

# 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 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.

*JEL classification:* D14

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## 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 four-year institution<sup>1</sup> was

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\$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 10 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).

According to the life-cycle hypothesis, individuals base their consumption on their anticipated income (Ando & Modigliani, 1963). Particularly in young and aging individuals, the propensity to consume is greater than in midlife when income is higher. Under the life-cycle hypothesis framework it is considered reasonable that college students would use debt in the form of student loans to supplement consumption because of their higher expected earnings given their anticipated skills, talent, and earning power once they receive their degree.

There are numerous sources of debt that college students may use to fund consumption. Among them are credit cards and student loans. Overall, the total cost of the two options can be quite different. Student loans tend to carry lower interest rates than other types of debt, but the total cost is determined in the future. In making rational economic decisions, it is important to understand the product available. Thus, this article examines the impact financial knowledge may have on student loan decisions and the characteristics that influence the level of student loan debt taken on by college students.

It is granted that the accessibility to student loans is important because it provides funding for students who might not otherwise have those funds to attend college. Furthermore, a college degree is critical to obtaining employment and achieving economic mobility. Even though loans provide potential benefits with respect to college degree completion and enhancing human capital, we must also consider the financial risk associated with taking on large amounts of student debt. 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 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, Student Loans.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. Variable descriptions**

Other debt may influence student loan debt. Lyons (2004) found evidence that suggests that financially at-risk students have \$1,000 or more of other types of debts. Additionally, Pinto and Mansfield (2006) find that these students also tend to have more student loan debt. Thus, we expect students that report higher levels of debt and/or higher levels of credit card debt to have higher levels of student loan debt.

Financial independence is another factor that may influence debt levels. This variable is used to control for parental support. Independent students may not receive assistance from parents. They are likely to have a greater need for additional funding and may take on higher levels of student loan debt.

Gender has been used in studies such as these as a control variable. It is unclear what the role of gender is with respect to debt. Some studies have found that men score higher than women on test of financial literacy (Dovorak & Hanley, 2010; Lusardi & Mitchell, 2007; Chen & Volpe, 1998). Whether or not having more financial knowledge will translate into taking on less debt has not been established.

Personal finance courses may influence financial knowledge. The results are mixed as to whether a financial education courses impacts financial decisions or behavior. Mandell (2009) finds that students who had taken a high school personal finance course were no more financially literate than students who had not taken the course. On the other hand, Danes (2004) found that self-reported financial behavior improved for students who had completed the National Endowment for Financial Education high school personal finance curriculum. Peng, Bartholomae, Fox, and Cravener (2007) find that high school personal finance courses had no influence on investment knowledge but that college personal finance courses did have an impact. There is also limited evidence that higher financial knowledge is positively linked to financial behavior (Hilgert, Hogarth, & Beverly, 2003). The personal finance course variable is used to assess whether or not the course influences the level of student loan debt.

Major of study may determine the amount of debt students carry. In studies that examine financial knowledge, differences among majors have been identified. For example, Chen and Volpe (1998) find that business majors tend to score better than nonbusiness majors when asked questions about various aspects of personal financial knowledge. Additionally, other studies have found differences in the level of student loan debt by majors. For example, Harrast (2004) found that students who major in areas with low vocational relevance such as political science, sociology, and special education accumulate excessively high levels of debt even though direct education cost were similar across majors. On the other hand, an earlier study by Thomas (2000) indicated that graduates in fields with higher salaries such as engineering accumulated more debt than students in other majors. However, Thomas concluded that students in general are willing to borrow large amounts of student loans to fund their education regardless of their major and many in lower paying fields do so because they are either unaware or unconcerned about the level of debt or they feel they have no choice.

Classification has been shown to influence student debt levels. Additionally, other researchers have found that students with more years in school have higher financial knowledge than students with fewer years in school. Older students also seem to have more financial knowledge (Chen & Volpe, 1998). Harrast (2004) provide evidence that suggests that student loan debt increases as the number of terms of college increases.

Another factor that may impact debt levels is the parents' income/ownership status. This is a measure of the parents' socio-economic status. Evidence suggests that students from higher social economic status are less likely to engage in risky borrowing behaviors. Additionally, these students may receive more parental support minimizing the need to borrow as much in student loans. (Xiao, Serido, & Shim, 2010)

First generation college students are those students whose parents did not attend college. There is evidence that first generation students are more likely to come from low-income families (Choy, 2001). Therefore, it is likely that first generation students receive little if any financial support from their families. Although they may qualify for grants, those may not cover the full cost of attending college. Thus, first generation college students may have to borrow large amounts of student loans to fund their education.

Several studies have documented differences in the level of student loan debt by race/ethnicity. Specifically, there is evidence that African American students acquire higher levels of student loan debt and are more likely to default than White students (Jackson & Reynolds, 2013; Baum & Steele, 2010). Other studies have indicated the Hispanic students have higher levels of student loan debt than White students (Price, 2004).

Grade point average (GPA) is used as a control variable. The GPA is an indicator of student performance. Students with lower GPAs, may have failed courses. Students with higher GPAs may take less time to complete the degree, thus avoiding the need to borrow as much in student loans than students with lower GPAs.

In-state residency is used as a control variable. Typically, in-state tuition is less than out-of-state tuition at public colleges and university. Because the cost of attending school as an in-state student is less than the cost of attending college as an out-of-state student, in-state students may borrow less than out-of-state students.

The variable other financial aid is used to control for other types of financial aid. Students with access to other sources of aid, such as grants, scholarships, waivers, or parental support may be able to meet their funding needs with little or no student loans.

### 3. Methodology

This article examines the determinants of the level of student loan debt. It is posited that financial knowledge will be negatively related to student loan debt. Furthermore, lower income levels will be positively correlated to student loan debt. Additionally, the demographic variables, credit card debt, levels of other debt, GPA, 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 midsize 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. Hira et al. (2000) found that students do not have complete information about the total amount they owe in student loan debt. To aid in obtaining more responses, students were asked to identify the closest estimate for the amount they owe in student loan debt (see the Appendix for the survey). 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 eight 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.

### 4. 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 student loans and 37% report owing \$20,000 or more in student loans.

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% are 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

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
<b>Demographics</b>				
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
<b>Employment</b>				
Not working	39.29	40.43	39.88	35.92
Working 1–10 hours/week	7.54	7.80	7.51	7.04
Working 11–15 hours/week	6.15	6.15	5.78	7.04
Working 16–20 hours/week	10.52	10.87	9.25	13.38
Working 21–30 hours/week	9.13	9.22	9.25	9.86
Working 30+ hours/week	27.38	25.53	28.32	26.76
<b>Monthly income</b>				
\$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
\$1,000 or more	28.40	34.45	37.32	33.31
<b>Regional information</b>				
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

investigation, those students identify themselves as biracial or multiracial. Additionally, nearly 80% report having a GPA of 3.0 or higher.

With respect to classification, 14.4% of the sample are freshmen, 11.1% are sophomores,

17.4% are juniors, 23.52% are seniors, 31.0% 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% of the sample 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. Furthermore, 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, that is, 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. For the remainder of the analysis, observations of students that reported that they were unsure about the general amount owed in student loans (16) were deleted. An additional 15 observations were deleted for students that specified their classification as other. The final sample consisted of 476 observations.

## 5. 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 assesses the likelihood of student loan debt levels of \$10,000 or more and the likelihood of student loan debt levels of \$20,000 or more. The threshold of \$10,000 was selected because the College Board (2012) found that 50% of all Bachelor's degree recipients have \$11,000 or more of student loan debt. The \$20,000 threshold was chosen because the College Board study (2012) found that 50% of all Bachelor's degree recipients with student debt have \$20,000 or more of student loan debt. Thus, these cutoffs represent the median levels of 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  $i^{\text{th}}$  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.

Table 2 Probability student has more than \$10,000 in student loans

Variable	Marginal effect	Standard error
Other debt $\geq$ \$1,000	-0.0012	0.0801
Credit card debt $\geq$ \$1,000	0.1016	0.0779
Financially independent	0.2775	0.0729***
Sophomore	0.1077	0.1426
Junior	0.4249	0.0984***
Senior	0.5000	0.0926***
Graduate student	0.5083	0.1035***
African American	0.2653	0.0827***
Other	-0.0648	0.1256
GPA: 3.0–3.5	0.1940	0.0722***
GPA: 2.9–2.6	0.1912	0.1026*
GPA: 2.5 or lower	0.3136	0.1088***
Major: Health Profession	0.2279	0.1234*
Major: Education	0.1876	0.1358
Major: Nursing	0.1386	0.1304
Major: Arts and Sciences	0.1391	0.1203
Major: CIS	-0.0211	0.1847
Major: Engineering	0.0332	0.1786
In-state resident	-0.1029	0.0928
First generation	0.0775	0.0698
Female	0.0128	0.0817
Parents own	-0.1350	0.1064
On-campus	-0.0112	0.1155
Personal finance course	0.0169	0.0727
Income/month (\$1–\$249)	0.0045	0.1387
Income/month (\$250–\$499)	-0.1390	0.1055
Income/month (\$500–\$749)	-0.2706	0.0932***
Income/month (\$750–\$999)	-0.1691	0.1083
Income/month (\$1,000–\$1,999)	0.1831	0.1224
Income/month (\$2,000–\$2,999)	-0.1847	0.1040
Income/month (>\$3,000)	-0.1800	0.1071*
Finance score objective	0.7311	0.2191***
Finance score subjective	0.0509	0.0582
Other financial aid	-0.0325	0.1045
Observations	381	
R <sup>2</sup>	0.2857	

\*, \*\*, \*\*\* indicates statistical significance at the 10%, 5%, and 1% respectively. Omitted categories include: freshman, White, GPA: 3.6–4.0, business major, out-of-state, not working.

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.

Table 3 Probability student has more than \$20,000 in student loans

Variable	Marginal effect	Standard error
Other debt $\geq$ \$1,000	0.0289	0.0606
Credit card debt $\geq$ \$1,000	0.1679	0.0556***
Financially independent	0.2650	0.0645***
Sophomore	0.2423	0.2494*
Junior	0.7133	0.1434***
Senior	0.8048	0.1107***
Graduate student	0.7991	0.1112***
African American	0.2530	0.0919***
Other	0.0200	0.1091
GPA: 3.0–3.5	0.1075	0.0642*
GPA: 2.9–2.6	-0.0145	0.0847
GPA: 2.5 or lower	-0.0060	0.1216
Major: Health Profession	-0.0943	0.0881
Major: Education	-0.0546	0.1007
Major: Nursing	-0.0168	0.0999
Major: Arts and Sciences	-0.1053	0.0820
Major: CIS	-0.1061	0.1007
Major: Engineering	-0.1176	0.0974
In-state resident	0.0076	0.0719
First generation	0.0578	0.0584
Female	0.0493	0.0634
Parents own	-0.0827	0.1067
On-campus	0.1735	0.1355
Personal finance course	-0.0062	0.0594
Income/month (\$1–\$249)	0.1140	0.1454
Income/month (\$250–\$499)	-0.1459	0.0613**
Income/month (\$500–\$749)	-0.1970	0.0449***
Income/month (\$750–\$999)	-0.1956	0.0437***
Income/month (\$1,000–\$1,999)	-0.0279	0.0825
Income/month (\$2,000–\$2,999)	-0.1318	0.0575**
Income/month (>\$3,000)	-0.1243	0.0603**
Finance score objective	0.0893	0.1776
Finance score subjective	-0.0411	0.0487
Other financial aid	0.1335	0.0987
Observations	381	
R <sup>2</sup>	0.3393	

\*, \*\*, \*\*\* indicates statistical significance at the 10%, 5%, and 1% respectively. Omitted categories include: freshman, white, GPA: 3.6–4.0, business major, out-of-state, not working.

## 6. 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 student 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 GPA.

### *6.1. 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 GPA are more likely to have loans over \$10,000. Race also seems to be a predictor in having higher levels of student loans. In particular, African American students are 26.5% more likely to have student loans over \$10,000. The number of students identifying themselves as Hispanic, Asian, and Native American is small. Combined they make up less than 5% of the sample. These groups are combined. 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 in the model, White, African American, and Other.

Furthermore, financially independent students are more likely to have loans totaling more than \$10,000. Specifically, students that are financially independent are 27.8% more likely to have \$10,000 or more in student loans. Students with monthly incomes between \$500–\$749 have a lower probability of having student loans above \$10,000. Perhaps students with these income levels qualify for other sources of financial aid. No other student monthly income levels are significant at predicting the probability of having loans over \$10,000 at the 5% significance level or higher. 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.

### *6.2. 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). Therefore, we examine the predictors of loan levels over \$20,000. 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 16.8% more likely to have student loans totaling \$20,000 or more. Financially independent students are also more likely to have loans over \$20,000.

Students in later years of school tend to carry more student loan debt than other students.

Race also seems to be a predictor in having \$20,000 or more in student loans. In particular, African American students are 25.3% more 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.

## 7. 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 midsize 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 GPA have higher levels of student debt. Additionally, evidence suggests that 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 25 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 4: 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 hours/week, I am not employed at this time
  - 1–10 hours/week
  - 11–15 hours/week
  - 16–20 hours/week
  - 20–29 hours/week
  - More than 30 hours/week
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
  - \$1,000–\$1,999
  - \$2,000–\$2,999
  - \$3,000–\$3,999
  - \$4,000–\$4,999
  - More than \$5,000
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 5: 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!

### Notes

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

### References

- Ando, A., & Modigliani, F. (1963). The life cycle hypothesis of saving; Aggregate implications and tests. *American Economic Review*, 53, 55–84.
- Baum, S., & Steele, P. (2010). *Who Borrows Most? Bachelor's Degree Recipients With High Levels Of Student Debt (Trends in Higher Education Series Report)*. (available at <http://advocacy.collegeboard.org/sites/default/files/Trends-Who-Borrows-Most-Brief.pdf>).
- Chen, H., & Volpe, R. P. (1998). An analysis of personal financial literacy among college students. *Financial Services Review*, 7, 107–128.
- Choy, S. P. (2001). *Students Whose Parents Did Not Go To College: Postsecondary Access, Persistence, and Attainment (NCES 2001–126)*. Washington, DC: U.S. Department of Education, National Center for Education Statistics. (available at <http://nces.ed.gov/pubs2001/2001126.pdf>).

- College Board. (2012). *Trends in College Pricing*. (available at [http://trends.collegeboard.org/downloads/College\\_Pricing\\_2011.pdf](http://trends.collegeboard.org/downloads/College_Pricing_2011.pdf)).
- Danes, S. M. (2004). *Evaluation of the NEFE High School Financial Planning Program 2003–2004*. St. Paul, MN: University of Minnesota, Family Social Science Department.
- Dvorak, T., & Hanley, H. (2010). Financial literacy and the design of retirement plans. *Journal of Socio-Economics*, 39, 645–652.
- Federal Student Aid Student Loan website. (available at <https://studentloans.gov/myDirectLoan/index.action>).
- Harrast, S. A. (2004). Undergraduate borrowing: A study of debtor students and their ability to retire undergraduate loans. *Journal of Student Financial Aid*, 34, 21–37.
- Hilgert, M., Hogarth, J., & Beverly, S. (2003). Household financial management: The connection between knowledge and behavior. *Federal Reserve Bulletin*, 89, 309–332.
- Hira, T., Anderson, M., & Peterson, K. (2000). Students' perceptions of their education debt and its impact on life after graduation. *Journal of Student Financial Aid*, 30, 7–19.
- Jackson, B. A., & Reynolds, J. R. (2013). The Price of Opportunity: Race, Student Loan Debt, and College Achievement. *Sociological Inquiry*, 83, 335–368.
- King, T., & Frishberg, I. (2001). *Big Loans Bigger Problems: A Report On the Sticker Shock of Student Loans*. Washington, DC: L Public Interest Research Group.
- Levin, T. (2011). Burden of college loans on graduates grows. *The New York Times*, April 11, 2011.
- Lusardi, A., & Mitchell, O. S. (2007). *Financial Literacy and Retirement Planning: New Evidence From the Rand American Life Panel*. MRRC Working Paper no 2007–157.
- Lyons, A. C. (2004). A profile of financial at-risk college students. *The Journal of Consumer Affairs*, 38, 56–71.
- Lyons, A. C. (2007). *Credit Practices and Financial Education Needs of Midwest College Students*. Networks Financial Institute at Indiana State University, Working Paper Series.
- Mandell, L. (2008). *Survey of Financial Literacy of College Students*. Washington, DC: The Jump\$tart Coalition for Personal Financial Literacy.
- Mandell, L. (2009). Financial education in high school. In A. Lusardi (Ed.), *Overcoming the Saving Slump: How to Increase the Effectiveness of Financial Education and Saving Programs* (pp. 257–279). Chicago, IL: University of Chicago Press.
- Norvilitis, J. M., Merwin, M. M., Osberg, T. M., Roehling, P. V., Young, P., & Kamas, M. M. (2006). Personality factors, money attitudes, financial knowledge, and credit-card debt in college students. *Journal of Applied Social Psychology*, 36, 1395–1413.
- Peng, T., Bartholoma, S., Fox, J. J., & Cravener, G. (2007). The impact of personal finance education delivered in high school and college courses. *Journal of Family and Economic Issues*, 28, 265–284.
- Pinto, M. B., & Mansfield, P. M. (2006). Financially at-risk college students: An exploratory investigation of student loan debt and prioritization of debt repayment. *Journal of Student Financial Aid*, 36, 22–32.
- Price, D. (2004). Educational debt burden among student borrowers: An analysis of the Baccalaureate & Beyond Panel, 1997 Follow-up. *Research in Higher Education*, 45, 701–737.
- Project on Student Debt. (2011). Student Debt and the Class of 2010. (available at <http://projectonstudentdebt.org/files/pub/classof2010.pdf>).
- Thomas, S. L. (2000). Deferred costs and economic returns to college major, quality, and performance. *Research in Higher Education*, 41, 281–313.
- Xiao, J. J., Serido, J., & Shim, S. (2010). *Financial education, financial knowledge and risky credit behavior of college students*. Networks Financial Institute at Indiana State University. Working paper.