An Examination Of Business Students' Student Loan Debt And Total Debt

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ABSTRACT

Under the current economic environment and its high levels of unemployment, many people are turning to university education to attain higher education or simply to upgrade their skills and avoid continued unemployment. This paper examines student workloads, debt levels, and the debt perceptions of junior- and senior-level College of Business students at a Midwestern state university during the current economic downturn. The paper also examines factors that influence the level of student debt such as semester credit load taken, employment and family assistance. Overall, the students felt confident in securing employment upon graduation and in managing their debt load. Results of regression analyses indicated that expected salary was significantly influenced by this confidence. Additionally, students' confidence in their employment prospects and debt management abilities, and their belief that debt would impact their future lifestyles, were significantly related to student debt levels.

Keywords: student loan debt, credit card debt, student personal finances

INTRODUCTION

          pproximately 18.4 million students enrolled in United States' colleges and universities in the fall of 2009, up from 13.5 million 20 years ago. Currently, tuition and fees average approximately $6,600 for in-state public four-year universities and $25,000 for a private four-year college (Statistical Abstract of the United States: 2009, Table 211). According to the College Board, the annual investment in an individual's four-year U.S. public education averaged $14,333 for tuition, room, and board in 2008-2009 (Bradford, 2009). In reaction to the rising educational costs, 2008-09 student-loan disbursements—the total amount borrowed by students and received by schools—increased by 25% over the previous academic year, to $75.1 billion. Two-thirds of 2008 graduates from four-year colleges had some student loan debt and their average debt load was approximately $23,186 (Chaker, 2009). In addition to student loan debt, students incur credit card debt. In 2008, 84% of undergraduates had at least one credit card and half had four or more credit cards. The average credit card debt for graduating seniors was $4,100 (SallieMae, 2009). Bevill and Dale (2006) found that students with significant student loans were apt to have twice as many credit cards and were also more likely, by a 3 to 1 margin, to pay only the minimum monthly interest payment. This suggests many students have a poor understanding of personal finance. Chen and Volpe (1998) also provided evidence that many students lacked proper knowledge in personal finance and were making poor decisions in terms of savings and borrowing. These problems can be compounded by the current budget shortfalls which are driving up tuition costs and the high levels of student borrowing.

        Unfortunately, college graduates may be encountering a 2010 job market that does not pay well in relation to previous years. As of September 2009, only 46% of individuals aged 16-24 had jobs, which was the lowest level since the government began counting in 1948. Although this group contains many uneducated youth, college graduates aged 22-27 are experiencing a less friendly labor market. In 2007, 84.4% of college graduates had jobs compared to 86.8% of those aged 28-50. Today, that gap has almost doubled; for each percentage point rise in the unemployment rate, graduates in a recession earn approximately 6% to 7% less in their first year of employment, resulting in a negative impact on permanent wages (Coy, 2009). All of these factors place added stress on graduating college students who are attempting to secure employment and manage higher levels of debt.

Studies have found that students with high financial concerns experience more tension and anxiety during college and that overall, students become more concerned about their finances as they approach graduation (Cooke, R. et. al., 2004). This stress level caused by debt can continue well into one's post-educational life. Brown, et. al. (2005) documented higher levels of psychological distress among heads of households who experienced higher amounts of non-mortgage debt.

THE STUDY

This paper examines the student loan debt levels of 241 undergraduate College of Business students at a Midwestern state university during the fall semester of 2009, a period experiencing a severe economic downturn and increasing joblessness. We examined factors that influence the level of student debt such as employment, parental assistance, and perceptions of one's debt load and future employment prospects. Specifically, we asked students to respond to 19 questions that provided information concerning the following four categories:

1. their current credit load, major and academic status;
2. their current employment work load while attending classes;
3. the financial sources used to pay for their educational expenses, as well as their estimated debt load upon graduation; and
4. their expectations of the beginning salary they will be offered upon graduation and their expectations of the manageability, and the impact that debt will have on their lifestyle after graduation.

RESULTS

We surveyed 241 students enrolled in both junior- and senior level finance and marketing classes at a public Midwestern university. The breakdown of the number of students in the specific majors is presented in Table 1. All but one of the students were either in their junior or senior year of study at the university and additionally, all but 223 of the 241 students (92.5%) were living in a dorm, apartment or had purchased a home. Only 18 of the students lived with a parent or relative.

Table I: Majors Surveyed

Major	#	Double Majors	#
Accounting	15	Accounting/Finance	24
Finance	54	Marketing/International Business	17
International Business	2	Management/Other	21
Management	27		
Marketing	50		
Other	31		

In terms of the students' academic work load, the majority of the students were enrolled in either 13 to 15 credits (104 or 43% of the total) or 16 to 18 credits (96 or 40%). Further, 153 of the 241 students (63%) reported having taken classes during a summer session. Lastly, in terms of the students' expected graduation timeframe, 80 (33%) of the students expected to graduate in four years or less of college study while an additional 140 (58%) expected it would require between four and up to five years of college study before graduation. Only 21 of the students expected that it would take them more than five years to graduate.

The examination of students' current working status revealed that most of the students (180 or 75%) were working during the nine-month school year and all but seven reported working in the summer. Of those that did work during the nine-month school year, the majority worked either between 10 but less than 20 (63 or 35%) or between 20 but less than 30 (66 or 37%) hours per week. Thirty-one (17%) reported working 30 or more hours during the academic year.

A correlation matrix was performed on the responses from the questionnaire. Only the more significant correlations will be presented and discussed for the reader's consideration. An examination of the relationship

between student course load and employment revealed a slightly negative correlation (r = -.10) between credits taken in the current semester and hours worked during the school year, although a positive relationship between credits taken in the current semester and previous enrollment in a summer session (r = +.18) was observed. Thus, it appears that employment during a school term does negatively relate to the level of the students' semester credit hour enrollment, but summer employment, and presumably its added income, has a positive impact on the number of student credit hour enrollment during a semester.

We did not ask students to provide their GPA in our study, but research is mixed on the impact work has on GPA, funding sources and degree completion. Not surprisingly, Oettinger (2005) found that students tend to work more if they are provided with less parental support, and negative impacts on students' GPAs were found if students were working while attending college. Kalenkoski and Pabilonia (2008) also verified that students worked more as parental contributions were reduced, but they also found that students who worked less than 20 hours per week actually achieved higher GPAs than those students who did not work. There appears to be a break point in the relationship between hours worked and GPAs as those students who worked more than 20 hours per week achieved lower GPAs than the non-working students. They also found that the cost of schooling that must be paid now, defined as the net price of schooling minus student loans, was positively related to parental support but did not significantly influence student hours worked.

To further examine the manner in which business students were financing their education, we asked students to approximate the funds sources they were using to support their educational and living expenses. The total of the allocations must equal 100%. This breakdown is presented in Table II, Panel A below. Results are based on 221 useable responses; 20 of the questionnaires listed allocations that did not equal 100%. Family assistance provided an average of 29% of the students' expenses with both personal savings and student loans covering over half of the typical student's expenses. Scholarships accounted for only 12.9% of students' financing sources but credit card advances were rarely used as financing sources (only 1.7%). However, it should be noted that students were asked to provide a breakdown of their financing sources for education, and many may have perceived this question to relate to only tuition costs. It is highly probable many students were utilizing credit card debt for both living and entertainment expenses and this may not be reflected in the breakdown of Table II, Panel A. Our study desired to examine the sources of the students' overall educational expenses and the impact that these sources were having on the students' hourly work load. Accordingly, we regressed these six independent variables presented in Table II, Panel A on the dependent variable, the number of hours a student reported working during the academic year. The regression equation is:

$$Y_i = \alpha_i + \Sigma \; \beta_i X_i + \varepsilon_i$$

where Y_i is the dependent variable, β_i are the independent variables and ε_i is the error term. Results of the regression are presented in Table II, Panel B.

The overall regression resulted in an R^2 of .106. Only two of the financing source percentages exhibited significance in the regression. The amount of personal savings used for one's education had a positive influence, significant at the .05 level while the support a student received from relatives exhibited a negative influence on the hours a student worked while going to school. This finding was in agreement with both the Oettinger (2005) and the Kalenkoski and Pabilonia (2008) findings previously discussed. However, the level of grants, student loans and credit card advances exhibited no significance in the regression.

The next relationship we examined was the relationship between the fund sources and the business students' major. The Accounting and Finance majors tend to be engaged in more analytical studies and often interview with companies that are looking for skill sets that differ from those skill sets that companies seek from the management and marketing majors. Accordingly, we formed two groups: group 1 was the accounting and finance majors and group 2 was the management and marketing majors. The 31 students who mentioned other as a major were eliminated from the analysis. Our analysis of major selected showed only weak correlations on most of the variables. However, the strongest correlation of .21 was found between major and expected salary, with the accounting and finance majors having higher starting salary expectations than the marketing and management majors. The expected salary breakdown will be discussed in detail later in the paper. A maximum correlation of .11

was found between major and only two other variables: the accounting and finance majors tended to have a larger percent of support from their relatives and they also tended to be more confident in their ability to manage their debt load. Overall, our analysis indicated very little correlation between major selected and the other variables.

Table II: Financing Sources

Panel A: Source of Financing	Percentage
1. Personal Savings or Employment	27.3%
2. Financial Aid: Grants/Scholarships	12.9%
3. Financial Aid: Student Loans	25.5%
4. Personal Loans: Bank	3.6%
5. Credit Card Cash Advances	1.7%
6. Father/Mother or Relative Assistance	28.9%

Panel B: Regression Analysis of Hours Worked
Dependent Variable: Number of weekly hours worked during academic year.
Six Independent Variables from Table II: Panel A

Variable	α_i	β_1	β_2	β_3	β_4	β_5	β_6
Beta	1.88	+.902	-.289	+.466	-1.35	.266	-.700
t-stat	6.47***	+2.35**	-0.64	+1.24	-1.54	+0.29	-1.97**

$R^2 = .106$

***Significant at the .01 level   **Significant at the .05 level *Significant at the .10 level

We then separated the sample into the 179 students who selected a single major only and the 62 students who were majoring in two different academic disciplines. This breakdown resulted in stronger correlations. Not surprisingly, double majors tended to take more credits (correlation = .197), were less likely to hold a job while going to school (correlation = 0.102), and had higher levels of student loans (correlation = .164) than the single majors carried. They also tended to have more personal savings (correlation = .126) and tended to be more confident in their ability to pay their debt upon graduation (correlation = .176). However, it is noteworthy that, in contrast to the expected salary differences between the two major groups, double majors did not express significantly higher salary expectations than the single majors. Further, while individual majors exhibited less differences in their responses to the survey questions asked, numerous significant differences were noted when students were grouped into being either a single major versus a double major.

The next stage of our analysis attempted to measure the students' understanding of the impact that their debt load would have on their future and also their confidence in securing employment upon graduation. However, we also wanted to judge the students' financial acumen and asked the students to use their judgment and estimate the monthly payment that a $10,000 educational loan would result in if the loan would be repaid in 120 equal monthly installments over a 10-year period at the current 5% to 6% interest rate. Five options were provided as answers to the question. The correct answer, at 5% to 6%, would be approximately $110 per month. Eighty one of the students correctly selected the correct answer of approximately $100 per month and another 76 students selected the close approximation of $150 per month. At a zero interest rate, a monthly payment would be $83.88. Yet, 22 of the students estimated that the monthly payment would be $50 or less per month which would result in a negative interest rate. Further, 23 students failed to respond to this question, suggesting they had no idea of the monthly payment. Lastly, 26 estimated a payment of approximately $200 per month and 13 estimated that the payment would be over $250 per month. Thus, while 65% of the respondents correctly selected a payment of approximately $100 or $150 per month, the non-answering students, the students selecting an extremely low payment of approximately $50 per month, and the students estimating an extremely high payment of approximately $200 or more comprised 35% of the business majors. Thus, there appears to be a high degree of misunderstanding concerning the payment pattern and financial obligation of student debt, even among business students.

Having established that many students had a less than accurate understanding of their debt payment obligations, we utilized a 5-point Likert scale and asked students to rate their agreement or disagreement with four statements concerning the impact that their debt load would have on their future and their confidence in securing

employment upon graduation. Table III, Panel A lists the four questions and the average response scores to each question. A '1' designated 'Strongly Disagreeing' to the statement and a '5' designated 'Strongly Agreeing' to the statement. Students were in strong agreement that they can manage their debt-load (scoring 4.16), but they recognized that the debt could impact their future lifestyle as they tended to disagree with the statement that the financial obligations would not have much influence on their lifestyle (2.60). Thus, students are aware of the impact debt can have on their future, but do have confidence in managing their debt load, even though there seems to be a general misunderstanding as to the payment obligations that the debt will entail. We also wanted to identify students' career planning and ask them if they felt the University's Career Development and Placement Center (CDPC) would be of benefit in securing their future employment. Surprisingly, this question resulted in a somewhat neutral response of 3.15, suggesting students that did not feel the CDPC would be helpful in securing employment, or possibly students felt confident in securing employment through avenues outside of the university recruitment process.

Table III: Student Debt Management Confidence

Panel A: Student Agreement to Statements (1 Strongly Disagree to 5 Strongly Agree)

1. I do not expect my financial obligations to have much influence on my life-style upon graduation	2.60
2. I am confident in my ability to manage my debt-load	4.16
3. I am confident in securing new employment upon graduation	3.60
4. The Career Development and Placement Center will be helpful in securing employment	3.15

Panel B: Regression Analysis of Students' Expected Salary
Dependent Variable: Expected Salary
Four Independent Variables used from Table III: Panel A.

Variable	α_i	β_1	β_2	β_3	β_4
Beta	1.528	+0.058	+0.158	+0.244	-0.822
t-stat	4.44***	+1.29	+1.99**	+3.22***	-1.46

$R^2 = .10$

*** Significant at the .01 level   **Significant at the .05 level *Significant at the .10 level

Panel C: Regression Analysis of Student Outstanding Student Loan Levels
Dependent Variable: Outstanding Student Loans
Four Independent Variables used from Table III: Panel A

Variable	α_i	β_1	β_2	β_3	β_4
Beta	2.95	-0.41	-.20	+0.19	0
t-stat	6.06***	-5.66***	-1.82*	+1.93*	+0.01

$R^2 = .16$

***Significant at the .01 level   **Significant at the .05 level *Significant at the .10 level

As stated previously, we asked students to estimate their expected annual salary upon securing employment after graduation. Five categories were provided, ranging from less than $25,000 to greater than $55,000. The other options provided three intermediate selections in $10,000 increments. Seventy-four of the students expected a starting salary between $25,000 and $34,999, while 98 of the students expected a starting salary between $35,000 and $44,999. This comprised 71% of the sample with only 12 students expecting a rather low salary (below $25,000) while 57 students expected a salary above $45,000. To further examine the relationship between expected salary and its influence on students' confidence, a regression was then run with expected salary as the dependent variable and the four responses in Table III, Panel A, serving as the independent variables. Results from the regression are presented in Table III, Panel B. Overall, the regression resulted in a R^2 of .10. Of particular note is that confidence favorably impacts expected salary; specifically, the greater the confidence in one's ability to manage one's debt load (t =1.99) and the greater the confidence in securing employment upon graduation (t = 3.22), the higher the expected salary upon graduation. It is interesting that the students' optimism of salary expectations is also correlated with the major field of study. This result suggests that one's major may drive this students' confidence in debt management and particularly their future employment prospects. This finding is in agreement

with other studies (Wells, 2007 and Peterson, 2000) that found that optimistic students were less concerned about their financial future. However, such confidence may result in financial decisions that could adversely impact their future.

Lastly, we asked students to estimate the amount of student loan debt they expected to have upon graduation. Eighty-seven, or 36% of the students indicated that they would have no debt upon graduation. However, of 154 students who reported having student loan debt, the reported expected student loan debt levels ranged from less than $10,000 (n = 38) to more than $30,000 (n=34). Using category midpoints for our average student loan debt level, we calculated that the average student debt level would be approximately $19,280 upon graduation. Further, there was no correlation (correlation = .00) between the level of expected student loans and the expected starting salary upon graduation. Accordingly, we regressed these four confidence variables in Table 3, Panel A on the level of the students' outstanding loans. The results of the regression are presented in Table 3, Panel C. Overall, the regression resulted in an R^2 of .16, with three of the independent variables displaying significance in the regression. Not surprisingly, a significant negative relationship was observed between student debt load and two of the independent variables; namely, the expectation that student debt load would not have an impact on one's life style (t = -5.66) and confidence in managing debt load (t = -1.82). It is highly probable that this result is also driven by the 87 students who did not expect to be utilizing student loans while attending college and therefore, debt would be less apt to influence their lifestyle. However, confidence in securing employment upon graduation exhibited a positive relationship with expected student loan level (t = +1.93). However, the current economic conditions may make the students' confidence in securing employment unrealistic.

CONCLUSION

There are several interesting behavioral relationships between students' academic environment, their debt load, and their perceptions of its future impact. It is extremely important to have a strong understanding of one's financial situation to later avoid financial distress and maintain psychological well-being. Our study found that students' main sources of financing their education came from family assistance, personal/savings, and student loans. These findings are in general agreement with previous studies, but the debt load appears to be increasing. Further, those students majoring in two or more disciplines were taking more credits, but were working fewer hours and carrying higher levels of student loans.

We were concerned about the students' financial acumen in acquiring debt. A sample question regarding the student loan obligation from a hypothetical $10,000 student loan indicated that only 65 percent of the students expressed a reasonable estimate of the monthly payment obligation. This indicates that one-third of the sample of business students may lack a proper understanding of personal finance and are likely to overextend their financial obligations. Yet, students, in general, expressed confidence in their ability to both manage their debt load and secure employment upon graduation. Both of these variables significantly impacted expected salary and the level of student outstanding loans. Higher responsibilities and educational expectations face today's college students. Financial stability is important in fulfilling most college experiences. As evidenced by the tuition trends across the country, financial demands on students have increased to the point where many students are focusing heavily on their financing needs and possibly less on their academic needs in order to avoid high levels of debt at graduation. It is imperative that academic advisers, counselors and families realistically advise students concerning financial competency and literacy throughout their academic advancement.

AUTHOR INFORMATION

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NOTES