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Student Loans, Financial Stress, and College Student Retention

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Student Loans, Financial Stress, and College Student Retention

By Sonya L. Britt, David Allen Ammerman, Sarah F. Barrett, and Scott Jones

This study examined a sample of 2,475 undergraduate students to determine the influence of financial stress, debt loads, and financial counseling on retention rates. Results indicate, among other findings, that financial stress contributes to an increased likelihood of discontinuing college. Self-reported student loan debt contributes to an increased likelihood of discontinuing college, although students with the highest amount of university-reported student loan debt have a decreased likelihood of discontinuing college one year later as compared to students with no student loan debt. Interestingly, in this study students who sought financial counseling were more likely to discontinue college within the next year. Although this contradicts prior studies that have shown that students experience less financial stress immediately after meeting with a peer counselor and for two months later, it is suggested that the timing of the counseling may be an important factor. Implications for practice include early intervention for students who are self-funding their education, who are under high financial stress, or have a perception of high student loan debt. At the campus level, financial aid professionals should collaborate with personal finance researchers to better understand how financial stress and student debt relate to retention.

Keywords: *financial stress, student loans, perceptions, academic major*

The cost of postsecondary education has increased to the point that it may be prohibiting young adults from pursuing higher education opportunities and securing higher-paying jobs. According to statistics gathered by CollegeAtlas (2015), a college or university degree is worth $365,000 net of cost for the average male student—significantly higher than the $185,000 value to females—over the student's lifetime. By providing access to higher education, student loans offer opportunities to advance one's earning potential, although the relationship between student debt and future earnings may be subject to the law of diminishing marginal returns (Elliott, Lewis, Grinstein-Weiss, & Nam, 2014).

As a general rule of thumb, many in higher education recommend that students not take out more in student loans than the salary expected in the first year of employment. For example, students majoring in social work who expect a starting salary of $30,000 should not take out more than $30,000 in education loans. Taking out too much in student loans may contribute to long-term financial hardship and force borrowers to delay making major purchases, getting married, having children, and investing for future needs such as retirement or saving for their children's education. In contrast, taking out too little in loans may contribute to an overreliance on part-time employment, which could affect classroom performance depending on the type of employment. According to Beeson and Wessel (2002), students working on-campus tend to have better retention rates than those working off-campus. Determining the appropriate amount to borrow is difficult, especially for freshmen. Freshmen students often change their majors one or more times and may have unrealistic expectations about their future income opportunities than others.

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This study focused on the financial contributors to college retention. Prior research has shown that financial factors, such as greater amounts of grant funding and coming from a middle-class family (as compared to lower- and upper-class households), contributes to higher retention rates. Better grades and living on campus also tend to contribute to greater retention rates (Gross, Hossler, & Ziskin, 2007). CollegeAtlas (2015) recently reported that 60% of students who drop out of college were responsible for paying their own tuition, and the inability to balance multiple life demands was a top contributor in the decision to discontinue college.

Our study used a sample of 2,475 undergraduate students to determine the influence of financial stress, debt loads, and use of financial counseling on retention rates. We defined financial stress as students' perception of anxiety associated with their current personal financial situation. Results indicate that financial stress and higher levels of self-reported student loan debt contribute to an increased likelihood of discontinuing college. Students with the highest amount of university-reported (via the Office of Student Financial Assistance) student loan debt have a decreased likelihood of discontinuing college one year later as compared to students with no student loan debt.

Interestingly, in the current study students who sought financial counseling were more likely to discontinue college within the next year. This contradicts previous findings that students experience less financial stress immediately after meeting with a peer counselor and for two months beyond (Britt, Canale, Fernatt, Stutz, & Tibbetts, 2015). It is possible that students in the current study sought help too late. Implications for practice include early intervention for students who are self-funding their education, who are under high financial stress, or who perceive that they have a high level of student loan debt. Financial aid professionals are encouraged to collaborate with personal finance researchers at their institutions and/or peer institutions to examine similar behaviors in their student population.

Previous Research

The rising cost of higher education has received considerable attention recently (Hemelt & Marcotte, 2011). Reductions in state appropriations have likely contributed to educational price inflation over the past several decades. By some estimates, state and local governments provided close to 60% of postsecondary education revenue in 1977, but less than 40% by 2012 (Cahalan & Perna, 2015). In the wake of recent global financial crises, private endowments lost value and state legislatures further cut support for higher education (Barr & Turner, 2013). Colleges and universities have had little choice but to fund their budget shortfalls by raising tuition in order to sustain spending on instruction, infrastructure, and student services.

The overall amount of federal and state financial aid awarded to students has generally increased over the past several years (College Board, 2015), although tuition has far outpaced the growth in federal and state grants, and benefits per full-time equivalent student have actually declined (Dynarski & Scott-Clayton, 2013). The country's student debt portfolio has burgeoned to unprecedented levels (Caudill & Laughlin, 2014). An increase in debt generally increases the risk of financial distress, and the use of unsubsidized and private loans can present a particular challenge for students. If interest payments are not made while loans are in deferment, any unpaid interest is capitalized into the loan resulting in higher loan payments. Given lingering concerns about post-graduation employability and increased awareness of the dangers of excessive debt burden, some students are questioning whether the costs of education are worth the benefits (Baum & Ma, 2014).

The toll of financial stress on students is exhibited in terms of less campus and social engagement, which contributes to lower retention rates (Engle & Tinto, 2008). Students with higher financial stress are more likely to discontinue college whether by choice or forced dismissal (Hogan, Bryant, & Overymyer-Day,

2013). In a study designed to explore the relationship between financial stress and student persistence, Joo, Durband, and Grable (2008) found that self-reported financial stress was positively associated with students stating that they had, at some point, reduced their course load or dropped out for a semester in order to work more hours to make loan or credit card payments. The study was limited by a low response rate of approximately 2% and the method of surveying only currently enrolled students, which omitted possible observations from students who had dropped out of college and not returned.

In one of the only studies to link student responses with registrar-reported academic performance, Britt, Mendiola, Schink, Tibbetts, and Jones (2016) utilized the ABC-X stress model to examine the relationship between financial stress and students' grade point average (GPA). The results of that study were largely consistent with previous findings, in that students who reported a greater number of financial and life stressors also reported a greater level of financial stress. Most importantly, however, the researchers found that financial stressors had a negative influence on GPA (Britt et al., 2016). Students in that study who reported that they had the ability to pay only for necessities had lower registrar-reported GPAs relative to students who could afford all of their needs and most of their wants. Britt et al. (2016) concluded that college financial counseling programs may be more effective in improving student academic performance if they address the resource needs of students in tangible ways, in addition to providing financial education.

In the current study, it is hypothesized that students with greater financial stress will be more likely to discontinue their college education. It is further hypothesized that students who have less access to personal savings are more likely to discontinue college due to the inability to pay for rising tuition and fees in addition to the other costs of attendance, such as room and board, books and supplies, etc. We expected that students who have already accumulated high amounts of credit card and student loan debt would have a higher likelihood of not finishing their education.

Financial Counseling

Student academic success is generally understood to be the primary mission of institutions of higher learning, and policymakers have recently taken note of the influence that rising tuition, student debt, and financial stress may have on student persistence and performance (Chan, Chau, & Chan, 2012; The Rising Costs of Higher Education and Tax Policy, 2015). Some state legislatures have introduced measures that tie higher education funding to student performance in an effort to better align the incentives of college administrators with the mission of student outcomes (Dougherty, Jones, Natow, Lahr, Pheatt, & Reddy, 2014). Such programs may have negative unintended consequences—such as increased compliance costs and further reductions in state support—which may increase the costs passed on to students.

Much of the prior research suggests that student financial stress is due to a lack of financial knowledge in combination with easy access to debt. Some colleges have implemented financial education programs with the assumption that an increase in financial knowledge will lead to positive financial behaviors, reductions in financial stress, and improved student outcomes (Chen & Volpe, 1998), although empirical data suggests that financial education alone has a limited influence on student financial behavior (Robb & Sharpe, 2009; Xiao, Ahn, Serido, & Shim, 2014). A more integrated approach that incorporates psychosocial dynamics (i.e., individual's interactions with the social environment, such as self-esteem and peer comparison/ pressure) is likely to have more positive outcomes.

For instance, Heckman, Lim, and Montalto (2014) surveyed 5,792 students at 19 colleges and universities across the state of Ohio from November to December 2010. Consistent with their hypotheses, students who reported a greater level of financial self-efficacy (i.e., sense of belief in one's ability to succeed in a given task, such as "I can manage my money well"), and who were more optimistic about their future were less likely to report feeling financial stress (Heckman, Lim, & Montalto, 2014). A significant implication of their

study is that individualized counseling programs that help students increase their financial self-confidence may be effective in increasing student financial well-being, and may thereby indirectly improve academic performance and persistence. A holistic approach is needed to address the issue of student financial stress, and financial counseling may be a part of the solution (Britt et al., 2011).

Despite evidence suggesting the promising benefits of financial counseling, questions persist regarding best practices for reaching students. Utilizing Grable and Joo's (1999) financial help-seeking framework, Lim, Heckman, Montalto, and Letkiewicz (2014) found that students who were more aware of the availability of financial counseling services and who reported higher levels of financial stress were more likely to seek financial help. Additionally, students who reported a higher level of financial self-efficacy were more likely to seek financial help as stress increased relative to those with low self-efficacy. This implies that financial counseling programs implemented at colleges and universities need to include an awareness component, and that multiple strategies are needed for reaching students. Students with high levels of self-efficacy may seek help on their own as stress increases, but students with low-self efficacy may benefit from more proactive, counselor-initiated outreach (Lim et al., 2014).

Demographic Characteristics

While they have not shown a strong influence in predicting retention in prior literature, gender and race were used as controlling factors in the current study. Residency status, being a first-generation student, and a lack of social engagement have contributed to lower retention rates in prior research (Kuh, 2005; Soria, Weiner, & Lu, 2014). We expected that lower GPA, grade level, and academic college affiliation (program of study) would also contribute to retention rates.

Methods

Data Source

We sent an online survey related to financial attitudes, behaviors, and status to undergraduates enrolled in at least six credit hours during spring 2014 at a large public university in the Midwest. We obtained demographic data with permission of the university's Institutional Review Board for Research with Human Subjects. We linked this demographic data with survey data in spring 2014, then linked it again in spring 2015 to examine student retention. We sent a total of 16,675 e-mails and received 3,339 usable surveys. Of the useable data, 2,475 students completed the data necessary for the regression analysis. All respondents were eligible to receive a small gift and were entered for a drawing, held one day after the survey closed, for a $250 gift card and 18 smaller prizes.

Sample Characteristics

Approximately 22% of students who completed the survey in 2014 were, by spring 2015, either dismissed from or left the university voluntarily before completing their degree. Approximately 63% of the sample were female, 83% were White, 85% were in-state residents, and 34% were classified as first-generation students. Nineteen percent of the sample belonged to a fraternity or sorority house. Survey respondents were enrolled in an average of 13.95 credit hours during the spring 2014 semester and had an average cumulative GPA of 3.14.

Approximately 15% of sample respondents were freshmen, 25% were sophomores, 22% juniors, and 38% were seniors. Seven academic colleges were represented—agriculture (16%), arts and sciences (30%), architecture (2%), business (13%), education (8%), engineering (14%), and human ecology (15%).

Financial Characteristics

We measured financial stress on a 10-point scale that asked respondents how stressed they felt about their current financial situation, where 1 = not at all stressed and 10 = extremely stressed (M = 5.96, SD = 2.29). The survey asked respondents to indicate how frequently a list of 17 needs were met on a consistent basis, where 0 = does not apply, 1 = not at all adequate, 2 = seldom adequate, 3 = sometimes adequate, 4 = usually adequate, and 5 = almost always adequate. We defined needs as food for two meals a day, money to pay monthly bills, someone to talk to, time to keep in shape, money to save, etc. Scores ranged from 0 – 85 with a mean of 60.87 (SD = 15.62). The scale had good reliability with a Cronbach's alpha of .91.

The survey asked respondents to self-report their total subsidized and unsubsidized federal student loan debt. We obtained official subsidized and unsubsidized federal student loan debt data directly from the university's office of financial assistance[1]. The official and self-reported data were moderately, but not highly correlated (r = .43, p = .001). This is consistent with prior research that suggests that many students do not have an accurate understanding of the total amount of student loan debt they owe (Andruska, Hogarth, Fletcher, Forbes, & Wohlgemuth, 2014). We recoded both measures of student loan debt into the following categories for the regression analysis: (a) missing data; (b) $0 (reference category); (c) $1 - $5,999; (d) $6,000 - $11,999; (e) $12,000 - $17,999; (f) $18,000 - $23,999; and (g) $24,000 or more.

Based on self-reported data, students' average savings account balance was $3,651 ($SD$ = 20,341), 12% of students carried a credit card balance [average credit card balance was $524 ($SD$ = $2,299) for those who had credit cards], and average university-reported student loan debt was approximately $12,370 ($SD$ = $13,372).

Financial Counseling

The campus financial counseling center, overseen by a full-time professional, offers free financial counseling services to all students. Counselors receive semester-long training before co-counseling clients/students with a more advanced counselor and eventually moving into individual counseling with students. Two variables captured the help-seeking behavior of respondents. Respondents who sought help in person through the university peer-based financial counseling center were coded 1; all others were coded 0. Respondents who sought web-based help through the university peer-based financial counseling center or the center's supported websites were coded 1; all others were coded 0.

Analysis

We tested means and proportions to determine if statistically significant differences in demographic characteristics existed between students who discontinued college and those who persisted or graduated. Modeled after Heckman (2014), we used independent sample t-tests for continuous variables to test for mean differences based on retention status. We used a chi-square test of homogeneity with categorical variables to determine if proportions varied significantly by retention status.

We conducted a separate descriptive analysis to examine the differences in student loan debt by grade classification. Finally, we used a binary logistic regression model to predict classification into two possible outcomes, where 1 = respondent discontinued college for any reason and 0 = respondent graduated or was actively continuing college on at least a half-time basis.

[1] Federal Direct Subsidized Loans and Direct Unsubsidized Loans are the most common types of loans at this institution, although students could have other forms of debt that were not included in the analysis for simplicity.

Results

The final column of Table 1 shows the statistically significant differences in demographic characteristics based on retention status. Students who discontinued college experienced higher financial stress, on average [t = -2.68(*2,474*), $p < .01$], yet had, on average, more needs being met [t = -3.42(*2,474*), $p < .001$].

Significant differences existed for self-reported student loan debt [χ^2 = 109.42(*6*), $p < .001$] and university-reported student loan debt [χ^2 = 88.87(*6*), $p < .001$]. In general, higher proportions of respondents who continued or completed college had smaller debt loads compared to students who discontinued college. A significantly higher proportion of students who sought in-person financial counseling discontinued college [t = -3.70(*2,474*), $p < .001$].

Compared to students who discontinued college, students who graduated or continued their education were enrolled for one additional credit when surveyed [t = 8.35(*2,474*), $p < .001$] and had higher GPAs [t = 3.00 (*2,474*), $p < .01$]. A higher proportion of students who graduated or continued their education were affiliated with a fraternity or sorority [t = 3.19(*2,474*), $p < .01$].

The chi-square test for grade level revealed a statistically significant difference in the proportion of students who discontinued college by grade [χ^2 = 465.17(*3*), $p < .001$]. Most notably, a significantly higher proportion of seniors discontinued college compared to other students. This may be partially explained by the definition of seniors that includes any undergraduate student in their fourth plus year of college, when classes become more difficult. The chi-square test for differences based on retention status was significant for academic college affiliation [χ^2 = 22.92(*6*), $p < .01$]. Follow-up tests showed that a significantly higher proportion of architecture students completed or continued their studies whereas a significantly higher proportion of arts and sciences students discontinued their education.

Table 2 shows the mean university-reported student loan debt by grade classification and retention status. Freshmen who discontinued college took out, on average, $2,000 more in student loans than freshmen who continued their education [t = -2.75(*467*), $p = .006$]. Sophomores who discontinued college had accumulated, on average, $3,000 more in student loan debt compared to sophomores who continued their education [t = -2.38(*698*), $p = .018$]. Juniors and seniors did not have a statistically significant difference in student loan debt based on retention status.

The regression model was statistically significant and correctly predicted 84% of the cases where students discontinued their education. Financial factors associated with an increased likelihood of discontinuing college included financial stress, feeling that needs were being met, and student loan debt. As financial stress increased by 1 point on the 10-point scale, there was a 9% increase in the likelihood of student discontinuing college (B = .08, e^B= 1.09, $p < .05$). The effect of feeling that needs were being met was small and opposite of what was expected (B = .02, e^B= 1.02, $p < .001$).

Students in the two highest self-reported student loan debt categories of $18,000 – $23,999 and $24,000 or more were associated with a higher likelihood of discontinuing college compared to students with no debt (B = .79, e^B= 2.20, $p < .01$; B = 1.09, e^B= 2.97, $p < .001$, respectively). Students in the highest self-reported debt category were three times more likely to discontinue their education compared to students with no student loan debt. Conversely, students in the highest university-reported student loan debt category were associated with a *reduced* likelihood of discontinuing college compared to students with no debt (B = -.74, e^B= .48, $p < .01$). Students who sought peer-based financial counseling were associated with an increased likelihood of discontinuing their education (B = .36, e^B= 1.44, $p < .05$).

Table 1

Descriptive Statistics (N = 2,475)

	Discontinued (*n* = 542)			Continued/Graduated (*n* = 1,933)			
Variables	*M*	*SD*	Range	*M*	*SD*	Range	χ^2 *(t)*
Financial characteristics							
Financial stress	6.19	2.22	1 – 10	5.90	2.31	1 – 10	-2.68**
Needs met	62.80	14.52	0 – 85	60.33	15.88	0 – 85	-3.42***
Savings (in dollars)	3,249	12,785	0 – 260k	3,764	22k	0 – 900k	ns
No credit card debt	.82	.38	0 – 1	.90	.31	0 – 1	ns
Student loan debt (self-reported)							109.42***
Missing data	.01	.09	0 – 1	.01	.08	0 – 1	ns
$0	.30	.46	0 – 1	.42	.49	0 – 1	14.93***
$1 - $5,999	.10	.30	0 – 1	.16	.36	0 – 1	9.43**
$6,000 - $11,999	.10	.30	0 – 1	.12	.32	0 – 1	ns
$12,000 - $17,999	.07	.26	0 – 1	.09	.29	0 – 1	ns
$18,000 - $23,999	.11	.31	0 – 1	.08	.26	0 – 1	5.09*
$24,000 or more	.31	.46	0 – 1	.13	.34	0 – 1	77.24***
Student loan debt (university-reported)							88.87***
Missing data	.10	.30	0 – 1	.13	.33	0 – 1	ns
$0	.21	.41	0 – 1	.28	.45	0 – 1	6.62*
$1 - $5,999	.11	.31	0 – 1	.14	.35	0 – 1	ns
$6,000 - $11,999	.08	.27	0 – 1	.12	.32	0 – 1	5.21*
$12,000 - $17,999	.08	.28	0 – 1	.11	.32	0 – 1	ns
$18,000 - $23,999	.12	.32	0 – 1	.08	.27	0 – 1	5.45*
$24,000 or more	.29	.46	0 – 1	.14	.34	0 – 1	61.97***
Financial counseling							
In-person financial counseling	.21	.41	0 – 1	.14	.34	0 – 1	-3.70***
Web financial counseling	.32	.47	0 – 1	.28	.45	0 – 1	ns
Demographic characteristics							
Male	.38	.49	0 – 1	.37	.48	0 – 1	ns
White	.82	.38	0 – 1	.83	.37	0 – 1	ns
In-state student	.82	.38	0 – 1	.85	.35	0 – 1	ns
First generation	.35	.48	0 – 1	.34	.47	0 – 1	ns
Sorority/fraternity student	.15	.36	0 – 1	.21	.40	0 – 1	3.19**
Hours of enrollment	13.12	2.72	6 – 24	14.18	2.19	6 – 22	8.35***
Grade point average	3.05	.81	0 – 4	3.16	.75	0 – 4	3.00**
Grade level							465.17***
Freshman	.09	.29	0 – 1	.16	.37	0 – 1	15.68***
Sophomore	.08	.27	0 – 1	.30	.46	0 – 1	81.92***
Junior	.06	.24	0 – 1	.27	.44	0 – 1	82.32***
Senior	.77	.42	0 – 1	.27	.44	0 – 1	285.24***
Academic college							22.92**
Agriculture	.14	.35	0 – 1	.16	.37	0 – 1	ns
Architecture	.01	.09	0 – 1	.03	.16	0 – 1	6.63*
Arts and sciences	.37	.48	0 – 1	.31	.46	0 – 1	4.98*
Business	.13	.33	0 – 1	.13	.33	0 – 1	ns
Education	.07	.25	0 – 1	.08	.28	0 – 1	ns
Engineering	.12	.32	0 – 1	.15	.36	0 – 1	ns
Human ecology	.17	.37	0 – 1	.14	.35	0 – 1	ns

*Note: *p* < .05. **p* < .01. ***p* < .001.

Table 2

Mean University-reported Student Loan Debt by Grade Classification and Retention Status (N = 3,339)

	Discontinued college			Continued/graduated			
	M	*SD*	Range	*M*	*SD*	Range	*t* statistic (*df*)
Freshman	$6,765	$5,980	$0 – 26,826	$4,776	$5,351	$0 – 29,562	-2.75(*467*)**
Sophomore	$10,389	$10,330	$0 – 50,604	$7,448	$8,087	$0 – 40,000	-2.38(*698*)*
Junior	$12,184	$12,230	$0 – 49,800	$12,169	$11,943	$0 – 57,500	ns
Senior	$18,221	$15,261	$0 – 57,500	$17,646	$16,343	$0 – 57,500	ns

Note: $*p < .05$. $**p < .01$.

Consistent with prior studies, non-financial factors associated with the odds of discontinuing college included residency status, hours of enrollment, GPA, grade level, and academic college affiliation. In-state residency status ($B = -.45$, $e^B = .64$, $p < .01$), higher hours of enrollment ($B = -.16$, $e^B = .86$, $p < .001$), and higher GPA ($B = -.42$, $e^B = .66$, $p < .001$) were associated with a reduced likelihood of discontinuing college.

As compared to seniors, freshmen ($B = -1.77$, $e^B = .17$, $p < .001$), sophomores ($B = -2.55$, $e^B = .08$, $p < .001$), and juniors ($B = -2.68$, $e^B = .07$, $p < .001$) were less likely to discontinue their education. Students pursuing majors in the college of agriculture ($B = -.44$, $e^B = .65$, $p < .05$), architecture ($B = -1.70$, $e^B = .18$, $p < .01$), education ($B = -.46$, $e^B = .40$, $p < .05$), and engineering ($B = -.68$, $e^B = .35$, $p < .001$) were less likely to discontinue their studies relative to students from the college of arts and sciences.

Implications for Practice

Students who eventually discontinued their education had taken out, on average, $2,000-$3,000 more in student loans during their first two years of college. Financial aid administrators should identify students who take out above-average debt early in their academic career to determine whether they may need additional counseling or assistance in managing their education financing. Some majors can expect higher lifetime earnings; however, the first two years of college are full of transitions, and it is difficult to determine whether students will remain in the same major throughout their degree program. A student who plans to study chemical engineering as a freshman may rationally take out more student loan debt in anticipation of a high starting salary. However, after taking two semesters of chemistry, the student may lose interest or find the program too academically challenging and change majors. In their new major, they may find their initial debt levels more difficult to manage. Discouraging students from matching student loan accumulation to expected career outlooks in their first two years would be a wise recommendation for financial aid administrators.

Student loan accumulation does not necessarily contribute to drop-out rates, but in examining this relationship, it is important to consider the information source, as university-reported and student-reported student loan balances are not highly correlated. According to university-reported student loan balances, students who take out the highest amount of debt have a lower likelihood of dropping out of college compared to students with no student loan debt. It is possible that students taking out high debt are studying in degree programs that have high expected salaries. Therefore, it is rational, and possibly perceived as less stressful, to have a high debt load. In contrast, students who hold the *perception* that they have high student loan balances have an increased likelihood of dropping out of college. These students may not actually have high debt balances, but their perception, which may be based on peer interactions and media reports, may lead them to believe that they have too much debt. This may contribute to higher stress and ultimately to the decision to abandon their education. Such students may believe that getting a job now is a better alternative than accumulating more debt to complete their degree.

Table 3

Logistic Regression Analysis for Variables Predicting College Discontinuation (N = 2,475)

Variable	*B*	*SE B*	*β*	e^B
Financial characteristics				
Financial stress	.08*	.03	.10	1.09
Needs met	.02***	.00	.17	1.02
Savings (log)	.01	.02	.02	1.01
No credit card debt	-.06	.17	-.01	.94
Student loans (self-reported; ref. = $0)				
Missing data	.19	.69	.01	1.20
$1 - $5,999	.13	.26	.03	1.14
$6,000 - $11,999	.51	.28	.09	1.66
$12,000 - $17,999	.42	.31	.06	1.52
$18,000 - $23,999	.79**	.30	.12	2.20
$24,000 or more	1.09***	.28	.23	2.97
Student loans (university-reported; ref. = $0)				
Missing data	.03	.21	.01	1.03
$1 - $5,999	.05	.27	.01	1.05
$6,000 - $11,999	-.14	.30	-.02	.87
$12,000 - $17,999	-.54	.31	-.09	.58
$18,000 - $23,999	-.26	.30	-.04	.77
$24,000 or more	-.74**	.29	-.15	.48
Financial counseling				
Sought in-person financial counseling	.36*	.15	.07	1.44
Sought web-based financial counseling	.14	.13	.03	1.15
Demographic characteristics				
Male	.12	.13	.03	1.13
White	.10	.16	.02	1.11
In-state student	-.45**	.16	-.09	.64
First-generation college student	-.17	.13	-.04	.85
Sorority/fraternity student	-.25	.16	-.06	.78
Hours of enrollment	-.16***	.02	-.20	.86
Grade point average	-.42***	.08	-.18	.66
Grade level (ref. = senior)				
Freshman	-1.77***	.20	-.35	.17
Sophomore	-2.55***	.19	-.61	.08
Junior	-2.68***	.20	-.62	.07
Academic college (ref. = arts and sciences)				
Agriculture	-.44*	.18	-.09	.65
Architecture	-1.70**	.57	-.14	.18
Business	-.22	.19	-.04	.81
Education	-.46*	.23	-.07	.63
Engineering	-.68***	.19	-.13	.50
Human ecology	-.06	.18	-.01	.94
χ^2 *(df)*	441.83*** (34)			
Percent concordant	83.6			

Note: B = coefficient. *SE B* = standard error. e^B = exponentiated *B*.
*$p < .05$. **$p < .01$. ***$p < .001$.

The results of this study indicate that it is necessary to obtain official university reports of student loan balances to get an accurate portrayal of the impact student loan debt has on retention rates. Perceptions of debt have a negative impact on retention rates, although actual student loan balance data has a slight positive impact on retention rates for extreme ends of the spectrum. Further study is needed to determine the characteristics of students with the highest perceived and actual debt. Collaboration between personal finance researchers and financial aid administrators will be necessary to accomplish this goal.

Another finding of this study is that students with higher levels of financial stress were more likely to discontinue college. At the same time, students who felt their needs were being met were more likely to leave college. These findings are somewhat contradictory and may be explained by how students perceive their external resources. Students who think that they could increase their work hours or rely on their parents or other individuals to meet their financial needs may not feel the pressure to complete a college education to help secure future financial freedom. In contrast, students with high financial stress may not have the same level of external resources (e.g., family, friends) to rely upon in emergencies and therefore may feel forced to leave college to take care of immediate needs.

An unexpected finding of this study is that students who pursued in-person financial help were more likely to leave college as compared to students who did not seek help. On average, students who sought financial help were older, were enrolled in fewer hours during the spring 2014 semester, and had higher student loan balances. Help-seekers also reported experiencing a higher number of personal and family stressors within the 12 months preceding the survey. Although help-seekers had higher incomes than those who did not seek help, help-seekers also had a higher number of instances where they were unable to pay their financial obligations. These findings may be an indication that rather than being better-off financially, these students may have had higher incomes due to a perceived pressure to work during college to support their needs.

Future studies may benefit from evaluating student preferences in regards to the delivery of financial counseling in order to optimize effectiveness. Students compelled to take on additional credit hours and jobs may not have the flexibility to enroll in a regularly scheduled financial management course, whether on a short- or long-term basis. Financial counseling centers that cater to non-traditional schedules may be more accessible to students who need assistance. Although students in this study who sought financial counseling were more likely to leave college without completing their degree than other students, prior studies have shown the opposite. Further study is needed to determine whether encouraging or requiring earlier intervention and counseling than received by these students may help in efforts to retain students.

Nexus: Connecting Research to Practice

- In this study, students who discontinued their education had taken out an average of $2,000 - $3,000 more in student loans than others during their first two years of college. Financial aid administrators should identify students borrowing at above-average levels in their first two years to determine whether they may need additional counseling or assistance in managing their education financing.
- Financial aid administrators should consider identifying students who are self-funding their education, are under high financial stress, or perceive that they have a high level of student loan debt. These students appear to be at greater risk of dropping out and may need intervention to help them complete their academic program.
- Although this study found that students who sought financial counseling were more likely than others to drop out without completing their program, this finding contradicts the results of previous studies. Personal finance researchers and financial aid professionals at each college or university should collaborate to understand the effects of early intervention counseling on the institution's unique population.

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