

# HOPE or No-HOPE: Merit-Based College Scholarship Status and Financial Behaviors Among College Students

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*The current study explored differences in financial behaviors between college students in Georgia who retained the merit-based HOPE Scholarship and those who lost it. Logistic regression was used to analyze data from a sample of 557 undergraduate students from a large southeastern university. Students who initially had HOPE Scholarships but lost them were less likely to have used recommended financial management practices and had higher credit card as well as student loan debt than students who retained HOPE Scholarships. The results suggest that students who had lost the HOPE Scholarship may be more financially vulnerable than initially expected, particularly given their higher levels of debt and maladaptive financial management practices.*

*Key Words: college students, financial behavior, financial management*

## Introduction

Over the past decade, an increasing number of states have adopted merit-based scholarship programs to support higher education. Little is known, however, about the effects of these programs on students' financial behavior. The primary purpose of the present study was to explore differences in financial behaviors between college students in Georgia who retained the merit-based HOPE (Helping Outstanding Students Educationally) Scholarship and those who had lost access to this monetary support due to their poor academic performance. With the concurrent increase in the cost of a college education and student debt levels in the United States, a secondary purpose was to address the need for further information on the financial practices of college students.

The HOPE Scholarship, which was first awarded in 1993, provides students who attend an in-state public college or university with financial support in the form of full tuition, mandatory fees, and a book stipend (\$300 per academic year). Students opting to attend a private college also receive scholarship money that is of similar value, currently \$3,000 per academic year for full-time study. The

HOPE Scholarship program is available to entering freshmen at public and private colleges and universities who are Georgia residents and have a grade point average (GPA) of 3.0 or above on a 0 to 4.0 scale. For transfer students, the GPA in coursework since high school is also taken into consideration in determining eligibility for transfer students (Georgia Student Finance Commission, 2006). To retain the scholarship, students must maintain a GPA of at least a 3.0 each year. Students are eligible for the HOPE Scholarship until the completion of a bachelor's degree or 127 attempted semester hours, whichever comes first. In the 2005-2006 academic year, 212,940 students in Georgia received the HOPE Scholarship (Georgia Student Finance Commission).

The implementation of the HOPE Scholarship was followed by 14 more states adopting a comparable, merit-based scholarship program (Heller & Marin, 2004). The number of states implementing merit-based state scholarship programs in recent years indicates a need for further information on how these programs affect students' academic and financial behavior. This study is the first to examine the financial practices as well as the vulnerability

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(i.e., in terms of credit card, student loan, and other forms of debt) of college students who once received scholarship assistance but no longer do.

### Previous Research

Research has indicated that certain groups of students, including financially independent students, low-income students, women, and minorities, are “financially at-risk” to accumulate large amounts of debt and misuse credit after graduating from college (Lyons, 2004). Consistent with these findings, there has been a growing concern among university administrators, policymakers, and educators regarding college students’ financial behaviors over the past decade, particularly in terms of their credit card use. Frequent credit card use can lead to financial problems and stress both during college and after graduation. One study indicated that 54% of college students in the United States have at least one credit card, whereas only 23% of students have student loans (Baum & O’Malley, 2003). This is of particular concern because the interest rate associated with credit cards is typically 10 to 20 percentage points higher than for student loans. Furthermore, the interest on many student loans is subsidized by the government until the student has graduated and been working for 6 months, whereas credit card interest accrues immediately. There are even various student loan forgiveness programs available to students entering health, social service, or teaching professions.

Another study on college students’ credit card use indicated that 76% of students have at least one credit card, whereas the average number of cards a student has is 4.09 (Nellie Mae, 2005). Approximately 48% of student cardholders revolved a balance in their last year of college according to the American Council on Education (ACE) analysis of 2003-04 data (American Council on Education, 2006). In this same analysis, students who used their credit cards to pay tuition were more likely to carry a balance (55%) than those who did not use a credit card for tuition (38%). In the 9 years preceding 2005, the average credit card debt among college students nearly tripled (Nellie Mae, 2002, 2005). The increasing costs of a higher education and lack of concomitant increases in student financial aid have had strong influences on increased use of credit among college students (Lyons & Hunt, 2003; Specht, 2006).

Previous research that examined college students’ financial management practices suggested an association between

students’ financial behaviors and their demographic characteristics (Hayhoe, Leach, Allen, & Edwards, 2005; Hayhoe, Leach, Turner, Bruin, & Lawrence, 2000; Jones, 2005; Lyons, 2004). An earlier study found that students who lost the HOPE Scholarship and those who retained it differed in several ways. In examining HOPE Scholarship attrition, Dee and Jackson (1999) found substantial differences across academic majors, whereas there was no statistically significant difference among White, Black, and Hispanic students. Furthermore, previous research that identified a link between students’ financial behaviors and their academic performance, health status, future employment, and graduation rates (Cooke, Barkham, Audin, Bradley, & Davy, 2004; Lyons, 2003) demonstrated the importance of the current study to explore how loss of the HOPE Scholarship relates to college students’ financial behaviors.

Students’ level of income may in part be a factor of the number of hours worked while in school. Research suggested that working part-time is related to higher academic performance and likelihood of degree completion (Beeson & Wessel, 2002; Wilkie & Jones, 1994). There does, however, appear to be a break point in which working while in school begins to hinder academic performance. For example, Eppler and Harjuj (1997) found the number of hours worked per week to be negatively correlated with GPA. Conversely, researchers have found that part-time work increases retention, whereas working full-time results in the opposite (Astin, 1984).

Many policymakers have supported the need for merit aid programs to increase college enrollment in their respective states (Cornwell, Mustard, & Sridhar, 2006; Dynarski, 2000). Others have emphasized the increased student motivation for better student academic performance that results from merit aid incentives (Rubinstein, 2003). There has been extensive research examining how the HOPE Scholarship affected decisions of students and parents. However, it has primarily focused on decisions such as whether students, who are residents of Georgia, decide to study at an in-state versus out-of-state institution of higher learning (Cornwell, Lee, & Mustard, 2005; Cornwell, Mustard, & Sridhar, 2006). Because the primary focus of previous literature has been at the macro or aggregate level, there is a paucity of research focusing on whether and how HOPE Scholarship retention or loss is related to college students’ financial behaviors.

## Theoretical Framework

The lack of financial resources alone does not appear to fully explain why students may engage in poor financial management practices, such as failing to budget and spending more money than is available, failing to pay bills on time, or owing high levels of credit card debt. For example, past research indicated that students who owned credit cards and received financial aid were at a greater financial risk than students who owned cards but received no financial aid (Lyons, 2003). Hence, it did not appear that financial resources have clear predictive power in terms of which students do or do not exhibit appropriate and effective financial management practices. Furthermore, the association between financial support or the source of that support and students' academic performance and motivation may be noteworthy. For example, after controlling for a wide variety of factors that affect academic performance, Bodvarsson and Walker (2004) found that students who received at least some financial support from their parents to cover the cost of tuition and books were more likely than self-financed students to be placed on academic probation, to fail courses, and to earn lower GPAs. Furthermore, Binder and Ganderton (2002) found that students who were the recipients of the merit-based New Mexico Lottery (NML) Scholarship were more likely to drop out of higher education than those who did not receive the scholarship. This counterintuitive finding may be attributed to the level of academic preparation or motivation inherent to many of the student recipients of this scholarship. To qualify for this scholarship a student simply needs to enroll in a 2 to 4 year college. Unlike the HOPE scholarship, the NML Scholarship is not based on high school performance; a student only needs to maintain a 2.5 GPA once enrolled in college. A higher proportion of students receiving the scholarship may have been less academically prepared or motivated than if the scholarship were based on high school performance.

The current paper posited a general framework based on the theory of motivation to explain why students who have lost the HOPE Scholarship also may be likely to exhibit poor financial management practices. Motivation theory suggests that students who lose the HOPE Scholarship due to low academic achievement also are more likely to exhibit low achievement in other domains of their lives, such as their financial management practices (Duda & Nicholls, 1992; Dweck, 1986). In other words, those students who lack achievement motivation are more likely to perform less well in both their academic work and their financial management.

Motivation involves goals that provide the impetus and direction for action. Motivated students have displayed interest in academic activities, have completed assignments on time, have explored extra materials related to study topics, and have performed well on class exams (Ames, 1992; Rawsthorne & Elliot, 1999). Pintrich and Schunk (2002) illustrated that theoretical and empirical research in many disciplines such as education, psychology, personal development, time management, and business operation and employee management provides support for the significant impact that motivation has on all aspects of personal performance. More specifically, educational research illustrated that motivation affects all aspects of schooling and the personal success of students (Miley & Spinella, 2007; Pintrich & Schunk, 2002). Motivation theory provided the theoretical framework for the hypothesis of the present study that students who underachieve academically are more likely to underachieve in their personal financial management.

## Data and Participants

Respondents for this study were 557 in-state Georgia students who were 18 years of age or older, degree-seeking, and U.S. citizens or permanent residents who participated in an online survey conducted in 2005. A random sample of 3,261 undergraduate students, or about 10% of the student population, was recruited via e-mail to participate in the study. The survey questions were based on the work of Lyons (2004). Respondents were entered into a drawing for a gift certificate. The response rate was approximately 20%. The actual response rate was assumed to be somewhat higher than the reported response rate because some of the e-mail messages sent to students were undeliverable; this exact number, however, was not tracked.

Among the 557 students who initially received the HOPE Scholarship upon matriculation, 436 students still had the HOPE Scholarship at the time of the survey, and 121 had lost it due to dropping below a 3.0 GPA. Table 1 shows the descriptive statistics of the sample. Statistical tests were based on bivariate analyses. Gender, race, ethnicity, and before-tax annual income were the socioeconomic control variables. Disproportionately more female students still had the HOPE Scholarship than male students. On average, students who had lost the HOPE Scholarship reported a higher before-tax annual income than those who still had the HOPE Scholarship. "Before-tax annual income" referred to students' self-reported total before-tax income in the year 2004. It included income from work,

**Table 1. Descriptive Statistics of Sample (N = 557)**

| Variables                                      | HOPE Scholarship status |                   |
|--|-------------------------|-------------------|
|  | Retained<br>(n = 436)   | Lost<br>(n = 121) |
| Gender*  |                         |                   |
| Female   | 77%                     | 66%               |
| Male   | 23%                     | 34%               |
| Race and ethnicity                             |                         |                   |
| White non-Hispanic                             | 74%                     | 76%               |
| Other  | 26%                     | 24%               |
| Number of hours a week worked on average**     |                         |                   |
| None   | 46.6%                   | 40.5%             |
| 1-10 hours                                     | 20.0%                   | 9.1%              |
| 11-20 hours                                    | 22.9%                   | 24.8%             |
| More than 20 hours                             | 10.6%                   | 25.6%             |
| Before-tax annual income (in \$)**             | 4,973<br>(5,667)        | 8,479<br>(8,737)  |
| Mean positive financial behavior scale score** | 3.10<br>(0.492)         | 2.85<br>(0.610)   |
| Student loan debt (in \$)**                    | 2,961<br>(5,048)        | 6,273<br>(8,669)  |
| Credit card debt (in \$)**                     | 367<br>(977)            | 1,395<br>(2,546)  |
| Other debts*                                   | 427<br>(1,785)          | 907<br>(2,547)    |

*Note.* Numbers are column percents for class variables and means for continuous variables. The numbers in the parentheses are standard deviations. The statistical tests used to compare group differences are one-way ANOVA and *t* tests for continuous variables. Significances in the former are represented by the asterisks next to the variable names.

\* $p < .10$ . \*\* $p < .01$ .

spousal/parental support, gifts, interest from investments, scholarships, etc., but not money from loans, cash advances, credit cards, or any funds students were required to pay back. Lastly, it appeared that more students who had lost the HOPE Scholarship worked more hours than those who still had the HOPE Scholarship.

Four financial behavior variables were assessed. The mean values of all four were statistically different between the students who still had the HOPE Scholarship and those who had lost it at the time of the survey. The four variables were a mean positive financial behavior score, the dollar amount of student loan debt, the dollar amount of credit card debt, and the dollar amount of other debts. These and all other survey responses were self-reported. The positive financial behavior score was based on an average of the students' responses to seven items using a frequency-based, five-point Likert scale. The specific positive financial behaviors assessed were the regular monitoring of one's checking account balance, the use of a budget,

avoidance of overspending, avoidance of writing checks with insufficient funds, regular saving, the payment of bills on time, and self-perceived positive money management. The variable "other debts" represented the amount of debt held by the student other than credit card, mortgage, and student loan debt. Other debts primarily consisted of automobile loans, personal loans from friends or family, and private loans from a financial institution such as a bank or credit union.

### Methods and Results

To examine how various financial behaviors differed between college students who lost the HOPE Scholarship and those who retained the HOPE Scholarship, multivariate logistic regression was used. The response variable was coded 1 if the student had lost the HOPE Scholarship due to a low GPA and 0 if the student still had the scholarship at the time of survey. Based on the literature review and the preliminary analyses of the data, three socioeconomic variables were controlled. They were gender (male as

opposed to female), race (White non-Hispanic as opposed to all others), and increases of \$1,000 in before-tax annual income. The four financial behavior variables included in the model were the mean positive financial behavior score, student loan debt, credit card debt, and other debts. All debts were measured in units of \$1,000.

Table 2 shows the odds ratio estimates for students having lost the HOPE Scholarship. All variables that were significant in bivariate statistics remained significant in the multivariate model, except for the amount of “other debts.” Among socioeconomic control variables, the association of gender and race with the odds of having lost the HOPE Scholarship were not statistically significant. When other variables were kept equal, the odds that the students who had worked between 11 to 20 hours per week had lost the HOPE Scholarship were about 62% less than the odds that those who had not worked had lost it. For each \$1,000 increase in before-tax annual income, the odds a student had lost the scholarship instead of retaining it were about 5% greater.

Three of the four financial behavior variables were statistically significant. Results indicated the higher the positive financial behavior score, the lower the odds that the student had lost the scholarship. Specifically, the odds that a student had lost the scholarship were approximately half the odds that he or she had kept it for each one point increase in the mean positive financial behavior score. The odds that the student had lost the scholarship were about 5% higher for each \$1,000 increase in the amount of

student loan debt that he or she owed. Similarly, the odds that the student had lost the HOPE Scholarship were about 28% higher for each \$1,000 increase in the amount of credit card debt that he or she owed. The amount owed in “other debts” did not explain the variation in the odds of having lost the scholarship when other variables were controlled.

In summary, the results indicated that students with higher incomes, higher levels of student loan debt, or higher levels of credit card debt were more likely to have lost the HOPE Scholarship due to their academic performance. Also, students who worked between 11 to 20 hours per week on average and those who had a higher positive financial behavior score were less likely to have lost the HOPE Scholarship than those who did not work or had a lower score.

### Implications

The current study was designed to increase our understanding of college students’ financial management practices through examining the relationship between college students’ financial behaviors and loss versus retention of the HOPE Scholarship. Consistent with achievement motivation theory, students with higher incomes may be less motivated to maintain the GPA that they need to keep the HOPE Scholarship because they could use their income to pay their tuition. The nature of the relationship between greater odds of losing the HOPE Scholarship and higher levels of student loan and credit debt is less clear. Are students with higher student loan and credit card debt

**Table 2. Odds Ratio Estimates of Losing HOPE Scholarship**

| Variables   | Point estimate       | 95% confidence interval |       |
|---|----------------------|-------------------------|-------|
|   |                      | Lower                   | Upper |
| Intercept   | 1.451                |                         |       |
| Male (vs. female)   | 1.468                | 0.909                   | 2.371 |
| White non-Hispanic (vs. not)                              | 1.082                | 0.643                   | 1.822 |
| Number of hours a week worked on average (baseline: none) |                      |                         |       |
| 1-10 hours  | 0.730                | 0.373                   | 1.426 |
| 11-20 hours   | 0.378*               | 0.157                   | 0.913 |
| More than 20 hours  | 0.803                | 0.393                   | 1.641 |
| Before-tax annual income (in \$1,000)                     | 1.049**              | 1.014                   | 1.085 |
| Mean positive financial behavior scale score              | 0.490**              | 0.325                   | 0.740 |
| Student loan debt (in \$1,000)                            | 1.050**              | 1.015                   | 1.086 |
| Credit card debt (in \$1,000)                             | 1.275**              | 1.105                   | 1.470 |
| Other debts (in \$1,000)                                  | 0.970                | 0.870                   | 1.081 |
| Log likelihood function                                   | 501.623<br>(df = 10) |                         |       |

\* $p < .05$ . \*\* $p < .01$ .

less motivated to maintain the GPA needed to keep their merit-based scholarship, or do students who lose their HOPE Scholarship turn to debt to finance their education? Future research could explore these questions and delve deeper into the psychological construct of motivation. It may be that students' academic and financial behaviors and motivation levels are related to whether they have low or high time preferences and whether they experience varying degrees of "irrationality" in discounting their future utility.

The results indicate that students who initially had HOPE Scholarships but lost them had higher odds of engaging in maladaptive financial behaviors along with having larger credit card and student loan debt. Therefore, students who have lost the HOPE Scholarship may be even more financially vulnerable than initially expected. Although the direction of the relationship among variables in the study cannot be established, the findings suggest that students who struggle academically also may be more likely to struggle with financial management, indicating a specific need for financial education for this particular student population. Courses and special programs designed to teach at-risk students study skills and time management, for example, might begin with the concept of goal setting and planning and incorporate financial management training. Based on achievement motivation theory, teaching the larger concept of goal setting and planning while applying these concepts to multiple and related aspects of college student life may help students to recognize and thus better manage the many dimensions of their lives (Ames, 1992; Rawsthorne & Elliot, 1999). Furthermore, encouraging some students to hold a part-time job of less than 20 hours per week, ideally on-campus and related to their academics, may actually increase their likelihood of retaining a merit-based scholarship (Beeson & Wessel, 2002).

Practically, the research suggests that even parents in states with merit-based scholarships need a plan for financing at least part of their child's college education. Like most states' plans, Georgia's HOPE Scholarship covers much but not all of the costs of college. In addition, almost 21% of the current sample had lost the HOPE Scholarship at some point. Dee and Jackson (1999) reported that nearly 57% of their sample lost the HOPE Scholarship due to their academic performance within the first 45 credit hours. Although some of these students may have subsequently raised their GPAs and regained the scholarship, all of them who stayed in school needed other sources of

financing for at least a period of time. Today's traditional college age students were 4 to 8 years old when the HOPE Scholarship was implemented. If their parents had begun a college savings program, they may well have abandoned it at the onset of the HOPE Scholarship. Without a backup plan for financing college, students and parents may have few good choices if the student loses eligibility for the HOPE Scholarship. At a minimum, without a plan, their choices may be limited because they must find financing in a short period of time to keep a student in school. Parents and those who advise them must realize that the existence of a merit-based scholarship in their state does not mean they do not need a college savings plan.

Several important limitations should be noted. The data came from one university in one state and may not be broadly generalizable, especially to states in which the terms of the merit-based scholarship differ. In addition, we assume that maintaining or losing a GPA is completely within students' control. In truth, there may be a number of other factors that should be considered. As previously mentioned, the results indicated that students with higher incomes were more likely to have lost the HOPE Scholarship due to their academic performance. It may be that students with greater cash flow were less concerned about maintaining the required GPA to retain the scholarship funding. Further information is needed to clarify this relationship. Future research should explore a more specific breakdown in income sources; for example, the students' cash flow may come from self-employment, family, scholarships, or student loans, each of which may affect the students' academic and financial management differently. In addition, Dee and Jackson (1999) suggested academic major as an important explanatory variable. The standards for grading may vary across colleges or even within colleges. For example, a 3.0 GPA may be excellent in one college and merely average in another. If so, an individual student's ability to maintain a 3.0 GPA may not be entirely within his or her control. Research exploring these additional variables may provide further insight on the effects of merit-based scholarship programs on students' financial and academic well being.

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