

Financially At-Risk College Students: An Exploratory Investigation of Student Loan Debt and Prioritization of Debt Repayment

By Mary Beth Pinto and Phylis M. Mansfield

Mary Beth Pinto is an associate professor of marketing and director of the Center for Credit and Consumer Research at Penn State Behrend, and Phylis M. Mansfield is an assistant professor of marketing at Penn State Behrend.

College students today face heavy student loan debt that is intensified by the amount of credit card debt they carry. This study provides a profile of financially at-risk students based on their credit card usage behavior. When compared to the non-financially at-risk students, those in the financially at-risk group were found to have higher student loan balances, both currently and expected at graduation. In addition, if forced to prioritize debt repayment after graduation, students in the financially at-risk group indicated they would pay their credit card bills before making their student loan payments.

To most college students today, debt has become a fact of life. In fact, this young adult segment is becoming known as “Generation D” or “Generation Debt” (Teik, 2005). There has been a growing gap between college prices and a family’s ability to pay. Due to the high price of college, the total amount of financial assistance provided to students has more than tripled since the early 1990’s, and most of the increase can be attributed to student loans (Redd, 2004). Since 1992, largely due to changes resulting from the federal reauthorization of the Higher Education Act of 1965, federal and state financial aid policies shifted significantly away from grants toward loans (Pascarella & Terenzini, 2005). On average, two out of every three college graduates incur some form of conventional education debt (e.g., federal student loans), seek expensive private loans, and/or turn to credit cards to finance their education (Schemo, 2002).

Credit card debt intensifies the consequences of student loan borrowing for many college students. The continuing problem of student credit card debt has been well documented. Most studies suggest that over 70% of college students possess one or more credit cards, with an average of two (Pinto, Mansfield, & Parente, 2004; Nellie Mae, 2004; Lyons, 2004; Pinto, Parente, & Palmer, 2000) and carry an outstanding balance of \$500 to more than \$3,000 (*The Importance of Financial Literacy*, 2002). Nellie Mae reported that 67% of undergraduates began the school year in 2004 with credit cards which is an 8% decrease from the 83% with cards reported in 2001 (Nellie Mae, 2004). According to the 2002 National Student Loan Survey, students who use credit cards to help finance their undergraduate education carry a median balance of \$3,400 (Baum & O’Malley, 2003).

After graduation, some estimates suggest that 7% to 8% of bachelor’s degree recipients have difficulty repaying their educational debts and may seek relief through default or bankruptcy

(Harrast, 2004). Financial experts estimate that nearly half of all students who graduate from college have an “unmanageable debt burden,” with repayments exceeding 8% of their monthly income (Zaff, 2004). According to Baum and Saunders (1998), credit card debt is one of the factors that determine “how burdened a borrower is after graduation and will influence how manageable repayment” is for the student (p. 4).

Student loan default rates have been a concern of the government as well as colleges and universities since the enactment of the Higher Education Act of 1965 and the resulting growth in federal student aid. For the federal government, higher student loan default rates mean rising costs for purchasing defaulted accounts (Seifert & Wordern, 2004). Other stakeholders include schools; lenders; loan servicers; and guaranty agencies, which incur costs for default management programs and collection activities (Seifert & Wordern). The stakes became even higher in 1998 when Congress “enacted legislation that caused a college to lose its eligibility for federal student aid if its student loans sustained a 25% or more default rate for three consecutive years” (“News and Views,” 1999, p. 55). Therefore, it behooves colleges and universities to identify students who are financially at-risk and may be potential defaulters.

Lyons (2004) developed a profile of financially at-risk students based on the characteristics of students who have mismanaged or misused their credit cards. Her results indicate that financially at-risk students come from low- to middle-income families, are financially independent, and are racial/ethnic minorities. In addition, they receive need-based financial assistance, hold \$1,000 or more of other types of debts, and acquire their credit cards by mail, at a retail store, or from a campus table. For empirical purposes, Lyons defined students as “financially at-risk” if they met one or more of the following characteristics:

- 1) have credit card balances of \$1,000 or more,
- 2) are delinquent on their credit card payments by two months or more,
- 3) have reached the limit on their credit cards, and
- 4) only pay off their credit card balances some of the time or never.

This study extends the work of Lyons (2004) by including data on student loan debt and prioritization of debt repayment with information on credit card usage.

Research Questions

This study addresses the following research questions:

1. Do financially at-risk students carry more student loan debt than non-financially at-risk students?
2. Is there a difference in the way financially at-risk students and non-financially at-risk students prioritize their debt repayment?

Method

Sample

For this study, the researchers followed a survey methodology similar to Lyons (2004). Eight four-year institutions (four public and four private institutions) in the eastern half of the United States were selected to participate in this study during the 2004-05 academic year. Both public and private institutions were chosen because debt levels differ significantly depending on the type of school the student attends (NASFAA, 2005).

The researchers established contact with the Student Affairs administrator at each institution. This individual was asked to select a random sample of 50% of undergraduate students from the school's database to receive the survey electronically. The institutions sent e-mails directly to the selected undergraduates; the researchers did not have access to the students' e-mail addresses. The e-mails contained a formal description of the survey and a link to a survey hosting service, Zoomerang. Zoomerang is online software used to create customized surveys. The recipients of the e-mails were invited to participate in a study of credit card usage habits of college students. A total of 11,000 e-mails were sent to undergraduates, and 2,203 completed surveys were received through the hosting service for a 20% response rate. Data were collected in strict adherence to each school's policy on human subject research.

Given the purpose of the study, the sample was reduced to include only students of traditional college-going age (those younger than 24 years of age) (Justice & Dornan, 2001). Non-traditional students are more likely to have families, full-time jobs, and other factors that may affect the results. Therefore, respondents who were 24 or older were considered non-traditional students and were eliminated from our sample ($n = 1889$ students). This sample was further reduced to 1441 by deleting missing values.

From this final sample, students were grouped into two categories: Financially At-Risk (FAR) and Non-Financially At-Risk (NFAR), based on a modified version of the criteria proposed by Lyons (2004). To be identified as FAR, students must have met one or more of the following characteristics:

- 1) have a credit card balance(s) of \$1,000 or more,
- 2) pay only the minimum amount or less than the minimum amount due on their credit card(s) each month, or
- (3) have reached the limit on their credit card(s).

Of the 1441 students that comprise the working sample, 204 (14.2%) are considered FAR. About 76% of students in the FAR group had outstanding balances of \$1,000 or more. Approximately 25% of students in the FAR group reached their credit limit on one or more cards. Thirty-nine percent of the students in the FAR group reported making the minimum or less than the minimum payment each month.

The average age of the students in the entire sample was 19.73 years, with a standard deviation of 1.42 years. About 63% of the respondents were women, over 98% were single, and 87% were Caucasian, non-Hispanic. The academic class breakdown was 30% first-year students, 26% second-year students; 20% third-year students, and 24% fourth-year students.

Measures

The survey included several items designed to measure students' debts and repayment prioritization.

Student Loan Debt

This measure was based on two self-reported items: current student loan debt, and expected student loan debt at time of graduation. The survey asked, "Considering all types of student loans that are in your name (including Federal Perkins, Federal Stafford, and any other alternative loans): 1) What is your approximate student loan debt at the current time? and 2) What will be your total student loan debt at the time of graduation?"

Credit Card Use

Credit card use included both the number of cards possessed and outstanding balance carried on the cards. Employing the approach used by Pinto, Parente, and Palmer (2000), students were asked to respond to the question, "How many credit cards do you have?" Next, they were asked to record the outstanding balance held on each card.

Prioritization of Debt Repayment

Students were asked to respond to the following question, "If you had to make a choice between paying your student loans or your credit card bills, which would you pay first?" Three response options were provided: "Student loans," "Credit cards," and "Does not apply to me."

Results

Because the financially at-risk profile is based on credit card usage behavior (Lyons, 2004), we first investigated the overall sample in terms of credit card characteristics. Sixty-one percent of the sample reported having at least one credit card. For the students with cards, the average number of credit cards per student was 2.15, ranging from one card to as many as 20.

About 60.3% of students from public institutions reported having at least one credit card, compared with 62.2% of those from private institutions. For the students with cards, there was a significant difference ($t = 2.62, p < .01$) in the average number of cards held by students: Private institution students averaged 2.0 cards, with a range of 1 to 12 cards. Public institution students averaged 2.31 cards, with a range of 1 to 20 cards. The outstanding balance carried by students on their credit cards also varied significantly by type of institution ($t = 3.17, p < .01$): students attending private institutions averaged

a credit card balance of \$448 while those attending public institutions averaged \$694.

Roughly 69.5% of the overall sample reported that they had received student loans. This finding is consistent with national statistics reported by College Parents of America in which two-thirds of students or their family members currently depend on student loans to pay college expenses (The Coalition for Better Student Loans, 2004). In our sample, 68.2% of students at private institutions and 70.3% of students at public institutions reported holding student loans ($\chi^2 = 1.04$, n.s.). These percentages are lower than the statistics reported in the 2003-04 National Postsecondary Student Aid Study for undergraduates from public and private institutions who receive student loans (Berkner, He, Lew, Cominole, & Siegel, 2005)

Of the students with loans, 59.3% reported having at least one credit card in his or her name. There was a significant positive correlation between an outstanding credit card balance and both current student loan debt ($r = .121$, $p < .001$) and expected student loan debt at the time of graduation ($r = .048$, $p < .05$). The correlation between number of cards and current student loan debt was significant ($r = .077$, $p < .01$). However, the correlation between number of cards and expected student loan debt was not significant. These findings are consistent with prior findings that student borrowers are even more likely to carry credit card debt (King & Bannon, 2002).

The researchers used chi-square analysis to answer the first research question, "Do financially at-risk students carry more student loan debt than non-financially at-risk students?" Table 1 provides a profile of financially at-risk students compared with students who were not classified at-risk. These data provide convincing evidence that financially at-risk students are

Table 1
Comparison of Financially At-Risk Students (FAR)
with Non-Financially At-Risk (NFAR)

	FAR Students n = 204	NFAR Students n = 1237	Significance
Report holding student loans	76.5%	68.3%	$\chi^2 = 5.50^*$
Current student loan debt	\$11,067	\$7,486	$t = 4.24^{**}$
Expected student loan debt at graduation	\$16,682	\$14,339	$t = 2.34^*$
Total outstanding credit card balance	\$2,025	\$131	$t = 15.93^{**}$

Note. When comparing the total outstanding credit card balance of FAR versus NFAR students, we only included in the NFAR group students who held credit cards. This reduced the NFAR sample size from $n = 1237$ to $n = 678$.

* $p < .05$, ** $p < .001$

far more likely than other students to have high student loan debts. Significantly more FAR students carry student loans than non-FAR (Need $\chi^2 = 5.50, p < .05$). There is also a statistically significant difference between the mean student loan debt for FAR students (\$11,067) and NFAR students (\$7,486) ($t = 4.24, p < .001$). In addition, there is a statistically significant difference in the average total amount of debt expected at graduation between FAR and NFAR students (FAR = \$16,682 and NFAR = \$14,339, $t = 2.34, p < .05$).

Table 1 also provides information regarding the second research question, “Do financially at-risk students carry more credit card debt than non-financially at-risk students?” By definition, all students in the FAR category had at least one credit card. Only 55% of NFAR students report holding at least one credit card ($\chi^2 = 150.6, p < .001$). This percentage is much lower than the figure (over 75%) that is reported for college students in the Nellie Mae study (Nellie Mae, 2004). It should be noted, however, that the Nellie Mae study included only those students with loans from Nellie Mae, which might have affected the results. When looking at credit card debt, FAR students reported carrying an average outstanding balance of \$2,025, compared with just \$131 for the NFAR undergraduates ($t = 15.93, p < .001$).

Table 2 addresses the third research question, “Is there a difference in the way financially at-risk students and non-financially at-risk students prioritize their debt repayment?” The findings show that there was a significant difference between FAR and NFAR students’ responses to the question: “If you had to make a choice between paying your student loans or your credit card bills, which would you pay first?” ($\chi^2 = 47.66, p < .001$). A higher percentage of FAR students than NFAR students would choose to pay credit card bills, while a higher percentage of NFAR students indicated that they would first pay their student loans. In addition, a much higher percentage of NFAR students than FAR students indicated that the issue of debt prioritization “does not apply” to them. To determine whether

Table 2
Comparison of Debt Prioritization Between Financially At-Risk Students (FAR) and Non-Financially At-Risk (NFAR)

Question: If you had to make a choice between paying your student loans or your credit card bills, which would you pay first?	FAR Students n = 204	NFAR Students n = 1237
Student loans	74 (36.3%)	409 (33.1%)
Credit cards	88 (43.1%)	294 (23.8%)
Does not apply to me	42 (20.6%)	534 (43.2%)

Note. $N = 1441$
 $\chi^2_{df=2} = 47.66, p = <.001$

there was a difference between FAR and NFAR students' responses on exclusively the debt prioritization choice, we eliminated the "Does not apply" responses from both groups. Testing the resulting 2x2 table, there was a significant difference between the two groups ($\chi^2 = 8.35, p < .01$).

From the findings, it is not clear exactly why the respondents chose the option "Does not apply." There may be several reasons why a student in the NFAR category feels that prioritization does not apply to them. For example, their loan or credit card balances may be so small that repayment is inconsequential. Alternatively, because of the perceptual nature of the question, NFAR students may, by definition of their own credit state (i.e., not financially at risk) feel they will have little difficulty in prioritizing and paying off loans. Nonetheless, the perception that debt repayment "does not apply" to a significantly greater proportion of NFAR students than FAR students suggests the need for future research to understand more clearly why this option may be the case.

Discussion

Our findings offer some important implications that could adversely affect the strategies financial aid administrators adopt in managing student loan debt default. The results of this study support previous research by Baum and Saunders (1998): credit card debt is one of the factors determining "how burdened a borrower is after graduation and it will influence how manageable repayment" is for the student (p. 4).

This research identifies significant differences in the number of credit cards and total credit balances carried between private and public colleges. Students at public colleges averaged a significantly higher number of credit cards and carried larger balances on their cards. We did not find, however, significant differences between public and private institutions in terms of the percentage of undergraduates who received student loans. Regardless of the type of institution, between 68% and 70% of the students reported having student loan debt. These findings suggest that personal debt, through both credit cards and student loans, has become a ubiquitous part of the American college student experience regardless of the type of institution attended.

The data on credit card usage and student loan debt shows that there is a significant correlation between credit card balances and loan debt (both current and expected at graduation) among the undergraduates surveyed in this study. Higher outstanding credit card balances are associated with higher student loan debt. It is interesting to observe this tendency toward "double jeopardy" on the part of students, especially those who are financially at-risk through the combined effects of these two forms of debt. While the reasons for this shared effect are likely to vary among students who are this extended, this exposure to debt from student loans and credit cards could have devastat-

Collectively, the FAR group may be at a higher risk for student loan default due to its higher credit card balances, higher student loan balances, and intended prioritization of debt repayment.

ing consequences for many students, particularly given the probability that over-extension in one debt area is likely to adversely affect the other.

In this study, when compared to the non-financially at-risk (NFAR) students, those in the FAR group were found to carry higher credit balances overall, and have higher student loan balances, both currently and expected at graduation. In addition, if forced to prioritize debt repayment after graduation, significantly more students in the FAR group indicated they would pay the credit card bill before making their student loan payment.

These findings may potentially provide a “red flag” to financial aid administrators. Although the FAR group represents only 14% of our overall sample, the financial impact of their prioritization of personal debt repayment, as it affects the financial stability of colleges, may be significant. Collectively, the FAR group may be at a higher risk for student loan default due to its higher credit card balances, higher student loan balances, and intended prioritization of debt repayment. Another concern is that credit card debt has been associated with higher dropout rates among students, which also increases the likelihood of student loan default. It is well accepted that “students who are continuously enrolled are less likely to default [on their loans] than students who drop out” (McMillion, 2005, p. 4). College administrators are often concerned that higher credit card usage can negatively affect academic performance and lead to depression and dropping out of school (Parks, 1999). Therefore, it behooves colleges and universities to identify students who are financially at-risk and may be potential defaulters.

As with any study, some limitations of the research have potential to limit the ability to generalize our findings. First, the methodology used for this study may have lowered our sample size. We believe it also lowered our response rate because students may have just deleted the e-mail survey invitation thinking that it was one of the many pieces of junk or spam mail they receive on a daily basis. Although we recognize this methodology may decrease response rate, many academics use online surveys because of the speed of data collection, very low cost to the researcher, and instant access to a wide audience (Llieva, Baron, & Healey, 2002). In addition, it must be noted that the results of this study are based on students at only eight higher education institutions and the results should not be assumed to be nationally representative.

The subjective nature of self-reported data also must be considered. Several of the measures in this study asked respondents to “approximate” their debt, either outstanding credit card balance or student loan balances. There is a risk that the data reported may not be an accurate reflection of the true debt levels due to the possibility that FARS and NFARS may tend to perceive, and thus estimate, their debt levels differently. This

approach, however, is commonly employed by academics and practitioners studying undergraduate and graduate borrowers (see for example Baum & O'Malley, 2003). Future research should attempt to acquire hard data for analysis on the actual number of students who repay and fail to repay their student loans and credit cards in the long term.

Future studies of college student indebtedness could address the limited generalizability by expanding the sample to a national population. Even more helpful would be to track the trends of college student credit card and loan debt by conducting this national survey on an annual basis.

Additionally, the current study does not differentiate the types of loans that students currently have, such as Federal Stafford and Direct Loans, Federal Perkins Loans, institutional loans, and alternative loans from private lenders. There may be the need to differentiate between student loans that are subsidized and unsubsidized. For example, the repayment stress level may be higher for unsubsidized loans because students are responsible for repaying both the principal and the interest that accumulates while they are enrolled in school.

In addition, it would be interesting to study differences between FAR students and NFAR students in how they use their credit cards (e.g., to pay for books versus going on a trip to Florida for spring break). Such an investigation would allow us to determine what proportion of students are using their cards for convenience (e.g., to earn airline miles or other reward points) versus those that are using them because of genuine financial need (i.e., they have no other source of funds).

Finally, there are other variables that may contribute to the number of students receiving aid from public and private institutions, such as whether the student also received some type of grant aid, the student's age and work status (i.e., part-time vs. full-time employment), and the student's family income level. Controlling for these factors would provide a more meaningful picture of a student's ability to repay his or her credit card and student loan debt.

Conclusion

Financial aid administrators face ongoing challenges in managing student loan default rates, which can negatively affect their institution's eligibility to receive funding for future students. While most institutions have default management programs in place in addition to programs such as exit counseling for graduating students, the results of this study suggest that there is a financially at-risk group of students who may benefit from further education about the proper use and misuse of credit cards. For example, financial aid administrators might partner with other campus offices to develop programs for incoming freshman that educate students on proper management of their credit card debt in addition to student loans. While many colleges are beginning to offer these "student survival sessions" during fresh-

man orientation programs at the start of the school year, there may be a need for more ongoing training and counseling programs. Stanford (1999) suggested establishing senior class members and residence hall assistants as peer mentors to provide credit management information to students throughout the school year. The institution's Web site may also be a place to include information about the hazards of credit card debt.

The bottom line is that universities must try to remove as many students as possible from the FAR category. To achieve this, institutions should take an active role in identifying at-risk students and finding as many ways as possible to help them improve their debt and credit management skills.

References

- Baum, S. & Saunders, D. (1998). *Life after debt: Results of the national student loan survey* (Final Report). Braintree, MA: Nellie Mae.
- Baum, S. & O'Malley, M. (2003). *College on credit: How borrowers perceive their education debt. Results of the 2002 National Loan Survey* (Final Report). Braintree, MA: Nellie Mae.
- Berkner, L. He, S., Lew, S., Cominole, M., & Siegel, P. (2005). *2003-04 National Postsecondary Student Aid Study (NPSAS:04): Student Financial Aid Estimates for 2003-04* (NCES 2005158). Washington, DC: U.S. Department of Education.
- Harrast, S. A. (2004). Undergraduate borrowing: A study of debtor students and their ability to retire undergraduate loans. *Journal of Student Financial Aid*, 34(1), 21-37.
- Justice, E. M. & Dornan, T. M. (2001). Metacognitive differences between traditional-age and nontraditional-age college students. *Adult Education Quarterly*, 51(3), 236-249.
- King, T. & Bannon, E. (2002). *The burden of borrowing: A report on the rising rates of student loan debt*. Washington, DC: The State PIRGs' Higher Education Project.
- Llieva, J., Baron, S., & Healey, N. M. (2002). Online surveys in marketing research: Pros and cons. *International Journal of Market Research*, 44(3), 361-376.
- Lyons, A. C. (2004). A profile of financially at-risk college students. *The Journal of Consumer Affairs*, 38(1), 56-71.
- McMillion, R. (2005). *Student loan default literature review*. Round Rock, TX: Texas Guaranteed Student Loan Corporation.
- National Association of Student Financial Aid Administrators. (2005). *Student aid facts and figures*. Available: <http://www.nasfaa.org/AnnualPubs/StudentFAQ.html>
- Nellie Mae (2004). *Undergraduate students and credit cards: An analysis of usage rates and trends*. Retrieved September 19, 2005, from http://www.nelliemae.com/library/research_12.html
- News and views: Fourteen black colleges could be forced to close if they fail to reduce their student loan default rates. (1999). *The Journal of Blacks in Higher Education*, 25, 55.
- Parks, C. (1999). Credit card abuse puts students at risk. *Black Collegian*, 30, October, 72-78.
- Pascarella, E. T. & Terenzini, P. T. (2005). *How college affects students*, San Francisco: Josey-Bass.
- Pinto, M. B., Mansfield, P. M., & Parente, D. H. (2004). Relationship of credit attitude and debt to self-esteem and locus of control in college-age consumers. *Psychological Reports*, 94, 1405-1418.
- Pinto, M. B., Parente, D. H., & Mansfield, P. M. (2000). Materialism and credit card use by college students. *Psychological Reports*, 86, 643-652.

- Redd, K. E. (2004). Lots of money, limited options: college choice and student financial aid. *Journal of Student Financial Aid*, 34(3), 29-39.
- Schemo, D. J. (2002, March 8). More graduates mired in debt, survey finds. *The New York Times*, A18.
- Seifert, C. F. & Wordern, L. (2004). Two studies assessing the effectiveness of early intervention on the default behavior of student loan borrowers. *Journal of Student Financial Aid*, 34(3), 41-52.
- Stanford, W. E. (1999). Dealing with student credit card debt. *About Campus*, March/April, pp. 12-17.
- Teik, L. C. (2005, January 23). Young, single, and bankrupt. *The Sunday Times*, p. 14.
- The Coalition for Better Student Loans (2004). *Coalition for better student loan survey findings*. Retrieved April 25, 2005, from <http://www.collegeparents.org/betterloans/newsPoll.html>
- The Importance of Financial Literacy Among College Students* (2002). Senate Committee on Banking, Housing, and Urban Affairs, 170th Cong., 2nd session. Retrieved May 25, 2006, from http://banking.senate.gov/_files/107987
- Zaff, J. (2004, April 18). Degree of debt. *The Baltimore Sun*, p. 5C.