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Student loan debt influence on graduate degree attainment

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STUDENT LOAN DEBT INFLUENCE ON GRADUATE DEGREE ATTAINMENT

by

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Dedications

I dedicate this manuscript to my loving family and boyfriend who provided nothing short of immense support and encouragement during this journey.

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Many thanks to Dr. Roberta Dihoff for her continued guidance and assistance throughout this research project.

Abstract

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Student loan debt is an important topic up for discussion and has become a huge issue affecting multiple dimensions of today's society. Undergraduate students are accruing more debt than ever to pay for college degrees, and recent trends in higher education report a raise in cost of tuition. Current statistics reveal over 1.2 trillion dollars in outstanding student loan debt from over 40 million borrowers, however, students are still being encouraged to further their education to gain an economic edge. An array of previous research has focused on various effects of student loans, however, there have been limited studies which look into the effects of accrued student loan debt on graduate degree choices. The purpose of this study was to determine if differences in student loan debt amount influences undergraduate students' intent to pursue a graduate degree. Socioeconomic status and financial support were also considered. An anonymous survey design was distributed online through Rowan University's SONA system. Bivariate correlation tests in SPSS for windows were utilized to identify any significant relationships among the variables.

Table of Contents

Table of Contents (Continued)

List of Figures

Chapter 1

Introduction

Need for Study

The increase in student loan debt is a substantial issue affecting many assets of today's society, including the futures of our students, institutions, economy, and movement toward social equality. According to a recent report from CNBC news there is currently over 1.2 trillion dollars in outstanding student loan debt from over 40 million borrowers (Holland, 2015). The ultimate goal of attaining a college education is to gain an economic edge. It is supposed to be an opportunity to get ahead, however, increased costs are causing it to be more of a financial burden than an advantage. The national average of student debt after attaining an undergraduate bachelor's degree in 2015 was around $35,000. Since 1980, tuition costs at U.S. colleges and universities have risen 757 percent (Student Loan Resources, 2016). It is a possibility that increased college costs, amount of debt, and accrued interest are persuading people to not attend college. The question is if student loan debt is related to undergraduate students' decision to further their education after a bachelor's degree. Increased debt and cost of graduate school tuition may be cutting the possibility for higher education opportunities for this generation and future generations to come. By determining if accrued student loan debt is an issue affecting students' choice to continue onto graduate school, our society can then move forward into making higher education more of a realistic, cost effective possibility.

Purpose

Many research studies focus on high school students' college choices in relation to student debt. Many others look into psychological and financial deficits student loan debt causes for graduates in today's society. There are also existing studies which examine the significance of college cost on college major choice. However, few studies look into current student opinions of their student loan debt and financial ability to attain graduate degrees. The purpose of the present study was to determine the relationship between student loan debt and intent to pursue a graduate degree. The results were used to evaluate if student loan debt relates to undergraduate students' decision to further their education. The basic design was to survey undergraduate students of Rowan University consisting of questions regarding their amount of student loan debt, perception of the cost-benefit ratio for graduate school, degree of financial support, and decision to continue education after the undergraduate level. The survey used in this study was influenced by a questionnaire developed by Callender and Jackson (2005). Questions were based on a Likert Scale ranging from 1 to 5, 1 representing strong agreeance and 5 representing weak agreeance. Demographic information was also considered.

Hypothesis

It is hypothesized that there will be a relationship between student loan debt and undergraduate students' debt aversion attitudes toward attending graduate school. It is also hypothesized that socioeconomic status will influence students' debt aversion attitudes toward graduate school. It is further hypothesized that there will be a

relationship between levels of financial support and debt aversion attitudes toward graduate school.

Operational Definitions

The following operational definitions defined by the U.S. Department of Education, Federal Student Aid (n.d.) were used throughout the study:

Accrue: To accumulate interest on a loan.

Debt Aversion: Unwillingness to take a loan.

Grant: Student grants are monetary gifts to people who are pursuing higher education. Unlike student loans, grants do not require repayment.

Interest: The cost to borrow money. Interest is calculated as a percentage of the outstanding (unpaid) principal balance.

Student Loan: Money borrowed from a school. Must be paid with interest.

Tuition: A charge for teaching/instruction at an institution.

Undergraduate student: A student who is enrolled in an undergraduate course of study at a college/university or career school that usually doesn't exceed four years and that leads to an undergraduate degree or certificate.

Assumptions

It was assumed by the researcher that all participants in the study understood and answered all items in the questionnaire honestly. It was also assumed that the questionnaire used in this study accurately assessed all variables in question. Questions influenced by the survey used in the study by Callender and Jackson (2005) were assumed to be adaptable to assess students already in a higher education setting.

Limitations

The sample used in this study included participant recruitment from the Rowan University Subject Pool, which consisted of only undergraduate students enrolled in the Essentials of Psychology course. Therefore, the sample may not accurately represent all Rowan University students in regards to demographics or the differing academic levels. Results of this study cannot be generalized to other populations. Further studies should conduct analysis on a larger sample across are broader range of subjects to better determine association between student loan debt and intent to pursue a graduate degree.

Chapter 2

Literature Review

Student Loan Debt

Many of today's students are relying on student loans to pay for all or a portion of their undergraduate and graduate college education. The Consumer Financial Protection Bureau explains that students are facing the negative consequences of substantial student loan debt for attending college, which is supposedly a method to gain an economic edge (Chopra, 2012). Consequently, more students now than ever are borrowing up to the maximum of the government student loan limit (Lochner & Monge-Naranjo, 2012). A report conducted for trends in higher education by The College Board found that the proportion of students with bachelor's degrees accruing $40,000 or more of student loan debt increased from 2% in 2003-04 to 8% in 2007-08 and to 18% in 2011-12 ("Cumulative Debt of Bachelor's Degree Recipients by Sector over Time", 2015). The U.S. Department of Education identifies recent trends in the college environment as a rise in cost of tuition, an increase in amount of students registering for college, a decrease in availability of nonfederal funding to pay for college, and an increase in involvement of the federal government to provide funding for college (U.S. Department of Education, Federal Student Aid, 2014). Macy and Terry (2007) also discussed the statistically significant impact rising tuition has on average student debt. It was determined that the trend of college and universities substituting public funds with user fees results in financial problems and may possibly limit access to higher education (Macy & Terry, 2007).

Statistics on Use of Student Loans

The amount of students using loans for all forms higher education was on the rise until 2013-14. There was a decline of 10% from 2013-14 when compared to the 2008-09 year. A report from The College Board explained that loans increased from 46% of the total aid to fund education in 1993-94 to 51% in 2003-04 and 53% in 2008-09, but decreased to 43% in 2013-14" ("Total Aid and Nonfederal Loans in Current and Constant Dollars over Time", 2015). This data shows that less higher education students are relying on loans in the 2013-14 school year than in previous years. This could be due to many factors, including increased availability of other funds to pay for college, such as federal grants and financial aid. However, the numbers could also be due to the fact that students are making the choice to not rely so heavily on loans to pay for their college education.

Undergraduate versus graduate. When breaking this data down to only undergraduate students, the amount of students using loans has decreased 14% from the 2008-09 school year until the 2013-14 school year. This is supported by research which found that undergraduate loans have increased from 41% in 1993-94 to 46% in 2003-04 and 48% in 2008-09, but decreased to 34% in 2013-14. In terms of graduate loan proportions for the same time period, it was found that around 65% of students are using loans for educational funding. It is also important to consider that the amount of graduate students using loans has only decreased 6% in the past 5 years ("Total Aid and Nonfederal Loans in Current and Constant Dollars over Time", 2015).

Amount of money borrowed from loans. While the use of student loans to pay for education has decreased among the 2013-2014 school year, the amount of money used from loans on average per student has increased. This means that undergraduate students who are using loans are borrowing more money than ever. The data states, "Average total financial aid per full time equivalent undergraduate student increased from $9,690 in 2003-04 to $14,180 in 2013-14. Grant aid per FTE undergraduate increased by 60%, from $5,060 in 2003-04 to $8,080 in 2013-14, and federal loans increased by 23%, from $3,950 to $4,840" ("Average Aid per Student over Time", 2015). The average amount of money undergraduate students are using to pay for their education is increasing dramatically. Students are obtaining more money from financial aid and grant aid, however, they are also borrowing more money from student loans. There is also a similar increase among graduate students as there is for undergraduate students. The total amount graduate students are needing to pay for their education is increasing across all boards. Data shows, "Average total financial aid per FTE graduate student increased from $18,570 (in 2013 dollars) in 2003-04 to $26,200 in 2013-14. Grant aid per FTE graduate student increased by 49%, from $5,730 to $8,540, and federal loans increased by 33%, from $12,120 to $16,080" ("Average Aid per Student over Time", 2015). It is also interesting to note that the amount of money graduate students are borrowing from loans is increasing more rapidly than the amount from undergraduate student loans.

In summary, the amount of students relying on student loans has decreased for undergraduates and also slightly decreased for graduate students. The average amount of

money per student borrowed from student loans has increased for both undergraduate and graduate students. It can be assumed that these statistics may be due to an increase in price of both undergraduate and graduate tuition.

Financial Aid/Grant Aid

According to research on the composition of total aid and nonfederal loans for undergraduate students over time, the amount of aid used other than loans has recently increased. From the 2007-08 to the 2013-14 school year there was an increase of 10% for grants used. There was also an increase of 4% for other forms of aid. Over the previous decade, both of these factors were decreasing. This increase in financial aid could account for the recent decline in amount of students using loans. However, it has been reported that grant aid usually does not increase rapidly enough to make up for the difference between the increase of college cost and the decrease in family funding for college ("Composition of Total Aid and Nonfederal Loans for Undergraduate Students over Time", 2015). Since this is the case, student loans are generally needed to fill the financial gap. Financial aid policies impact student loan debt in other ways. According to research, it has been determined that variation among student debt levels is not only due to increased tuition, but also influenced by admissions, financial aid policies, and academic outcomes. The study found that colleges who follow need-blind admissions and financial aid policies have above average student loan debt rates (Monks, 2015). If proper amounts of financial aid are offered to students, the use of student loans should decrease.

Family Socioeconomic Status

When students are not relying on financial aid, federal grants, loans, or their own funds to pay for college, they typically are relying on money from their family. Ultimately the more a family makes, the greater the opportunity students have to attend college, unless families choose not to contribute to their education. Research has found that family earnings affected students' ability to obtain a college degree. One study determined that students borrow more from student loans due to financial need, which is calculated using expected family contribution and the price of college attendance (Cunningham & Santiago, 2008). Generally, the more families contribute to a student's education, the less debt the student will obtain. While students from lower socioeconomic backgrounds are at risk for accruing debt higher than that national average, it has also been found that students from middle class families are at the highest risk for debt, and students from high income families accrue the least amount of debt (Houle, 2013).

Family socioeconomic status also increases the importance students place on a college education (Belley & Lochner, 2007; Mustafa & Islam, 2007). It has also been reported that differences in family income and education are linked to students' financial hardships during college (Charles, Roscigno, & Torres, 2007). Typically those students who come from higher socioeconomic backgrounds have greater opportunities to attend college due to financial support and family values. This is becoming a huge issue in today's society because it is widening the gap for economic and social mobility among low-income families (Belley, Frenette, & Lochner, 2014).

Need for Further Education

Furthering education after the high school level is a favorable choice for students who want to get ahead and be financially secure in their futures. It is almost as if a bachelor's degree today is equivalent to a high school diploma in previous decades. In today's society many students feel it is necessary to obtain a bachelor's level degree. It is reported that from the years of 2007-2008 to 2014-2015 there was a 17% increase in students attending 4 year private, non-profit colleges and a 30% increase in students attending public institutions (Cho, Xu, & Kiss, 2015). With this increased need to attend college comes increased spending to obtain an education.

Among community attitudes there is an agreement that higher education is beneficial as an investment for today's high school graduates to obtain better jobs and higher salaries (Cho et al., 2015) Another study looked into the attitudes towards borrowing from student loans and found that student loans were looked at positively among undergraduates. The undergraduates saw student loans as a benefit for their futures, rather than focusing on the stressors of paying back accrued debt. The study also found that there was a strong parental influence on student attitudes towards debt (Chudry, Foxall, & Pallister, 2011).

There is a risk-benefit ratio that needs to be considered when determining students' college choices. Students need to evaluate the balance between amount of potential student loan debt versus the probability of job attainment and probable amount of future earnings (Cho et al., 2015). However, some students may perceive college as

not being financially worth it and may go into fields that do not require college degrees to provide for their futures.

Knowledge of Student Loan Information

One of the factors that may influence the choice to use student loans is the knowledge of information regarding student loans. A study reported the definition of student loan debt literacy as, "The ability to identify, understand, interpret, and navigate student loan options, principles, and practices associated with responsible borrowing and debt management" (Lee & Mueller, 2014, p. 714). A study conducted on financial knowledge in college students found that higher amounts of debt were correlated with lack of financial knowledge. (Norvilitis et al., 2006). Another study found that students may be reluctant to take out loans due to the difficulty of understanding loan terms, along with negative attitudes toward debt (Avery & Turner, 2012). If students do not have the proper knowledge on what borrowing from loans actually means for their futures, this could either shy them away from doing so, or conversely influence them to use student loans since they do not understand what the repercussions are. The National Association of Student Financial Aid Administrators found that the federal student loan system is easy for student to borrow from, but for some students this results in over-borrowing and greater debt (National Association of Student Financial Aid Administrators, 2015). However, one study that took place in the Netherlands found that knowledge of interest rates and repayment periods did not influence student's decisions on whether to borrow from student loans (Booij, Leuven, & Oosterbeek, 2012). Some students who have full

knowledge on what borrowing from a student loan actually means will not let this affect their decision to use student loans.

Psychological Effects of Student Loan Debt

Negative. Most typical college students are in the period of emerging adulthood. This time of life is correlated with higher risks of mental health problems as well as a movement toward financial independence (Hunt & Eisenberg, 2010). Student loans have been reported to affect students' perceptions of financial security as well as overall reported stress levels (Norvilitis et al., 2006). There are many negative psychological effects associated with student loan debt, however, it is a burden many students are forced to face.

Research has reported that even when making proper and timely payments toward debt, student loan debt negatively affects the mental health of borrowers. Student loan debt was reported to also affect timing of potential life transitions, such as living independently or starting a family, as well as negatively impacting the ability to save money (Cho et al., 2015). It was determined that the factor which lessens the negative effects of student loans on mental health is parental wealth (Walsemann, Gee, & Gentile, 2015). This could be due to the fact that students are receiving additional help from parents in terms of other financial matters since they come from a higher socioeconomic background.

Positive. Despite reported negative psychological effects, student loans do have their benefits. There is evidence that education is linked to better mental health and future

life outcomes (Walsemann, Gee, & Geronimus, 2009). Another study found that using loans for education offered students increased feelings of empowerment and readiness for the future. It was determined that this effect occurred less as the members of their sample increased in age. Younger people feel more positive about borrowing from student loans (Dwyer, McCloud, & Hodson, 2011). It is further reported that those from disadvantaged backgrounds will benefit more from student loans than their wealthier peers. Research found that among students from underprivileged backgrounds, psychological wellbeing is positively affected only if student loans increased availability to attain higher education degrees (Walsemann et al., 2015).

The National Association of Student Financial Aid Administrators found that students generally place student loan debt as the lowest priority of debt repayment. They also reported that forbearance, delinquency, and default of student loans is generally not portrayed as destructive to students as some may think (National Association of Student Financial Aid Administrators, 2015). Another study found that positive attitudes toward student loan debt management and availability of future jobs stems from choice of major (Kuzma, Kuzma, & Thiewes, 2010). Students who choose majors that typically end up with a higher employment rate or salary will have a better attitude on their student loan investment.

Financial Effects of Student Loan Debt

Recent graduates who are asked to begin paying back student loans are generally at a time in their lives where they have other new or existing financial obligations. Having many bills begin at the same time can cause great financial distress. A recent

study found that increasing amounts of student loan debt negatively affects graduates home purchases, other debt repayments, and ability to have decent credit (Brown, Haughwout, Lee, Scally, & van der Klaaw, 2014). Not only are student loans affecting students directly, they are also affecting today's economy. The U.S. Department of Education found that 13.7 percent of the 4.7 million students who began paying back their loans in 2011 stopped making payments on their loans before 2014 (U.S. Department of Education, National Center for Education Statistics, 2015). A high percentage of students are not paying back loans when needing to. The Consumer Financial Protection Bureau reported increasing student loan debt as an issue that is affecting the housing market. Since graduates typically have high monthly student loan payments, the majority of their income is being used to pay back loans rather than to purchase a home (Chopra, 2012). Many recent graduates are being forced to hold off on other progresses in life due to their financial circumstances with student loans. This can include aspects such as buying a car, becoming a homeowner, and attending a graduate school program. Since these students are focused on paying back federal student loans, they are not contributing as much to the economy. The Consumer Financial Protection Bureau points out, "Too much debt means too much risk for a generation of young people, many of whom are struggling in today's economy" (Chopra, 2012).

Human Capital Theory

According to researchers, the human capital theory suggests that there needs to be a cost benefit ratio in favor of higher benefit for students to invest in higher education, and that students will choose further education based upon a potential increase in future

earnings (Becker, 1993; Cho et al., 2015). American Student Assistance also reported that it is economically beneficial for students to invest in higher education only if their anticipated salary will be equal to or more than the cost to finance education (American Student Assistance, n.d.). Therefore, we can assume that students will make the choice to use loans if the amount they are going to make from a future career outweighs the cost for education. However, since job availability or knowledge of future salaries is not known prior, this is a huge risk many students have to take. One study also explained that a student who already has a risk-aversive personality trait may shy away from using student loans (Avery & Turner, 2012).

Higher Education Act

Former President Lyndon Johnson signed into legislation and implemented the Higher Education Act of 1965, stating, "A high school senior anywhere in this great land of ours can [now] apply to any college or university in any of the 50 States and not be turned away because his family is poor" (Sacks, 2009). The Higher Education Act is the first amongst its kind and set the ground for many of the federal student financial aid programs that are used today (Law and Higher Education, n.d; U.S. Department of Education, 2006).

Student loans are beneficial because they provide a means for everyone to attend college. Regardless of socioeconomic status or race, opportunity is given to those of diverse backgrounds due to the availability of student loans. Data supports that students from a lower socioeconomic background rely on student loans more than any other type of aid (O'Brien & Shedd, 2001). It has also been reported that student loans increase

college attendance and degree attainment among black youth. Black students are generally more likely to be at an economic disadvantage, thus student loans are reported to help narrow the gap of degree attainment between black and white students. It is further explained that black students are more likely to use student loans than white, Hispanic, or Asian students, and will also borrow the most money due to lower socioeconomic status. However, it has also been found that black students generally pay a higher price of opportunity when attaining a college degree and generally have more loans to pay when they graduate (Jackson & Reynolds, 2013). Another study found that because the Hispanic population is underrepresented in higher education, more financial aid is offered to Hispanic students versus other ethnicities (Macy & Terry, 2007). Ultimately student loans are providing the opportunity for those from lower income families to attend college, however, are not necessarily providing an economic edge due to the increased amount of money that needs to be paid back. Not only are these facts true for students of lower socioeconomic status or for minorities, but they also holds true for students who do not receive family contributions to their education (Cho et al., 2015). Regardless of social status and the positive benefits of student loans, the more a student borrows results in more money that the student will have to pay back in the future.

Furthering Education After Bachelor's Degree

Many studies have been conducted researching the effects of student loans on higher education attainment, but most have focused on undergraduate degrees. One study supports, "Most of the research focuses on undergraduate borrowing, but a small body of literature has examined graduate school enrollment" (Hillman, 2013, p. 41). Some

research has found that undergraduate debt does in fact discourage students from pursing a graduate degree (Millett, 2003; Zhang, 2013; Malcolm & Dowd, 2012). Conversely another study has found that debt may be causing students to further their education to the graduate level (Kim & Eyermann, 2006). There has not been a vast array of supporting research conducted on whether or not student loans accrued from undergraduate degrees affect students' choices to pursue a graduate degree. The little research that has been conducted has been somewhat contradictory. While an undergraduate degree unveils opportunities for the job market, obtaining a graduate degree holds more unique opportunities with significantly potential higher salaries. Research has also found that students will generally choose a high-salary job over a lower-salary job due to student loan debt (Rothstein & Rouse, 2011). The ideal job choice may change for individuals due to amount of student loan debt needed to be paid.

While graduate degrees do open up more opportunities for the future, they do come at a cost. Graduate tuition is usually more expensive than undergraduate tuition, and when students decide to pursue graduate degrees they are taking an even bigger financial risk. According to trends in education reported by The College Board, "The percentage of graduate degree recipients borrowing $80,000 or more for their combined undergraduate and graduate studies increased from 7% in 2003-04 to 11% in 2007-08, and to 23% in 2011-12 " ("Cumulative Debt for Undergraduate and Graduate Studies over Time", 2015). They also report that the percentage of graduate students who borrowed less than $40,000 for both undergraduate and graduate degrees declined from,

"79% in 2003-04 to 66% in 2007-08, and to 53% in 2011-12" ("Cumulative Debt for Undergraduate and Graduate Studies over Time", 2015).

When considering students who sought out professional practice doctoral degrees, statistics report that over half of these students borrowed $120,000 or more in 2011-12 for their undergraduate and graduate degrees ("Cumulative Debt for Undergraduate and Graduate Studies over Time", 2015). There is an obvious increase in amount of loans needed to obtain a graduate degree in today's society. The increase in amount of loan debt accrued for students to obtain a graduate degree is a huge factor that may be shying students away from pursing further education after a bachelor's level degree.

Another factor that will influence a student's decision to continue education after a bachelor's level degree is career choice. Some career paths do not require a degree past the bachelor's level. If they do require a further degree, a student will typically consider pursuing some form of graduate school. In relation to the previously stated human capital theory, students may consider graduate school if the increase in salary proves to be worth increased spending for education (Becker, 1993; Cho et al., 2015). Research also explains that students may be influenced strongly by student loans in relation to career choices (Field, 2006).

Summary

In conclusion, there are many factors that may be influencing students' choices to attend graduate school, including undergraduate student loan debt, financial support, knowledge of student loans, the cost-benefit ratio of graduate school, and college

major/career choice. Many previous studies have investigated the effects financial status has on undergraduate degree attainment. Other studies have explored the financial and psychological effects student loan debt has throughout the lifespan. It is questioned in the present study if these factors are also related to debt aversion towards graduate school debt.

Chapter 3

Methodology

Participants

The current study involved 148 undergraduate participants of Rowan University. The participants were members of the Rowan Subject Pool in the Essentials of Psychology course looking to receive course credit for participating in research. Participant's ages ranged from 18 to 23 with an average age of 18.95. 39.2% of participants were 18 years of age, 38.5% were 19, 14.9% were 20, 2.0% were 22, and 1.4% were 23 years of age. The majority of participants were Caucasian (100 participants; 56.8%). 10.2% of participants identified as African American, 7.4% identified as Hispanic, 9.1% identified as other. One participant did not disclose ethnicity. 135 out of 148 participants disclosed their amount of student loan debt. 127 out of 148 participants disclosed their yearly household income.

Materials and Design

Data collection took place during the spring semester of 2016. Participants of the study were randomly selected through the university's subject pool with the Sona Experiment Management System. Effects of student loan debt on graduate degree attainment were assessed through a questionnaire developed by the principal researcher (see Appendix A). The questions were influenced by a survey used in a study entitled "Does the Fear of Debt Deter Students from Higher Education?" (Callender & Jackson, 2005). Survey questions were altered to be applicable to the graduate school setting. The survey assessed demographics of age, gender, college major, and socioeconomic status.

The survey includes 13 questions which were based on a Likert scale ranging from 1 to 5, 1 being strongly agree and 5 being strongly disagree. A majority of the questions were aimed at measuring debt attitudes. More specifically, these questions looked into levels of debt aversion and the cost/benefit ratio of graduate degree completion. Other questions looked into students' reported levels of loan knowledge, financial support, and influence of college major on graduate school choices. It was assumed that all participants understood all questions and answered honestly.

The dependent variable was measured through a sum score of Likert-scale questions on debt aversion attitudes. Eight questions were used to calculate an average debt aversion score for each participant. Five of these questions were reverse coded by the researcher. The independent variables were current amount of student loan debt, socioeconomic status, and perceived level of financial support. Amount of student loan debt was calculated by coding participants into SPSS as either a 1 for having no student loan debt or 2 for having existing student loan debt. Socioeconomic status was calculated by participants reported yearly household income. Participants were categorized into three groups of income level. Participants who reported yearly household income in the $0 to $49,999 range were coded as 1. Participants who reported yearly household income in the $50,999 to $149,999 range were coded as 2. Participants who reported yearly household income from $150,000 or above were coded as 3. A sum score of two questions regarding participants perceived level of financial support was also calculated. Any significant relationships between the variables were measured through a bivariate Spearman correlation in SPSS for Windows.

Procedure

Participants accessed the questionnaire through the university's subject pool. Data collection took place from February 17, 2016 to March 9, 2016. The survey took participants a maximum of 15 minutes to complete. Once the surveys were complete, data was collected and entered into SPSS for Windows for statistical analyses. Bivariate correlation analyses were used. Responses were used to compare amount of student loan debt with intent to pursue a graduate degree. Trends in socioeconomic status, financial support, and college major were also assessed.

Chapter 4

Results

The first hypothesis addressed if there would be a significant relationship between a student's current student loan debt amount and debt aversion scores. 135 out of 148 total participants disclosed their student loan debt amount. The amount of participants with no debt was 42. The amount of participants with debt was 92. A bivariate correlation determined the results were significant r (135) = .368, p=.000 (See Figure 1).

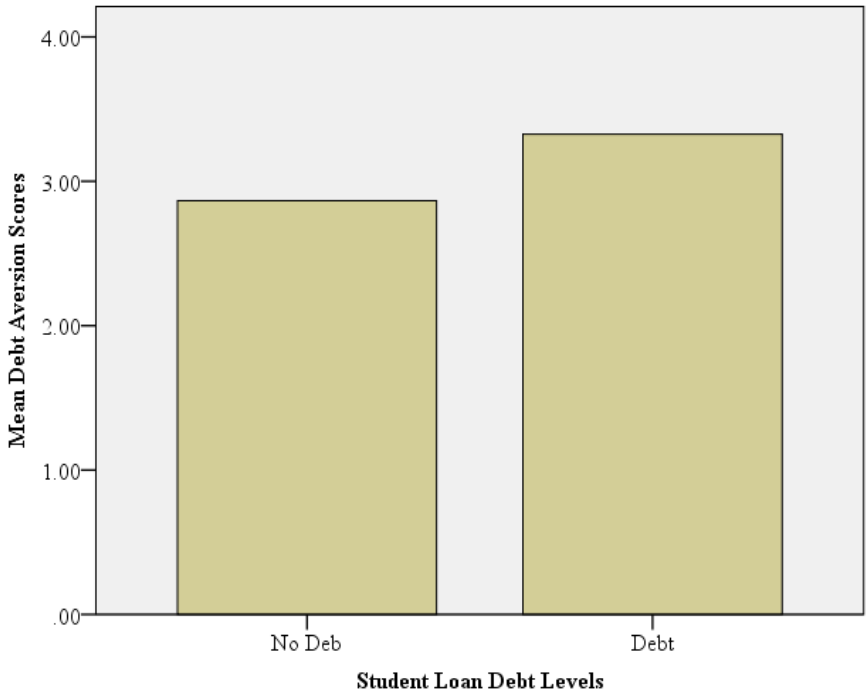

Figure 1. Comparison of Student Loan Debt Amount and Debt Aversion Scores

The second hypothesis questioned if there was a relationship between socioeconomic status and debt aversion scores. 127 out of 148 total participants disclosed their yearly household income on the questionnaire. There were 34 participants who reported yearly household income as $0-$49,999, 68 participants who reported yearly household income as $50,000-$149,999, and 25 participants who reported yearly household income as $150,000 and above. A bivariate correlation determined the results were significant r (127) = -.180, p=.043 (See Figure 2).

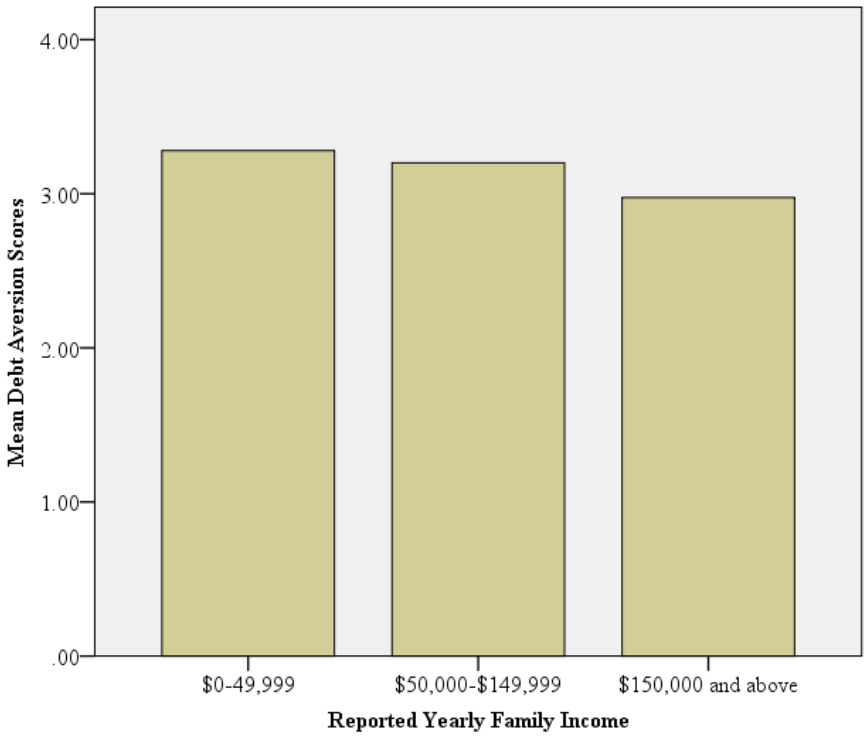

Figure 2. Comparison of Socioeconomic Status and Debt Aversion Scores

The third hypothesis questioned in there was a relationship between perceived levels of financial support and debt aversion scores. A bivariate correlation determined there was no statistically significant relationship present r (148) = .022, p=.78.

The mean debt aversion score for among all participants was 3.155 (out of a possible 5) with a standard deviation of .596. With this data in mind it can be assumed that participants were moderately aversive toward debt for graduate school.

69.6% of participants disagreed with the statement, “Due to my college major, it is unlikely I would attend graduate school.”41.9% of participants reported there would be no difference to the question, “Student loans have impacted the career I’m pursing.” With this data in mind it can be assumed that college major did not influence the majority of participants’ responses. It can also be assumed that student loans did not influence the majority of participants’ career choices.

Student’s reported knowledge of student loans was also taken into consideration. Descriptive statistics were used and found that 70.2% of participants stated that they strongly agreed or agreed with the statement, “I am knowledgeable about the amount of money I have borrowed from student loans.” With this data in mind it can be assumed that the majority of participants accurately reported current amount of student loan debt.

Descriptive statistics looked into age and ethnicity. There were no statistically significant relationships between age or ethnicity and debt aversion for graduate school.

Chapter 5

Discussion

Summary

The present study was designed to determine if there were any significant variables which influence undergraduate students' choice to attend graduate school. More specifically, this study investigated student loan debt amount, socioeconomic status, and level of financial support, and determined if these variables influenced the previously overlooked variable of debt aversion attitudes toward graduate school. Perceived student loan knowledge, college major, and influence of career choice were also considered as potential influences. By identifying any statistically significant relationships in this study, it can be inferred that student loan debt and other financial variables are related to students' intent to pursue a graduate degree.

Through the bivariate correlation tests, it can be inferred that students with existing debt from student loans are more aversive to graduate school debt than students with no debt. These findings link to previous research which found increased debt levels influenced students to avoid adding onto their already accrued debt for graduate school.

It can also be inferred that students from lower income families are more aversive to graduate school debt than students from higher income families. If previous research has found students from lower income families rely the most on loans for education and that these students are also more aversive to debt, it can be assumed that less students from these families will attain higher education degrees.

Implications

Results from the present study show above median debt aversion scores, and statistically significant relationships between both student loan debt amount and socioeconomic status on debt aversion scores. With these results in mind, it is obvious that the current issue of the increasing student loan debt amount for undergraduate students and its influence on graduate degree attainment needs to be addressed to ensure graduate school is an accessible option for students. Research suggests that methods to decrease student loan debt aversion include, "Providing educational materials about and encouraging students to consider borrowing, to replacing loans with grants for the neediest students" (Burdman, 2005, p. 19).

The American Student Assistance is a nonprofit organization which developed the program SALT, a free educational resource which helps people make better decisions about financing their education and repaying student loans (American Student Assistance, 2015). The ASA explains that college costs are unlikely to be reduced from current levels, and that student loans will most likely continue to be the leading method to fund higher education. As a result, it is important to provide borrowers with better ways to manage debt and to give them the opportunity to gain an economic edge. The ASA reports, "If federal student aid exists to promote social mobility, the focus of future student aid policy should be on finding ways to limit the negative financial impacts that student loan debt has on the post-graduation consumer life of students (American Student Assistance, 2015).

The ASA recommends ways in which this can be achieved. It is recommended that the federal government work to support more funding for grants, support college savings plans, encourage early saving for higher education, keep interest rates on student loans low, and provide timely information about available payment solutions. It is also recommend that states should commit more state funding to higher education and consider a radical shift in the way higher education is funded. The ASA recommends that private industries should commit more to scholarships and grant aid and commit more to student loan repayment. It is also recommended that private lenders create flexible repayment options, and that colleges and universities do more to control college costs and teach students how to borrow less and borrow wisely (American Student Assistance, n.d.).

Rowan University recently developed a program allowing students to obtain a bachelor's degree for $25,000. That amount is around $10,000 lower than the 2015 national average of debt accrued for an undergraduate degree (Student Loan Resources, 2016). If more colleges and universities could follow Rowan's example, higher education would be more accessible for more students, including graduate degree attainment (Rowan University, 2016).

Limitations

Participants in the present study were recruited through Rowan's SONA systems database and only included students in the Essentials of Psychology course looking to obtain research credit. This resulted in the majority of participants being younger in age and of lowerclassmen status, which did not accurately represent the population of an

entire undergraduate student body. This could have potentially affected the participants' reported amount of student loan debt, as 31% of participants reported having no existing debt. If more participants of upperclassmen status were included, results may potentially show even more significance.

Additionally, the questionnaire used in the study consisted of only 13 questions, with only 8 questions assessing debt aversion attitudes, and only 2 questions addressing perceived level of financial support. Therefore, the questionnaire may not have accurately assessed all variables in the study.

Future Directions

The current study used the categories of no debt and debt to measure participant student loan debt amount. Future studies should consider assessing different numerical levels of student loan debt amount to determine if a linear relationship occurs among the variables. The differing levels of socioeconomic status used in the study were determined by the researcher and not based on any statistical economic data. Future studies should determine more accurate categories of socioeconomic status and should look at the variable in a linear manner. Future studies should also use a larger sample size which is representative of multiple colleges and universities over a larger geographical area. It can be assumed that a larger sample size would more accurately represent demographic variables, most importantly an even distribution of college levels. The identity characteristic of gender should be considered to determine if any statistically significant relationship exists among males versus females.

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Appendix

Student Loan Questionnaire

Please indicate your age: _____

Please indicate your ethnicity: _____

Please indicate your college major: _____

To the best of your knowledge, what is the annual income received in your home?

_____

To the best of your knowledge, what is your current amount owed toward student loans?

_____

The following questions are based on a Likert Scale with answers ranging from, 1- Strongly agree, 2- Agree, 3- No difference, 4- Disagree, 5- Strongly disagree Please choose the best answer provided.

1. I am knowledgeable about the amount of money I have borrowed from student loans.

   1 2 3 4 5

2. Due to my college major, it is unlikely I would attend graduate school.

   1 2 3 4 5

3. I would choose not to attend graduate school because I am worried about having too much student debt.

   1 2 3 4 5

4. I would choose to attend graduate school if money were no object.

   1 2 3 4 5

5. My family has helped me financially with paying for college.

   1 2 3 4 5

1- Strongly agree, 2- Agree, 3- No difference, 4- Disagree, 5- Strongly disagree

6. I have received other financial support from my family while attending college.

   1 2 3 4 5

7. I would choose not to add on to my already existing student loan debt.

   1 2 3 4 5

8. I am not worried about my student loan debt.

   1 2 3 4 5

9. In order to get ahead, it is necessary to attend graduate school.

   1 2 3 4 5

10. I would rather pay back the money I owe from undergraduate student loans before attending graduate school.

    1 2 3 4 5

11. Student loans have impacted the career I am pursuing.

    1 2 3 4 5

12. Graduate school is not an option for me due to student loans.

    1 2 3 4 5

13. I am not worried about my debt because I know I will get a well-paid job when I graduate.

    1 2 3 4 5