First generation	0.0968	0.0552*
Female	-0.0058	0.0599
Parents own	0.0169	0.0782
On-campus	-0.0088	0.0820
Personal Finance Course	0.0032	0.0543
Income/month (\$1-\$249)	-0.0085	0.0945
Income/month (\$250-\$499)	-0.0452	0.0778
Income/month (\$500-\$749)	-0.1210	0.0805
Income/month (\$750-\$999)	-0.1243	0.0768
Income/month (\$1,000-\$1,999)	0.2241	0.1181*
Income/month (\$2,000-\$2,999)	0.0197	0.0910
Income/month (\$3,000-\$3,999)	.	.
Income/month (>\$4,000)	-0.2479	0.1438*
Finance Score Objective	0.7066	0.1773***
Finance Score Subjective	-0.0204	0.0424
Town/city (pop 2,500-20,000)	-0.0127	0.0721
City (pop 20,000-99,999)	-0.0084	0.0726
City (pop 100,000 or more)	0.0083	0.0799
Observations	245	
R ²	0.4317	

*, **, *** indicates statistical significance at the 10%, 5%, and 1% respectively. Omitted categories include: freshman, white, GPA: 3.6-4.0, out-of-state, not working, rural area (pop < 2,500). Note: (.) indicates that the variable was dropped from the model because it predicted failure or success perfectly.

Table 3 Probability Student has More Than \$20,000 in Student Loans

Variable	Marginal Effect	Standard Error
Other debt \geq \$1,000	0.0205	0.0657
Credit card debt \geq \$1,000	0.1390	0.0624**
Financially Independent	0.1449	0.0675**
Sophomore	1.2758	69.3228
Junior	1.55386	69.3227
Senior	1.6999	69.3227
Graduate Student	1.8002	69.3227
African American	0.1245	0.0697*
Hispanic	-0.0228	0.3224
Asian	.	.
Native American	-0.2551	0.2345
Other	-0.1661	0.2012
GPA: 3.0-3.5	0.0849	0.0594
GPA: 2.9-2.6	0.0280	0.0857
GPA: 2.5 or lower	-0.0972	0.1137
Major: Health Profession	-0.1975	0.1020*
Major: Education	-0.1072	0.1148
Major: Nursing	-0.1200	0.1027
Major: Arts and Sciences	-0.1556	0.0945
Major: CIS	-0.2060	0.1481
Major: Engineering	-0.1529	0.1512
In-state resident	-0.0198	0.0740
First generation	0.1021	0.0570*
Female	0.0592	0.0667
Parents own	-0.0231	0.0920
On-campus	0.1615	0.1126
Personal Finance Course	-0.0299	0.0603
Income/month (\$1-\$249)	0.0640	0.1126
Income/month (\$250-\$499)	-0.1426	0.0953
Income/month (\$500-\$749)	-0.1747	0.0989*
Income/month (\$750-\$999)	-0.2591	0.0875***
Income/month (\$1,000-\$1,999)	-0.0542	0.0818
Income/month (\$2,000-\$2,999)	-0.0485	0.0876
Income/month (\$3,000-\$3,999)	-0.0210	0.1354
Income/month (>\$4,000)	-0.2210	0.1335*
Finance Score Objective	-0.0809	0.2016
Finance Score Subjective	-0.0578	0.0474
Town/city (pop 2,500-20,000)	-0.0124	0.0845
City (pop 20,000-99,999)	0.0204	0.0879
City (pop 100,000 or more)	0.0432	0.0891
Observations	256	
R ²	0.4115	

*, **, *** indicates statistical significance at the 10%, 5%, and 1% respectively. Omitted categories include: freshman, white, GPA: 3.6-4.0, out-of-state, not working, rural area (pop < 2,500). Note: (.) indicates that the variable was dropped from the model because it predicted failure or success perfectly.

Table 4 Probability Student has More Than \$10,000 in Student Loans

Variable	Marginal Effect	Standard Error
Other debt \geq \$1,000	-0.0193	0.0667
Credit card debt \geq \$1,000	-0.0080	0.0648
Financially Independent	0.0828	0.0525
Sophomore	0.1030	0.0869
Junior	0.2373	0.0772***
Senior	0.3825	0.0740***
Graduate Student	0.4080	0.0808***
African American	0.2046	0.0681***
Other	-0.0160	0.0938
GPA: 3.0-3.5	0.1137	0.0527**
GPA: 2.9-2.6	0.2733	0.0831***
GPA: 2.5 or lower	0.1170	0.0818
Major: Health Profession	0.1420	0.0928
Major: Education	0.1715	0.1038*
Major: Nursing	0.0913	0.0940
Major: Arts and Sciences	0.1182	0.0854
Major: CIS	-0.0143	0.1251
Major: Engineering	0.1333	0.1196
In-state resident	-0.1578	0.0738**
First generation	0.0751	0.0507
Female	0.0055	0.0563
Parents own	-0.0070	0.0698
On-campus	0.0013	0.0764
Personal Finance Course	0.0015	0.0505
Income/month (\$1-\$249)	0.0011	0.0891
Income/month (\$250-\$499)	-0.0402	0.0720
Income/month (\$500-\$749)	-0.1221	0.0776
Income/month (\$750-\$999)	-0.1051	0.0730
Income/month (\$1,000-\$1,999)	0.2117	0.1109*
Income/month (\$2,000-\$2,999)	0.0243	0.0860
Income/month (>\$3,000)	0.1137	0.1020
Finance Score Objective	0.6040	0.1598***
Finance Score Subjective	0.0020	0.0386
Town/city (pop 2,500-20,000)	-0.0106	0.0683
City (pop 20,000-99,999)	0.0029	0.0687
City (pop 100,000 or more)	0.0058	0.0747
Observations	271	
R ²	0.4297	

*, **, *** indicates statistical significance at the 10%, 5%, and 1% respectively. Omitted categories include: freshman, white, GPA: 3.6-4.0, out-of-state, not working, rural area (pop < 2,500).

Table 5 Probability Student has More Than \$20,000 in Student Loans

Variable	Marginal Effect	Standard Error
Other debt \geq \$1,000	0.0120	0.0638
Credit card debt \geq \$1,000	0.1343	0.0603**
Financially Independent	0.1711	0.0645**
Sophomore	0.2778	0.1681*
Junior	0.5750	0.1498***
Senior	0.7245	0.1467***
Graduate Student	0.8027	0.1480***
African American	0.1360	0.0676**
Other	-0.0121	0.1099
GPA: 3.0-3.5	0.0729	0.0560
GPA: 2.9-2.6	0.0124	0.0823
GPA: 2.5 or lower	-0.0547	0.1049
Major: Health Profession	-0.1635	0.0980*
Major: Education	-0.0974	0.1103
Major: Nursing	-0.1088	0.0985
Major: Arts and Sciences	-0.1266	0.0907
Major: CIS	-0.0886	0.1399
Major: Engineering	-0.0954	0.1398
In-state resident	-0.0374	0.0712
First generation	0.0827	0.0541
Female	0.0573	0.0635
Parents own	-0.0488	0.0844
On-campus	0.1701	0.1052
Personal Finance Course	-0.0101	0.0567
Income/month (\$1-\$249)	0.0623	0.1088
Income/month (\$250-\$499)	-0.1579	0.0924*
Income/month (\$500-\$749)	-0.1804	0.0973*
Income/month (\$750-\$999)	-0.2544	0.0874***
Income/month (\$1,000-\$1,999)	-0.0338	0.0807
Income/month (\$2,000-\$2,999)	-0.0470	0.0869
Income/month (>\$3,000)	0.0221	0.0940
Finance Score Objective	-0.0475	0.1857
Finance Score Subjective	-0.0436	0.0442
Town/city (pop 2,500-20,000)	0.0133	0.0833
City (pop 20,000-99,999)	0.0572	0.0860
City (pop 100,000 or more)	0.0563	0.0861
Observations	271	
R ²	0.4007	

*, **, *** indicates statistical significance at the 10%, 5%, and 1% respectively. Omitted categories include: freshman, white, GPA: 3.6-4.0, out-of-state, not working, rural area (pop < 2,500).