

**Educational Loan, Students' Self-Efficacy, Attitude Towards Debt,
And Their Impact On Retention And Graduation
In Minority-Serving Institution**

By

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A DISSERTATION

Submitted in partial fulfillment of the requirements for
the degree of Doctor of Educational Leadership
in the Education Graduate Programs of
Delaware State University

DOVER, DELAWARE
December 2018

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DEDICATION

This research is dedicated to my beloved parents, Milka and Zivorad Jankovic, grandparents, Vida and Lazar Milosavljevic, and Bosanka Gojkovic, sister and brother, Milena and Nenad Jankovic, and my the most beloved nephew Nikola Meljanicki, to encourage him to pursue the highest horizons and the realizations of the most courageous dreams.

Acknowledgments

At the very first I am grateful to God for allow me to convey this mission and journey through this dissertation to serve Delaware State University, and all people in need for knowledge. I hope that this dissertation will serve to improve the future planning and practices at Delaware State University and all other higher education institutions, which may find it useful. I also wish it to be an inspiration and to provide courage to the future graduate students who may want to complete the studies in their future desired specific topics.

I am sincerely and heartily grateful to my Dissertation Advisory Committee Dr. Nirmaljit K. Rathee, Dr. Patricia Carlson, Dr. Chandra Aleong, Dr. Michele Campbell Ennis, and Dr. David Pokrajac for the support and guidance they showed me throughout my dissertation writing. I am especially grateful to Dr. David Pokajac and Dr. Nirmaljit Rathee for their expertise, guidance, and scholarly leadership and for being my role model of leadership style. Without all of the above, this dissertation would have not been possible.

I would also like to thank to all the administrators, faculty, and staff who very kindly helped in the completion of the dissertation by soliciting participants and collecting the survey responses. For this work I am grateful to Dr. Irene Hawkins-Chapman, Dr. Akwasi Osei, Dr. Hayes Hunter, Dr. Padmini Banerjee, Dr. Yvette Pierre, Dr. Myna German, Dr. Laila Girgis, Dr. Essaid Zerrad, Dr. Amanda Anderson, Dr. Keun K Kim, Dr. Susmita Roye, Mr. Chandrakant P Ganatra, and Mr. Brandon Maddox. Special thanks to Dr Kimberly Sudler, AVP for IRPA, for her kind support, coaching and understanding.

I would also like to thank Dr. Veronica Becton for reading my dissertation proposal, providing positive critics, feedback, and inputs she generously discussed and share with me. This

made a great impact, provided a new outlook to my proposal, and paved the path to follow for the final dissertation completion. Besides, I would like to thank Mrs. Dayana Littlton for her generous technical support and data entry help. I am thankful to Ms. Danielle Hicks for printing the required material as and when required and bearing with me for my unannounced intrusion in the office of Education Graduate Programs from time to time.

The last, but not the least, I am thankful to my family, colleagues, and friends who have supported me morally and provided me great information resources. I can't ever forget my best friends, Tina Milutinovich, and Dr. Dubravka Ujes-Morgan, who shared with me joys, and sadness, holydays, and events. Besides, I am grateful to my Institutional Research Supervisors for being considerate and helpful as friends, and professionals for all these years, till my final dissertation project completion: Dr. Phyllis Edamatsu, and Mr. Vaughn Hopkins.

**EDUCATIONAL LOAN, STUDENTS' SELF-EFFICACY, ATTITUDE TOWARDS
DEBT AND THEIR IMPACT ON RETENTION AND GRADUATION IN A
MINORITY-SERVING INSTITUTION**

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ABSTRACT

This study was conducted to address a very critical current national issue: the student loans and its relationship with students' self-efficacy, attitude toward debt, and retention and graduation rates at a minority serving institution. The findings may guide the leadership decisions toward the best practices for the students' best academic success, future employment, and career.

This research employed a mixed method research design, which involved data collection through a survey. Collected data are the representative sample of the population in several aspects: 1) Gender, 2) Residency (In-State/Out-of-State), 3) Race, 4) Class of the first-time freshmen, 5) Credit hours students are registered for the semester, and 5) student athletes. The collected data was analyzed by t-test, Chi-Square and Fisher's exact test for the significance, and correlations among the studied variables.

Among the other significant correlations, the results show some of the very important findings: (i) The female population is less like to borrow money and agrees more than the male that borrowed money should be repaid as soon as possible; (ii) Out-of-State students have a perception that they will acquire higher debt than the In-State students. This shows that they are aware of the higher costs of the Out-of-State tuitions and fees; (iii) The students are aware about the educational debt, they are concerned about its repayment, and this is the first step toward financial self-efficacy. The higher the amount of the perceived debt students believe they will

acquire till graduation, the more they are concerned about paying the loan back; (iv) As students matriculate toward the graduation their perception about the amount of debt is higher. Seniors have demonstrated more responsibility toward debt and agree that it is important to live within one's means; (v) As the amount of perceived loan by the time of graduation increases, the students' confidence to perform up to the best of his/her potential academically decreases. Findings of the research suggest that academic resources are necessary for the students to help improve their academic progress, which will ultimately improve the institutional retention and graduation rates. Recommendations and suggestion for future research have been made.

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CHAPTER – 1

INTRODUCTION

In an era of the sub-prime mortgage crisis, financial analysts are seeing parallel trends in the national student loan debt. Educational loan debt has significantly increased causing tumultuous effects for lenders, borrowers, and higher education institutions. With an outstanding loan debt still being around \$1.4 trillion (McCann, 2018), the U.S. Department of Education has established new guidelines for borrowing educational loans. Before the changes, the College Entrance Examination Board (College Board) reported consumers acquired \$61 million in undergraduate loans during the 2014-15 school term (College Board, 2015). The research showed this debt included a combination of subsidized, unsubsidized and Parent Loan for Undergraduate Students (PLUS loans) to pay college and living expenses. Despite the significant amount borrowed, it was still slightly lower than the reported \$76 million obtained in the previous year (College Board, 2015). Destin and Svoboda (2018), in their research “Costs on the Mind: The Influence of the Financial Burden of College on Academic Performance and Cognitive Functioning” performed extensive research which included longitudinal and experimental studies using subjects from 28 highly selective colleges and universities, which includes very prestigious institutions. They intended to create grounded educational theory which relates the burden of high cost of education to the students cognitive functioning and their ability to graduate from college. The authors predicted the influence of college cost on students’ cognition and academic outcomes, and found that it can be both, positive and negative. Students who developed their future identity as financially successful are more influenced than those who did not. The author suggests for the future research that studies are performed on different types of institutions, as well as more detailed experimental institutional messaging about the costs and

loans (p. 321). Based on these trends, it is evident that further research is necessary to determine the actual extent of student loan debt on consumers, financial and post-secondary institutions. The primary objective of this study is to determine if there is a relationship between the 4-year college students' education debt and the students' success. Furthermore, this study seeks to determine: (1) if a relationship exists between the self-efficacy of undergraduate students attending a 4-year minority-serving institution and the amount of student loan monies borrowed and (2) if a relationship exists between students' self-confidence concerning graduation. A viable outcome of graduating in 5 years or less, in the major of their curriculum choice, is considered a positive result.

The lack of understanding educational loan terms have significantly impacted borrowers. According to Sullivan and Towell (2017) borrowers lacked a clear understanding of the loan terms, ultimately affecting their ability to adhere to the repayment terms of their loans. The authors also found that borrowers made financial or personal sacrifices, delayed contributions to retirement accounts, worked second jobs, lived with family members, delayed buying a home, marrying, or having children as a result of wanting to or needing to borrow monies to pay for school. To shed further light on this crisis and the impact on borrows, Sullivan and Towell cited the case of a borrower who suddenly expired before repayment was due on his educational loan. Since the loan terms were not fully understood, the repayment terms were immediately enforced leaving the family in an unexpected predicament. These types of cases are not new and in fact, have become the norm, placing many borrowers in default.

Not only consumers are feeling the effects of the student loan crisis, but post-secondary institutions have also struggled to recruit and retain students causing a decrease in enrollment and graduation rates. In 2010, the College Board published data that showed an 80% national

average retention rate for 4-year public institutions. They also reported a 56% 4-year graduation rate (College Board, 2012). In the article “Did the Recession Impact Student Success? Relationships of Finances, Staffing and Institutional Type on Retention” (Gansemar-Topf, Downey, Thompson & Genschel, 2018), the authors provided an overview of the economic status for public and private post-secondary institutions before, during and after the economic recession of 2007-2009. The article examined institutional budget and expenditure allocations and its impact on student success, as well as institutional abilities to adapt to the new financial circumstances while sustaining to provide the high-quality service of maintaining or increasing enrollment and student success. They further reported that the recession had in fact affected higher education causing institutions to adapt by raising tuition and fees, reallocating expenditures, and by realigning facility operations. The changes caused a public outcry and a need for lowering tuition costs, but at the same time, the demand for higher education also increased during the recession, thus permitting tuition costs to rise (Gansemar-Topf et al., 2018).

Background of the Problem

Due in part to the 2008 housing market crash, the U.S. suffered a severe economic setback which ultimately resulted in a recession. Also impacted was the educational funding. For universities and colleges, federal and state funds were drastically decreased; therefore, reducing the amount of available financial aid. The reduction in grants and scholarship aid made student loans crucial, and often the only resource for the students (NSSE, 2015). Lending institutions created enticing loan offers without explicit acknowledgment of repayment terms to unsuspecting borrowers. Without precise knowledge of repayment terms, many students fell into the trap of borrowing amounts that exceeded what was necessary to cover educational expenses.

For others that did not qualify for student loans or elected not to pursue this avenue, the decision to continue with or begin their education was impacted.

Recognizing the drastic increase in student loan borrowing, the U. S. Department of Education implemented some crucial changes in the Federal Student Aid program to prevent the problem of defaulting on educational loan repayments. With federal funding, states began to offer free tuition for individuals interested in attending community college or a 2-year education program. However, this two-year path to the bachelor's degree did not defray costs (Canche, 2014). Despite these efforts, the country is still faced with an extremely high student loan debt, an increase in loan defaults, and a decrease in students entering or returning to college and graduating with a degree.

Statement of the Problem

A huge amount of educational loans borrowed by middle-income parents of recent college graduates can be observed from the fact that in the academic year 2014-15 an undergraduate borrowed \$3,750 subsidized loan, \$4,120 unsubsidized loan, and \$14,750 PLUS loans (NCES, 2015). This may be one of the reasons for the student's inability to remain in college without interruption, or to graduate with a bachelor's degree in 5 years or less.

Despite students' efforts to choose the most suited curricula, program, major and institution to achieve the best possible merit, gift, grants and scholarships, work studies, and work off campus, the unmet need is still high, and a student loan might be an obstacle on the way toward the student success. NESSE National Survey of Student Engagement (2015) has researched whether the loan is related to student success. However, it does not show any findings directly related to the amount of the loan and the academic outputs. Therefore, one of the

objectives of the current research is to find out if there exists a relationship between the student loans of a 4-year predominantly minority institution's undergraduate students in terms of the amount of the loan borrowed and their self-efficacy about persisting, without pause, until their graduation. The second objective is to find out if there is a relationship between the student loans of the undergraduates of a 4-year minority institution's students and their self-confidence about graduation from the institution in 5 years or less. The main objective of this study is to find if there is a relationship between the 4-year college students' education debt and the student success. The possible outcome of graduating in 5 years or less, in the major of their curriculum choice, is considered a positive outcome.

The U.S. Department of Education established a financial aid program as a means for students to pay for post-secondary education. However, decreases in federal funding have contributed to parents and students resorting to borrowing money to pay for a 4-year college degree. Accordingly, the rise in tuition has forced students and parents to borrow more money to ensure costs are covered. The National Center for Educational Statistics (NCES) reported undergraduates received \$3,750 in subsidized loans, \$4,120 unsubsidized loans, and \$14,750 in PLUS loans for a single school term (NCES, 2015). Factoring in the total costs over a period of four years would result in students' exiting college with \$22,620 in debt (p. #).

As the government searches for solutions to this crisis, researchers ponder whether education loan seeking, and repayment contribute to students' inability to remain in college without interruption or to graduate with a bachelor's degree in 5 years or less. The National Survey of Student Engagement (NESSE, 2015) has researched whether student loans are related to student success. However, the research does not show any findings directly related to the amount borrowed and the academic performance.

Research Questions

A research question is a statement around which a researcher tries to focus the study plan. It usually specifies “the population of interest, be of interest to the scientific community and potentially to the public, have clinical relevance and further current knowledge in the field” (Farrugia et al., 2010). The following research questions and the hypotheses were developed to guide this study:

RQ 1: To what extent is there a relationship between the students' loans and the perceived self-efficacy of the undergraduate students studying in a minority-serving institution about persisting in their major of curriculum without pause?

Hypothesis 1: There will be a statistically significant positive relationship between the students' loans and the perceived self-efficacy of the undergraduate students studying in a minority-serving institution about persisting in their major of curriculum without pause.

RQ 2: To what extent is there a relationship between the students' loans and the perceived self-efficacy of the undergraduate students studying in a minority-serving institution about their graduation from the institution in 5 years or less?

Hypothesis 2: There will be a statistically significant positive relationship between the students' loans and the perceived self-efficacy of the undergraduate students studying in a minority-serving institution about their graduation from the institution in 5 years or less.

RQ 3: To what extent is there a relationship between the students' loans and the attitude towards the debt of the undergraduate students studying in a minority-serving institution about persisting in their major of curriculum without pause?

Hypothesis 3: There will be a statistically significant positive relationship between the students' loans and the attitude towards the debt of the undergraduate students studying in a minority-serving institution about persisting in their major of curriculum without pause.

RQ 4: To what extent is there a relationship between the students' loans and the attitude towards the debt of the undergraduate students studying in a minority-serving institution about their graduation from the institution in 5 years or less?

Hypothesis 4: There will be a statistically significant positive relationship between the students' loans and the attitude towards the debt of the undergraduate students studying in a minority-serving institution about their graduation from the institution in 5 years or less.

RQ 5: To what extent is there a relationship between students perceived self-efficacy and the attitude towards the debt of the undergraduate students studying in a minority-serving institution?

Hypothesis 5: There will be a statistically significant positive relationship between students perceived self-efficacy and the attitude towards the debt of the undergraduate students studying in a minority-serving institution.

Significance of the Study

Topics of student loans, defaults on student loans, and retention and graduation are such important factors in today's economy that even presidential candidates running for the 2017 presidency addressed them during debates. The topic deserves attention because consumers' (students and parents) impressions about future earnings and debt are affecting their present and future decisions on such topics as whether to remain in college or which major to enroll in, and how and where to search and accept job offers. The measure of consumer confidence is

important because of its feedback related to overall national debt, labor market, and the global economy. The results of this study may help potential and current students develop a feasible financial plan for college. It will also enable colleges and universities to assist students with quality financial planning.

Research supports that self-efficacy has direct effect on academic achievement across different subjects (Schunk et al., 2008; Usher & Pajares, 2008). Usher and Pajares (2008, p. 751) have further demonstrated that self-efficacy “predicts students' academic achievement across academic areas and levels”. Further exploration of the impact of student loans on the retention and graduation in tandem with self-efficacy will further broaden the present research.

Theoretical Perspective

Johnson, Johnson, Stigman, Odo, Vijayan, and Tata (2016) performed a study on a 2-year institution's first-year, first-time health major students by applying the clinical model using machine learning for cluster analysis to improve student success: retention, graduation, and post-graduation outcomes of the studied population. A well-known retention formula was applied:

RETENTION = EARLY IDENTIFICATION + (EARLY + INTENSIVE + CONTINUOUS)

INTERVENTION. Figure-1 provides a demonstration of the model framework presented by the authors.

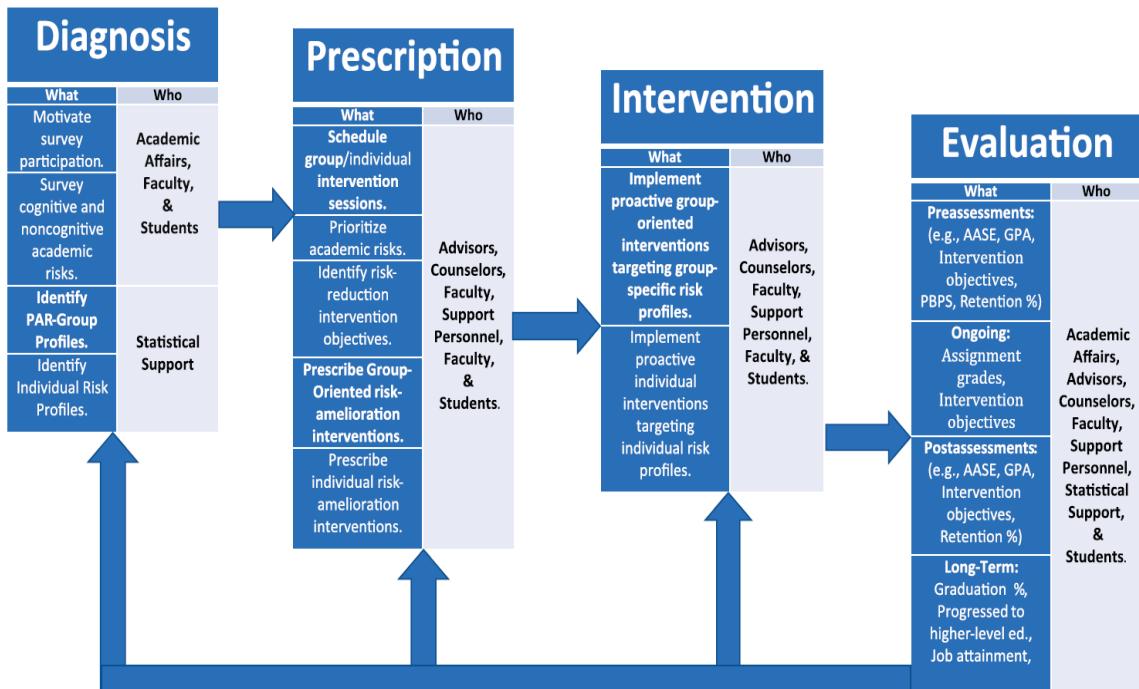


FIGURE 1. *Applications framework adapting the clinical model for higher education practice*

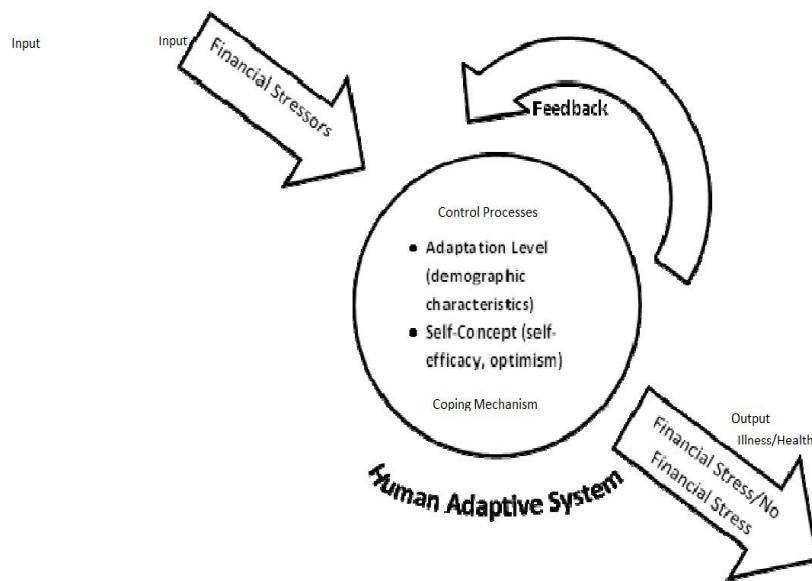
The model framework (Johnson et al., 2016) consists of four main phases: Diagnosis, Prescription, Intervention, and Evaluation - with a feedback to Diagnosis, Prescription, and Intervention. The study population was surveyed using the Personal Background Preparation Survey, (PBPS) during the orientation session as the first step in the research. The survey instrument questionnaire had skip logic built-in and contained questions on cognitive, noncognitive, including financial and social determinants to allow the researchers to determine the Prevalence of Academic Risk, (PAR) for each student (participant).

The researchers, Johnson et al., (2016) utilized cluster-analysis tools to distinguish relevant groups of participants who had common characteristics suitable to be targeted (advised) as groups. The performed cluster analysis enabled the researchers to “prescribe” cluster group “treatment” advice for the participants, and group “intervention” in forms of counseling, tutoring, class assignments, or providing financial aid. This article is avant-garde because PAR

profiles were never used before to predict the academic risk of certain similar group behavior and their response to the Adverse Academic Situation Events, (AASE) for the group interventions.

While Johnson et al. (2016) were running predictive analytics for modeling student success using the “Diagnosis ⇒ Prescription ⇒ Intervention ⇒ Evaluation” clinical model, Heckman, Lim and Montalto (2014) used the Roy Adaptive Model (RAM) based conceptual framework model, also a healthcare model, and a new way of describing student academic success as a function of the financial stress (refer to Figure 2 below). This model was also based on Albert Bandura’s Self-Efficacy Theory (1977, 1982 &1993) as applied to the financial behavior of college students. Bandura’s theory suggested that students with higher self-efficacy have a lower economic stress level due to a more responsible fiscal decision-making nature.

Figure 2. Conceptual framework based on the Roy Adaptation Model



Heckman et al. (2014) conducted a study to determine the financial stress factors for college students using the proposition test logistic regression modeling, and descriptive statistics to test the following three hypotheses:

- H1: Students experiencing financial stressors were more likely to be financially stressed.
- H2: Students reporting greater financial self-efficacy were less likely to be financially stressed.
- H3: Students reporting greater financial optimism were less likely to be financially stressed (Heckman et al., p. 24).

Heckman et al. (2014) were able to confirm all three hypotheses by using a logistic regression model and z-score descriptive statistics to provide detailed knowledge on student financial stresses. Through the data obtained from the Ohio Student Financial Well Survey, they were also able to identify one of the most influential economic stressors among college students - lack of money to participate in the same activities as most of their peers. The results indicated “91.4% of students who do not have enough money to participate in the same activity as peers were financially stressed, while only 59.2% who had...were financially stressed” (p. 27). It is important to note that the survey was administered to a majority white female population with grade point averages of 3.0 and higher.

In their article “Financial Stress, Self-Efficacy, and Financial Help-Seeking Behavior of College Students,” Lim, Heckman, Letkiewitz, and Montalto (2014) adopted a five-stage framework: Demographic, Financial education, Student Loans, Financial Stress, and Financial Self-efficacy to predict the financial help-seeking event. Their model applied logistic regression on a dataset obtained from the Ohio Student Financial Wellness Survey (OSFWS) from nineteen 4-year institutions in Ohio. The researchers found that “Individuals with higher financial self-efficacy deal more effectively with financial situations...and positive relationship between

financial self-efficacy and financial help-seeking” (p. 151). Financial self-efficacy is a moderating variable between stress and help-seeking. The study also found the female students were more likely to seek help than the male students, the black students were more likely to seek help than the white students, and older students (juniors and seniors) were less likely to seek help than younger students (freshman or sophomores). The results also showed students attending 4-year public institutions were 50% less likely to seek help than students attending private or 2-year colleges. These findings are important for financial education courses, financial stress, and student loan balances was significant predictors in the models” (p. 156).

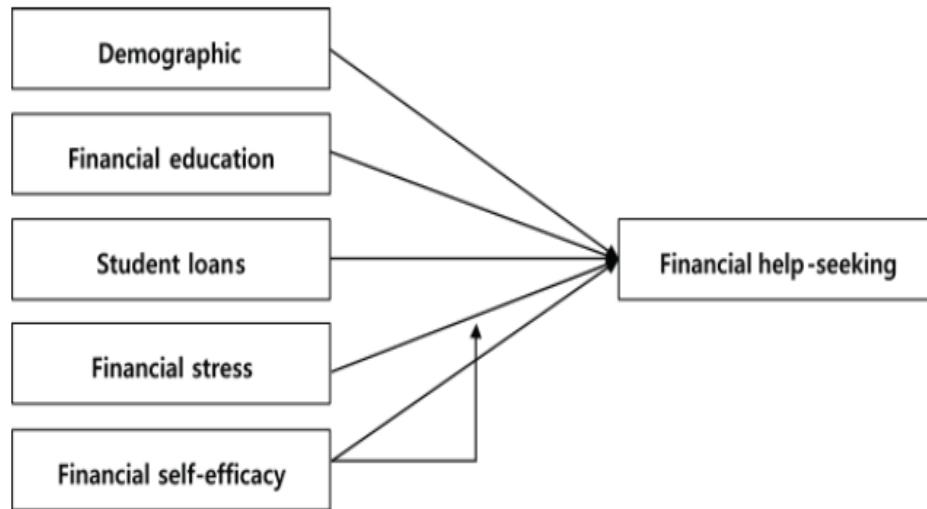


Figure 3 Conceptual Framework

The important segment of the present study, as well as the above-cited studies, are the types of surveys used in each study. Lown (2011) developed the Financial Self-Efficacy Scale (FSES), a valid and reliable six questions survey, which had a high alpha validity coefficient, specific measuring psychometric properties, is reliable, short, and easy to administer. It is based on the ten question General Self-Efficacy Scale (GSES). Lown provided both scales for comparisons and clarity in the Appendix of the article (p. 63). The scales are based on the adults

and majority Caucasian sample. However, it can be modified for adolescents. FSES scale answer options are 4-point Likert scale:” 1 = Exactly True 2 = Moderately True, 3 = Hardly True, 4 = Not at All True” (p. 63).

The survey questions are the following:

- 1) It is hard to stick to my spending plan when unexpected expenses arise.
- 2) It is challenging to make progress toward my financial goals.
- 3) When unexpected expenses occur, I usually have to use credit.
- 4) When faced with a financial challenge, I have a hard time figuring out the solution.
- 5) I lack confidence in my ability to manage my finances.
- 6) I worry about running out of money in retirement (p. 63).

Harrison & Agnew (2016) cited in their article, “Individual and Social Influences on Students’ Attitudes to Debt: a Cross-National Path Analysis Using Data from England and New Zealand,” the effects of debt to academic achievement and overall student health and life satisfaction. They note that prospective students with debt aversion attitudes are postponing higher education, and procrastinating taking enough classes to be full-time students to work part-time jobs during the studies. Therefore, either postponing the higher education, or diminishing academic performance are results of debt-avoidance attitudes, or debt anxiety (p. 349). Furthermore, in the “Literature Review” section of their article, the authors listed previous research findings on the consequences of student debt, which included anxiety, depression, lowered life satisfaction, ‘extreme’ debt avoidance measures, diminished health and academic success. These consequences, they claimed, may lead to student’s withdrawal from the higher education institution, or from further studies temporarily or indefinitely. They cite the fear of

debt as a significant determinant in the demand for higher education, especially for prospective students with lower socioeconomic backgrounds (p. 334). Consequently, attitudes toward debt may not be reflective of actual debt owed, but it is their self-debt evaluation at that point in time (p. 349).

Rationale and Theoretical Framework

Besides all other parameters which measure the quality of the undergraduate education, the National Survey of Student Engagement (NSSE, 2015) found that financial stress influenced 13% of the freshman and 11% of the seniors to consider withdrawal from college due to financial reasons – college costs. However, in this survey, the other status classes were not represented in the parameter or the other financial stress measures. The Self-Efficacy Theory (1977, 1982, 1989, 1993, 1997) was a basis of the research contained in the NSSE report. Previous research (Hackman, Lim, & Montalto, 2014) found that financial stress was so widespread among the student body that 71% reported being financially stressed. They also found that the students with higher financial self-efficacy and higher financial optimism were less likely to be financially stressed. The authors also discussed the impact of financial stress on policymaking, educational administration, and personnel. Self-efficacy theory is not only the foundation for cognitive behavior, it is also the foundation for other areas including social, psychological and financial behavior. Among many articles written about student behavior and financial self-efficacy, Hackman and Grable's (2011) "Testing the Role of Parental Debt Attitudes, Student Income, Dependency Status, and Financial Knowledge Have in Shaping Financial Self-Efficacy Among College Students" is prominent. This research analyzed the parents' attitude, income, dependency, and knowledge and measured the impact on students' self-efficacy.

Conceptual/Substantive Assumptions

The emerging assumptions based on the theoretical framework for the present study are:

- Students entering college as first-year students experience financial stress.
- Financial stress influence students' academic performance.
- Financial stress influence students' self-confidence and financial self-efficacy.
- Student's attitude towards debt and the financial stress influence students' decision to complete a bachelor's degree program without interruption within a 5-year timeframe.

Limitations of the Study

The study has been limited to the response rate of the survey administered. Reliability was limited to students' actual answers. The survey to be distributed to the subjects was a self-reported new instrument developed to serve the purpose of the present research. Hence this was one of the limitations of this study. Since the institution from where the data has been collected being a historical minority institution, it was expected that the responding set of individuals corresponds to the population of the entire institution. Another limitation was the study was not generalizable as it only applies to the population surveyed.

Delimitations

Delimitations define the boundaries of a research study. The present study had been delimited to the undergraduate students in a 4-year public historically minority institution in a northeastern state. The study was confined to the examination of self-efficacy and attitude towards debt variables.

Definition of the Terms

1. Normal Time to Completion - The amount of time necessary for a student to complete all requirements for a degree or certificate according to the institution's catalog. This is typically 4 years (8 semesters or trimesters, or 12 quarters, excluding summer terms) for a bachelor's degree in a standard term-based institution. The National Center for Educational Statistics collects institutional data of all participating Title IV institutions, electronically, by the Integrated Postsecondary Education System, (IPEDS). In practice, institutions mandatorily report data annually in three reporting cycles, with several surveys, which are components of the institutional characteristics, student outcomes, and together represent detailed statistical measures of each institution's effectiveness and students' success.

2. Completions, Outcome Measures, and Graduation Rates Surveys are measuring student success indicators variables directly: 1) number of degrees awarded by level, discipline, gender, and race; 2) NCES defines cohort as the number of first-time full-time students enrolled at the institution as of October 15th, (fall semester) and retention rate as the rate of which this cohort is retained next October 15th (fall semester); 3) NCES defines graduation rates for 4-year institutions: Percentage of full-time, first-time, bachelor's degree-seeking undergraduate students graduating within 150 percent of normal time from four-year institutions.

3. Retention and graduation are positively correlated variables and represent the standard measure of student success and institutional effectiveness and are always used to evaluate an institution. All institutions' leaders are concerned about improving one or more of the student success outcomes, for example, retention or graduation, student grade point average, or student participation in certain community improvement, or any other institutional goal or objective they

want to measure and accept it as their measure of student success. College ranking agencies and publishers, like US News World Report, have their set of measures of student success, which includes even the rate of Alumni giving to their alma mater, or graduates' job or graduate program placement.

4. Self-Confidence: This term has been used in this study to refer to belief in one's personal worth and the likelihood of succeeding, about one's ability to perform specific tasks.

5. Perceived self-efficacy: It generally means that the person has a lot of faith in his or her aptitude that the wanted outcome can be achieved. The researcher has used perceived self-efficacy and self-confidence interchangeably.

6. Students Attitudes Towards Debt: This term can be defined as an individual student's perception or the way of thinking or feeling about the debt that is reflected in his or her behavior which indicates how accepting of, or opposed to, going into debt he or she is.

7. The average amount of student loans received by full-time, first-time degree/certificate-seeking undergraduate students: Loans to students - Any monies that must be repaid to the lending institution for which the student is the designated borrower. Includes all Title IV subsidized and unsubsidized loans and all institutionally- and privately-sponsored loans. Does not include PLUS and other loans made directly to parents. Expected Student loan amount in this study has been defined as a student's self-reported amount of debt expected to be acquired by the graduation.

Summary

The increasing amount of student loan is a matter of serious national concern. Students with debt aversion attitudes are postponing higher education, and procrastinating taking enough classes to

be full-time students to work part-time jobs during the studies (Harrison & Agnew, 2016). National Survey of Student Engagement (NSSE, 2015) found that financial stress influenced 13% of the freshman and 11% of the seniors to consider withdrawal from college due to financial reasons – college costs.

Chapter I contained an introduction, background of the problem, purpose of the study, need for the study, significance of the study, rationale and theoretical Framework and conceptual/substantive assumptions. Chapter II contains the literature review and it provides both historical and current literature pertaining to (i) student financial aid, student success, and relationship between them as well as with the financial self-efficacy and the attitude towards debt, and (ii) the summarized theoretical framework.

CHAPTER - II

REVIEW OF LITERATURE

This section of the dissertation contains discussion regarding the student financial aid, student loans, student success, relations among financial aid, loan, and success, and educational theoretical leadership framework for the present research. Significant research articles which are pillars of the empirical research could be categorized into two major sections: (A) research articles which directly investigate student financial aid, student success, and relationship between them as well as with the financial self-efficacy and the attitude towards debt have been summarized in this section, and (B) educational philosophy leadership journal articles, which have been summarized in the theoretical framework section.

Section – A: Research articles which directly investigate student financial aid, student success, and relationship between them as well as with the financial self-efficacy and the attitude towards debt.

McCann (2018) in his article: “States with the most and least Student Debt” published August the 1st 2018 ranks states by student debt, opportunity for work, scholarships, and other financial parameters. The author presents that national educational debt being still about 1.4 trillion, as the previous year. Besides, among the least borrowers presented being the same as the previous year, bachelors from region of Utah, and Wyoming. Furthermore, among the highest ranked borrowers are from north east region, also as the highest amount borrowers from previous year.

Thaddieus Conner and Thomas Rabovsky (2011) conducted a literature review of the empirical research articles in higher education policies, about recent trends which were published

during the recent two years, and which were still applicable for the current trends in policies and effectiveness of the institutions, and student success in higher education. The authors summarize and categorize the previously published literature into the following sections: “Governance and Accountability”, “State Finance in Higher Education”, “The politics of Aid and the Issue of Merit”, and “Equity and Diversity in Higher Education”. The first section addresses the current effects of the currently applied policies, newly created or modifications of the existed policies and trends on the institutions of higher education as well as student success, and economic consequences of the policies on the students, state’s economic and labor market condition, and the institutions. As statistical research presents, institutions of higher education have an average 6-year graduation rate of 60%, and many of them have significantly lower. Therefore, it is a priority for policymakers to help the institutions improve their performance and cost-effectiveness, by implying performance-based funding to the institutions and holding the institutions accountable. The authors warn about the necessity to have a balance of institutional autonomies and public accountabilities. Besides, policymakers must adequately assess the very current political situation before introducing new policies or changes to the current policies because some unwanted possible effects may result from their application. To measure institutions’ performance better, a new Student Unit Record System (SURS) is introduced. It tracks each individual student enrollment from K-12 till the college completion.

The authors (Conner & Rabovsky, 2011) also address the role of institutions’ governing boards and their member recruitment, and their help to the institutions in aligning their missions, goals and institutional policies to the state’s needs and priorities. A rigorous process for trustees’ selection is desirable. Institutional Analysis and development (IAD) system is created to relate state governance, politics, and rules to a higher institution’s performance. Among other findings,

the authors stated that need-based financial aid programs have a positive effect on the institutions.

“State Finance in Higher Education” (Conner & Rabovsky, 2011) addresses higher education funding policies. The authors suggest the further need for research on relationships between state legislators and public universities. Public support to the universities is vital, but current trends show its decrease, which causes a lot of consequences for the institutions, especially less selective ones, which support the unrepresented populations. This situation in states opens questions about how far public institutions should be considered a public good, how much should be funded with public monies, and whether financial aid should be based on merit or need.

“The politics of Aid and the Issue of Merit” (Conner & Rabovsky, 2011) section finds that various financial aid improves the institutions’ performance, especially enrolment, persistence, and graduation of less advantaged populations. The research found that merit aid acts as a good incentive for academically well-performing students to enroll initially, persist and graduate at their state institutions, which preserves the talented labor in the state. The other finding is that as the amount of state need-based aid increases, there is a proportional increase in the universities’ graduation rate.

“Equity and Diversity in Higher Education” (Conner & Rabovsky, 2011) provides previous research findings that Pell grant accessibility helps to narrow a risk of attrition gap between low-income student and middle-income student while student loans and work-study aid act similarly across all student populations.

In conclusion, “Accountability, Affordability, Access: A Review of the Recent Trends in Higher Education Policy Research”, Conner and Rabovsky (2011) provide recent studies’ review of the journal research which addresses the issues of policies for accessibility, affordability, equity, and population diversity, which is very important in higher education, and expresses the need of future research in federal and state financial aid, and diverse demographic student populations. The authors collected relevant journal articles, reviewed them, summarized in chronological order, and analyzed them, and compared to the recent relevant issues in higher education. They created a literature review of the existing scholarly articles and identified lack of peer-reviewed articles related to the student financial aid, student loans, college pricing, diverse population access to higher education, and higher education policies and their application effects on college students and recent graduates.

Herzog and Svoboda (2018), in their article titled “Financial Aid and College Persistence: Do Student Loans Help or Hurt?” have analyzed the relationship between student loan and retention based on two new freshman cohorts at the research public university of 3,730 total student records. They created clustering predictive model using 26 variables, including financial variables such as student loans, financial aid, cost of attendance, Expected Family Contribution, EFC, academic standing variables, including GPA, academic engagement variables, including student organization memberships, residency (boarders vs. commuters). The model prediction provides the results conferring previous research findings that existing the government subsidized loans increase the risk of attrition and non-persistence, and student’s ability to pay the cost of education is an important factor in retention persistence relation. However, again, the research is limited to only one specific institution, and specific type of the institution. Besides, it finds that results may be masked by participants’ own bias, which is expressed by the types of

loans chosen by individuals. Therefore, the impact of student loan on retention, and graduation is the topic with a lot of future research opportunities.

McKinney Lyle and Novak Heather (2014) studied the relationship between the Free Application for Federal Student Aid (FAFSA), student filing (yes or no), timing (early or late) and the amount and type of aid students receive, and factors influencing students to file it, and the timing of the filing. This was a quantitative study performing logistic regression modeling on the sample of Beginning Postsecondary Students (BPS) extracted from the National Center for Educational Statistics (NCES). The theoretical research of the article was based on Perna's (2006) model, which incorporates "Student and Family Context", "Human Capital Theory", "Institutional Context", and "Social, Economic and Policy Context" to create student behavior prediction model about student FAFSA status and enrollment and persistence status (retention). Some of the very important statistical findings were: Percentages of first-year students (freshmen) who did not file FAFSA are 44% of Community college, 26% of public 4-year institutions, and 18% of the private 4-year institution. Students in all 3 institution types who filed FAFSA in August received significantly more financial awards than the March filers, who received 73% less than the August filers in public institutions, while 71% less in private institutions. For every \$1000 increase of a student's Expected Family Contribution (EFC), the odds of not filing FAFSA increase 1%. Not filing FAFSA or late filing are strong predictors of student success in college (p.18,19,20). The results were statistically significant. The main conclusion was that high school and higher institution counselors should work early in advance with high school students to inform and provide guidance on their choices of the institution, major, and filing FAFSA, and filing it as early as the college application. First-time first-year students with undeclared entering majors were more likely not to have filed FAFSA. Filing

FAFSA, and filing early, creates opportunities for students to claim more financial resources, stipends, and grants, which allows the filers to take academic credits during the first year of the studies. This opportunity positions the learners to the higher possibility of persistence, and graduation, and shortening the time until graduation. Scholarships and grant aid reduce student dependency and the number of student loans. Therefore, in concordance with the current policy changes, and Federal Financial Aid changes, simultaneously, higher education policymakers, and financial institutions must work on further simplification of the FAFSA application process, its availability, and necessary information dissemination about its accessibility, and students' benefits of filing it and filing it early.

Bird and Castleman (2015) performed a quantitative study analysis on national representative Beginning Postsecondary Students (BPS) sample data generated by NCES consisting of first-time students enrolled during the 2003-2004 academic year. The analysis includes descriptive statistics and set of regression functions modeling. The study dedicates special attention to PELL grant recipients, which is considered low income by policymakers, education administrators, and researchers. The study emphasizes an analysis of student records of new freshmen who return to the entry institution as sophomores, students returning to the entry institution as sophomores who earned cumulative Grade Point Average of GPA 3.0 and higher during their freshman year. The analysis of independent variables vectors consisted of many factors which represent: vector of institution characteristics, which includes variables: institution type (2-year/4-year), institution control (public/private, profit/non-profit), and admissions rates. Vector of student characteristics elements are variables such as race, gender, first-generation college student, household income, and socioeconomic status, student financial information, deriving from student's FAFSA file, which includes the following variables: Cost of

Attendance (COA), dependency status, PELL grant award, other grant awards, loan borrowing, employment status, hours work, has dependents, children, spouse with the income, is living on campus, is living with parent. The findings are the probabilities of filing FAFSA regression model. The very significant findings are: The refiling rates of PELL grant recipients are higher and even are higher for achievers of 3.0 and above GPA PELL grant recipients than of the general population students. Financial aid award as a percentage of Cost of Attendance (COA) is a strong predictor of refiling FAFSA (The greater portion of COA that is covered by grant award, the more probably the student will refile FAFSA). Institution-level variable is a strong predictor of refiling FAFSA (4-year institution students, especially PELL grant recipients are more likely to refile FAFSA). Underrepresented minorities are more likely to refile than the general population. Pell award is a predictor only for students enrolled at 2-year institutions. Institution sector is also a strong predictor of refiling FAFSA. Freshman GPA is also a strong predictor of refiling. The most likely to refile is a student who is a Pell grant recipient with enrollment in a 4-year institution. This prediction analysis being associated with student success is explained in this article, as well as at least two more articles in this literature review. In conclusion, the authors, as in some other studies, suggest that the policymakers should simplify the FAFSA, and the higher education institution should make an effort to remind students promptly about the refiling, by texting, email, and any other way they can, and actively help each individual student who needs help completing the application in each step of the process.

Jones-White, Radcliffe, Lorenz, and Soria (2014) conducted a unique, very avant-garde quantitative study which employs multinomial logit regression modeling performed on the sample of one university institution's students, Minnesota-Twin Cities, and uses National Student Clearing House's (NCS) tracking services, to track student records enrollment and

graduation of transfer-out from the Minnesota-Twin Cities University. This study differs from similar studies of this kind because, instead of only two possible student outcomes, the authors include student graduation completion of the bachelor's degree in a transfer 4-year university within 6 years of the first time entry to the first 4-year institution as a third possible outcome instead of having only two outcomes: graduated from the first time entered university in 6 year, and did not graduate. Another three possible variables in the process of student academic progress and decision making are: retain at the initial institution, transfer to another university (considered more advantageous by the given student), and drop out of the university (no subsequent enrollment found in NSC, for the given record). Student academic success variable is not measured as other authors' measure only by academic GPA at the end of the first year, but rather, it is a calculated variable which reflects the ratio of intended hours necessary toward degree completion and earned hours toward degree completion. Financial aid variables (independent variables) consider many types and forms of financial aid, tuition discounts, student loans, which make this article very significant contribution in the field of the study. Furthermore, the accuracy of the predictions and the number of student choices outcomes and academic paths are significantly more precise and more detailed. For example, cost of attendance is a specific value for each record, calculated on the base of student's FAFSA filed information, aid received from each institution, unmet need and budget information. The financial aid variables consisted of three categories: need-based grant aid, loan aid, and institutional merit aid. Need-based aid contains the federal PELL grant program, the federal SEOG grant program, Minnesota State grant program, and University offered need-based help. Other financial aid variables are the student-accepted loan amount (\$), and scholarship aid (accepted or not accepted by the student when offered merit aid, dichotomous variable). The model also includes several groups of

control variables. Some very important findings are that every \$1000 increase in unmet need increases the risk of graduation; need aid does not significantly affect either departure nor graduation. Merit aid lowers risk of a student not completing a degree. The findings have the practical applications to the university institutions: lower financial burden to the students, offering different or customized merit aid to incoming freshmen, especially paying attention not to offer too much to the least 95th percentile departure of risky students, and make sure of offering enough discounts to the more departure risky, including those in the first 5 percentiles. Future research should be performed on the sample from more institutions from the region, state or the entire USA.

Gross, Hossler, Ziskin, and Berry (2015) published a time-district longitudinal several regression modeling analysis. It incorporates event analysis (EHA) and shows details of merit-based vs. need-based financial aid impact on student persistence. The study uses a nationally representative sample from the Indiana Commission of Higher Education (ICHE) statewide longitudinal data system (SLD), Student Information System (SIS), and NCES, IPEDS. The most significant findings are following. The strongest predictor of student departure is GPA, with 13% decrease of risk in departure with each 0.1 increase in student's GPA. Students who lived on-campus had lower odds of departing than commuters. Need-based aid recipients, who most likely are black or first-generation students, had lower academic achievements of GPA and SAT scores than merit-based aid recipients. The increase of merit-based aid of \$1000 did not have an impact on student retention, while the increase in need-based aid improves the retention. Merit-based aid was distributed favorably to high-income families ($EFC \geq \$79,000$), who would be able to pay the price, and to white and female populations. These institutional funds would be better used if they were distributed to a need-based lower income population because this population is very

price sensitive. Each \$1000 in need-based aid lowers attrition risk by 5.3%. In general, the study found that African American/Black students have a significantly higher risk of departing than white students with all the other variables values the same. In conclusion, the authors suggest to the institutional personnel to closely evaluate each student academic merit, as well as ethnic, racial, first generation and income variables and intentions of persistence at the given institution before making the final decision about a financial aid package is offered.

“Investigating the Impact of Financial Aid on Student Dropout Risks: Racial and Ethnic Differences” by Chen and DesJardins (2010) is another longitudinal discrete-time event history logit regression modeling analysis method study. It is performed, like the previous studies, on BPS data from NCES, data from National Postsecondary Student Aid System (NPSAS), and National Education Longitudinal Study (NELS). This study uses data of the students entering higher education as new freshmen during the 1995-6 academic year and observes the records for 6 years. The very method, especially the data preprocessing part applied to taking care of missing work study data of regression sets of modeling, is a significant contribution to the educational research. Vector of independent variables, on which the descriptive analysis and preprocessing, and later, modeling is performed, among others, contains the following variables: Student GPA, student age, sex, race, family income and parental education, financial aid received, and employment, institutional control, academic and social integration, interaction effects between race/income and financial aid, time in college. Three sets of data tests are run to determine the interaction between independent variables, variables and incorporated into the model. The study incorporates two types of predictors: time-invariant, and time-varying. The former includes student demographics, and academic background variables, while the latter includes very detailed financial aid information such as amount of PELL grant received, in each

academic term, amount of federal SEOG loans, amount of federal Stafford loans, and Perkins loans, and work-study, as the authors invented and calculated by four steps process. Besides, the matching process is repeated several times.

“Is the Community College a Less Expensive Path toward a Bachelor’s Degree? Public 2- and 4-year Colleges’ Impact on Loan Debt”, is a study conducted by Canche (2014) to compare the of amount of students’ debt acquired during undergraduate studies for graduates obtaining bachelor degrees who started at 4-year institutions versus those who started at 2-year institutions. The author emphasized the problem’s importance because policymakers and state representatives claim that the path to a bachelor’s degree is cheaper if the student first starts at a 2-year institution, community college, as such is more affordable. However, the consequences of such beliefs are various state funding being oriented exclusively toward 2-year institutions. The author did not mention the consequences. However, the program “Seeds” in Delaware benefited disproportionately institutions which granted 2-year diplomas and discriminated against 4-year institutions because state subsidized 2-year studies, and did not subsidize 4-year institutions, despite the fact that Delaware Technical Community College had a graduation rate of 10.7%, in 2012 of the cohort of 2009, and 14.5% in 2013 for the cohort of 2010 first-time full-time students. The author found lack of research in the previous written literature about distinguishing real variables from fictional once or test which arguments face reality in decision making about the choice of 2-year versus 4-year institution. Therefore, the author created a national representative sample of similar high school students, tracked them through up to 9 years, and analyzed variables of effects of 2 and 4-year institutions on their acquired loans. In Delaware, Inspire, and Aspire scholarship foundations are founded to generate scholarships for first-time

first-year students in 4-year institutions. Inspire is the State of Delaware scholarship, designated for Delaware high schools' graduates who satisfy academic and community volunteering criteria.

The purpose of the article (Canche, 2014) was to research student loan debt, and repayment of it for graduates of 4 year institutions who started at 2-year, and at 4-year institutions, and non-bachelor's degree recipients who started at 2-year and 4-year institutions, while many characteristics of the institutions and of student data were also considered in two phases modeling process.

The study (Canche, 2014) is a quantitative study. It consists of two quasi-experimental techniques, modeling phases: Propensity Score Matching (PSM), and Heckman Control Function. Independent variables are: whether student entered higher education at 2-year or 4-year institution, whether student obtained bachelor degree (Yes/No). Dependent variables are: the amount of student loan debt, outstanding debt, and the amount repaid within 9-years of college enrollment. Control variables are: the SAT/ACT taken or planned to take, High school GPA, advanced placement, gender, marital status, dependent children, and a total list of more than 30 variables. Data were collected by National Educational Longitudinal Study (NELS), and the author obtained the dataset from them. The author found that bachelor's degree students who started at 2-year institutions accumulated very similar amounts of debt as those who started at 4-year institutions. Therefore, policymakers' beliefs do not hold true. Dropouts' debt acquired for the population entering higher education from 4-year institutions is significantly higher than those who enter from 2-year institutions.

"Johnston and Barr (2013) addressed government policies and costs of student loans, and their design in their research. The research problem that the authors address is the increasing cost of the student loans and their consequences. The authors emphasize the problem's importance

because loan design determines financing of education, size of population which is going to have access to the higher education, programs and curricula which are going to be offered/discontinued, blocks of classes which are going to be taught, and number of students who are going to be admitted to each university. Basically, student loan design determines “quality, size, and participation” (p.167) of UK’s higher education and a whole country’s wellbeing in a context of finance and human resources. The authors researched the topic to report to policymakers about the state of the educational system in the United Kingdom: to report the current costs of student loans’ and current policies’ success/failures, to suggested improvements, and to present other countries’ experiences (New Zealand), because the government needed to update the policies. The purpose of the article was to estimate the cost of student loan interest subsidies, especially loan income-contingent repayments, and how its design affects universities’ finance, caps and numbers of faculty/staff appointments, and admission acceptance. The researchers want to improve the policies and enable policymakers to make the best possible decision: the most informed the best educated, and most beneficial for the entire country, and each potential student, graduate, faculty, staff, and university. The research question is actually practical and consists of several components. As given in the abstract, the objective is to simulate lifetime earnings of England’s graduates, on a sample of 20,000 records, estimate student loans repayment, and distribution cost, considering 2012 proposed interest changes (real rate instead of government borrowing rate), considering loan threshold change, and years of loan life change. The study was a quantitative study. It consists of simulation application applied on a dataset sample of 20,000 records to estimate life earnings and loan repayments of England universities graduates. The simulation method is applied machine learning theory, artificial intelligence (AI), an application on real data, which imitates the behavior of real dataset under the new given

conditions (new suggested interest rates, income thresholds, loan life). For Blair's government data reforms 2006, values are calculated and compared to estimated simulation values for proposed 2012 reform. Independent variables include: tuition and fees, interest rates during studies, payment interest rates after graduation for given income ranges, repayment period, time, age, gender. Dependent variables are average graduate salary (depending on age and quantile), subsidy gain/loss, absolute gain/loss in loan subsidy, and total loan subsidy. The major three findings of the article are:

- 1) 25% of the student loan was never repaid,
- 2) Changing interest rates from government borrowing to real in 2012 significantly reduced the loss, because middle and upper-income earners paid the most of their debt,
- 3) However, increase in threshold income change introduced in 2012 counterbalanced the loss reduction to further loss because it allows for higher index income groups to still have lower interest rates (p. 168).

Santelices, Catalan, Kruger, and Horn (2015) provide recommendations to Chilean educational policymakers about student persistence, and financial aid changes, after major changes happened during the last decade in the Chilean financial aid system of higher education. It is a quantitative study using descriptive statistics, logistic regression, and prosperity score matching (PSM) modeling. Dataset is a sample of 75% of all high school graduates entering the higher education in Chile in cohorts 2007-2010. The findings show high rates of dropout, positive impact of need-based aid provided to low-income students, and non-subsidized student loan is a great predictor of persistence in institutions of higher education in Chile.

The study titled “Modeling the Impact of National and Institutional Financial Aid Opportunities on Persistence at an Elite Chilean University” by Horn, Santelices, and Avendano (2014) is a South American experience of Pontificia Universidad Católica de Chile, (PUC), highly selective, large university, with very strong persistence. The university student population, after the major national changes in the country, is studied with logistics longitudinal regression, and descriptive statistics, to determine likelihood of outcomes on persistence, considering student academic characteristics such as university GPA, major, enrollment by term attendance, and financial variables, such as socioeconomic status, employment, type of financial aid, and loans received. As the other country’s researcher found on their datasets, many of the findings align the previous research. The grant aid helps lower economic status students persist and graduate, an increase of the GPA achieved at the university increases the chance of persistence and graduation. However, students with a STEM major are in danger of dropping out. Therefore, even the dataset is representing only the best performers graduating from Chilean high schools, it still reflects several characteristics of the general population.

Asplund, Abdelkarim, and Skalli (2009) published a review of the quantitative study performed on the set of tertiary education system enrollment set in Finland. The goal of the Finish policymakers at the time was to promote student loans, which were very unpopular among the students at the time. The administrators’ goal was to lower students’ hours of part-time work, and to replace the necessary student financing during the time of enrollment at the universities, with the loans, in order to shorten the time-to-degree period. One interesting finding of the study is that student loans improved time-to-degree, and graduation of the students of lower economic status. However, the loans negatively affected time-to-degree and graduation of the upper socioeconomic status’ students. The sample of the cohort on which descriptive statistics is run

shows that female students with lower socioeconomic status are overrepresented, while male students with high socioeconomic status are underrepresented. Students with a highly educated father are slightly more likely to graduate and have less time-to-degree.

Arendt (2012) reported on a detailed quantitative examination of the effect of the major financial aid reform implemented in Denmark on the persistence and graduation of Danish higher education (tertiary education system) students, which provided to students up to 57% increase of grant money, \$3000. The findings are similar to the United States researchers in the way that the increase in grant money improves the lower socioeconomic students' persistence. However, the increase in grant money did not improve the graduation rate. The study compares the student success, and financial variables of the students enrolled at the Danish tertiary system at the same student class during academic years before the reform, with those after the reform. The study also uses logit regression modeling. The author also describes Danish tertiary education system in detail, as well the method, and all the variables, the modeling and the results.

Oreopoulos and Petronijevic (2013) present a summary review of data trends and analysis and presentations previously published. The authors provide summary and overall explanations and contextual summary of important facts and events which guide individuals' decisions about entering college, persisting in the institution, choosing major of study, and path to graduation considering investment of money time and effort, and the expected return on investment once individuals graduate, enter the workforce and start earning salaries.

Section – B: Theoretical Framework and Leadership Theories

On the basis of Bandura's (1997) well-known self-efficacy theory, new theoretical frameworks are emerging. Since the recession economics influenced all markets since 2008,

colleges and universities became more competitive, and higher competition among them for the best possible entering cohort students', predictive analytics and student academic risk modeling became a practice for many institutions. Johnson, Johnson, Stigman, Odo, Vijayan, and Tata (2016) surveyed first-time first-year students using Personal Background Preparation Survey (PBPS) survey instrument, administered with high confidentiality online, by email. The goal was to reduce maximally (eliminate) Adverse Academic Situation Events (AASE), which were: student receiving Incomplete Grade (IG), students' marginal performance (MP), students' withdrawal from a course (WC), students' withdrawal from a course for personal reasons (WP) (p.316). Analyzing data from the survey, and students' data from the institutional information system combined in a research dataset, two steps cluster analysis using SPSS22 was applied. Researchers calculated Prevalence of Academic Risk, (PAR) for each student and also was able to cluster valid empirical groups, which later were provided evidence-based group-specialized interventions saving significant institutional resources.

Heckman, Lim, and Montalto (2014) introduce a new view into the human coping mechanism, stress reactions, and ways to help financially stressed students, and indirectly, help institutions of higher education retain and graduate them, and lower their financial, emotional, and health burdens in the long run, years after graduation, by teaching them to master, and keep discipline in practicing healthy financial habits. The novelty is in the authors' introduction of Roy Adaptation Model (RAM), a concept which is coming from nursing practice of patient treatment into the education and finance therapy. The authors consider the patient as an individual, a complex mechanism, consisting of two systems: system of control process /current adaptation level and system of effectors/ coping mechanism. Input stimuli are possible financial stressors, such as not being able to pay bills on time, or not having enough financial meanings to

attend events with peers. The output of the model is one of two possible new person's condition – either financial stress (illness) or no financial stress (health). The method is surveyed population, descriptive statistics, z-testing and three level logistic regression modeling. Data were collected from Ohio Student Financial Wellness Survey. It collected 4,488 full responses from students from 19 colleges who answered all 100 questions. The authors stated three hypotheses, which all showed to be true:

- 1) Students experiencing financial stressors were more likely to be financially stressed,
- 2) Students reporting greater financial self-efficacy were less likely to be financially stressed, and
- 3) Students reporting greater financial optimism were less likely to be financially stressed (p. 24).

Heckman et al.'s (2014) advice to student life administrators is to organize less expensive, if possible, free, social and cultural events on their campuses, so that students can participate with less burden, and the higher education administrators and policymakers can introduce financial education, and financial therapy counselors to help students be master both knowledge, as well as good financial habits and behavior, which may elevate their self-efficacy, and financial and mental wellbeing, and may improve retention and graduation at the institutions.

Lim, Heckman, Letkiewitz, and Montalto (2014) report evidence of a new field in financial planning and counseling: financial therapy. Since the economy influences college students' behavior, both academic and financial, and their mental and physical health, it is important that institutions of higher education provide proper financial education, planning, and counseling, to know the population groups which are less likely to initiate the first contact with the financial planning professionals, and to reach out to the groups and help them especially at the students struggling moments. These researchers applied logistic regression to run three

predictive analytics models focused on the event that college student may seek professional financial help. The researchers stated and showed true below three hypotheses:

- H1) There is a positive relationship between financial stress and financial help-seeking.
- H2) There is a positive relationship between financial self-efficacy and financial help-seeking.
- H3) The relationship between financial stress and financial help-seeking is moderated by financial self-efficacy (p. 151).

Lim et al. (2014) concluded that students with higher financial self-efficacy are more likely to initiate help-seeking contact with a financial professional than the lower financial self-efficacy would (p 159). Also, students who received personal finance education are more likely to seek help than those who did not (p.156). The researchers believe that one of the greatest contributions to the field of educational leadership is “the highlight of the relationship between financial stress, financial self-efficacy, and financial help-seeking” (p. 158). Therefore, they suggest to college administrators to offer personal financial classes on campus to increase financial self-efficacy of their students, and future experimental research for the researchers to further research “relationship between financial stress, financial education, financial knowledge, and financial self-efficacy” (p. 159).

The purpose of Lown’s (2011) study was to develop a specific scale: financial self-efficacy scale, which measured self – efficacy specific for financial behavior, and aspects of personal financial management and decision making. The scale should help educators and counselors better understand, guide, and motivate their students and clients, and evaluating their financial programs effectiveness (p. 56). The researcher performed one-way analysis of variance (ANOVA) and factor analysis on a dataset of 726 employees of one large state university. There was little ethnic diversity, respondents age range was (23-84), with a median of 48. The most

participants are Caucasian, married, have an income of \$50,00 or more, and had earned a graduate degree (p. 57). This is the limitation of the article, and the researcher suggests further research to be performed on more diverse population (different races/ethnic, different cultures, different age, less educated). This dissertation researches adolescents pursuing bachelors degrees, and minority-serving institution, which is the opposite of Lown's (date) article.

Bandura (2006) defines human agency as a mechanism, which regulates persons' intentional influences on his/her functioning and life circumstances. Bandura's (1997) book *Self-efficacy: the exercise of control* states that the key feature of personal agency is the power to initiate action for given purposes. He also states that self-efficacy beliefs are the most central and the most pervasive human agency, it is the basis of human actions, and it is concerned with self-capacity – a person's belief about her/his own ability to perform the certain cognitive task. He defines self-efficacy as: "Perceived self-efficacy refers to in one's capabilities to organize and execute the courses of action required to produce given attainments" (pgs. 2-3). The highest values of self – efficacy theory are its guidelines for people about influencing their lives. He describes self-efficacy in detail in many aspects through many chapters of this book.

Bandura's (1997) book, *Self-efficacy: the exercise of control*, defines self-efficacy strength as a measurable variable. He defines self-efficacy scale such as a scale which "measures peoples' beliefs in their abilities to fulfill different levels of task demands within a psychological domain selected" (p. 44). The scale measures persons' capability now, not the persons' estimate of his/her performance capability in the future or past. Bandura describes many different types of self-efficacy scales available to researchers to suit different studies' needs. Bandura describes different types of self-efficacy scale. The common property of all self-efficacy scales is that they have no negative values because the minimum of zero (0) represents the least possible value –

person's belief that he/she can't perform a given task at all – absolute incapability. The most commonly used scales are linear scales in ranges of (0,100) and ordered in intervals of appointments of 10, where 50 represents moderate ability to perform the task, and 100 represents a person complete certainty to complete the task. Self-efficacy scales could be single and dual-judgment formatted, where single-judgment is simpler and easier to use while providing the same measure. Some self-efficacy scales are in the range (0, 10) in intervals of 1 where 10 represents complete competence. Some self-efficacy scales are ordered in the upper scale part, while others self-efficacy is in the lower part of the scale, and some are not ordered at all.

Simpson, Smith, Taylor, and Chadd's, (2012) in their study "College Debt: An Exploratory Study Risk Factors Among College Freshman" examined a Midwestern University students' attitudes - willingness to acquire educational debt corresponding to: students' loan knowledge, their money management skills, their debt tolerance money attitudes, their estimate of the future income, and their college choice process. This is an exploratory study with the main goal to find the reasons for some students' having more readiness to incur educational debt, and the students' criteria for affordable amount of educational debt.

Simpson et al., (2012) assumed the following five hypotheses:

- H1) Is there a relationship between loan knowledge and willingness to incur debt?
- H2) Is there a relationship between money management skills and willingness to incur debt?
- H3) Is there a relationship between debt-tolerant money attitudes and willingness to incur debt?

- H4) Are students who overestimate their future income more willing to incur debt than students who do not overestimate their future income?
- H5) Can loan knowledge, money management skills, and money attitudes predict the role of cost in the decision-making process in college choice? (P. 17).

From their findings, they recommend the following:

- Continued research is needed to identify risks of student debt accumulation, and to be performed on student population which includes a student from more universities in order to be more generalizable.
- High schools and colleges should create an educational program for students and parents to teach them about risks of over-borrowing, alternatives of over-borrowing, and the ways of responsible borrowing (p 24).
- Colleges should provide students with the annual information and counseling to each borrower about his/her particular loans. Specifically, they should be counseled about the amount which should be appropriate to borrow corresponding to their college major, and future earnings after graduation.
- Congress should make more grant available, institute more appropriate repayment plans, based on majors, and debt amounts (p25).

They found the following:

- The participants answered little more than a half of student loan questions correctly (p. 19).
- The majority of the participants have a good money management skills (p 20).

- Over a half of the participants overinflated their projected future earnings (p 20).
- Loan knowledge, money management skills, and debt tolerant attitudes did not predict student college choices (P.21).

Harrison and Agnew (2016) in their article:" Individual and Social Influences on Students' Attitudes to Debt: a Cross-National Path Analysis Using Data from England and New Zealand", explored the following research questions:

- 1) Do particular social groups...have significantly different attitudes toward debt?
- 2) Are these attitudes mediated through commonly used measures of personality?
- 3) What role does financial literacy have in predicting debt attitudes, and what are its relationship to personality and social factors? (p. 338).

Harrison and Agnew are using survey of two universities new freshman populations, one in the UK and one in NZ to explore the factors which influence students' attitudes toward educational loans. However, the study is limited to the populations of full-time first-time students only, also only enrolled at two universities, and only enrolled in two academic areas majors, business, including economics, applied mathematics, commerce, marketing, and accountancy, and social sciences, including psychology, sociology, political science, and education. They apply descriptive statistics and path analysis method to analyze the survey results. They found students' debt attitudes to be complex and mediated through many social and personal variables, and individual preferences toward debt. They suggest that student attitudes toward debt should be studied as temporal data because they believe this variable is fluctuating (p.349).

Burns (1978) introduced the concept of transformational leadership and stated its comparisons to transactional leadership. The transformational leadership is application of adopting the Clinical Model of targeting groups of students regarding their PAR Profiles, in advising, teaching, and counseling, as suggested by Johnson, Johnson, Steigman, Odo, Vijayan, and Tata (2016), by surveying the new students' populations, determining their personal academic risk and applying feedback loop mechanism of support to improve retention and graduation. Furthermore, it is even concerned about the graduates' post-graduation events such as gainful employment or entrance to graduate school. This increases the moral values of students (followers), as well as of leaders (faculty, staff, and administrators), and changes the processes of serving each student individually, as well as in the groups. Bass and Bass (2008), the authors of "*The Bass Handbook of Leadership: Theory, Research, and Managerial Applications*" concluded that "Intellectual stimulation, charismatic leadership, and inspirational leadership are major components of transformational leadership, which adds to transactional leadership in generating positive outcomes in the groups and organizations led" (p. 648).

Summary

This chapter discussed the related literature regarding student financial aid, student loans, student success, relations among financial aid, loan, and success, and educational theoretical leadership framework pillars for the research. Chapter – III will inform the reader regarding the methodology employed to carry out this research.

CHAPTER - III

METHODOLOGY

Introduction

This chapter explains the methodology used to examine the relationship of educational loan, students' self-efficacy, attitude towards debt and their impact on their academic success. The description of the research design employed, selection of the participants, the survey administration, the process of data collection, data analysis techniques, and the information about the potential ethical issues have been presented in this chapter.

Research Design

This was an exploratory mixed method type of study on the dataset of undergraduate students studying in a 4-year public historically minority institution. A mixed methods research is that the researcher will use a mix of quantitative and qualitative methods that have complementary strengths and do not have overlapping weaknesses. Haphazardly choosing quantitative and qualitative approaches will result in poor results. Choosing the appropriate methods to mix in the study requires logical and purposeful thought and planning (Creswell et al., 2003)

A survey instrument was developed by adapting Lim et al.'s (2014) conceptual framework of the financial stress, self-efficacy, and financial help-seeking behavior of college students, Financial Self-Efficacy Scale (Lown, 2011), and the Student Attitudes Towards Debt scale (Lea, Webley, and Walker, 1995). This survey instrument contained questions regarding the students' demographics, their student loan, financial self-efficacy, financial stress, perceived academic success and the attitudes towards debt. The Cronbach's alpha (using psych package in

R) was calculated, and the pilot testing of the survey was done by trying it out on a few randomly selected students, and after verifying its content validity by obtaining the feedback from the faculty experts, it was administered to the subjects of this study to obtain data for this research.

Participants

The participants of this study ($N = 565$) were 4-year students from a predominantly minority serving institution in class categories: freshman, sophomore, junior, and senior, sampled randomly to represent the corresponding sample of each population. A copy of the letter explaining the purpose of the survey, its confidentiality, and instructions, were provided to the participants. The surveys were voluntary, and the students were informed that they may withdraw from participation at any time. They were also assured that their data will be kept confidential. This study is categorical, therefore, the amount of loan has been used as a category to measure its relationship with the level of confidence of academic performance.

Survey Administration and Data Collection

Survey was administered during Summer 2018 and Fall 2018. To make sure that the sample was representative of the student population at the university, the survey was administered by the researcher herself as well as with the help of the faculty members from many departments all over the campus. The highest number of the responses were collected in from business, psychology, English, mathematics, psychology, education, and mass communication departments of the university.

The students were asked to honestly answer the questions of the survey and not to respond twice. If they are still in high school, or were the graduate, or international students, they were requested not to respond to the survey. Dreamers, DACA population, were also

included in the study. The survey responses were kept anonymous and the students were informed about the anonymity. All data collected in a paper and pencil form were entered into Microsoft Excel spreadsheet for further data processing.

A total of 565 responses were collected. This sample was considered as the representative sample of the whole main campus/university population of degree seeking undergraduate domestic students across the gender, residency (In-State/Out-of-State), race, and freshman/returning students ($p>0.05$).

Chi-Square calculations and t-test results were conducted regarding the gender distribution, residency contingency, credit hours taken, racial distribution, class distribution, transfer students, border-commuter students and the subjects' cumulative GPA. The results have been presented in Tables 1 to 8 below:

Table – 1: Gender Distribution of the Sample

Chi-Square Calculator

Success! The contingency table below provides the following information: the observed cell totals, (the expected cell totals) and [the chi-square statistic for each cell].

The chi-square statistic, p -value and statement of significance appear beneath the table. Blue means you're dealing with dependent variables; red, independent.

	Female	Male	Marginal Row Totals
Sample	389 (373.46) [0.65]	171 (186.54) [1.29]	560
Population	2482 (2497.54) [0.1]	1263 (1247.46) [0.19]	3745
Marginal Column Totals	2871	1434	4305 (Grand Total)

The chi-square statistic is 2.2305. The p -value is .135307. This result is *not* significant at $p < .01$.

Table – 2: Residency Distribution of the Sample**Chi-Square Calculator**

Success! The contingency table below provides the following information: the observed cell totals, (the expected cell totals) and [the chi-square statistic for each cell].

The chi-square statistic, *p*-value and statement of significance appear beneath the table. Blue means you're dealing with dependent variables; red, independent.

	In-State	Out-of-State	Marginal Row Totals
Sample	254 (251.13) [0.03]	304 (306.87) [0.03]	558
Population	1683 (1685.87) [0]	2063 (2060.13) [0]	3746
Marginal Column Totals	1937	2367	4304 (Grand Total)

The chi-square statistic is 0.0687. The *p*-value is .79321. This result is *not* significant at *p* < .05.

Table – 3: Distribution of the Sample on Credit Hours Taken

Groups	N	Mean	SD	t- difference
University undergraduate population	3746	14.99	2.92	- 2.41
Sample population	520	15.33	2.98	

Differences on the credit hours were found not significant at 1%

Table – 4: The Racial Distribution of the Sample

	Black or African American	Asian	White	Hispanic	Indian American or Alaska Native	Two or More Races
Sample	431	4	43	33	2	41
Population	2,820	17	309	357	15	222

Fisher test regarding the racial distribution had returned *p*-value of 0.05210948 which has not been found to be significant

Table – 5: Class Distribution of the Sample

Chi-Square Calculator

Success! The contingency table below provides the following information: the observed cell totals, (the expected cell totals) and [the chi-square statistic for each cell].

The chi-square statistic, *p*-value and statement of significance appear beneath the table. Blue means you're dealing with dependent variables; red, independent.

Results						
	First-Time Freshman	Other Freshmen	Sophomore	Junior	Senior	<i>Row Totals</i>
Sample	180 (156.01) [3.69]	19 (64.52) [32.12]	111 (114.46) [0.10]	127 (113.43) [1.62]	118 (106.59) [1.22]	555
Population	1029 (1052.99) [0.55]	481 (435.48) [4.76]	776 (772.54) [0.02]	752 (765.57) [0.24]	708 (719.41) [0.18]	3746
<i>Column Totals</i>	1209	500	887	879	826	4301 (Grand Total)

The chi-square statistic is 44.4973. The *p*-value is < 0.00001. The result is significant at *p* < .01.

Table – 6: Transfer Student Distribution of the Sample

Chi-Square Calculator

Success! The contingency table below provides the following information: the observed cell totals, (the expected cell totals) and [the chi-square statistic for each cell].

The chi-square statistic, *p*-value and statement of significance appear beneath the table. Blue means you're dealing with dependent variables; red, independent.

Results						
	Not (including past semester Transfers)	New transfers				<i>Row Totals</i>
Sample	526 (526.74) [0.00]	29 (28.26) [0.02]				555
Population	3556 (3555.26) [0.00]	190 (190.74) [0.00]				3746
<i>Column Totals</i>	4082	219				4301 (Grand Total)

The chi-square statistic is 0.0235. The *p*-value is .878266. The result is *not* significant at *p* < .01.

Table – 7: Boarders vs Commuters Distribution of the Sample

Chi-Square Calculator

Success! The contingency table below provides the following information: the observed cell totals, (the expected cell totals) and [the chi-square statistic for each cell].

The chi-square statistic, *p*-value and statement of significance appear beneath the table. Blue means you're dealing with dependent variables; red, independent.

	Boarder	Commuter	Marginal Row Totals
Sample	391 (358.4) [2.97]	160 (192.6) [5.52]	551
Population	2404 (2436.6) [0.44]	1342 (1309.4) [0.81]	3746
Marginal Column Totals	2795	1502	4297 (Grand Total)

The chi-square statistic is 9.731. The *p*-value is .001812. This result is significant at *p* < .01.

Table – 8: Cumulative GPA of the Sample and the Populations

Groups	N	Mean	SD	t- difference
University undergraduate population	2515	2.89	0.64	- 2.79
Sample population				

Comparing the sample with the whole population for the credit hours taken, the sample differs only marginally, therefore, it is still representative ($p>0.01$). However, the distribution of cumulative GPA, class, and residence (borders/commuters) significantly differed from population. There can be two possible explanations for the sample's GPA being significantly larger than for the whole population: the better students tend to answer surveys in higher numbers, and the students tend to report inflated cumulative GPA. First-Time Freshman population is oversampled, while returning freshman population is under sampled. Boarder students are overrepresented at the sample probably because they are easier to solicit while administering the survey on the Main Campus.

Data Analysis

The dataset was researched to find the possible Chi-square coefficient to prove or disprove the hypotheses by using SPSS software. Each category of the student population was further subcategorized, based on the amount of the student loan acquired, so that the scores on the survey can be obtained for each subcategory. Descriptive analysis and Fisher test were used to explore the correlation among the variables i.e. the student loan, students' attitudes towards debt, self-efficacy and the grade point average for the different categories of the students: class, residency status, gender, and race.

The data cleansing was performed initially in excel. Replacement and unification of codes (e.g., y with Y) was performed in R. All discrete variables were converted into factors. When applicable, the factors were ordered (e.g., from strongly agree to strongly disagree).

Answers to Q23-Q25 were discretized-transformed. Question 25 response values of Cumulative GPA were removed for first-time freshmen and new transfers. Subsequently, cumulative GPA was discretized into the following categories:

- 1) 0 – 2.00
- 2) 2.01-2.50
- 3) 2.51-3.00
- and
- 3) 3.51-4.00 bins.

Question 24 response values of “Number of Credit Hours a student is Registered This Semester” is considered inapplicable in the case when the response value was greater than 21 and were converted into NA. All applicable values provided by respondents were categorized into two categories and then this attribute was discretized into 2 bins: values of 12 credit hours and higher corresponding to full-time enrollment, and values smaller than 12 credit hours, corresponding to part-time students.

After manual cleansing (in excel), the majors (Question 23) were assigned their corresponding 2-digit CIP Code and corresponding descriptions according to the NCES 2010 guidelines for academic areas and disciplines. This was joined back to the data.

Question 8 data responses are transformed into unary variables indicating types of funding: 1) Athletic Aid, 2) Merit Based Scholarships and Grant Aid, 3) Post 9/11 GI Bill and DOT aid /Veteran based scholarships and grants, 4) Work Study, Private, Non-profit, and Charitable Foundations / Donations Aid, 5) Need based Scholarships and grants which includes Pell Grants, and Aid for Needy Students.

In order to determine association among variables, we utilized Fisher exact test (since ALL the variables were either discrete or discretized). For the current research, the investigator, preferred to use the Fisher test rather than chi-square since counts in some cells of the contingency tables could be small (some tables are large, 5*5).

Prior to performing the Fisher test, the questions were ordered as:

- Demographic questions Q1, Q2, and Q4 through Q7; Academic Progress questions Q18 through Q25; Financial Standing questions Q8 through Q17, and Q3.
- Questions Q17 and Q3 have unary variables representing receipt of particular kinds of awards. All scholarships listed by the respondents were categorized in one of the following categories: 1) Athletic Aid, 2) Merit Based Scholarships and Grant Aid, 3) Post 9/11 GI Bill and DOT aid /Veteran based scholarships and grants, 4) Work Study, Private, Non-profit, and Charitable Foundations / Donations Aid, 5) Need based Scholarships and grants which includes Pell Grants, and Aid for Needy Students.

- Note that for the Fisher test we use discretized Q24, Q25 and transformed Q23, as explained above (25 attributes).
- Money management skills questions Q9 through Q16 and retention/graduation questions Q26 through Q29 (12 attributes). These questions investigate respondents opinion about whether they think they can perform to the best of their academic ability and the opinion about whether they will be retained given the debt they carry.
- Attitude questions (Q30-Q44) (15 attributes)

In other words, questions were grouped by:

- The population categories such as demographics, academics, financial standing, and
- The population opinion/perception

To establish the internal consistency of questions, the Cronbach's alpha (using psych package in R) was also calculated and the results have been reproduced below:

For Q30-Q44, 95% CI of alpha is (0.74, 0.79)

For Q9-Q16, Q26-Q29: 95% CI of alpha is (0.59, 0.67)

For Q9-Q13: 95% CI of alpha is (0.62, 0.71)

For Q26-Q28: 95% CI of alpha is (0.73, 0.8)

As per the results above, the internal consistency of questions Q30-Q44 and Q26-Q28 was found acceptable. Further, the mixed methods approach was adopted to triangulate qualitative and quantitative data to obtain reliable results. For the purposes of this research, the level of significance has been set at 0.05.

Potential Ethical Issues

The survey was administered to the adult student population, and they were protected by the Belmont report, the Family Educational Rights and Privacy Act (FERPA) and other laws.

The subjects were informed that the data will be accessible only to the researcher, their responses will be kept confidential, no names will be included in any report, and the aggregate responses will be presented in the study. The results of the survey and the questionnaire were kept anonymous and complete protection of the individual identity was ensured. No discomforts or risks were identified as related to the participants of this study.

The researcher had obtained prior approval of the DSU's Institutional Review Board before starting to collect the data. In the Informed Consent letter, the participants were informed that their participation was voluntary, and they had a right to withdraw from the survey at any time they want. In the introduction section of the letter, the author had introduced herself and the research objectives of this study.

To maintain the confidentiality of the data, the surveys and other documents, the data analyzed, and the results were kept in a locked file. These documents will be shredded under the supervision of the research mentor after the dissertation has been accepted. Electronically recorded information stored on the secure server of the investigator's computer's network drive will be erased using commercial software applications designed to remove all data from the storage device upon the approval of the dissertation and expiry of the time to keep the record in safe custody.

Summary

This chapter contained details regarding the research design employed, selection of the participants, survey administration and data collection, data analysis, and the IRB related concerns. The next chapter will project the results derived from the data analysis and its discussion.

CHAPTER – IV: RESULTS AND DISCUSSION

This research was carried out to investigate if there exists a relationship between the student loans of a 4-year predominantly minority institution's undergraduate students and their financial self-efficacy, attitude towards debt, and self-confidence concerning graduation in 5 years or less in the major of their curriculum choice. This research sought to answer the following Research Questions:

RQ 1: To what extent is there a relationship between the students' loans and the perceived self-efficacy of the undergraduate students studying in a minority-serving institution about persisting in their major of curriculum without pause?

RQ 2: To what extent is there a relationship between the students' loans and the perceived self-efficacy of the undergraduate students studying in a minority-serving institution about their graduation from the institution in 5 years or less?

RQ 3: To what extent is there a relationship between the students' loans and the attitude towards the debt of the undergraduate students studying in a minority-serving institution about persisting in their major of curriculum without pause?

RQ 4: To what extent is there a relationship between the students' loans and the attitude towards the debt of the undergraduate students studying in a minority-serving institution about their graduation from the institution in 5 years or less?

RQ 5: To what extent is there a relationship between students perceived self-efficacy and the attitude towards the debt of the undergraduate students studying in a minority-serving institution?

The first part of this chapter presents a descriptive summary of the analyses carried out for this research while the second part presents a summary of the analyses that evaluate the three research questions.

Descriptive Summary of the Analyses

In order to project a clear picture of the studied relationship, for each pair of questions where the result of the Fisher test is significant, p-value and frequency table has been presented in this chapter, where for each value of an attribute (a row in table), distribution of answers in columns (by percent) has been shown.

Results of pairwise Fisher tests showing p-values for all survey questions are given below at Figure - 4. The darkest marine blue square values indicate pairs of variables with the smallest p values. In Figure - 5, red squares correspond to pairs of questions with p-values of the Fisher exact test smaller than 0.01, which is considered significant in this Dissertation.

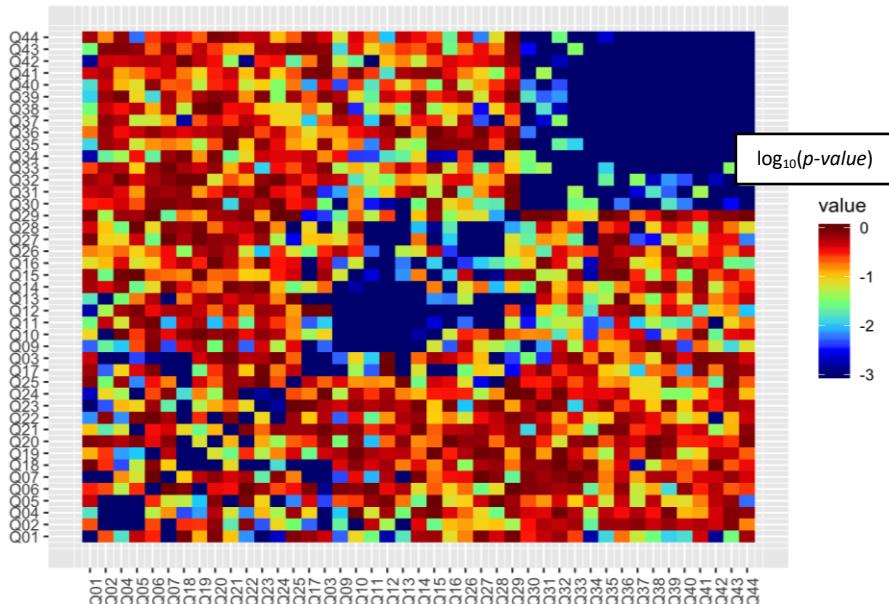


Figure 4: p-values of Fisher exact test for each pair of questions

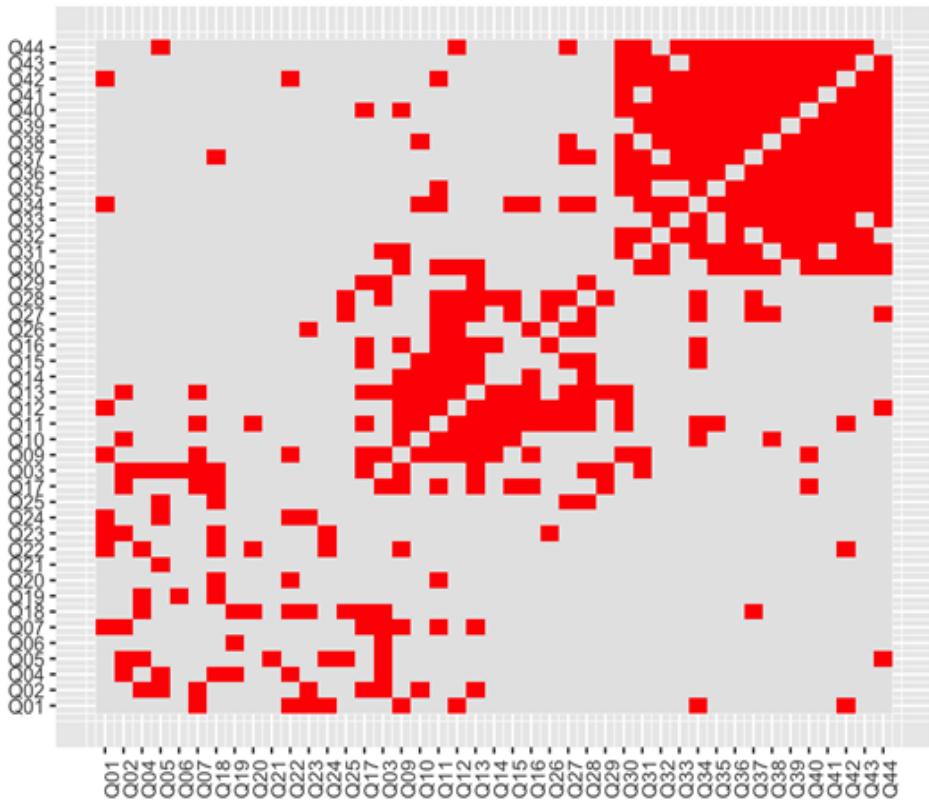


Figure 5: Red squares indicate pairs of questions with significant association of answers (p-value of the Fisher exact test<0.01)

It is important to note two very highly correlated groups of questions. The questions 30-44 correspond to the attitude towards debt while Questions 3,9,10-16, 26-28 correspond to money management and academic variables correlations.

Please note that for each pair of questions where the result of the Fisher test is significant, we show p-value and frequency table, where for each value of an attribute (a row in table), we show distribution of answers in columns (by percent).

Results & Discussion on Paired Questions with significant p value

From the analysis of data obtained through Questions 1 and 9, it transpires that 40.62% of the surveyed female students responded, “Extremely true” to the question (Q9) that it was hard for them to stick to their spending plan when unexpected expenses arise, and only 2.6% voiced that this was “Not true at all”. As compared to the female students, this statement was found to be extremely true by 33.72% of the male students, while 8.93% students said it was not true at all. These results suggest that when faced with any unexpected financial eventuality, the female students find it more difficult to deal with it as compared to the male students. The results of the paired questions 1 and 9 have been projected in Table – 9.

Table – 9: Paired Results of Questions 1 and 9

Q. 01. Gender? Female Male

Q. 09. It is hard to stick to my spending plan when unexpected expenses arise.

p-value= 0.00529994800052999

Gender	Exactly True	Moderately True	Hardly True	Not At All True
Female	40.62	45.57	11.20	2.60
Male	32.14	44.64	14.29	8.93

The results for the questions 1 and 42 have been provided in Table 10. These results show that the university female students do not like borrowing money more than male students; 51.48% female vs. 36.97 males strongly agree with the statement:” I do not like borrowing money”. Furthermore, 27.49 female agree with the statement, while 26.06% of male agree.

Table – 10: Paired Results of Questions 1 and 42

Q. 01. Gender? Female Male.

Q. 42. I do not like borrowing money.

p-value= 0.001439986600144

Gender	Strongly Agree	Agree	Neither Agree/Disagree	Disagree	Strongly Disagree
Female	51.48	27.49	12.13	3.77	5.12
Male	36.97	26.06	20.00	9.09	7.88

Table – 11: Paired Results of Questions 1 and 39

Q. 01. Gender? Female Male.

Q. 39. Borrowed money should be repaid as soon as possible.

p-value = 0.011959881401196

Residency	Strongly Agree	Agree	Neither Agree/Disagree	Disagree	Strongly Disagree
Female	56.60	23.18	10.78	3.77	5.66
Male	46.95	20.12	14.63	10.37	7.93

The results in Table – 11 on questions 1 and 39 have demonstrated similar results as in Table – 10 (on questions 1 and 42) in that a 56.60% of the female subjects are of the view that the borrowed money should be repaid as soon as possible as compare to 46.95% male students.

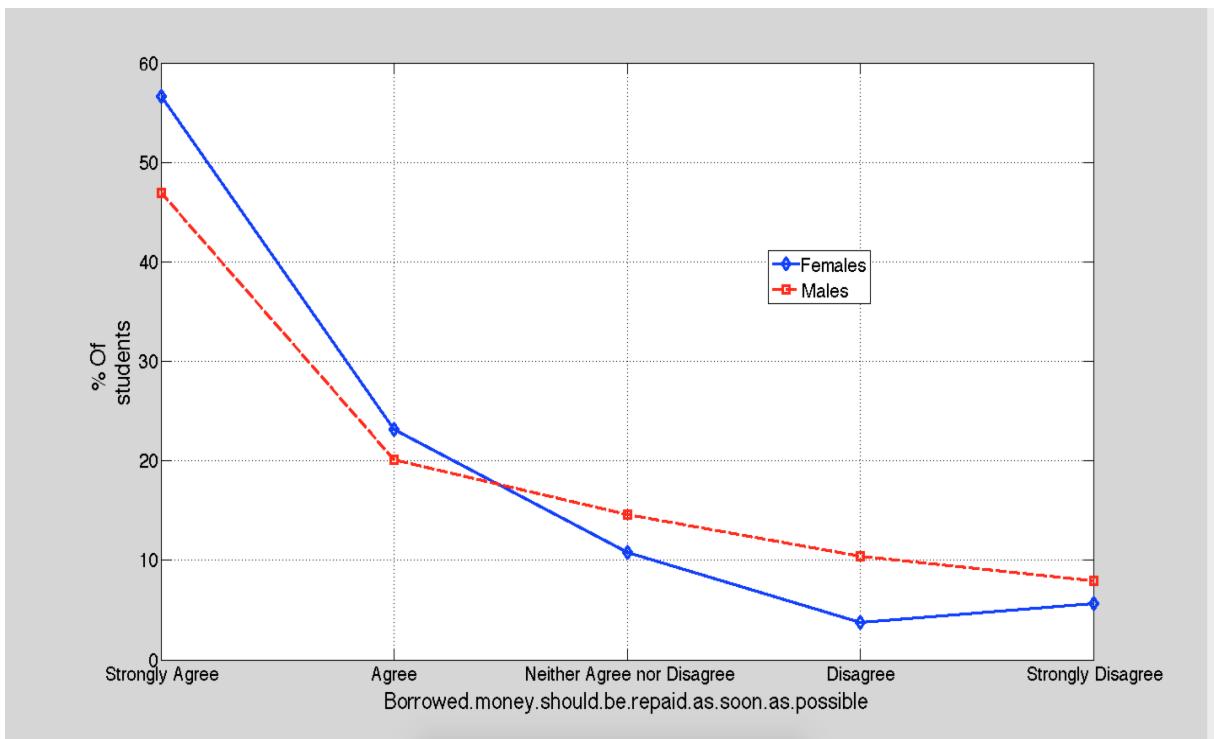


Figure - 6: Gender and Repayment of loan amount

Table – 12: Paired Results of Questions 3 and 4

Q. 03. What amount of student loan will you acquire by the time you graduate?

Q. 04. You pay the tuition fee as an In-State student or an Out-of-State student?

p-value= 2.0000800002e-05

Loan amount (\$)	In-State Student	Out-of-State Student
0	53.39	46.61
1-10,000	57.14	42.86
10,001-20,000	55.93	44.07
20,001-30,000	43.37	56.63
30,001-40,000	55.38	44.62
40,001-50,000	38.46	61.54
More than 50,000	23.16	76.84

Results of the Questions 3 and 4 as depicted in Table – 12 above show that 53.39% of the In-State respondents believe that they will acquire no debt (\$0) till graduation, as compared to 46.61% of the Out-of-State students. Furthermore, only 23.16 In-State students report perceiving to owe more than \$50, 000 till graduation whereas 76.84% of the Out-of-State Respondents believed so. Therefore, Out-of-State students, for whom we know would acquire more debt because of the Out-of-State Tuition and Fees, which are double than the In-State, perceive a higher amount of student load until they graduate.

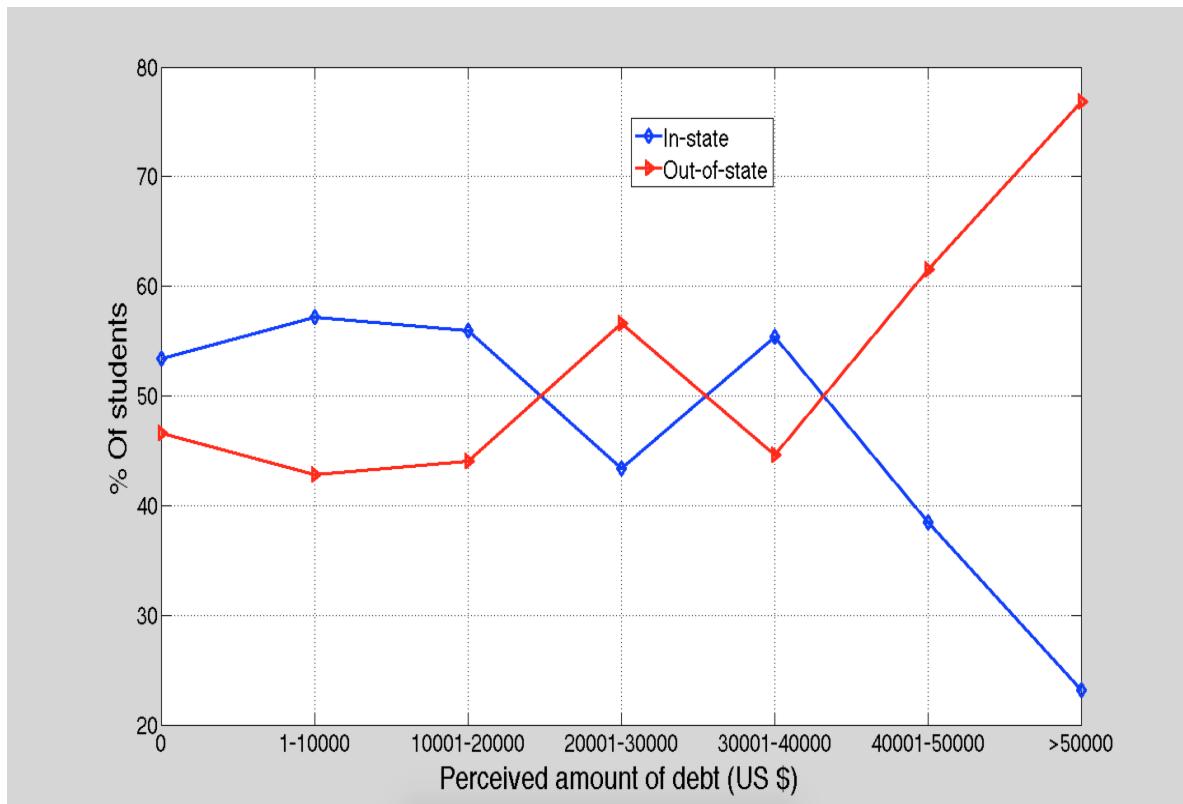


Figure - 7: Perceived amount of debt by the In-state and Out-of-state students

Table – 13: Paired Results of Questions 3 and 13

Q03.What amount of student loan will you acquire by the time you graduate?

Q13.I worry about paying back my student loans.

[1] "p-value= 1.0000900001e-05"

Loan amount(\$)	Exactly True	Moderately True	Hardly True	Not at All True
0	5.83	10.83	8.33	75.00
1-10,000	18.84	24.64	28.99	27.54
10,001-20,000	40.68	42.37	10.17	6.78
20,001-30,000	42.68	30.49	15.85	10.98
30,001-40,000	50.00	28.12	17.19	4.69
40,001-50,000	48.00	26.00	20.00	6.00
More than 50,000	51.06	29.79	9.57	9.57

The results of the Fisher Test on paired questions 3 and 13 in Table – 13 have revealed that the more amount of money the students perceive they will acquire in their debt by the time they will graduate, the more they worry about paying it back, signifying a positive direct relationship between the two which has been found significant at 0.01 level. Being concerned and worried about the loan amount accumulating on them reflects they are conscious of their responsibility to repay it, and this is the first step towards financial self-efficacy.

With regarding the class of the students (Q. 18) and the perceived amount of student loan (Q. 3), the results have been presented in Table – 14.

Table – 14: Paired Results of Questions 18 and 3

Q. 18. Class of the students: Freshmen, Sophomore, Junior, or Senior.

Q. 03. What amount of student loan will you acquire by the time you graduate?

p-value= 0.000919991800091999

Class	\$0	\$1-10,000	\$10,001-20,000	\$20,001-30,000
First-Time Freshman	25.88	17.65	10.59	20.59
Other Freshmen	22.22	5.56	11.11	16.67
Sophomore	28.70	16.67	12.04	8.33
Junior	19.51	8.94	9.76	13.82
Senior	14.53	7.69	11.11	14.53

Class	\$30,001-40,000	\$ 40,001-50,000	More than \$50,000
First-Time Freshman	11.76	5.29	8.24
Other Freshmen	16.67	11.11	16.67
Sophomore	7.41	11.11	15.74
Junior	14.63	13.01	20.33
Senior	12.82	10.26	29.06

The results in Table – 14 show that the higher the class, the students' reported perception of total acquired educational loan increases. They either become more pessimistic about their educational debt, or they become more aware about their total student loans amount acquired. 25.88% of first time-freshmen believe they will acquire 0\$ loan, while only 8.24% believes they will owe more than \$50,000. In contrast, 14.53% seniors believe they would graduate debt free, while 29.06% believe they would owe more than \$50,000. This indicates that the education about the financial awareness should start with the first day at the university, even during the orientation.

Table – 15: Paired Results of Questions 3 and 28

Q. 03. What amount of student loan will you acquire by the time you graduate?

Q. 28. How confident are you that you will be performing academically up to the best of your academic potential given the educational debt you are going to acquire until graduation?

[1] p-value= 0.000469996300047

Loan Amount (\$)	Not Confident	Somewhat Confident	Mostly Confident	Very Confident
0	6.03	4.31	18.10	71.55
1-10,000	0.00	10.14	17.39	72.46
10,001-20,000	0.00	3.39	30.51	66.10
20,001-30,000	0.00	10.84	24.10	65.06
30,001-40,000	1.59	23.81	26.98	47.62
40,001-50,000	0.00	9.80	29.41	60.78
More than 50,000	2.15	18.28	23.66	55.91

As depicted in Table – 15, a significant inverse relationship has been found between the expected loan amount by the graduation time (Q. 3) and the confidence of the students to perform up to the best of their academic potential given the educational loan they are going to acquire until their graduation (Q. 28). These results demonstrate that as the amount of perceived student loan increases, the confidence to perform up to the best of one's academic potential decreases.

The questions 3 and 31 were paired for analysis and the results have been presented in Table – 16. Most of the students who had taken loans neither agreed or disagreed that it is a good idea to have something now and pay for it later.

Table – 16: Paired Results of Questions 3 and 31

Q. 3. What amount of student loan will you acquire by the time you graduate?

Q. 31. It is a good idea to have something now and pay for it later.

p-value= 0.003769963300377

Student Loan	Strongly Agree	Agree	Neither Agree/Disagree	Disagree	Strongly Disagree
0	3.39	6.78	25.42	32.20	32.20
1-10,000	5.71	8.57	47.14	18.57	20.00
10,001-20,000	0.00	10.53	26.32	43.86	19.30
20,001-30,000	1.33	14.67	34.67	32.00	17.33
30,001-40,000	1.59	9.52	47.62	22.22	19.05
40,001-50,000	0.00	20.83	45.83	18.75	14.58
More than 50,000	5.38	9.68	37.63	21.51	25.81

Student Loan	Strongly Agree	Agree	Neither Agree/Disagree	Disagree	Strongly Disagree
0	3.39	6.78	25.42	32.20	32.20
1-10,000	5.71	8.57	47.14	18.57	20.00
10,001-20,000	0.00	10.53	26.32	43.86	19.30
20,001-30,000	1.33	14.67	34.67	32.00	17.33
30,001-40,000	1.59	9.52	47.62	22.22	19.05
40,001-50,000	0.00	20.83	45.83	18.75	14.58
More than 50,000	5.38	9.68	37.63	21.51	25.81

The results with regard to relationship between the payment of the bills on time (Q. 16) and the difficulty to stick to the spending plan when unexpected expenses arise (Q. 9) have been presented in Table – 17.

Table – 17: Paired Results of Questions 9 and 16

Q. 16. I pay my bills on time every month = Y / N.

Q. 09. It is hard to stick to my spending plan when unexpected expenses arise.

[1] p-value= 0.004939951600494

Yes/No	Exactly True	Moderately True	Hardly True	Not At All True
N	52.88	34.62	8.65	3.85
Y	33.72	48.14	13.26	4.88

From the results in Table – 17, it is evident that only 33.72% of the students who paid their bills on time have said that it was exactly true to say that it is hard for them to stick to

spending plan when unexpected expenses arise, whereas a significantly higher number (52.88%) of the students who were not paying the bills on time said that they found it hard for them to stick to spending plan when unexpected expenses arise.

The results of the paired questions 9 and 30 have been presented in Table – 18. These results demonstrate that the students who had no problem to move as per their spending plan even when faced with unexpected expenses (52.17%) had strongly disagreed that taking loan was a good thing and only 4.35% had “strongly disagreed” on this statement. These results clearly point out that financial efficacy had direct relationship with attitude towards debt. Even for those students who has strongly agreed to the statement that it is hard to stick to my spending plan when unexpected expenses arise, only 1.45% had strongly agreed that taking out a loan is a good thing because it allows you to enjoy life.

Table – 18: Paired Results of Questions 9 and 30

Q. 9. It is hard to stick to my spending plan when unexpected expenses arise.

Q. 30. Taking out a loan is a good thing because it allows you to enjoy life.

p-value= 0.001089990100109

Self-Efficacy	Strongly Agree	Agree	Neither Agree/Disagree	Disagree	Strongly Disagree
Exactly True	1.45	5.31	27.54	28.02	37.68
Moderately True	2.03	5.28	34.55	33.74	24.39
Hardly True	1.52	6.06	42.42	31.82	18.18
Not At All True	4.35	17.39	17.39	8.70	52.17

Table – 19: Paired Results of Questions 9 and 31

Q. 9. It is hard to stick to my spending plan when unexpected expenses arise.

Q. 31. It is a good idea to have something now and pay for it later.

p-value= 0.00789992200078999

Self-Efficacy	Strongly Agree	Agree	Neither Agree/Disagree	Disagree	Strongly Disagree
Exactly True	2.00	8.00	33.50	26.50	30.00
Moderately True	2.87	13.52	36.89	29.51	17.21
Hardly True	2.99	7.46	47.76	23.88	17.91
Not At All True	8.33	4.17	20.83	20.83	45.83

The results in Table – 19 further corroborate the results emanating from Table-18 in that a large number of students (45.83%) expressed their disagreement in strongest terms to the question that to take loan now and pay later was a good idea.

Table – 20: Paired Results of Questions 9 and 40

Q. 9. It is hard to stick to my spending plan when unexpected expenses arise.

Q. 40. It is too easy for people to get credit cards.

p-value= 0.004489956100449

Self-Efficacy	Strongly Agree	Agree	Neither Agree/Disagree	Disagree	Strongly Disagree
Exactly True	32.11	31.05	25.79	5.26	5.79
Moderately True	19.92	38.14	31.36	5.08	5.51
Hardly True	15.38	26.15	43.08	7.69	7.69
Not At All True	37.50	8.33	45.83	0.00	8.33

The results in Table – 20 have pointed out that most of the students, irrespective of their disagreement on Question 9 have felt that it is quite easy for the people to get the credit cards. However, when we read these findings in light of the results projected in Tables 18 and 19, it

becomes clear that those students who had demonstrated better financial self-efficacy, still opposed taking loans even if they felt that it was easy to get the credit cards.

The results on questions 10 and 34, presented in Table – 21, demonstrate that 43.66% of the students have stated that they don't use credit even when unexpected expenses occur. They have 'strongly agreed' that they plan ahead for larger purchases. Thus, these results reveal that the students with better self-efficacy, plan ahead and do not favor taking loan even when they are faced unexpected expenses. Even among those who have said that it was exactly true that they use credit when unsuspected expenses occur, 30.19% have said that they plan ahead for larger purchases

Table – 21: Paired Results of Questions 10 and 34

Q. 10. When unsuspected expenses occur I usually have to use credit.

Q. 34. I plan ahead for larger purchases.

p-value= 0.004089960100409

Self-Efficacy	Strongly Agree	Agree	Neither Agree/Disagree	Disagree	Strongly Disagree
Exactly True	30.19	28.30	7.55	18.87	15.09
Moderately True	26.47	39.71	16.91	8.82	8.09
Hardly True	31.78	42.64	12.40	6.98	6.20
Not At All True	43.66	31.46	13.62	4.69	6.57

On the same lines are the results of the paired questions 10 and 38 (Table – 22) where the students 43.66% of the students favored building up their savings, even when they are low on income and weren't likely to use credit card to meet the unsuspected expenses. Among the students who have responded that they usually used credit when unsuspected expenses occur, 44.23% have strongly agreed that Even on a low income, one should save a little regularly.

Table – 22: Paired Results of Questions 10 and 38

Q. 10. When unsuspected expenses occur I usually have to use credit.

Q. 38. Even on a low income, one should save a little regularly.

p-value= 0.003649964500365

Self-Efficacy	Strongly Agree	Agree	Neither Agree/Disagree	Disagree	Strongly Disagree
Exactly True	44.23	26.92	17.31	1.92	9.62
Moderately True	40.88	25.55	16.06	10.2	27.30
Hardly True	48.44	28.91	11.72	3.9	17.03
Not At All True	62.44	22.07	9.39	2.35	3.76

The results in Tables 23, 24 and 25 also project similar picture as in the Tables 21 and 22 above. A majority of students (50.62, 51.25 and 65.43 percent respectively in these three tables) have demonstrated better financial management is the key even when faced with a financial challenge. A whooping majority of the students (65.43%, Table-25) have said they do not like the idea of borrowing even at the time they are facing financial challenges. These results certainly demonstrate a positive relationship between the financial self-efficacy of the students sand their attitude towards debt. Even for the students who have strongly agreed that when faced with a financial challenge, they have a hard time figuring out the solution, (i) 23.19% have also strongly agreed that they plan ahead for larger purchases (ii) 42.65% have said that being in debt is never a good thing, and (iii) 43.48% strongly agreed that they also do not like borrowing money.

Table – 23: Paired Results of Questions 11 and 34

Q. 11. When faced with a financial challenge, I have a hard time figuring out the solution

Q. 34. I plan ahead for larger purchases.

p-value= 0.00419995900042

Self-Efficacy	Strongly Agree	Agree	Neither Agree/Disagree	Disagree	Strongly Disagree
Exactly True	23.19	36.23	14.49	8.70	17.39
Moderately True	30.96	35.03	17.26	10.15	6.60
Hardly True	35.75	40.93	11.92	6.74	4.66
Not At All True	50.62	28.40	8.64	3.70	8.64

Table – 24: Paired Results of Questions 11 and 35

Q. 11. When faced with a financial challenge, I have a hard time figuring out the solution

Q. 35. Being in debt is never a good thing.

p-value= 0.00651993580065199

Self-Efficacy	Strongly Agree	Agree	Neither Agree/Disagree	Disagree	Strongly Disagree
Exactly True	42.65	20.59	14.71	8.82	13.24
Moderately True	49.75	21.83	13.71	11.17	3.55
Hardly True	38.74	35.60	9.95	8.90	6.81
Not At All True	51.25	15.00	12.50	10.00	11.25

Table – 25: Paired Results of Questions 11 and 42

Q. 11. When faced with a financial challenge, I have a hard time figuring out the solution

Q. 42. I do not like borrowing money.

p-value= 0.000159999400016

Self-Efficacy	Strongly Agree	Agree	Neither Agree/Disagree	Disagree	Strongly Disagree
Exactly True	43.48	24.64	18.84	2.90	10.14
Moderately True	46.43	26.53	14.80	9.18	3.06
Hardly True	40.10	36.46	13.02	4.17	6.25
Not At All True	65.43	9.88	13.58	2.47	8.64

The results in Tables - 26 (regarding Q12 & 30) have revealed that even 48.28% of the students who felt that they lack confidence in their ability to manage their finances have also strongly disagreed to the suggestion (Q30) that taking out a loan is a good thing because it will allow them to enjoy life. The results also point out that only 3.45% of the students have answered in affirmative to the question that taking out a loan is a good thing because it allows you to enjoy life.

Table – 26: Paired Results of Questions 12 and 30

Q. 12. I lack confidence in my ability to manage my finances

Q. 30. Taking out a loan is a good thing because it allows you to enjoy life.

p-value= 0.001669984300167

Self-Efficacy	Strongly Agree	Agree	Neither Agree/Disagree	Disagree	Strongly Disagree
Exactly True	3.45	5.17	13.79	29.31	48.28
Moderately True	1.83	7.93	37.80	26.83	25.61
Hardly True	1.15	4.60	32.76	38.51	22.99
Not At All True	2.01	6.04	32.21	23.49	36.24

The results as emerging from the analysis of paired questions 12 and 44 (Table – 27) do not project any clear picture as most of the students responded to the option that they neither agree/disagree. The explanation for such responses may be the wording of question 44, which may be wasn't specifically worded to let them know what it wanted to convey. At the same time, only 14.55% of the students have said that it was exactly true that they are rather adventurous with my money.

Table – 27: Paired Results of Questions 12 and 44

Q. 12. I lack confidence in my ability to manage my finances

Q. 44. I am rather adventurous with my money.

p-value= 0.00978990310097899

Self-Efficacy	Strongly Agree	Agree	Neither Agree/Disagree	Disagree	Strongly Disagree
Exactly True	14.55	23.64	29.09	23.64	9.09
Moderately True	10.56	22.36	36.02	22.98	8.07
Hardly True	5.29	14.12	35.88	30.00	14.71
Not At All True	8.05	12.75	36.91	20.81	21.48

Table – 28: Paired Results of Questions 13 and 30

Q. 13. I worry about paying back my student loans

Q. 30. Taking out a loan is a good thing because it allows you to enjoy life.

p-value= 0.00039999700004

Self-Efficacy	Strongly Agree	Agree	Neither Agree/Disagree	Disagree	Strongly Disagree
Exactly True	1.62	2.16	32.97	30.81	32.43
Moderately True	3.52	7.75	31.69	38.73	18.31
Hardly True	1.22	10.98	35.37	26.83	25.61
Not At All True	0.75	6.72	29.10	21.64	41.79

From the results in Table 28 (on the paired questions 13 & 30) it emerges that although 41.79% of the students are not worried about paying back their student loans, they have strongly disagreed that taking out loan was a good thing because it may allow them to enjoy life. At the same time, only 1.62% students strongly agreed that taking out a loan is a good thing because it allows you to enjoy life.

Table – 29: Paired Results of Questions 8 and 26

Q. 8. If you have received any scholarship, grant, work study or fellowship to support your college tuition and fees please list the names of the aid

Q. 26. How confident are you that you will remain at the university without interruption until your graduation?

p-value= 0.001569985300157"

Received Grant	Not Confident	Somewhat Confident	Mostly Confident	Very Confident
False	2.25	9.19	17.64	70.92
True	4.55	31.82	27.27	36.36

The results of the paired questions 8 and 26 (presented in Table-29 above) do indicate that 70.92% of the students who had not received any scholarship, grant, work study or fellowship to support their college tuition and fees felt very confident that they will remain at the university without interruption until their graduation and only 2.55% among them felt not confident about remain at the university without interruption until your graduation.

The results in Tables 30 (on the paired questions 28 & 34) have revealed that 40.65% the students who strongly agree that being in debt is never a good thing, have felt very confident that they will be performing academically up to the best of their academic potential given the educational debt they are going to acquire until graduation and only 8.90% among them had

strongly disagreed with the statement that being in debt was never a good thing. Even among the students who had opined that you will be performing academically up to the best of your academic potential given the educational debt you are going to acquire until graduation, 27.27% had strongly agreed that being in debt is never a good thing.

Table – 30: Paired Results of Questions 28 and 34

Q. 28. How confident are you that you will be performing academically up to the best of your academic potential given the educational debt you are going to acquire until graduation?

Q. 34. Being in debt is never a good thing.

p-value= 0.000799993000079999

Confident	Strongly Agree	Agree	Neither Agree/Disagree	Disagree	Strongly Disagree
Not Confident	27.27	36.36	18.18	9.09	9.09
Somewhat Confident	22.95	36.07	26.23	9.84	4.92
Mostly Confident	25.00	38.28	20.31	10.16	6.25
Very Confident	40.65	35.31	8.61	6.53	8.90

The results of paired analysis of questions 28 and 37 have been presented in Table – 31. These results are in line with the results in Table – 30 in that 37.35% of the students who felt very confident that they will be performing academically up to the best of their academic potential given the educational debt they are going to acquire until graduation also are of the view that it is important to live within one's means. These results also indicate that only 6.02% of these students strongly disagreed with the statement that it is important to live within one's means. It is interesting to note that even among the students who had stated that they were not confident that they will be performing academically up to the best of their academic potential

given the educational debt they were going to acquire until graduation, 0% of the students had strongly disagreed that it was important to live within one's means.

Table – 31: Paired Results of Questions 28 and 37

Q. 28. How confident are you that you will be performing academically up to the best of your academic potential given the educational debt you are going to acquire until graduation?

Q. 37. It is important to live within one's means.

p-value= 0.000629994700062999

Confident	Strongly Agree	Agree	Neither Agree/Disagree	Disagree	Strongly Disagree
Not Confident	0.00	18.18	63.64	9.09	9.09
Somewhat Confident	31.67	28.33	26.67	11.67	1.67
Mostly Confident	29.37	28.57	19.84	15.87	6.35
Very Confident	37.35	31.33	20.78	4.52	6.02

The results of the paired analysis of the questions 5 and 44 have been presented in Table – 32 below:

Table – 32: Paired Results of Questions 5 and 44

Q. 05. Are you a Boarder or Commuter student?

Q. 44. I am rather adventurous with my money.

p-value = 0.00566994430056699

Residency	Strongly Agree	Agree	Neither Agree/Disagree	Disagree	Strongly Disagree
Boarder	9.68	19.89	36.56	20.97	12.90
Commuter	5.88	10.46	34.64	32.68	16.34

Results presented in Table – 32 above show that irrespective of being a boarder or commuter, the students weren't sure whether they were rather adventurous with their money. At the same time, the borders have been found to be more adventurous with money than commuters: 9.68% of the boarders strongly agree with the statement:" I am rather adventurous with my money", vs 5.88% of the commuters. Also, at the very opposite response to the same statement, only 12.9% of the boarders strongly disagree vs 16.34% of the commuters.

For the paired questions 18 and 37, the results have been projected in Table-33 below.

Table – 33: Paired Results of Questions 18 and 37

Q. 18. Class of the students: Freshmen, Sophomore, Junior, or Senior.

Q. 37. It is important to live within one's means.

p-value= 0.001609984900161

Class	Strongly Agree	Agree	Neither Agree/Disagree
First-Time Freshman	24.14	32.18	28.16
Other Freshmen	52.94	17.65	11.76
Sophomore	30.69	26.73	31.68
Junior	32.50	35.00	17.50
Senior	50.43	26.09	12.17

Class	Disagree	Strongly Disagree
First-Time Freshman	9.77	5.75
Other Freshmen	5.88	11.76
Sophomore	4.95	5.94
Junior	9.17	5.83
Senior	6.96	4.35

As is evident from the results in Table – 33, 50.43% of the Senior year students strongly agreed that it is important to live within one's means as compared to only 24.14% of the First-Time Freshman. These results indicate that the more mature the students are, the more aware they are about their debt and financial responsibilities.

Table – 34: Paired Results of Questions 9 and 7

Q. 09. It is hard to stick to my spending plan when unexpected expenses arise.

Q. 07. Are you a student athlete? Y N

p-value= 0.004439956600444

	No	Yes
Exactly True	92.34	7.66
Moderately True	86.85	13.15
Hardly True	80.88	19.12
Not At All True	72.00	28.00

The responses of student athletes (Q. 7) and their ability to stick to their spending plan when unexpected expenses arise (Q. 9) were analyzed and the results have been presented in Table - 34. The results reveal that it is easier for the student athletes to stick to their spending plans. (caveat: the self-identification of students as athletes is not certain; maybe they were athletes at high school. The total number of athletes covered was 71 which seems unrealistically high. On the other hand, the fact that the athletes are borders and with strict requirement of attendance, may have contributed to this symmetry, so the actual number of surveyed athletes may be correct. Out of the population who answer Q. 9, 92.34 percent of athletes answered

“Exactly True” while 7.66 percent of non-athletes answered the same. At the same questions, “Not at all true” answered 72 percent of the athlete vs 28 percent of non-athlete.

Table – 35: Paired Results of Questions 25 and 28

Q. 25. GPA – Discretized

Q. 28. How confident are you that you will be performing academically up to the best of your academic potential given the educational debt you are going to acquire until graduation?

p-value= 0.000119999800012

GPA	Not Confident	Somewhat Confident	Mostly Confident	Very Confident
<2	0.00	12.50	0.00	87.50
<2.5	3.12	25.00	31.25	40.62
<3	1.18	21.18	27.06	50.59
<3.5	3.06	5.10	15.31	76.53
<4	0.00	5.00	21.67	73.33

On questions 25 and 28, the results presented in Table – 35 point out that the highest percentage of “very confident” are the students with the GPA<2, the smallest percentages are for the students with GPA between 2 and 3. This really indicates that this group of students may require additional academic resources.

Race and the Perceived amount of debt till graduation (Q2 and Q3) have been found to be correlated. As we see from the Table - 36 below, p – value = 1.0000900001e-05. However, the sample population has a very small number of American Indian/Alaska Native, Unknown, and Two or more races, while the “Dreamer” population may be included either as Hispanic or Two or more races, which shows at the table as 72.73% of Hispanics who are aware that they will owe

no money by the graduation, because their educational expenses are covered by the Opportunity Scholarship. Therefore, the only race populations to show are Black/African American, and White.

Table – 36: Paired Results of Questions 2 and 3

Q. 02. What is your race?

Q. 03. What amount of student loan will you acquire by the time you graduate?

p-value= 1.0000900001e-05

Class	\$0	\$1-10,000	\$10,001-20,000	\$20,001-30,000
African American	13.29	13.53	11.35	16.67
Asian	75.00	0.00	0.00	25.00
Caucasian	57.14	9.52	7.14	14.29
Hispanic	72.73	15.15	6.06	0.00
Native American	50.00	0.00	0.00	50.00
Two or more Races	24.39	9.76	14.63	12.20
Unknown	66.67	0.00	0.00	0.00

Class	\$30,001-40,000	\$ 40,001-50,000	More than \$50,000
African American	14.25	9.90	21.01
Asian	0.00	0.00	0.00
Caucasian	2.38	4.76	4.76
Hispanic	6.06	0.00	0.00
Native American	0.00	0.00	0.00
Two or more Races	7.32	19.51	12.20
Unknown	66.67	0.00	0.00

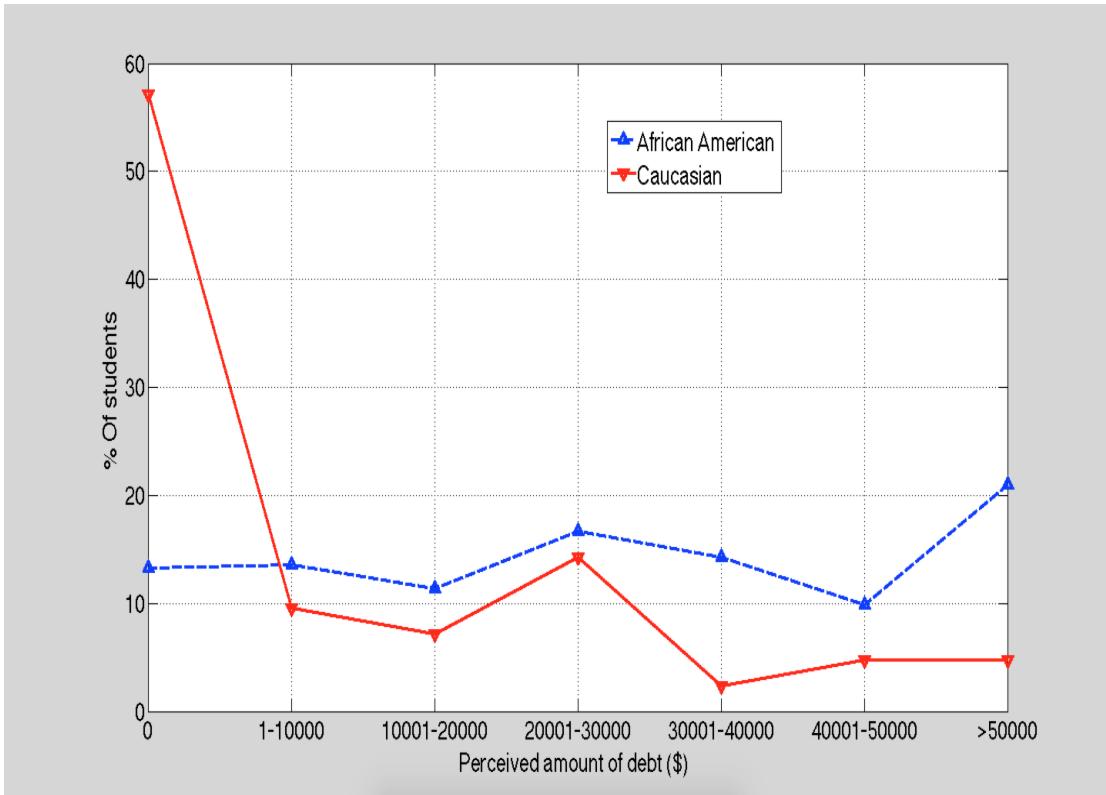


Figure - 8: Race and the Perceived amount of debt till graduation

The results in Table-37 regarding the paired questions 4 and 22 point out that while 94.84% of the Out-of-state students plan to register when the registration opens arise, in case they haven't preregistered as compared to the 86.74% of the In-state students.

Table – 37: Paired Results of Questions 4 and 22

Q. 04. You pay the tuition fee as an In-state student or Out-of-state student
 Q. 22. If you are not preregistered, do you plan to register when the registration opens arise – Yes/No

[1] p-value= 0.00703384055862241

Residency	No	Yes
I	13.26	86.74
O	5.18	94.82

The percentage of the responses on Q. 26 (How confident are you that you will remain at the university without interruption until your graduation) have been presented in Table 38.

Table – 38: The percentage of the responses on Q. 26

Q26. How confident are you that you will remain at the university without interruption until your graduation	Count of Respondent Answer Number	%
Very Confident	283	69.36%
Mostly Confident	77	18.87%
Somewhat Confident	38	9.31%
Not Confident	10	2.45%

The percentage of the responses on Q. 28 (How confident are you that you will be performing academically up to the best of your academic potential given the educational debt you are going to acquire until graduation) have been presented in Table 39.

Table – 39: The percentage of the responses on Q. 28

Q28. How confident are you that you will be performing academically up to the best of your academic potential given the educational debt you are going to acquire until graduation?	Count of Respondent Answer Number	%
Very Confident	262	64.53%
Mostly Confident	91	22.41%
Somewhat Confident	46	11.33%
Not Confident	7	1.72%

The results of multiple regression of GPA (as a dependent variable) as function of several discrete and continuous variables have been reproduced in Table 40.

Table – 40: Results of multiple regression of GPA (as a dependent variable)

	Pr(> t)
(Intercept)	<2e-16 ***
Q01. Gender M	0.3396
Q02. Race Asian	0.2334
Q02. Race Caucasian	0.0184 *
Q02. Race Hispanic	0.1316
Q02. Race TWO	0.1199
Q02. Race Unknown	0.1842
Q3. 1-10,000	0.0935
Q3. 10,001-20,000	0.6759
Q3. 20,001-30,000	0.6445
Q3. 30,001-40,000	0.5586
Q3. 40,001-50,000	0.0164 *
Q3. More than 50,000	0.1186
Q6. Have you received any scholarship, grant, work study or fellowship to support your college studies?_N.Y	0.1397
Q13. I.worry.about.paying.back.my.student.loans..Likert.Scale1.5...L	0.7889
Q13. I.worry.about.paying.back.my.student.loans..Likert.Scale1.5...Q	0.4229
Q13..I.worry.about.paying.back.my.student.loans..Likert.Scale1.5...C	0.7855
Q24. In.how.many.credit.hours.you.are.enrolled.this.semester	0.0933
Q16. I.pay.my.bills.on.time.every.month..Y_N..L	0.0931
Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1	
Residual standard error: 0.5401 on 231 degrees of freedom	
(315 observations deleted due to missingness)	

Multiple R-squared: 0.1442, Adjusted R-squared: 0.07752

F-statistic: 2.162 on 18 and 231 DF, p-value: 0.004946

The model is significant, and the significant regressors whether the student perceived debt between 40-50K and whether the student is Caucasian.

Summary

The results obtained for this research and their discussion was done in this chapter. The next chapter contains the conclusions whether the research questions have been answered in affirmative or negative, and whether the hypotheses proposed for this study have been retained or rejected. It also includes the implications, emerging concerns and the recommendations as well as the suggestions for future research.

CHAPTER – V

FINDINGS, CONCLUSIONS, IMPLICATIONS OF THE STUDY, AND RECOMMENDATIONS

Introduction

This chapter contains the findings and conclusions based on the results and discussions presented in Chapter 4. It also contains the recommendations and suggestions for future research.

The student loans, defaults on student loans, and retention and graduation are important factors that impact the educational dreams of today's youth. According to NCES (2015), in the academic year 2014-15 an undergraduate borrowed \$3,750 subsidized loan, \$4,120 unsubsidized loan, and \$14,750 PLUS loans. The amount of accumulated loan may be one of the reasons for many of the students' inability to remain in college without interruption, or to graduate with a bachelor's degree in 5 years or less. The current research was carried out to find out if there exists a relationship between the student loans of a 4-year predominantly minority institution's undergraduate students in terms of the amount of the loan borrowed and their self-efficacy about persisting, without pause, until their graduation. The second objective was to find out if there is a relationship between the student loans of the undergraduates of a 4-year minority institution's and their self-confidence about graduation from the institution in 5 years or less.

This was an exploratory mixed method type of study on the dataset of undergraduate students studying in a 4-year public historically minority institution. For the purposes of this study, a survey instrument was developed by adapting Lim et al.'s (2014) conceptual framework of the financial stress, self-efficacy, and financial help-seeking behavior of college students, Financial Self-Efficacy Scale (Lown, 2011), and the Student Attitudes Towards Debt scale (Lea, Webley, and Walker, 1995). This survey instrument contained questions regarding the students' demographics, their student loan, financial self-efficacy, financial stress, perceived academic success and the attitudes towards debt. For analyzing

the data, the data cleansing was conducted, and the replacement and unification of codes was performed in R. All the discrete variables were converted into factors and t-test, Chi-Square and Fisher's exact test were utilized to find the significance, and correlations among selected variables. This chapter presents the findings, conclusions and recommendations based on the data analyzed in the previous chapter.

Findings and Conclusions

Research Questions 1 and 2

Since the two research questions are interconnected, these have been dealt with together. Student loan is a matter of serious concern because as pointed out by McCann (2018), the national educational loan is still about 1.4 trillion dollars. Besides the students and their parents, the educational institutions, politicians, financial advisors and even the student loan borrowing and processing agencies are concerned about the amount of loans, the ability of the students to repay, the delinquency in repayment and the defaults on student loans. Understanding the implications of students' financial self-efficacy and providing avenues to the students to enhance their financial self-efficacy seems to be the need of the hour. It has been found in the present research that as the loan amount increases, the students worry more about paying it back. A majority of the students (51.06%, Table-13) who had reported to have more than \$50,000 of student loan, were the most worried about the repayment of the student loan. Looking from another angle, students who had student loan ranging from \$0 to 10,000 were least concerned about the repayment of the student loan. The differences have been found to be significant (Table-13). Further, a majority of all the surveyed students (69.36%) have demonstrated confidence that they will remain at the university without interruption until their graduation (Table-38).

When asked about how confident are they were that they will be performing academically up to the best of their academic potential given the educational debt they are going to acquire until graduation, irrespective of the loan student amount they have acquired, they have overwhelmingly responded that they are "very confident" about performing academically up to the best of their academic potential, and

the relationship between these two question has been found to be significant (Table-15). Among all the student population who responded to Question 28 (Table-39), 64.53% of them were very confident of performing academically up to the best of their academic potential. All these findings clearly suggest that the students were quite confident about persisting in their studies and performing their academic best even as they progressively acquire student loan until their graduation. The research questions 1 and 2, therefore, stand affirmed and the hypotheses 1 and 2 have been accepted.

Interestingly, majority of the female students (51.48%) as compared to male students (36.97%) have reported that they “do not like borrowing money” (Table – 10), and they also find it more difficult than male students to stick to their spending plan when unexpected expenses arise (Table-9).

Research Question 3 and 4

Both these research questions relate the impact of student loan with the students’ attitude towards debt, these are being taken up together. In order to find out the students’ attitude towards debt, one of the questions they had responded was that it was a good idea to have something now and to pay for it later (Q31). The responses of the students on this question were paired with the amount of student loan the students have acquired (Q3) and the results (in Table-16) have revealed that irrespective of the amount of student loan, most of the students neither agreed nor disagreed to that idea that it was a good idea to have something now and to pay for it later. At the same time 25.81% of the students who perceived their student loan would exceed \$50,000, had recorded their strong disagreement with the idea it was a good to have something now and to pay for it later. It is worth to be noted that while responding to the questions 28 and 34 (Table-30), the students reported that they will be performing academically up to the best of their academic potential given the educational debt they are going to acquire until graduation, and that being in debt is never a good thing. Similarly, they have also reported it is important to live within one’s means (Table-31). In addition to these results, 69.36% of the overall student population who had participated in the survey and had responded to Q26 had felt very confident that they will be able to continue their studies at the university without interruption until their graduation (Table-38). Similarly,

64.53% of the students had affirmed full confidence that they will be able to perform academically to the best of their academic potential given the debt they were going to acquire until their graduation. Reading all these results together, it seems reasonable to conclude that the student loan has a statistically significant relationship with the attitude towards debt, their persistence in their course of studies without interruption until their graduation. Significant gender differences have also been reported among the subjects with regard to their attitude towards debt as 51.48% of the female students are of the view that they do not like to borrow money as compared to 36.97% male students who had endorsed this view (Table-10). The research questions 3 and 4 are answered in affirmative and consequently, hypotheses 3 and 4 have been accepted.

Research Question 5

A summary of the analysis of the responses of the students on various paired questions reflecting their perceived financial self-efficacy and their attitude towards debt that have been found significant, as appearing in various tables, has been presented below.

Table – 41: Summary of the analysis of the students' responses related with their financial self-efficacy and their attitude towards debt

Table #	Paired Survey Questions	Students response	Related with
18	Q. 9. It is hard to stick to my spending plan when unexpected expenses arise. Q. 30. Taking out a loan is a good thing because it allows you to enjoy life.	Not at All True Strongly Disagree	Financial Self-Efficacy Attitude Towards Debt
21	Q. 10. When unsuspected expenses occur I usually have to use credit. Q. 34. I plan ahead for larger purchases.	Not at All True Strongly Disagree	Financial Self-Efficacy Attitude Towards Debt
22	Q. 10. When unsuspected expenses occur I usually have to use credit. Q. 38. Even on a low income, one should save a little	Not at All True Strongly	Financial Self-Efficacy

	regularly.	Disagree	Attitude Towards Debt
23	Q. 11. When faced with a financial challenge, I have a hard time figuring out the solution Q. 34. I plan ahead for larger purchases.	Not at all True Strongly Disagree	Financial Self-Efficacy Attitude Towards Debt
24	Q. 11. When faced with a financial challenge, I have a hard time figuring out the solution Q. 35. Being in debt is never a good thing.	Not at all True Strongly Disagree	Financial Self-Efficacy Attitude Towards Debt
25	Q. 11. When faced with a financial challenge, I have a hard time figuring out the solution Q. 42. I do not like borrowing money.	Not at all True Strongly Disagree	Financial Self-Efficacy Attitude Towards Debt
28	Q. 13. I worry about paying back my student loans Q. 30. Taking out a loan is a good thing because it allows you to enjoy life.	Not at all True Strongly Disagree	Financial Self-Efficacy Attitude Towards Debt

A perusal of the contents of the table above would show that statistically significant positive relationship has been noticed between the students' perceived self-efficacy and their attitude towards debt. Destin and Svoboda (2018) also predict that college cost may influence the students' cognition and academic outcomes. The research question 5 is confirmed and the hypothesis 5 stands accepted.

Implications of the study

The findings of this research have demonstrated that the students' financial self-efficacy and their attitude towards debt have significant relationship with the student loan. In response to question 12 (I lack confidence in my abilities to manage my finances), when paired with question 30 (related with their attitude towards debt), the highest % of students (48.28%) in that table have reported "Exactly True" (Table-26). These results clearly suggest that the parents and the educational institutions should educate the students and provide the students an environment that creates awareness among them about their financial self-efficacy. If the students are able to plan their financial requirements before taking the student loan, optimally utilize the loan and meet for repayment schedule, it will be of great help to them.

In response to the question 37 that it is important to live within one's means, only 24.14% of the first-time freshmen have "strongly agreed" to it whereas 50.43% of the seniors have offered the same response (Table-33). These results point out that at the time when the students leave high school and enters the college or the university, they are hardly aware of their financial responsibilities. It seems that they learn by their own experience and understand the importance of living within one's means by the time they are in their senior year, but up to that time, they might have mismanaged their financial recourses and accumulated huge student loan. Therefore, efforts should be made to prepared them to plan their financial requirements and manage the responsibilities emanating from it before they move on to join any higher education institution. This is more so necessary for the female students because a combined reading of Tables 9, 10 and 11 reveals that although they significantly differed from the male students when they say they do not like to borrow money (Table-10) and are of the view that the borrowed money should be repaid as soon as possible (Table-11) but at the same time they find it is hard to stick to their spending plan when unexpected expenses occur.

The student loan is a matter of serious concern for the out-of-state student because an astonishing 76.84% of the out-of-state students feel that they will be acquiring more than \$50,000 of student loan as compared to only 23.16% of the in-state students (Table 12). 51.06% of the students who perceive to have the student loan over \$50,000 by the time they graduate have said that they would be worried about its repayment (Table-13). It seems that a broad-based reformation needs to be made in the tuition fee and other education related expenses at the national level to lower the existing disparity in the fees structure.

Emerging Concerns

At the time when the researcher interacted with the students for administering the survey, they expressed their gratefulness, appreciated being includes in the study, and shared their concerns as listed below:

Concern 1: Not being timely and adequately informed about their debt amounts and responsibilities about repayments.

The researcher had received student input about the Survey Instrument in a form of the concerns about not being timely informed about their student loan amount, and the due dates for payments, as well as the disbursements of the loans to their student accounts. They impressed the wish to be informed more often about their payments to their student account, as well as their dues to the borrowers.

Concern 2: The administration, staff, and the academic community were not concerned enough about their educational financial burdens.

The impression of not being informed properly about their educational loans, and experiences of frustration at the financial aid office, influenced the students to be concerned that the administration, staff, and the academic community was not concerned enough about their educational financial burdens.

Concern 3: Not receiving adequate amount of scholarship funds and being forced into debt.

Minority serving institutions enroll many of the first-generation students as well as students with lower socioeconomic status. Therefore, these groups need additional financial as well as counseling and advising resources to succeed. Due to higher financial needs of these populations, more money should be provided either in scholarships and grants, or in lower interest rates or better repayment contracts of educational loans. Also, first generation population's parents lack the experience with educational loans. Therefore, these students and their parents need extra help with FAFSA applications, loans information, as well as repayment conditions, and deadlines' information. Minority serving institution may also have small endowment expenditure, as well as alumni donations. Besides, it may be underfunded by state.

Recommendations

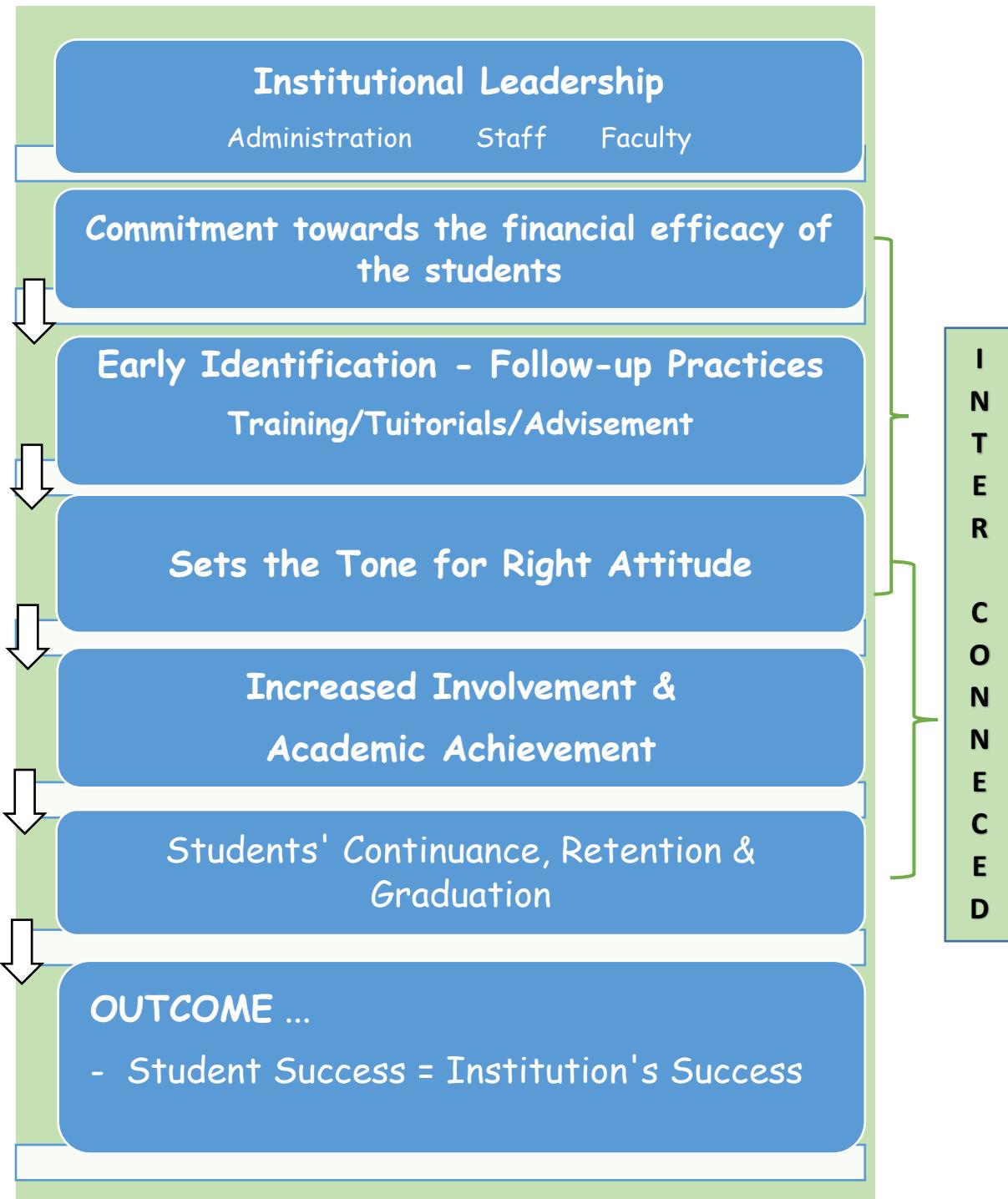
- Identify financial-at-risk (FAR) students before the start of the semester by surveying the students with the survey used to identify financially risk behavior.
- Intervene early for those who do have the required financial resources.
- I believe that an app should be created, which will give them the access to their student accounts, as well as the educational loans accounts. Besides, the app should send them notifications a day

ahead of their payment due, and notifications when their loans are posted as the payments for their student accounts tuition, fees and other educational due payments to the institution.

- Use the app/survey to detect the students who are planning to change classes or majors, or dropping from institution to enable immediate academic counselling in advance.
- The institutions should place video tutorials about how to log on to their student account, see and pay the balances, and about filing up FAFSA, scholarship and grants applications.
- Special attention should be dedicated to the loans' contracts details, and repayment requirements.
- The institutions should have student workers and councilors dedicated specifically for helping and teaching prospective students, current students, and the parents about available financial aid options, applications, and especially educational loans.
- Student financial advisement should be broadened, individual as well as group, and more education for students as well as parents should be provided.
- Credit may be given to students who have attended money school classes, conferences, or events as group counseling may contribute to lowering the student debt.
- Tutorials regarding the filing of FAFSA and other scholarship applications may be posted on the financial aid website of the institution, and on the social media pages like Facebook and Instagram.
- More aggressive donation campaigns should be run for scholarships, and stronger budget proposals should be written to the legislators for providing necessary funding to run the institutions.

EDUCATIONAL LEADERSHIP

- INVISIONING CONCEPTUAL FRAMEWORK



Suggestions for future research

- Longitudinal studies may be carried out to reach generalize and more authentic findings.

- Similar broad-based research may be carried out by involving the students at HBCU and other educational institutions.
- Research may also be conducted in partnership with other universities and colleges in the state of Delaware to derive localized findings because, as reported by McCann (2018), Delaware is within the top 12 states in the list of states having the most student debt.
- The conclusions on research questions 1, 2, 3, and 4 in the present research have been derived using the Fisher exact test for pairs of variables in the contingency tables, therefore, further research can be carried out by using the generalized linear model, which includes the log linear model and logistic regression.

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APPENDICES

APPENDIX - A

INFORMED CONSENT LETTER

Title of Project: Educational Loan, Students' Self-Efficacy, Attitude Towards Debt And Their Impact On Retention And Graduation In A Minority-Serving Institution

You are invited to participate in a research study of “*Educational Loan, Students' Self-Efficacy, Attitude Towards Debt and Their Impact on Retention and Graduation in a Minority-Serving Institution*”. I hope to learn if there exists a relationship between students' loans and the

perceived self-efficacy of undergraduate students studying in a minority-serving institution about persisting in their major or curriculum without pause and about their graduation from the institution in 5 years or less. The results of this study will help students to become better financial consumers.

You have been selected as a possible participant in this study because you are an undergraduate freshman, sophomore, junior, or senior student at Delaware State University.

Please provide your candid response to the survey as the results of this study will help in providing awareness and knowledge among the current and future students about what can be done to improve the institution's and society's efforts to provide them education and the academic services that work best for their academic success future employment and career. The survey is anonymous. There is no identification included in the survey instruments. So, there will be no way of identifying responses with the respondents. The results will benefit all students, and university community, and will be published only as a highly aggregated report, i.e. without revealing the identity of the participants.

The surveys and other documents will be kept in a locked file until the data is analyzed and the report is generated. These documents will then be shredded under the supervision of the research mentor when the written report is accepted. Electronically recorded information will be stored on the secure server of the computer's network drive. Upon the research completion, data will be erased using commercial software applications designed to remove all data from the storage device.

Your decision whether or not to participate will not prejudice your future relations with Delaware State University. If you decide to participate, you are free to withdraw your consent and to discontinue participation at any time without prejudice. If at any time you have questions concerning your rights as a research subject, you may call the Office of Sponsored Programs at 302-857-6810.

Important Note: Please check the box to convey your consent to participate in this Survey.

APPENDIX – B



DELAWARE STATE UNIVERSITY

Institutional Review Board – Human Subjects Protection Committee

April 11, 2018

Ms. Diana Yankovich,
Department of Education
1200 N. DuPont Highway
Delaware State University
Dover, Delaware 19901

Dear Ms. Yankovich

Delaware State University's Institutional Review Board (IRB)-Human Subjects Protection Committee has reviewed your research project "**Educational Loan Students' Self-Efficacy, Attitude towards Debt and Their Impact on Retention and Graduation and in Minority-Serving Institutions**".

After considerable discussion and review of requested modifications, the IRB decided to **approve** the application. In addition, you are required to submit a Final Study Review on or before April 11, 2019.

Sincerely,

Dr. Brian Friel
Chair—Human Subjects Protection Committee

ckh

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Delaware State University is an equal opportunity employer and does not discriminate because of race, creed, national or ethnic origin, sex or disability.

APPENDIX - C RESEARCH SURVEY

I. BIOGRAPHICAL INFORMATION

1 Your Gender: <input type="radio"/> Male <input type="radio"/> Female <input type="radio"/> Other <input type="radio"/> Do now wish to disclose	2 What is your Race? <input type="radio"/> Hispanic <input type="radio"/> American Indian or Alaska Native <input type="radio"/> Asian <input type="radio"/> Black or African American <input type="radio"/> White <input type="radio"/> Two or More Races <input type="radio"/> Native Hawaiian or other Pacific Islander <input type="radio"/> Unknown/Unreported
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II - EDUCATIONAL COST AND LOANS

Top of Form

3. What amount of student loan will you acquire by the time you graduate?

- \$0
- \$1 - 10,000
- \$10,001 - 20,000
- \$20,001 - 30,000
- \$30,001 - 40,000
- \$40,001 - 50,000
- More than \$ 50,000

4. You pay the tuition fee as an

- In-state student
- Out-of-state student

5. Are you

- Boarder
- Commuter

6. Have you received any scholarship, grant, work study or fellowship to support your college studies?

- Yes
 No

7. Are you a student athlete?

- Yes
 No

8. If you have received any scholarship, grant, work study or fellowship to support your college tuition and fees please list the names of the aid

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III- FINANCIAL SELF- EFFICACY RESEARCH QUESTIONS

	Exactly True	Moderately True	Hardly True	Not at All True
9. It is hard to stick to my spending plan when unexpected expenses arise.	<input type="radio"/> 9. It is hard to stick to my spending plan when unexpected expenses arise. Exactly True	<input type="radio"/> 9. It is hard to stick to my spending plan when unexpected expenses arise. Moderately True	<input type="radio"/> 9. It is hard to stick to my spending plan when unexpected expenses arise. Hardly True	<input type="radio"/> 9. It is hard to stick to my spending plan when unexpected expenses arise. Not at All True
10. When unsuspected expenses occur I usually have to use credit	<input type="radio"/> 10. When unsuspected expenses occur I usually have to use credit Exactly True	<input type="radio"/> 10. When unsuspected expenses occur I usually have to use credit Moderately True	<input type="radio"/> 10. When unsuspected expenses occur I usually have to use credit Hardly True	<input type="radio"/> 10. When unsuspected expenses occur I usually have to use credit Not at All True
11. When faced with a financial challenge, I have a hard time figuring out the solution	<input type="radio"/> 11. When faced with a financial challenge, I have a hard time figuring out the solution. Exactly True	<input type="radio"/> 11. When faced with a financial challenge, I have a hard time figuring out the solution. Moderately True	<input type="radio"/> 11. When faced with a financial challenge, I have a hard time figuring out the solution. Hardly True	<input type="radio"/> 11. When faced with a financial challenge, I have a hard time figuring out the solution. Not at All True
12. I lack confidence in my ability to manage my finances	<input type="radio"/> 12. I lack confidence in my ability to manage my finances Exactly True	<input type="radio"/> 12. I lack confidence in my ability to manage my finances Moderately True	<input type="radio"/> 12. I lack confidence in my ability to manage my finances Hardly True	<input type="radio"/> 12. I lack confidence in my ability to manage my finances Not at All True
13. I worry about paying back my student loans	<input type="radio"/> 13. I worry about paying back my student loans Exactly True	<input type="radio"/> 13. I worry about paying back my student loans Moderately True	<input type="radio"/> 13. I worry about paying back my student loans Hardly True	<input type="radio"/> 13. I worry about paying back my student loans Not at All True

IV. FINANCIAL STRESS RESEARCH QUESTIONS

	Yes	No
14. I have enough money to participate in most of the same activities as my peers do	<input type="radio"/> 14. I have enough money to participate in most of the same activities as my peers do Yes	<input type="radio"/> 14. I have enough money to participate in most of the same activities as my peers do No
15. I regularly spend more than I have by using credit or borrowing	<input type="radio"/> 15. I regularly spend more than I have by using credit or borrowing Yes	<input type="radio"/> 15. I regularly spend more than I have by using credit or borrowing No
16. I pay my bills on time every month	<input type="radio"/> 16. I pay my bills on time every month Yes	<input type="radio"/> 16. I pay my bills on time every month No
17. Do you currently have debt from any source, including student loans, credit cards, car loans, personal loans from financial institutions or from family/friends, or from any other type of credit or loans?	<input type="radio"/> 17. Do you currently have debt from any source, including student loans, credit cards, car loans, personal loans from financial institutions or from family/friends, or from any other type of credit or loans? Yes	<input type="radio"/> 17. Do you currently have debt from any source, including student loans, credit cards, car loans, personal loans from financial institutions or from family/friends, or from any other type of credit or loans? No

V. RETENTION GRADUATION QUESTIONS

18. Are you a:

- First-Time Freshman
- Other Freshman
- Sophomore
- Junior
- Senior

19. Are you a transfer student

- Yes, starting this semester
- Yes, in the past
- No

20. If you are a senior, are you graduating this semester?

- Yes
- No

21. Are you preregistered for (circle all that apply):

- Spring 2019
- Summer 2019
- Fall 2019
- Not preregistered

22. If you are not preregistered, do you plan to register when the registration opens

- Yes
- No

23. What is your Major?

24. In how many credit hours you are enrolled this semester?

25. What is your cumulative GPA

Question	very confident	mostly confident	somewhat confident	not confident
26. How confident are you that you will remain at the university without interruption until your graduation?	<input type="radio"/> 26. How confident are you that you will remain at the university without interruption until your graduation? very confident	<input type="radio"/> 26. How confident are you that you will remain at the university without interruption until your graduation? mostly confident	<input type="radio"/> 26. How confident are you that you will remain at the university without interruption until your graduation? somewhat confident	<input type="radio"/> 26. How confident are you that you will remain at the university without interruption until your graduation? not confident
27. How confident are you that you will be performing academically up to the best of your academic potential given the educational debt you are bearing now?	<input type="radio"/> 27. How confident are you that you will be performing academically up to the best of your academic potential given the educational debt you are bearing	<input type="radio"/> 27. How confident are you that you will be performing academically up to the best of your academic potential given the educational debt you are bearing	<input type="radio"/> 27. How confident are you that you will be performing academically up to the best of your academic potential given the educational debt you are bearing	<input type="radio"/> 27. How confident are you that you will be performing academically up to the best of your academic potential given the educational debt you are bearing

	now? very confident	now? mostly confident	now? somewhat confident	now? not confident
28. How confident are you that you will be performing academically up to the best of your academic potential given the educational debt you are going to acquire until graduation?	<input type="radio"/> 28. How confident are you that you will be performing academically up to the best of your academic potential given the educational debt you are going to acquire until graduation? very confident	<input type="radio"/> 28. How confident are you that you will be performing academically up to the best of your academic potential given the educational debt you are going to acquire until graduation? mostly confident	<input type="radio"/> 28. How confident are you that you will be performing academically up to the best of your academic potential given the educational debt you are going to acquire until graduation? somewhat confident	<input type="radio"/> 28. How confident are you that you will be performing academically up to the best of your academic potential given the educational debt you are going to acquire until graduation? not confident

29. If you answered the question 27 and/or 28 with any answer other than “very confident”, is the amount of your student loan one of the main reasons for you not to be able to fully engage academically up to your full potential?

- Yes
- No

VI. ATTITUDES TOWARDS DEBT

Instructions: Circle the number that indicates the extent to which you agree or disagree with each of the following statements. There is neither a right or wrong answer to any question.

	1. Strongly Disagree	2. Disagree	3. Neither Agree nor Disagree	4. Agree	5. Strongly Agree
30. Taking out a loan is a good thing because it allows you to enjoy life.	<input type="radio"/> 30. Taking out a loan is a good thing because it allows you to enjoy life.	<input type="radio"/> 30. Taking out a loan is a good thing because it allows you to enjoy life.	<input type="radio"/> 30. Taking out a loan is a good thing because it allows you to enjoy life.	<input type="radio"/> 30. Taking out a loan is a good thing because it allows you to enjoy life.	<input type="radio"/> 30. Taking out a loan is a good thing because it allows you to enjoy life.
31. It is a good idea to have something now and pay for it later.	<input type="radio"/> 31. It is a good idea to have something now and pay for it later.	<input type="radio"/> 31. It is a good idea to have something now and pay for it later.	<input type="radio"/> 31. It is a good idea to have something now and pay for it later.	<input type="radio"/> 31. It is a good idea to have something now and pay for it later.	<input type="radio"/> 31. It is a good idea to have something now and pay for it later.
32. Using credit is basically wrong.	<input type="radio"/> 32. Using credit is basically wrong.	<input type="radio"/> 32. Using credit is basically wrong.	<input type="radio"/> 32. Using credit is basically wrong.	<input type="radio"/> 32. Using credit is basically wrong.	<input type="radio"/> 32. Using credit is basically wrong.

33. I would rather go hungry than purchase food on credit.	<input type="radio"/> 33. I would rather go hungry than purchase food on credit.	<input type="radio"/> 33. I would rather go hungry than purchase food on credit.	<input type="radio"/> 33. I would rather go hungry than purchase food on credit.	<input type="radio"/> 33. I would rather go hungry than purchase food on credit.	<input type="radio"/> 33. I would rather go hungry than purchase food on credit.
34. I plan ahead for larger purchases.	<input type="radio"/> 34. I plan ahead for larger purchases.	<input type="radio"/> 34. I plan ahead for larger purchases.	<input type="radio"/> 34. I plan ahead for larger purchases.	<input type="radio"/> 34. I plan ahead for larger purchases.	<input type="radio"/> 34. I plan ahead for larger purchases.
35. Being in debt is never a good thing.	<input type="radio"/> 35. Being in debt is never a good thing.	<input type="radio"/> 35. Being in debt is never a good thing.	<input type="radio"/> 35. Being in debt is never a good thing.	<input type="radio"/> 35. Being in debt is never a good thing.	<input type="radio"/> 35. Being in debt is never a good thing.
36. Credit is an essential part of today's lifestyle.	<input type="radio"/> 36. Credit is an essential part of today's lifestyle.	<input type="radio"/> 36. Credit is an essential part of today's lifestyle.	<input type="radio"/> 36. Credit is an essential part of today's lifestyle.	<input type="radio"/> 36. Credit is an essential part of today's lifestyle.	<input type="radio"/> 36. Credit is an essential part of today's lifestyle.
37. It is important to live within one's means.	<input type="radio"/> 37. It is important to live within one's means.	<input type="radio"/> 37. It is important to live within one's means.	<input type="radio"/> 37. It is important to live within one's means.	<input type="radio"/> 37. It is important to live within one's means.	<input type="radio"/> 37. It is important to live within one's means.
38. Even on a low income, one should save a little regularly.	<input type="radio"/> 38. Even on a low income, one should save a little regularly.	<input type="radio"/> 38. Even on a low income, one should save a little regularly.	<input type="radio"/> 38. Even on a low income, one should save a little regularly.	<input type="radio"/> 38. Even on a low income, one should save a little regularly.	<input type="radio"/> 38. Even on a low income, one should save a little regularly.
39. Borrowed money should be repaid as soon as possible	<input type="radio"/> 39. Borrowed money should be repaid as soon as possible	<input type="radio"/> 39. Borrowed money should be repaid as soon as possible	<input type="radio"/> 39. Borrowed money should be repaid as soon as possible	<input type="radio"/> 39. Borrowed money should be repaid as soon as possible	<input type="radio"/> 39. Borrowed money should be repaid as soon as possible
40. Most people run up too much debt.	<input type="radio"/> 40. Most people run up too much debt.	<input type="radio"/> 40. Most people run up too much debt.	<input type="radio"/> 40. Most people run up too much debt.	<input type="radio"/> 40. Most people run up too much debt.	<input type="radio"/> 40. Most people run up too much debt.
41. It is too easy for people to get credit cards.	<input type="radio"/> 41. It is too easy for people to get credit cards.	<input type="radio"/> 41. It is too easy for people to get credit cards.	<input type="radio"/> 41. It is too easy for people to get credit cards.	<input type="radio"/> 41. It is too easy for people to get credit cards.	<input type="radio"/> 41. It is too easy for people to get credit cards.
42. I do not like borrowing money.	<input type="radio"/> 42. I do not like borrowing money.	<input type="radio"/> 42. I do not like borrowing money.	<input type="radio"/> 42. I do not like borrowing money.	<input type="radio"/> 42. I do not like borrowing money.	<input type="radio"/> 42. I do not like borrowing money.

43. Borrowing money is sometimes a good thing.	<input type="radio"/> 43. Borrowing money is sometimes a good thing.				
44. I am rather adventurous with my money.	<input type="radio"/> 44. I am rather adventurous with my money.				