ANALYZING THE FINANCIAL BURDEN OF USING STUDENT LOANS TO FINANCE A COLLEGE EDUCATION

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ABSTRACT

Increasing the educational level of a population, especially at the tertiary level is key to a country's economic stability and long-term growth and prosperity. However, the rising costs associated with the college process have given rise to grave concern for students who pursue the process and are left with insurmountable college loans. This paper looks at student loan borrowing by college students and examine what propels students to take loans and the mitigating factors that may prevent them from repaying those in a timely fashion or not at all. The paper is structured as follows. It begins with a look at the history of student loans, followed by a literature review, a description of the research methodology and a detailed set of results. The purpose of this research project is to delve deeper into the student loan debacle and to find out more about the mitigating factors and antecedents that relate to college students and their student loans.

KEYWORDS: College Students; College Loans; Tertiary Education; College Financing

INTRODUCTION

Increases in educational costs and the corresponding increase in underemployment and unemployment levels of graduates has led to increased scrutiny from many arenas regarding college students and their student loan debt (Avery, 2012). Existing research offers three key explanations for the increases in college loan borrowing by students. These include escalating college tuition prices, increases in college enrollment rates, and changes in federal loan structuring and policies that seem to encourage increased borrowing by college students (Baker et al, 2006). Given the pressure to remain competitive in today's environment, many countries have encouraged their students to go beyond their secondary level of education and pursue a tertiary level of education (Friedman, 2018). The detracting issue is that the latter requires increased costs that are not feasible on many families' incomes and instead requires some level of borrowing, in the form of student loans (McCabe, 2016). The debate on the cost versus benefit of student loans has been seen in recent years as an issue that deserves another detailed look (Johnson et al, 2016).

There is no doubt that a tertiary level of education, i.e. a college degree, remains a sound investment for those who can afford to engage in the process (Avery and Turner, 2012; Weber,

2016). Increasing the educational level of a population, especially at the tertiary level is key to a country's economic stability and long-term growth and prosperity. However, the rising costs associated with the college process have given rise to grave concern for students who pursue the process and are left with insurmountable college loans, regardless of whether or not they have completed the process and achieved a degree (Perna, 2002). A number of government policy decisions have been proposed to address rising college costs, including providing more financial subsidies for college that will not have to be repaid (Johnson, 2016); paying closer attention to for-profit tertiary institutions and the guidance (or lack thereof) they provide their students in regards to college loans (Cellini and Darolia, 2015); looking very seriously at federal and state policies that provide alternatives to loans on the front-end (before attending college) and the back-end (after completing college) such as expanding loan forgiveness programs, or giving students the option to earn scholarships and grants before the process (Zhou and Mendo, 2015; Diris and Ooghe, 2018).

In this paper, we look at student loan borrowing by college students and examine what propels students to take loans and the mitigating factors that may prevent them from repaying those in a timely fashion or not at all. The paper is structured as follows. It begins with a look at the history of student loans, followed by a literature review, a description of the research methodology and a detailed set of results. The purpose of this research project is to delve deeper into the student loan debacle and to find out more about the mitigating factors and antecedents that relate to college students and their student loans. The debate regarding whether student loans should be forgiven or whether student loans are a burden to students and how that burden could be alleviated is too extensive and will not be debated here (Dynan, 2020; Dynarski, 2015; Sullivan et al, 1999).

THE HISTORY OF STUDENT LOANS

The first historic move towards creating student loans for tertiary education came after World War II. Soldiers who returned to the United States, after being deployed to fight in a war abroad, were beginning to use their G.I. Bill (officially known as the Serviceman's Readjustment Act of 1944) benefit to go to college (McConnell, 2013). The G.I Bill was not a loan, but a deferred compensation for enlisted men and women who at the time had served in World War II (McConnell, 2013). In 1947, the United States President's Commission on Higher Education proposed that each citizen of the United States should be allowed access to a tertiary level of education, regardless of race, creed, color, sex, socioeconomic status, national origin and ancestry (McConnell, 2013). In order to achieve that goal, they proposed a federally funded, need-based scholarship program to provide access to all United States citizens. In 1958, the United States congress enacted the National Defense Student Loan Program (Perkins Loan) to encourage US students to attend college and reduce deficiencies of US students versus citizens in other countries, in the areas of Mathematics, Science and Engineering (McConnell, 2013).

In 1965, the Higher Education Act (HEA) was created to fund various aspects of tertiary education at various U.S. institutions (McConnell, 2013). In a related vein, Title IV funding, which included four parts, was specifically created to provide tertiary student financial assistance

(McConnell, 2013). In 1992, a reauthorization of the 1965 HEA changed the designation of institution of higher education to that of postsecondary educational institutions (McConnell, 2013). This change allowed a wider range of options for students seeking a post-high school education (McConnell, 2013).

The increased access to loans and the wider options to which those post-secondary education could be applied, led to high levels of debt for college students and alumni. The college graduating class of 2009 held an average loan debt of $24,000 (McConnell, 2013). By 2017, that average had risen to $28,650 (Friedman, 2019). Current statistics put the total student loan debt amount at $1.56 trillion, with a default rate (of 90 plus days) of 11.4%. One can see why college students, their rates of borrowing and the long-term implications have garnered such intense scrutiny.

LAWS AND EXECUTIVE ORDERS RELATED TO STUDENT LOANS

The journey regarding the current issues related to student loans and college students spans seven decades and is similar to other loan processes, such as mortgages that have evolved over the last several decades. The table below provides intricate details about the history and the laws enacted regarding student loans. The information presented shows a concerted effort to make loans available to more students, at easier rates and with increased convenience.

Exhibit 1 - Laws and Executive Orders Related to Student Loans

1944	Congress passed the G.I. Bill, one of the most impactful legislative achievements of all time. Among other things, the bill offered financial assistance to veterans of the U.S. armed forces who wanted to attend college following their discharge from the military.
1956	Massachusetts Higher Education Assistance Corporation (MHEAC) started a guaranteed student loan program in Massachusetts, which insured students' bank loans with money raised through philanthropic donations from local businesses. This program provided a model for a future student lending program.
1958	The National Defense Education Act (NDEA) created the National Defense Student Loan (NDSL) Program, the first federal loan program, now called the Federal Perkins Loan Program. Distributed to students by institutions, these loans required a monetary match from institutions.
1965	The first Higher Education Act (HEA) created Guaranteed Student Loans (GSL), a public-private partnership with the federal government subsidizing capital from banks to provide loans to low and middle-income students.
1972	The HEA Reauthorization Act created the Student Loan Marketing Association (eventually Sallie Mae), originally to add liquidity to the GSL program by buying loans from lenders to add more capital.
1976	HEA Reauthorization provided incentives for states to establish loan guaranty agencies, which insured federal student loans made by lenders.

1978	The Middle-Income Student Assistance Act (MISAA) eliminated the income requirement for student loans, allowing middle and high-income students to qualify for loans. The Act was repealed in 1981, but other income expansions followed.
1980	As part of the 1980 HEA reauthorization, the PLUS program was created to allow parents to borrow for their children's education.
1981	The Omnibus Reconciliation ACT repealed MISAA, replaced the PLUS program with Auxiliary Loans to Assist Students (ALAS) and extended borrowing to graduate and independent undergraduate students. It also imposed borrower loan origination fees on new loans.
1986	The HEA Reauthorization of 1986 added provisions prohibiting students in default under GSL from receiving new federal loans. It also gave the Department of Education more power to regulate student loan lenders. It split ALAS into the Supplemental Loan to Students (SLS) for graduate and independent students and brought back PLUS loans for parents. It also created consolidation loans, but borrowers who had different lenders could not consolidate (known as the single holder rule).
1990	The Cohort Default Rate (CDR) was established, eliminating student borrowing eligibility at schools with high default rates for three consecutive years. The way this is calculated has changed over the years.
1992	In the 1992 HEA Reauthorization, direct lending was introduced through a demonstration program that made unsubsidized Stafford loans available to all students and removed annual and aggregate borrowing limits on PLUS loans. This act also restructured Stafford loans and PLUS loans into the Federal Family Education Loan (FFEL) Program.
1993	The 1993 Omnibus Budget Reconciliation Act, formally (OBRA), called for a phasing in of the Direct Loan Program to begin in 1994. It also established Income-Contingent Repayment, Extended Repayment Plan and Graduated Repayment Plan for Direct Loan Borrowers.
1998	The Income-Sensitive Repayment Plan for FFEL borrowers was established, allowing FFEL borrowers to be eligible for extended and graduated Plans.
2005	The Higher Education Reconciliation Act (HERA) allowed for professional and graduate students to borrow through the PLUS program.
2006	The Emergency Appropriations Act (EAC) repealed the single holder rule, allowing borrowers to consolidate loans between lenders.
2007	The College Cost Reduction and Access Act (CCRAA) established the Income-Based Repayment Plan
2008	The Higher Education Opportunity Act (HEOA) mandated that cohort default rates be calculated to include students in default three years after entering repayment and that the U.S. Department of Education publish those rates. The Ensuring Continued Access to Student Loans Act (ECASLA) temporarily authorized the U.S. Education Department to buy loans from private lenders to ensure students had access to capital during the financial downturn.

2010	The Health Care and Education Reconciliation Act (HCERA) repealed the FFEL programs so that all new federal student loans - except for Perkins Loans - would be made directly from the government to students, saving administrative costs. The terms of the IBR are revised by Congress to lower the payment cap and forgive loans five years sooner than previously for a limited subset of students (those taking their first loans after July 1, 2014).
2011	The Obama Administration created the Pay As You Earn (PAYE) plan via executive order, extending more generous terms to a larger group of borrowers. The Budget Control Act eliminated subsidized loans for graduate and professional students.
2014	The Obama Administration, via an executive order, expanded the PAYE plan to individuals outside of the original 2011 scope, to all borrowers with Direct Loans.

Source: A History Related to Federal Student Aid: Lumina Foundation- Chapter 1

Dynarksi (2014), a famed economist that has looked comprehensively and extensively on student loan debt, looked long term at student loans over several decades and debated the implication of student loan policies and the impact these policies had on students and their repayment vulnerability. The author concluded that student loans were made accessible to students to reward them (G.I. Bill); when the students needed additional funds to pay for a tertiary level of education (NDEA, HEA, HER) and to protect students in times of crises (HEA, CDR), (Dynarski, 2014). The author also noted that student loan defaults have accelerated in times of economic crises such as the Recession after 1998 and 2008 (Dynarski, 2014). Finally, the author concludes that we do not currently have a student loan debt crisis, instead we have a student loan repayment crisis and that new policies, laws and executive orders should focus on addressing that crisis – similar to what was done with President's Obama's PAYE executive order and the CCRRA of 2007 (Dynarski, 2014).

LITERATURE REVIEW

The literature review on students and college loans covers a variety of subject areas: college loans and issues; the rising costs of college; the impact of race, wealth, socioeconomic status on the probability of taking a college loan ; college loans and issues of first-generation students; college loans and its presence in increasing the likelihood of attending college; college loans and for-profit institutions; the impact on wealth on the probability of taking college loans; borrowing constraints on college loans; a student's GPA (Grade Point Average) on the probability of taking college loans.

To begin, four key studies have looked at how college loans increases the accessibility of a college education for students (Dynarski, 2003; Jackson and Reynolds, 2013; Rosinger et al, 2019; Baker et al, 2017). Dynarski (2003) found that additional college loans, even amounts as low as $1000, did, in fact, increase the likelihood that someone would attend college. These results were echoed in a study from Jackson and Reynolds (2013) who added a caveat of including a look across racial lines. The authors found that for racial minorities, accessibility to college was more likely to increase at a greater rate with student loans, compared to their Caucasian counterparts (Jackson and Reynolds, 2013). They further found that college loans

were particularly instrumental in getting said, racial minorities, to graduate from college (Jackson and Reynolds, 2013). Rosinger et al (2019) looked across socioeconomic classes and found that middle class students were the most to benefit from increased access to college loans with increased enrollment and graduate rates. Baker et al (2017) and Friedman (2017) found similar results but cautioned that their follow up research had indicated that these loans, if not managed well, could be detrimental to the same group of students it had been most purported to help.

Access to college finances interacts across racial, socioeconomic and inter-generational lines. Engle and Tinto (2008) maintained that as the United States continues to realize the importance of increasing the educational attainment of its citizens as key to its future economic stability in the global marketplace, improving postsecondary access and success among underrepresented populations, such as low-income, first-generation students, is paramount, with the authors conceding that not enough had been done to rectify this deficiency. In a similar vein, Perna (2000) and McCabe and Jackson (2016), in studies sixteen years apart, and Page et al (2016) all concluded that enough was not being done to alleviate the financial college burden for lower income individuals and that racial minorities with lower socioeconomic status continued to borrow heavily to finance their college education. Hotz et al (2016) and McDonough et al (2006) in their assessment across socioeconomic classes concluded that wealth played a significant role in determining whether a student attended college and subsequently completed college. The implication being that financial backing, that was not loans, played a key role in reducing the stress level and likelihood that a student would attend college (Hotz et al, 2016).

Two important studies looked at the impact of GPA (Grade Point Average) on access to and impact of college loans (Robb, 2017; Stoddard et al, 2018). Both studies showed that students with lower GPAs were more likely to take higher loan amounts and also experienced higher levels of stress (Robb, 2017; Stoddard et al, 2018). The implication from the studies is that students with lower GPAs are less likely to qualify for scholarships and grants and have negative academic performance because of the added stress of lack of access to financial assistance (Robb, 2017; Stoddard et al, 2018).

A study by Johnson et al (2016) looked to understand the decision-making process college students maneuver when borrowing money to finance their education. The authors concluded the following critical points: (a) students relied heavily on advice from parents, guidance counselors, and friends; (b) attending college was not possible without student loans; and (c) students knew very little about the loans they would be responsible for repaying (Johnson et al, 2016).

Several very impressive research studies, based on research in the United States, have completed assessments on college athletes and their positioning vis-a-vis their financial debt, student loans and financial obligation to the colleges they attend. More specifically these studies have looked at student debt, academics, student retention, athletic revenue, financial aid, stress, facilities, education and eating. The articles showing the most coverage focused on student athletes and their financial debt. Williams et al (2015) contended that the current student loan debt structure did not assist students in getting out of debt. This was particularly potent for students athletes who relied heavily on loans outside of their college scholarships as they were

often unable to hold jobs, part-time or otherwise when in college (Williams et al, 2015). Rothstein et al (2011) looked at college athletes at a highly selective university and concluded that how much student athletes took in student loans was directly related to their expectations regarding the type of job they will take after graduation and their likelihood of going on to graduate school. Avery (2012) contends that a college education is probably not for everyone and that said education should not be sought at the expense of lifelong debt. In a similar vein, Dynarski (1994), Shen et al (2008) and Akers (2014) all contend that college students and especially college athletes are often surprised at their college debt levels and are more than unlikely unaware what their repayment amounts are versus their counterparts. Dynarski (1994) further pointed out that racial minority students, students were not counseled on student loan debt and students who had parents who were high school dropouts were more likely to default on their student loans.

Four important articles looked at student loan debt for college athletes and the intersection with financial aid issues. Mendoza et al (2012) found that student athletes had different experiences with financial aid depending on their economic status, gender, race and ethnicity. The authors concluded that racial minorities, ethnic minorities, females and those from lower economic status were more likely to experience a more negative experience with financial aid (Mendoza et al, 2012). Mendez et al (2009) investigated and found that student athletes who received athletic scholarships and financial aid were more likely to complete their degrees versus athletes who only received athletic scholarships. These sentiments were echoed by Bandre et al (2011) who used a different sample from Division III colleges and Linsenmeier et al (2002) who looked at racial minorities.

In a predictable fashion, Simmons et al (1999), Hobneck et al (2003) and Etzen (1987) found that student athletes who were given more financial aid and college scholarships had less fears of graduating, less fears of finding a job, did better academically and were more committed to both the sports and academic commitments while in college. In addition, Etzen (1987) further found that male athletes were less prepared than their female counterparts for college and that racial minority athletes were less prepared than their nonminority counterparts for the college academics.

Miscellaneous studies from other researchers found that college athletes were more likely to complete their degrees if they were provided with emotional support at school and at home, and that environmental factors and academic ability all help to propel student athletes to complete their studies (Wohlgemouth et al, 2007). Shropshire (1990) three decades ago advocated for college athletes to be paid additional amounts to their college scholarships and financial aid, amounts that would be equivalent to having a job. This debate has been reignited in the media recently. Orleans (2013) has an almost opposite argument, stating that college athletes receive too much in financial help, financial aid and athletic scholarships. Stress from participating in college sports has impacted the eating habits of college athletes, especially college women who participate in sports (Hellmish, 2006; Nguyen-Michel et al, 2006). Schneider et al (2012) looked at the reasons college athletes choose where they would play and found that facilities, playing time and most importantly financial aid, college scholarships and lesser student loans impacted their final choices.

College student loan debt is just not unique to the United States. A number of very impressive international research studies have been completed on college students and their positioning vis-a-vis their financial debt, student loans and financial obligation to the colleges they attend. More specifically three studies have looked overall at college students in the several international countries. Usher (2005) looked at college student loan debt in eight countries, namely Australia, Canada, Germany, The Netherlands, New Zealand, Sweden, the United Kingdom (England and Wales), and the United States (see Figure 1). After an intricate analysis, the author concluded that how "good" any given country appears to be on student debt varies considerably based on a variety of factors, including an individual student's income and outstanding debt (Usher, 2005). Johnstone (2001) and Britton et al (2019) in a similar being and approximately two decades apart also concluded that factors that impact student loans for college students differ across countries based on various issues. The latter article looks at use of income contingent loans (ICLs) for Higher Education (HE) students is becoming increasingly prevalent around the world and that the magnitude and distribution of government subsidies is highly dependent on the institutional setting (Britton et al, 2019). The former article examines the challenges of student lending in low-income, or "less industrialized," countries, as well as countries "in transition" from predominantly state-owned means of production and governmentally-controlled economies, to market-oriented economies with substantial private ownership, concluding that student loan programs are among the most complex, controversial, frequently misunderstood, and yet potentially important elements in the financing of higher education (Johnstone, 2001).

Four studies on student loan debt in developing countries speak to the trials, tribulations, nuances and difficulties for tertiary level students and their difficulty in obtaining financial assistance. Albrecht et al (1991) felt that in some countries income contingent payments may be more equitable for limiting risk to poorer students. In general, deferred cost recovery can help reduce government burdens, but only where institutional capacity exists. In a similar vein, Woodhall (1987; 1988) in earlier studies and drawing on lessons from experience in Asia and English-speaking Africa, suggested some ways of improving performance of student loans in developing countries was to provide guidance regarding loan education. Kirby (2016) in an interesting study looked at college student debt in Anglophone countries, which are countries where English is the primary language and found that such countries had the highest student loan debt rate when compared to other countries.

Callendar et al ((2017) and Gayardon et al (2019) who looked at students in England concluded that college students from low social classes are more debt averse than those from other social classes, and are far more likely to be deterred from going to university because of their fear of debt, even after controlling for a wide range of other factors. While Sato et al's (2019) study on Japanese college students concluded that there was a significant association between student loan debt and psychological distress among graduates, but not current university students. These findings are in keeping with similar previously mentioned findings in the United States, where stress over the totality of the college loan debt negatively impacts students and can deter the pursuance of a college degree.

Similarly focused studies from Chile, Brazil and Ghana have looked at student loan debt from varying degrees of oppression. Pavlic (2018) used a qualitative study to look at Chilean student demonstrations and opposition to the burdens caused by student loan debt. College students in Brazil showed their frustration with college student loan debt by arguing that the current Brazilian loan repayment time-based scheme involved unsustainable repayment burdens for many graduates and contributed to the scheme's high default rates (Dearden et al, 2019). While Dary's (2018) study on Ghanian college students and their debt commitments revealed that college student's age, household size, parents' occupation, salary, number of income sources, and the length of the study program play a significant role in explaining the demand for student loans and the loan debt burden at completion among tertiary students. The authors further concluded that socio-economic factors should thus inform the design and administration of student loans for college students (Dary et al, 2018).

DATA AND RESEARCH METHODOLOGY

The sample for this study was derived from students at a primarily undergraduate college, located in upstate New York, in the suburb of Albany. The college was originally established as a male commuter school in 1937. It remained a single sex institution until 1969, when the first female students were admitted. By 2009, the female population at the institution had grown to 56%. The students who participated in this study included freshmen, sophomores, juniors and seniors. A total of 432 students ultimately completed the questionnaire, from the three Schools at the college, namely the School of Liberal Arts, the School of Business and the School of Science. The survey was completed by the students between April and June, 2018. These 432 students represented a response rate of 62%.

Some students were sent an email soliciting their participation in an online questionnaire. Other students were read a script in class by their professor, again soliciting their participation in either a hard copy or an online questionnaire. The questionnaire was designed to assess the source of funding for the students' college education. In the questionnaire, participants were asked to respond with varying degrees of intensity regarding the source of their college funding, as well as demographic data (such as age, gender, family income, sports involvement and living arrangement) to be used for a correlation assessment.

The data was analyzed using several statistical methods that allowed the culmination of descriptive statistics being analyzed as well as a correlation analysis. Descriptive statistics are used to describe the basic features of the data in a study. They provide simple summaries about the sample and the measures. The descriptive statistics were analyzed using frequencies and percentages. Correlation coefficient analyses were also used to look at the relationships between student loan debt and other variables. Using correlation analysis in the data analytic stage of student loan research has precedence. This was previously undertaken by Cooper and Wang (2014) who looked at the correlation between student loan debt, wealth, home ownership and graduate education. Correlation analysis was also instituted in a study by Boatman et al (2017) who looked at student loan aversion across racial, socioeconomic and gender lines. Thus, using correlation analyses is a legitimate method of data analysis.

RESULTS AND DISCUSSION

The descriptive results begin with a look at the age of the students who participated in this study. In Table 1, the first panel shows the age range of all participants, the second panel shows the number of students in the study who are that age and the third panel shows the corresponding percentage of students that were a certain age. The majority of the students were in the 17-22 age group with the largest percent of the participants falling in this category. There were some outliers in the age group, with a few students in their late 20s, 30s and 40s.

Table 1: Age of Participants

Age of Participants	Number of Students	Percentage (%)
17	0	0.00
18	27	8.10
19	74	22.10
20	80	23.89
21	89	26.57
22	51	15.22
23	5	1.50
24	1	.3
25	2	.6
26	1	.3
28	2	.6
31	0	0.00
37	1	.3
39	0	0.00
46	2	.6
Question not Answered	1	.3
TOTAL	**335**	**100.00**

This Table provides results on the age of the participants in the study.

Table 2 shows the gender of the students who participated in this study. The first panel shows the gender of all participants (including a category of Self-Identify), the second panel shows the number of students in the study who belong to each gender and the third panel shows the corresponding percentage of students that were in each gender category. In looking at the gender of the participants, most were female, with a percentage at 52.97 percent. The participants also consisted of 46 percent males. Three students, 0.89 percent of the participants chose to self-identify (see Table 2).

The Table also shows the School Division to which students belong at the college. As stated earlier, there are three divisions at the college, namely Arts, Business and Science. The first panel shows the School Divisions at the college, the second panel shows the number of students in each division and the third panel shows the corresponding percentage of students that were in each division. The results showed that School of Arts made up 29.94 % with 99 responses. 50.30% of participants came from the School of Business with 168 participants. The School of Science only made up 20.06% with 67 responses.

The Table also shows the description of the participants based on the year in school. Panel A shows the years in college, namely Freshman, Sophomore, Junior and Senior. In looking at the year of study for the sample, the results showed that 18.02% of responses came from the Freshman class at 60 responses followed by Seniors which makes up 27.03% with 90 responses. Sophomores made up 26.73% with 89 responses, and the junior class contributed 27.03% at 90 responses.

The Table also shows the type of school participants came from before attending the current college. In the Table, the first panel shows the type of school attended before coming to Siena College, the second panel shows the number of students in the study who attended a particular educational institution and the third panel shows the number of students in each category. In looking at the type of school participants came from before attending the current college, it should be noted that 81.85% of the students who participated in this survey came to Siena College from a high school. 10.12% of student participants came from a community college. 8.04% came from another four-year college. One student chose not to respond or did not understand how to answer.

The Table also shows the type of high school participants attended before going to college. In the Table, the first panel shows the type of high school attended before going to college, the second panel shows the number of students in the study who attended a particular high school and the third panel shows the number of students in each category. In looking at the type of high school participants came from before attending the current college, it should be noted that 77.40% of participants came from a public high school. 18.50% of participants came from a private high school. 0.89% of participants came from a boarding school and 2.18% came from both a public and a private high school before Siena College.

The Table also shows where the participants reside while attending college. In the Table, the first panel shows the type of residency, the second panel shows the number of students living in a particular type of residency and the third panel shows the number of students in each category. In looking at the place of residency of participants, it should be noted that 76.05% of participants live on campus, while 23.95% of the participants live off campus.

The Table also shows whether the students participating in this study paid rent or not. In the Table, the first panel asks whether students paid rent or not, the second panel shows the number of students in the study who answered yes or no to this question and the third panel shows the number of students in each category. In looking at whether or not a student paid rent, it should be noted, 89.29% of participants do not pay rent. 10.12% of participants do pay rent and 0.59% did not answer.

Table 2: Descriptive Results

Gender	**Number of Participants**	**Percentage (%)**
Female	**178**	**52.97**
Male	**155**	**46.13**
Self-Identify	**3**	**.89**
TOTAL	**336**	**100.00**
School Division	**Number of Participants**	**Percentages (%)**
School of Art	**99**	**29.64**
School of Business	**168**	**50.30**
School of Science	**67**	**20.06**
TOTAL	**334**	**100.00**
Students' School Year	**Number of Responses**	**Percentages (%)**
Freshman	**60**	**18.02**
Sophomore	**89**	**26.73**
Junior	**90**	**27.03**
Senior	**90**	**27.03**
Masters	**4**	**1.20**
TOTAL	**333**	**100.00**
Students' Previous School Attendance	**Number of Responses**	**Percentages (%)**
Question was not Answered	**0**	**0.00**
Another Four-Year College	**27**	**8.04**

Community College	**34**	**10.12**
High School	**275**	**81.85**
TOTAL	**336**	**100.00**
Type of High School Attended	**Number of Responses**	**Percentages (%)**
Boarding	**3**	**.89**
Homeschool	**1**	**.29**
Private	**62**	**18.50**
Private and Public	**10**	**2.98**
Public	**260**	**77.40**
TOTAL	**336**	**100.00**
Students' Campus Residency Status	**Number of Responses**	**Percentages (%)**
Student does not Live on Campus	**80**	**23.95**
Student does Live on Campus	**254**	**76.05**
TOTAL	**334**	**100.00**
Students' Status of Paying Rent	**Number of Responses**	**Percentages (%)**
Question was not Answered	2	.59
Student does not Pay Rent	300	89.29
Student does Pay Rent	34	10.12
TOTAL	**336**	**100.00**

This Table provides results on the gender, the school they majored in at the college, the school year the students were in and the type of school participants in the study attended prior to attending the current college. It also provides results on the type of high school attended, their current residency status while at the college and looked at whether or not they were paying rent in their current residency situation.

Table 3 shows the family income of the students who participated in this study. The first panel shows the range of family income of all participants, the second panel shows the number of students in the study who correspond to a particular income and the third panel shows the

corresponding percentage of students that were in each category. In looking at the family income of the participants. Of the responses, 13.71% claim a family income between $1 and $50,000, 38.31% of responses claim their family income is between $50,001 and $100,000, 19.76% of responses had a family income between $100,001 and $150,000, 14.92% claim a family income between $150,001 and $200, 000, 6.45% claim a family income between $200,001 and $250, 000 while 3.23% claim between $250,001 and $300,000. 0.00% claim a family income between $300,001 and $350, 000, 1.61% claim between $350,001 and $400,000, 0.40% claim a family income between $400,001 and $450, 000 and 1.06% claim between $450,001 and $500,000. And one person or 0.08% claim a family income between $700,000 and $900,000.

Table 3: Family Income Range

Students' Family Income Range	Frequency of Income Range	Percentages (%)
$0	0	0.00
$1 - $50,000	34	13.71
$50,001 - $100,000	95	38.31
$100,001 - $150,000	49	19.76
$150,001 - $200,000	37	14.92
$200,001 - $250,000	16	6.45
$250,001 - $300,000	8	3.23
$300,001 - $350,000	0	0.00
$350,001 - $400,000	4	1.61
$400,001 - $450,000	1	.40
$450,001 - $500,000	2	.81
$500,001 - $550,000	0	0.00
$550,001 - $600,000	0	0.00
$600,001 - $650,000	0	0.00
$650,001 - $700,000	0	0.00
$700,001 - $750,000	1	.40
$750,001 - $800,000	0	0.00
$800,001 - $850,000	0	0.00
$850,001 - $900,000	1	.40
TOTAL	**248**	**100.00**

This Table provides the family income range of the students who participated in this study.

Table 4 shows the number of siblings of each participant and the number of siblings that attended college. The first panel shows the number of siblings each participant has, the second panel shows the number of students in the study who correspond to a particular number of siblings and the third panel shows the corresponding percentage of students that were in each category. In looking at the number of siblings of the participants, 71.04% of responses say they have between one and two siblings. 18.21% of responses say they have between three and four siblings. 7.50% of responses have no siblings. 2.39% of responses say they have between five and six siblings. 0.59% of responses have between seven and eight siblings. 0.29% of responses say they have between nine and ten siblings.

The Table also details the number of students who had siblings in college. The fourth panel details the number of participants who indicated how many siblings they had in college and the fifth panel indicates the corresponding percentages. The Table shows that 60.12% of participants stated they had zero siblings in college, 38.67% of responses stated that they had between one and two siblings in college, 1.21% stated they had between three and four siblings in college.

Table 4: Number of Siblings for Each Participant and Number of Siblings in College

Students' Number of Siblings Range	Frequency of Sibling	Percentages (%)	Frequency of Sibling in College	Percentages
0	25	7.50	199	60.12
1 – 2	238	71.04	128	38.67
3 – 4	61	18.21	4	1.21
5 – 6	8	2.39	0	0.00
7 – 8	2	.59	0	0.00
9 – 10	1	.29	0	0.00
11 – 12	0	0.00	0	0.00
TOTAL	**335**	**100.00**	**331**	**100.00**

This Table provides the results for the number of siblings each participant had in their family and the number of those siblings who are in college.

Table 5 shows the GPA of the students who participated in this study. The first panel shows the GPA range of all participants, the second panel shows the number of students in the study who correspond to a particular GPA range and the third panel shows the corresponding percentage of students that were in each category. In looking at the GPA, 325 of the participants answered or knew their GPA. 74.77% of participants had a GPA between the range 3.01 and 4,

24.62% of participants had a GPA between 2.01 and 3 and 0.62% of participants had a GPA between 1.01 and 2.

Table 5: Participants' GPA Range

Students' GPA Range	Frequency of GPA Range	Percentages
0.00 – 1.00	0	0.00
1.01 – 2.00	2	.62
2.01 – 3.00	80	24.62
3.01 – 4.00	243	74.77
TOTAL	**325**	**100.00**

This Table looks at the GPA of the students who participated in this study.

Table 6 shows the participants' type of residence and the students' status of being a first-generation college student. In the first section, the first panel shows the state of residency or if the participant was from a country outside of the United States – the latter was included since not all students had their permanent residence in the United States, the second panel shows the number of students in the study who correspond to a particular state and the third panel shows the corresponding percentage of students that were in each category. In looking at the state of residency of the participants, 79.46% of participants are from New York State. 5.14% of participants are from Connecticut. 3.32% of participants are from Massachusetts. 3.63% of participants are from outside the United States., 2.72% of the participants from New Jersey and 0.91% of the participants are from Pennsylvania.

The Table also shows the participants' type of residential area. The first panel shows the type of residential area the participants are from, namely rural, suburban and urban, the second panel shows the number of students in the study who belong to each residential area and the third panel shows the corresponding percentage of students that were in each category. In looking at the residential type, 35.71% of the participants are from suburban areas. 22.92% of the participants are from rural regions. 41.37% of participants came from an urban region. Three people did not know how to or choose not to answer this question.

The Table also shows whether the students in the study are first-generation students from their family to attend college or not. The first panel has categories that ask whether or not the participant was a first generation to attend college. The results showed that 79/17% were not a first-generation college attendee, while 20.24% were a first-generation college attendee.

Table 6: Participants' State of Residence

Students' State of Residence	**Number of Responses**	**Percentages (%)**
The Student is not From the United States	12	3.63
Question was not Answered	5	1.51
California	3	.91
Connecticut	17	5.14
District of Columbia	0	0.00
Florida	1	.30
Georgia	0	0.00
Illinois	0	0.00
Massachusetts	11	3.32
Maryland	0	0.00
Montana	1	.30
New Hampshire	0	0.00
New Jersey	9	2.72
New York	263	79.46
Ohio	1	.30
Pennsylvania	3	.91
Rhode Island	1	.30
Texas	0	0.00
Vermont	4	1.21
TOTAL	**331**	**100.00**
Students' Type of Residential Area	**Number of Responses**	**Percentages (%)**
Question was not Answered	**0**	**0.00**
Rural	**77**	**22.92**
Suburb	**120**	**35.71**

Urban	**139**	**41.37**
TOTAL	**336**	**100.00**
Students' Status of Being a First-Generation College Student	**Number of Responses**	**Percentages (%)**
Question was not Answered	**2**	**.60**
The Student is not a First-Generation College Student	**266**	**79.17**
The Student is a First-Generation College Student	**68**	**20.24**
TOTAL	**336**	**100.00**

This Table looks at the state the students were from, the type of residential area the students were from, as well as whether the student was a first-generation student to attend college in their family.

Table 7 shows the birth order of participants and order of family to attend college. The first panel shows the participants' birth order in their family, the second panel shows the number of students in the study who belong to each category and the third panel shows the corresponding percentage of students that were in each category. In looking at the Table, 45.54% of participants are the first child in their family. 31.85% of participants are the second child in their families, 13.99% of participants are the third child of their family, 3.87% of participants are the fourth child in their family, 1.79% of participants are the fifth and 0.60% are the sixth child.

The Table also shows the participants' order in family to attend college. The fourth panel shows the participants' order in their family to attend college, the fifth panel shows the corresponding percentage of students that were in each category. In looking at the Table, 49.40% of participants are the first child in their family to go to college, 33.63% of participants are the second child in their family to go to college, 10.12% of participants are the third child in their family to go to college, 3.87% are the fourth child in their family to go to college, 2.38% did not answer the question.0 .30% are the sixth child to go to college, 0.30% are the fifth to go to college.

Table 7: Birth Order of Participants and Order of Family To Attend College

Students' Birth Order in Their Family	Number of Responses	Percentages (%)	Students' Order in Family to Attend College	Percentages (%)
Question was not Answered	7	2.08	8	2.38
The Student is the First Child in the Family	153	45.54	166	49.40
The Student is the Second Child in the Family	107	31.85	113	33.63
The Student is the Third Child in the Family	47	13.99	34	10.12
The Student is the Fourth Child in the Family	13	3.87	13	3.87
The Student is the Fifth Child in the Family	6	1.79	1	.30
The Student is the Sixth Child in the Family	2	.60	1	.30
The Student is the Seventh Child in the Family	0	0.00	0	0.00
The Student is the Eighth Child in the Family	1	.30	0	0.00
The Student is the Ninth Child in the Family	0	0.00	0	0.00
The Student is the Tenth Child in the Family	0	0.00	0	0.00
TOTAL	**336**	**100.00**	**336**	**100.00**

This Table provides results on the birth order in their family of the students who participated in thus study and the order that the students went to college.

Table 8 shows the participants' in this study parental household status, type of housing, students' sports status, students' status on graduate school intentions and number of hours worked by participants. The first panel shows the participants' parental status, the second panel shows the number of students in the study who belong to each category of parental status household and the third panel shows the corresponding percentage of students that were in each

category. In looking at the Table, 76.79% of participants came from a dual parent household. 18.15% of participants are from single parent households. 0.30% came from neither a dual or single household, 2.98% didn't answer and 1.50% answered the question with "not applicable."

The Table also looked at the types of housing participants permanently resided in, such as an apartment or house. The first panel shows the participants type of permanent housing, the second panel shows the number of students in the study who belong to each category and the third panel shows the corresponding percentage of students that were in each category. In looking at the Table, 87.79% of participants live in a house, 11.61% of participants live in an apartment, 0.60% did not answer the question.

The Table also looked at whether or not a student participated a sport and represented the college. The first panel details whether or not a student participated in a sport, the second panel shows the number of students in the study who belong to each category and the third panel shows the corresponding percentage of students that were in each category. In looking at the Table, 85.12% do not play a sport. 14.29% do play sports and 0.60% did not answer.

The Table also looked at whether or not participants intended to go to graduate school. The first panel details whether or not a student intended to pursue graduate studies, the second panel shows the number of students in the study who belong to each category and the third panel shows the corresponding percentage of students that were in each category. In looking at the Table, 58.33% of the participants do want to go to graduate school. 31.55% are unsure. 8.63% do not want to go to graduate school.

The Table also looked at whether or not a student worked while attending college and the number of hours they worked. The first panel details whether or not a student worked and how many hours, the second panel shows the number of students in the study who belong to each category and the third panel shows the corresponding percentage of students that were in each category. Of the 322 participants that answered the question about how many hours a week on average they worked 45.34% of student worked between 0 and 5 hours. 16.46% worked between 5.01 and 10 hours per week. 12.11% of students worked between 15.01 and 20 hours. 14.29% of students worked between 10.01 and 15 hours on average per week. 3.42% of students worked between 20.01 and 25 hours per week. 3.42% worked between 25.01 and 30. 1.86% worked between 35.01 and 40 hours. 2.48% worked between 30.01 and 35 and 0.62% worked over 40 hours per week.

Table 8: Parental Household Status, Type of Housing, Students' Sports Status, Students' Status on Graduate School Intentions and Number of Hours Worked by Participants

Parental Household Status	Number of Responses	Percentages (%)
Question was not Answered	**10**	**2.98**
The Student is from a Dual Parent Household	**258**	**76.79**
The Student is from both a Dual Parent and a Single Parent Household	**1**	**.30**

The Question was Answered "Other Guardian"	**1**	**.30**
The Student is from a Single Parent Household	**61**	**18.15**
The Student does not have any Parents	**5**	**1.50**
TOTAL	**336**	**100.00**
Type of Housing	**Number of Responses**	**Percentages (%)**
Question was not Answered	**2**	**.60**
The Student Resides in an Apartment	**39**	**11.61**
The Student Resides in a House	**295**	**87.79**
TOTAL	**336**	**100.00**
Students' Status on Participating in College Sports	**Number of Responses**	**Percentages (%)**
Question was not Answered	**2**	**.60**
The Student does not Participate in a Sport	**286**	**85.12**
The Student Does Participate in a Sport	**48**	**14.29**
TOTAL	**336**	**100.00**
Students' Status on Wanting to Attend Graduate School	**Number of Responses**	**Percentages (%)**
Question was not Answered	**0**	**0.00**
The Student Does Not Want to Attend Graduate School	**29**	**8.63**
The Student is Unsure Whether They Want to Attend Graduate School	**106**	**31.55**
The Student Does Want to Attend Graduate School	**196**	**58.33**
The Student is currently in Graduate School	**5**	**1.49**
TOTAL	**336**	**100.00**
Students' Hours Worked per Week (Done in Ranges)	**Number of Responses**	**Percentages (%)**
0 – 5	146	45.34

5.01 – 10	53	16.46
10.01 – 15	46	14.29
15.01 – 20	39	12.11
20.01 – 25	11	3.42
25.01 – 30	11	3.42
30.01 – 35	8	2.48
35.01 – 40	6	1.86
Over 40	2	.62
TOTAL	**322**	**100.00**

This Table provides results for the type of parental household status, specifically looking at whether students belonged to dual or single parent household. It also looks at the type of housing, specifically whether students lived in an apartment or house as well as if students played a sport for the college. Finally, it provided results on whether student intended to attend graduate school and the number of hours they worked on a weekly basis.

Table 9 shows the participants' in this study source of funding for college and what percentages participants used for college from each source. The first panel shows the source of their college funding for each participant, the second panel shows the number of students in the study who used 0-25% from that particular source, the third panel shows the number of students in the study who used 25.01-50% from that particular source, the fourth panel shows the number of students in the study who used 50.01-75% from that particular source the second panel shows the number of students in the study who used 75.01-100% from that particular source. In terms of the majority in each percentage category, looking at the Table, 317 students used 0-25% of their funding from other sources, 103 students used 25.01-50% from scholarships, 33 students used 50.01-75% from parents and 36 students used 75.01-100% from scholarships.

Table 9: Source of Funding

Source of Funding	Number of Students who Used 0-25%	Number of Students who Used 25.01-50%	Number of Students who Used 50.01-75%	Number of Student who Used 75.01-100%
Funding From Loan	204	55	21	10
Funding From Scholarship	99	103	31	36
Funding From Parents	177	44	33	34
Funding From Family Members	311	3	2	4
Funding From Working	308	3	1	0
Funding From Other Sources	317	1	0	1

This Table provides the results for the source of funding from which students accessed financial resources. It looks at different sources of funding and the percentage of that funding students accessed.

As shown in Table 10, 37.38% of the students in this study received Pell grants, another 54.89% of other grants, 36.21% received state grants and 41.24% received federal grants. Almost all of the students expected to graduate in four years at 96.74%, while 39.76% filed their own tax returns. In terms of loan amounts per student, students on average took $8,178 in loans per year, received $12,530 in grants per year and had a total amount in loans of $19,731 on average. In terms of credit card usage, 41 students or 12.17% of the students used credit card to cover their college expenses, with shockingly 5 students placing between $24,000-$57,000 on credit cards. Most of the students in the study were Caucasian Americans at 75.66%, followed by African Americans at 9.19% and then Asian and Hispanic Americans, each with a sample size of 5.63%. About half the students were worried about taking loans, at 47.78% and students on average expected to earn an average of $71,531 per year in salary after graduation. Most of the students in the study had mothers and fathers who primarily held graduate and undergraduate degrees, with mothers primarily holding undergraduate degrees and fathers primarily graduate degrees.

Table 10 - Grants, Loans and Earnings

	Number of Students	Percentages (%)
Percentage of Students who received Pell Grants	126 students	37.38%
Percentage of Students who received Other Grants	185 students	54.89%
Percentage of Students who received State Grants	122 students	36.21%
Percentage of Students who received Federal Grants	139 students	41.24%
Percentage of Students who expect to graduate in 4 years or less	326 students	96.74%
Percentage of Students who filed their own tax returns	134 students	39.76%
Loan Amounts for Students (per year)	$8,178	Average per student
Amounts in Grants Received (per year)	$12,530	Average per student
Amounts in Loans Taken by Students	$19,731	Average total in loans so far per student
Percentage of Students Using Credit Cards to Pay for College	41 students	12.17%
Total Amounts on Credit Cards for College Expenses	$0-1000 $1001-6000 $24,000 $25,000 $30,000 $57,000	22 students 14 students 1 student 2 students 1 student 1 student
Race of Students in Study	African Americans Asian Americans Caucasian Americans Hispanic Americans Other	9.19% 5.63% 75.66% 5.63% 3.89%
Percentage of Students Worried About Loans	161 students	47.78%
Highest Level Education - Mother	1- Did not Know 2- Did not graduate high school	9 (2.67%) 7 (2.07%)

	3 - Graduated High School 4 - Graduated with an Associate 5 - Graduated with an Undergraduate 6 - Graduated with a Graduate	60 (17.80%) 35 (10.37%) 124 (36.79%) 102 (30.27%)
Highest Level of Education of Father	1- Did not Know 2- Did not graduate high school 3 - Graduated High School 4 - Graduated with an Associate 5 - Graduated with an Undergraduate 6 - Graduated with a Graduate	14 (4.15%) 15 (4.45%) 67 (19.88%) 44 (13.37%) 72 (21.36%) 124 (36.79%)
Expected Earnings After Graduation	$71,531 per year	Average

This Table provides details on the participants' loans, grants and scholarships received, race and parents' educational levels.

CORRELATION COEFFICIENTS

The correlation coefficient statistical analysis was used to analyze relationships between likely variables, specifically looking at the relationships between loans and other variables. Correlation coefficient or R is a measure of the degree of linear relationship between two variables. The value ranges from -1 to +1, the closer the results to -1 or +1, the stronger the relationship. The results below have been divided into strong, moderate and weak relationships. Strong relationships were said to be those that had values of 0.50 or higher. Moderate relationships were those that had values between 0.30 and 0.50. Weak relationships were those that had values less than 0.30 (Schober et al, 2018, Taylor, 1990).

As shown in table 11, there were some predictable and some not so predictable results. The first panel shows the relationships between loans taken by the students and a number of variables, the second panel shows the correlation coefficient values for a number of relationships and the third panel shows the level of significance. To begin, strong relationships were found between students taking loans and the longer they had been in school (-0.62) with the value indicating that the longer they were in school (4^{th} versus lower years) the less likely they were to take loans. Students who had entered the college from another four-year college were also more likely to take loans (0.53). Students from families with higher incomes were also less likely to take loans (-0.69). Finally, a surprising result showed that students who were later in their family (fifth versus a second sibling) to go to college were also less likely to take a loan (-0.52).

Five moderate relationships were found. To begin, students who lived on campus (versus off) were more likely to take loans (0.36). Students who worked more hours were also more likely to take loans (0.32). Students born later in their family were also less likely to take loans (-0.41). As expected, students with higher GPAs were less likely to take loans (-0.37). Also as expected, students from dual-income families (single-income families) were also less likely to take loans (-0.43).

Weaker relationships were found for students, depending on the school to which they belonged. Specifically, students from the School of Science were less likely to take loans (-0.27) and students who were planning to attend graduate school were also less likely to take loans (-0.29), students worried about loans were less likely to take loans (-0.31), students who expected to earn more after graduating were more likely to take loans (0.27) and students receiving other grants were less likely to take loans (-0.42).

Table 11: Correlation Tables and Results

Correlations Analyzed From Data	Correlation Coefficient Values	Level of Significance	Strength of Significance
Relationship Between Loans and Year in School	-0.62*	0.05	Strong
Relationship Between Loans and School of Business/Arts/Science	-0.27**	0.10	Weak
Relationship Between Loans and Source of Entry (high school, community college, 4 year college)	0.53*	0.05	Strong
Relationship Between Loans and residence (on campus versus off campus)	0.36**	0.10	Moderate
Relationship Between Loans and number of hours per week worked	0.32**	0.10	Moderate
Relationship Between Loans and family income	-0.69*	0.05	Strong
Relationship Between Loans and order of birth in family (first/second/third child, etc.)	-0.41*	0.05	Moderate
Relationship Between Loans and order of sibling to go to college	-0.52*	0.05	Strong
Relationship Between Loans and GPA	-0.37**	0.10	Moderate
Relationship Between Loans and single/dual income family	-0.43*	0.05	Moderate
Relationship Between Loans and going to graduate school	-0.29**	0.10	Weak
Relationship between worry about loans and taking loans	-0.31**	0.10	Weak
Relationship between students who expected to earn more and student loans	0.35**	0.10	Weak
Relationship between students who receive other grants and student loans	-0.42	0.05	Moderate

This table provides results for the correlation analysis of student loans with other variables. The corresponding level of significance and the strength of the correlation is also noted.

CONCLUSION

This study examined patterns of student loan funding for college students' tertiary education. In essence, how were college students funding their college education? Was this primarily through loans, scholarships, working, parental or family assistance? The sample for this study was derived from students at a primarily undergraduate college, located in upstate New York, in the suburb of Albany. The students who participated in this study included freshmen, sophomores, juniors and seniors. A total of 321 students ultimately completed from the three Schools at the college, namely the School of Liberal Arts, the School of Business and the School of Science. The survey was completed by the students between April and June 2019.

The study identified a number of factors associated with student loan borrowing and took a second look at a number of factors that were not previously explored in detail by previous studies. Current statistics indicate that one in five previous college students default on their loans. It is therefore critical to look at the front-end research regarding what are some of the factors that lead to students initially taking loans. By providing additional evidence on these issues, the paper adds significantly to the body of knowledge that currently looks at this important topic.

The evidence shows a number of significant relationships - specifically this key question addressed what were the factors that lead to students taking out loans for college. With regard to this overall question, five factors indicated a strong relationship for the students who took loans – namely students taking loans and the longer they had been in school, students who had entered the college from another four-year college were also more likely to take loans, students from families with higher incomes were also less likely to take loans and students who were later in their family to go to college were also less likely to take a loan.

In addition, five moderate relationships were found. To begin, students who lived on campus were more likely to take loans, students who worked more hours were also more likely to take loans, students born later in their family were also less likely to take loans, students with higher GPAs were less likely to take loans and students from dual-income families (single-income families) were also less likely to take loans.

Weaker relationships were found for students, depending on the school to which they belonged. Specifically, students from the School of Science were less likely to take loans and students who were planning to attend graduate school were also less likely to take loans. Students worried about loans and who received other grants, were less likely to take loans and students who expected to earn more after graduation were more likely to take loans.

The result on family income and the negative relationship it had to students taking loans was echoed in a previous study by Breier (2010) – showing that we can have confidence in the current data. Bertolas' (2018) study on athletes found that NCAA founded athletes were less likely to take college loans. While a significant relationship cannot be shown between these two

variables in the current study. Handwerker's (2011) study on students and college loans found that parents were likely to keep working longer years to support their college attending students, even postponing retirement. The results in the current study may partly allude to this, as we see students later in line in the family being less likely to take loans – maybe relying more on their not-yet-retired parents. Cheng et al's (2012) study found that students with more family social support were less likely to take loans. This could be seen as in keeping with the current study, which found that siblings who were later in line to attend college were less likely to take loans – possibly an indication that such credit sources are not needed since the students were obtaining support from other or previous family members.

Overall, the results of this study provide sound knowledge and reliable information that a variety of critical factors affect college student funding and the extent to which students will take loans, based on demographic, socioeconomic and perceptual factors.

Were there limitations to the current study? Absolutely. This limitation began with the sample, a convenience sample of students that is taken from a small liberal arts college in upstate New York. Furthermore, while the students covered all three colleges, namely Business, Arts and Science, there was some skewing of numbers towards Business students versus students from the other areas. However, stylized facts that could be most valuable for interested parties include conclusions made in this study regarding the source of college funding and the factors that impact the necessity for increased college loans.

A future follow-up study could be expanded to look at how additional variables, namely internships before and during college, GPA before college, race and college advising before and during college, impacted the source of students' financial sources for college. Future follow up studies could also extend the current study to a larger sample of students from different perspectives, increasing the generalizability of the findings related to this topic.

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