Walden University

College of Management and Technology

This is to certify that the doctoral study by

Loucynda White

has been found to be complete and satisfactory in all respects,
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Walden University
2014

Abstract

The Presence of Subprime Loan Awards and Default Rates of Proprietary Universities

by

Loucynda Gynell White

MBA, University of Phoenix, 2006

BS, Chicago State University, 1999

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

June 2014

Abstract

The debt burden on college students is threatening the future of an educated society. Students' inability to pay their debt results in increases in the federal student loan default rates and affects colleges' cohort default rates, which has a direct impact on postsecondary institutions' revenue. The purpose of this quantitative, correlational study was to examine the relationship between the presence of subprime loans awarded by proprietary institutions and the1-year student loan default rates or the 2-year institutional cohort default rates. Rational choice of human behavior provided the theoretical framework for this study. Rational choice of human behavior provided the theoretical framework for this study. The secondary data included all 132 reporting U.S. proprietary institutions that offer 4-year degrees. Three additional variables were employed to define the demographic profile (age, gender, and race) of students using subprime loans to assist with financing their education to increase the understanding of the characteristics of the student population that may affect the cohort default rates. The first multiple regression model showed a statistically significant relationship existed between the presence of subprime loans awarded to students at proprietary institutions and the 1-year student default rates with respect to age and race. The second model, while overall insignificant at the .05 level, demonstrated a significant relationship between default 2-year cohort default rates and age. The results of the study may have a positive impact on social change by catalyzing policy changes to limit subprime lending, increase Title IV funding, and decrease student debt loads and default rates, thereby improving revenues to proprietary institutions and Title IV federal funding.

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Dedication

This study is dedicated to my parents, Henry and Ida, who advised me that the power of prayer could help you through any obstacle in life.

Acknowledgments

Walden University strives for high standards of performance and advocates social transformation in a diverse community of learner practitioners. Living up to these standards has become a true test of strength and faith in me. The completion of this doctoral study would not have been possible if not for those individuals who continued to have faith in me. First, I would like to acknowledge my previous and current supervisors in higher education. I would like to express my sincere thanks to Director of Financial Aid at Chicago State University Brenda Hooker for first giving me an opportunity to work in the higher education system. Nineteen years later it is still my passion. Thanks also to Agnes Caned, the late director of financial aid at Central Washington University, for sharing her insight on how to access, request, and obtain the required data need for my study.

Second, I owe my deepest gratitude to Dr. Charlene Dunfee, Dr. Roger Mayer, and Dr. Ewald for assisting me by providing feedback and suggestions. Dr. Dunfee and Dr. Mayer became my mentors two-thirds of the way into my program, and I have learned a lot from each of them in such a short time. Finally, I am grateful to be a part of the nucleus that held the White Family together after the loss of our parents. To my sons, Jonathan and Michael, you are my motivation to succeed and I love you both.

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Section 1: Foundation of the Study

Researchers have indicated a relationship exists between the economy and educational expenditures. In a seminal study from 1983, *A Nation at Risk,* which was repeated 25 years later, the authors were able to link an economic downturn to a reduction in educational expenditures (Good, 2010). Two decades later, Scott (2009a) questioned the stability of the higher education system's core structure with regard to value, strength, and commitment as the United States entered an economic downturn. Good (2010) indicated that the *A Nation at Risk* report of 1983 addressed the declining education system in the United States and further noted that there were still no signs of positive growth in the education system 25 years later. Secretary of Education Arne Duncan testified to the U.S. Senate that "100,000 to 300,000 jobs (44.5% in postsecondary education) are at risk due to budget" (Harkin, 2010, p. 1). President Obama advised the reduction of education funding would be unfavorable for postsecondary institutions in the United States (American Association of State College and Universities, 2010). An education funding reduction of 26% may diminish the quality of education, and increased tuition affects families and the universities' attrition rates (Alon, 2011).

Background of the Problem

Academic advancement has played a vital role in U.S. society since the Vietnam War. In 1965, President Lyndon Johnson signed the Higher Education Act into law as part of the domestic agenda (Quay, 2010), which upon approval increased grant funding to colleges and universities (Marginson, 2011). Investments in education contributed to

new educational concepts in 1992 with the privatization of public colleges and universities operated by Education Alternatives, Inc. (Berry & Worthen, 2012). Four decades after President Johnson signed the Higher Education Act, government reform included new legislation calling for institutional accountability (Lee, 2013), which involved implementing policy changes that led to broad investments in education (Manolescu, 2011).

In 1992, Education Alternatives became the first private corporation to receive a contract to operate a public institution and the first to earn a profit by providing and implementing a quality-driven education model for the same cost as a public institution (Berry & Worthen, 2012). Since 2002, however, 1 out of 15 publicly-traded companies owned and operated over 2,000 proprietary institutions nationwide (Said, 2011). Nearly 2 million Americans enrolled in postsecondary institutions nationwide in 2008 during the financial crisis (Scott-Clayton, 2012). State governments allowed increased tuition to be a policy during the financial crisis, but rarely supported the increase with the need-based federal student aid required to enroll (Scott, 2009a). A College Board analysis of U.S. Department of Education (DOE) data showed that 60% of the students enrolled at proprietary colleges and universities acquired subprime loans as a source of alternative funding to finance education expenditures, which contributed to student loan debt (Santo & Rall, 2010).

The average loan debt accumulated by students at proprietary colleges is over $30,000, which is 1.5 times more than the amount accumulated by students at traditional colleges and universities (Santo & Rall, 2010). The results of a DOE survey indicated

student debt defaults in 2008 at proprietary institutions increased from 11 to 11.6% compared to an increase from 5.9 to 6% for traditional colleges and universities; the increases also affected university attrition (Epstein, 2010). Daley (2010) supported Tinto's (1993) argument that attrition negatively affects institutions greatly because of institutions' reliance on tuition, academic support, university operations, and student services. Retaining students is vital for maintaining enrollment when tuition increases, financial aid award offers decrease, enrollment numbers decrease, and economic recovery stagnates, which reinforces the validity and reliability of Tinto's retention study (Daley, 2010).

Income history, academic preparation, financial aid, and degree completion influence university enrollment (Kim, 2011); however, for every $1,000 decrease in student funding, the probability that a student does not graduate increases from 1.1 to 2.5% (Alon, 2011). The results of the DOE survey served as a catalyst for regulatory educational funding reform by the Obama administration (Marginson, 2011). This study involved analyzing the relationship between the presence of subprime loans awarded by proprietary institutions and the1-year student loans default rates or 2-year cohort default rates at proprietary institutions. The number of borrowers who entered repayment status between October 2007 and September 2008 and defaulted on their loans by the end of September 2009, during the 2009 fiscal academic year, comprised the 2-year cohort default rates.

Problem Statement

The increase of institutional default rates is threatening the American Dream. Institutional default rates exceeding 25% from the 2008–2009 and the 2009–2010 academic years resulted in lost revenue from Title IV funding (Blumenstyk & Fields, 2010; Taylor, 2010). Applicants who exhaust their federal loan eligibility acquire subprime loans to fund their education (Simmons, 2013), and subprime loans account for 64% of institutional revenue for proprietary colleges and universities (Grant, 2011). Over 9% of students default on their federal student loans within the first 2 years due to the inability to begin paying them back, and 13.4% default in the first 3 years (DOE, 2010). Field and Brainard (2010) reported $39.1 billion in defaulted federal student loans, with proprietary colleges and universities responsible for 43% of these defaulted loans. The general business problem is students' inability to pay back their debt affects the increases in the federal 1-year student loan default rates and thus directly affects the colleges' cohort default rates. The specific business problem is higher education financial aid administrators' lack of understanding of the extent to which the presence of subprime loans relates to 1-year student default rates and the 2-year cohort default rates of proprietary educational institutions, which can thereby affect Title IV funding.

Purpose Statement

The purpose of this quantitative, correlational study was to determine the extent to which a relationship exists between the presence of subprime loans awarded to students and either the 1-year student loan default rates measured by the National Student Loan Database System (NSLDS) or the 2-year institutional cohort default rates as measured by

the Management Cohort Default Rates (National Student Loan Data System, 2010). The dependent variables in the two regression models were (a) the 1-year student loan default rates as measured by NSLDS and (b) the 2-year cohort default rates as measured by the percentage of borrowers who enter repayment during a partial federal fiscal year. The primary independent variable was the percentage of students awarded subprime loans by proprietary institutions that offer 4-year degrees. To add to the understanding of the student population that affects the cohort default rates, this study included three additional variables to define the demographic profile (age, gender, and race) of students using subprime loans to assist with financing their education. Because prior research related to characteristics of students who accumulate debt is lacking (Mhamed & Kasa, 2010), demographic variables contributed to understanding students and debt. The National Center for Education Statistics (NCES) has comprehensive data on over 7,000 institutions; from this population, I used the complete population of approximately 500 U.S.-based proprietary institutions with 4-year degree programs (NCES, 2010). Findings from this study may have a positive effect on social change by increasing the knowledge of legislators, academic leaders, and taxpayers who may reduce 1-year student loan default rates, limit subprime lending, increase educational funding, and lower 2-year cohort default rates. Increased knowledge by the abovementioned stakeholder may result in a decreased cost of administering student loans to students, colleges, and taxpayers.

Nature of the Study

The nature of this quantitative, correlational analysis was to determine if a relationship exists between the presence of subprime loans awarded by proprietary

institutions, the federal 1-year student loan default rates, and the 2-year cohort institutional default rates. When addressing if a relationship exists between the aforementioned variables, I considered a pragmatic worldview. Researchers conducting pragmatic research can be open to exploratory practice and encourage an alliance regardless of philosophies (Onwuegbuzie & Leech, 2011; Slater, 2013). I used a quantitative, correlational design rather than a quantitative, comparison design to determine to what extent a relationship exists between the presence of subprime loans and 1-year student loan default and the 2-year cohort default rates of proprietary educational institutions. The focus of this study was not to measure differences but to determine the relationships between the independent and the dependent variables of two regression models. I used a quantitative research approach of theory testing to examine how the independent and dependent variables "are interrelated, and identify the conditions under which they should be related or not related" (Tsang, 2013, p. 198; see also Neuman, 2011).

Quantitative research involves using statistical analysis to examine a relationship between data and observation (Johnson & Christensen, 2010; Neuman, 2011). This correlational study included two multiple regression analyses to show the relationship between several variables (Hesse-Biber, 2010). Findings from the quantitative research approach might lead to exploring how the findings may contribute to knowledge to decrease private loan awarding and the 1-year student loan default rates that affect the 2-year cohort default rates. This study was nonexperimental, and the correlational design involved examining the relationship between independent and dependent variables

(Johnson & Christensen, 2010). A correlation coefficient measured the strength of the linear relationship between the variables (Onwuegbuzie, Bustamante, & Nelson, 2010).

Research Questions

The primary research question for this study was as follows: To what extent does the presence of subprime loans relate to either the 1-year student loan default rates or the 2-year cohort default rates of proprietary institutions? The subquestions related to the overriding research questions were as follows:

1. To what extent does the percentage of students with private subprime loans awarded by proprietary institutions relate to the 1-year student loan default rates as measured by the NSLDS?
2. To what extent does the demographic profile (as defined by age, gender, and race) of students who use subprime loans awarded by proprietary institutions to finance their education relate to the 1-year student loan default rates as measured by the NSLDS?
3. To what extent does the percentage of students with private subprime loans awarded by proprietary institutions relate to the 2-year cohort default rates of proprietary institutions as measured by the cohort default rates?
4. To what extent does the demographic profile (as defined by age, gender, and race) of students who use private subprime loans awarded by proprietary institutions to finance their education relate to the 2-year cohort default rates of proprietary institutions as measured by the cohort default rates?

Hypotheses

$H1_0$: There is no relationship between the presence of subprime loans awarded by proprietary institutions and the 1-year student loan default rates as measured by the NSLDS.

$H1_a$: There is a relationship between the presence of subprime loans awarded by proprietary institutions and the 1-year student loan default rates as measured by the NSLDS.

$H2_0$: There is no relationship between the demographic profile as defined by average age of students awarded subprime loans by proprietary institutions and the 1-year student loan default rates.

$H2_a$: There is a relationship between the demographic profile as defined by average age of students awarded subprime loans by proprietary institutions and the 1-year student loan default rates.

$H3_0$: There is no relationship between the demographic profile as defined by genders of students awarded subprime loans by proprietary institutions and the 1-year student loan default rates.

$H3_a$: There is a relationship between the demographic profile as defined by genders of students awarded subprime loans by proprietary institutions and the 1-year student loan default rates.

$H4_0$: There is no relationship between the demographic profile as defined by race of students awarded subprime loans by proprietary institutions and the 1-year student loan default rates.

$H4_a$: There is a relationship between the demographic profile as defined by race awarded subprime loans by proprietary institutions and the 1-year student loan default rates.

$H5_0$: There is no relationship between the presence of subprime loans awarded by proprietary institutions and the 2-year cohort default rates as measured by the cohort default rates.

$H5_a$: There is a relationship between the subprime loans awarded by proprietary institutions and the 2-year cohort default rates as measured by the cohort default rates.

$H6_0$: There is no relationship between the demographic profile as defined by average age of students awarded subprime loans by proprietary institutions and the 2-year cohort default rates of proprietary institutions.

$H6_a$: There is a relationship between the demographic profile as defined by average age of students awarded subprime loans by proprietary institutions and the 2-year cohort default rates of proprietary institutions.

$H7_0$: There is no relationship between the demographic profile as defined by gender of students awarded subprime loans by proprietary institutions and the 2-year cohort default rates of proprietary institutions.

$H7_a$: There is a relationship between the demographic profile as defined by gender of students awarded subprime loans by proprietary institutions and the 2-year cohort default rates of proprietary institutions.

$H8_0$: There is no relationship between the demographic profile as defined by race of students awarded subprime loans by proprietary institutions and the 2-year cohort default rates of proprietary institutions.

$H8_a$: There is a relationship between the demographic profile as defined by race of students awarded subprime loans by proprietary institutions and the 2-year cohort default rates of proprietary institutions.

Theoretical Framework

The rational choice theory of human behavior provided the theoretical framework of this study. The theory adds to the understanding of loan defaults by including human behavior with economic decisions (Hampsher-Monk & Hindmoor, 2010). Multiple influences govern behavior in business and educational finance (Onwuegbuzie & Leech, 2010). Finding ways to raise and allocate funding for higher education and business ventures is the nature of finance; however, any venture contains risk. Financial economics has a vital role in the social sciences matrix of higher education. Emotional attachments to money and the potential to increase cash flow drive the rational choice of human behavior in finance; therefore, the economic factors associated with rational choice contain the elements to invest in future prosperity (Billot, 2011).

According to Hampsher-Monk and Hindmoor (2010), rational choice in educational finance may be valuable if acting in a particular way generates a significant outcome. However, as applicants apply for subprime loans and make decisions without proper information, the results are uncertain. A link between making decisions under risk of uncertainty and behavioral economics inevitably exists (Grody, 2013). During the

economic crisis that began in 2008, applicants enrolled or seeking to enroll at proprietary colleges faced the decision of how to fund their education. With the economic climate and the critical analysis of business and higher education policies, applicants and parents must think rationally about funding their education at proprietary colleges and universities (Clark, 2010, p. 159), yet unresolved questions remain regarding the significance in rational choice of human behavior as it relates to educational finance.

According to Yalcin (2010), the dimensions of individual choice are usually not important in traditional finance, but the emergence of behavioral psychology in finance affected applicant behavior and decisions. The uncertainty of an unstable financial economy shifts the core of human security. Human security allows applicants to make informed decisions that serve their best interest as well as the best interest of the communities they serve (Neag & Pricopi, 2010). Despite the state of the economy and the 21% increase in the 2-year cohort default rates, administrators of proprietary institutions are working to respond to the needs of the students they serve (Fain, 2010). Parents and students still face the decision of whether to take out subprime loans because of tuition increases, a decrease in Title IV funding, and declining scholarship offers (Scott-Clayton, 2012).

Definition of Terms

Current fund revenue: Funding accepted during a 12-month period that students can use to cover operational expenditures (DOE, 2010).

Economic decline: Commonly known as a recession; occurs when the gross domestic product shows a decline for more than two consecutive quarters (Mullard, 2011).

Educational and general expenditures: Standard daily operational expenditures for colleges and universities (NCES, 2010).

Financial aid: Funding awarded to students to help cover educational expenditures not to exceed the cost of attendance (DOE, 2010).

Integrated Postsecondary Education Data System (IPEDS): An archival database clearinghouse that tracks institutional statistics across the United States (NCES, 2010).

National Advisory Committee on Institutional Quality and Integrity: An advisory board on the certification process for postsecondary institutions that report to the Secretary of Education (DOE, 2010).

National Center for Education Statistics (NCES): An organization that holds postsecondary education comparison data for traditional students between the ages of 18 and 24 and nontraditional students ages 25 and over (Woo, 2011).

Need-based aid: Funding awarded to students based on a calculation of their financial need by subtracting the estimated family contribution from the cost of attendance (DOE, 2010).

Proprietary colleges and universities: Higher education institutions owned and funded by private corporations (Tierney, 2011).

One-year student loan default: Nonpayment of borrowers' debt exceeding 270 days (DOE, 2010).

Student price elasticity: Relationship between tuition prices, Title IV financial aid availability, and decisions to enroll in college (Bradbard, Robbin, & Alvis, 2011).

Subprime loans: Private loans that carry variable interest rates between 5% and 23% (Mullard, 2011).

Two-year cohort default rates: Number of borrowers who defaulted on federally funded loans during a repayment period, where the numerator is the number of borrowers defaulted and the denominator is the number of borrowers who enter repayment (DOE, 2010).

Assumptions, Limitations, and Delimitations

Assumptions

For the purpose of the study, I assumed tuition pricing and financial funding are significant to the amount of subprime loans awarded by proprietary institutions and the institutional default rates. *Tuition and Fees in the West 2009-10* showed that financial aid is a vital tool in ensuring access to college during rising tuition prices (Van Horn, 2010). I also assumed the data provided by the Western Interstate Commission for Higher Education are accurate. I used secondary data from IPEDS to ensure accuracy in the data collection. Data from IPEDS contain information for private, public, and proprietary universities. Researchers at the U.S. Government Accountability Office examine funding practices for proprietary and not-for-profit institutions using IPEDS, NSLDS, and NCES (Scott, 2009b).

Limitations

The basis of the study was nonexperimental research, and therefore the goal was not manipulating independent variables to determine outcomes. Johnson and Christensen (2010) noted highly descriptive classification systems are necessary when using nonexperimental data. Jaiswel and Kamil (2012) supported Kent's (2009) research, which indicated that "no impairing of element can influence the independent variables because the manifestations have already taken place" (Kent, 2009, p. 53) in nonexperimental research. The goal of correlational studies is to determine if a relationship exists between two variables, but this relationship cannot be extended to determine cause and effect (Russo, 2011). Determining the amount of subprime loans offered to students will be difficult; thus, additional findings could be subject to alternative interpretations.

Delimitations

Proprietary educational institutions within the United States that offer 4-year degrees define the focus of the study. Enrollment of low-income students and the amount of federal funding in proprietary colleges have increased. In addition, the students who enroll in proprietary schools tend to depend on low tuition (Van Horn, 2010). Thus, the data might not represent data of other student or institutional populations. In addition, the researcher may need to identify other variables to determine the effect on the nonprofit and private institutional default rates.

Significance of the Study

Contribution to Business Practices

The subprime loan volume has increased siginificantly since the 2007–2008 academic year (Santo & Rall, 2010). However, no change has occurred to the lifetime aggregrate federal student loan limits since 1992. According to Supiano (2012), a College Board survey of 2009 showed the annual increase in subprime loans is approximately 35%, compared to 8% in federal student loans. Field and Brainard (2010) noted that should the trend continue, subprime educational loans would exceed federal student loan volume in the next decade. Subprime lending generates interest in sociology and ethical aspects of business (Field & Brainard, 2010). The effects of subprime lending have an effect on the global economy as leaders of banks and business continue to face strict liquidity conditions (Sweeny, 2011). Prior predatory lending research by Muller-Kahle and Lewellyn (2011) showed a relationship exists between private student loans and subprime mortgages. Sweeny (2011) also advised that "business in the institutional and corporates segments has increased [subprime] lending rates averaging 5.5% and 3.8% respectively" (p. 21).

Understanding the interaction of debt accumulation and the need for education is important. Epstein (2010) determined the effects of financial literacy, student persistence, and student awareness of default prevention are important in financial aid regulations. Such awareness is critical because the key to an individual's economic success is completing a college education (Scott, 2009a). Policymakers focus on the demand for highly skilled workers in a globalized market, making the need for a college

degree increasingly competitive (Jensen, Reichl, & Kemp, 2011). Jensen et al. (2011) also noted that 9% of highly skilled workers earned degrees from proprietary colleges and universities. The net value of revenue for one educational corporation was $4.925 billion (Apollo Group, 2010). However, securing Title IV funding under the 90/10 rule of the Higher Education Act is critical for proprietary colleges and universities to attain and maintain successful performance (Johnson, 2011).

Implications for Social Change

Johnson (2011) noted that the shift away from vocational training to increased enrollment at proprietary colleges is a result of for-profit corporations entering the postsecondary education market. According to Tierney (2011), within a period when the Standard & Poor 500 Index decreased 24%, stock prices in the for-profit education industry increased by 460%. Title IV funding contributed to 77% of revenue at for-profit institutions in 2007; as a result, students rely heavily on student loans to help finance educational expenditures (Taylor, 2010). Social economic factors also affect institutional graduation rates and students' ability to benefit from their course of study. According to Johnson, education leaders of the reaffirmation of the Higher Education Act of 1965 indicated that the leaders of proprietary colleges and universities must provide eligible programs for job placement in a recognized occupation (Johnson, 2011). However, Sandeen (2012) contended that no substantial changes ensued regarding institutional operation procedures, enrollment, student support services, and graduation rates.

Preventative measures are essential to have in place to increase student retention prior to enrollment, because the choice to "enroll or withdraw can occur in the 'blink' of

an eye" (McKnight, Paugh, & Knight, 2007, para. 1). Applicants from low-income backgrounds are trying to determine how to cover their educational expenses. According to Marginson (2011), students who attend proprietary institutions rely mostly on alternative loan funding because Pell Grants, which are subsidized and unsubsidized federal direct loans, only cover 25% of tuition and fees. A College Board analysis of DOE data showed that 60% of the students who graduated from proprietary colleges with 4-year degrees had over $30,000 in loan debt, and 38% were likely to default (Santo & Rall, 2010). Even though proprietary institutions showed a significant increase in enrollment, an issue with student retention still existed. Johnson (2011) contended students' socioeconomic backgrounds, classified as (a) families with low income, (b) parents with no higher education degree, and (c) pressured enrollment of students, caused the decrease in institutional retention rates.

In March 2010, President Obama's Student Aid and Fiscal Responsibilities Act became a law by a 220–11 vote. The act will provide Americans affordable, quality education that will help strengthen the nation's economy (Gottlieb, 2009). Following the passing of the bill, DOE leaders began to look closer at college and loan repayment rates for college recipients. President Obama's objective was to provide:

> (a) affordable college and assistance to help more Americans graduate through the use of SAFRA [Student Aid and Fiscal Responsibilities Act]; (b) improve the quality of the loan program by providing affordable and reliable loans to all families; and (c) lower the deficit by covering the pay-as-you-go fiscal liability. (Gottlieb, 2009, p. 556)

Accordingly, it is important that students have tools they can use to compare the expected performance outcomes associated with various private student loans and federal direct student loans.

A Review of the Professional and Academic Literature

Researchers should consider a wide range of conceptual and theoretical works of interest when addressing a problem statement (Gama, McKenna, & Peticca-Harris, 2012). The literature review for this study included academic support of the problem statement, and the research questions, theoretical descriptions, and implications that provide the foundation of the study received consideration. A preliminary literature review of the problem statement returned 1,000 articles from Walden's University library and Google Scholar. It became apparent during the research that no researcher had yet focused on subprime loans and the relationship between the student defaults and the 2-year cohort default rates of proprietary educational institutions.

To obtain relevant information, the search topic included three key areas: rational choice theory, educational finance, and law and compliance on the ABI/INFORM Global, Academic Research, Business Source Premier Complete, Chronicle of Higher Education, EBSCO, GALE, ERIC, ProQuest, and Sage databases. To obtain valuable information, the search included the following key terms: *law and compliance, rational choice in educational finance, financial aid, proprietary colleges, Title IV regulations,* and *subprime loans*. The list of references consisted of 128 cited works, of which 114 had dates of publication between 2010 and 2014, and 14 were seminal references. The 128 cited works included 104 peer-reviewed and academic journals, 5 publications from

government websites, 5 non-peer-reviewed academic journal articles, 9 seminal peer-reviewed journal articles, and 5 non-peer-reviewed academic journal articles.

Law and Compliance

Two decades of economic conflict led to a reduction of Title IV funding for colleges and universities within the United States, which required institutional leaders to find new marketing sources of funds while competing with proprietary colleges (Natale & Doran, 2012). Proprietary institutions have received financial backing from major U.S. corporations entering the higher education market; however, securing adequate funding has long been a challenge for traditional colleges and universities. As the leaders of some for-profit institutions have been able to bridge the gap between corporate America and higher education, other U.S. educational leaders have questioned the standards of institutional operating procedures. The leaders of proprietary institutions adapted to common business practices by focusing on stock market revenue and then the educational benefits for qualified applicants (Shaw, 2010). The focus within the market economy was advertisement, enrollment, and cost; Scott (2009b) asked what the outcome of higher education would be as the cost of education increased in response to the nation's financial situation.

The issue of accountability is at the forefront as federal and state policymakers implement changes that will affect the nation's higher education system. The economic recession has negatively affected many people with low incomes who rely on a well-run banking system (Sweeny, 2011), but college applicants have continued to commit their life savings and pledge their current and future assets without full knowledge and clarity

of what they are buying (Simmons, 2013). Government intervention has led to rapid changes in the business environment, as well as in higher education, based on different views of how people and organizational leaders operate with the emergence of behavioral economics and theories of rational choice (Mandel, 2013). Documentation from the U.S. Department of Justice showed institutions of higher education have misled students with regard to job placement rates and cost of attendance (Skinner, 2007; Taylor, 2010).

Reexamining the concepts of law and compliance regarding the accreditation process in higher education has been a primary concern for all accrediting bodies in the U.S. education system since the 2002 Morris Brown College investigation. According to Manning, the director of the Higher Learning Commission, the institutional accreditation process separates compliance from improvement (Lederman, 2010). Manning further contended that increasing institutional value makes sustainability difficult without Title IV funding (Lederman, 2010). Ginsberg (2011) indicated that leaders of postsecondary institutions at risk of losing federal funding can anticipate close monitoring of stockholders, manual reimbursement of state and federal funding, and control over monetary ethical principles outlined by the Internal Revenue Service (p. 63).

To achieve accreditation, leaders of higher education institutions must adhere to eligible program requirements established by federal regulation (Hall, 2012). Implementing such practices allows institutional leaders to ensure the quality of programs and to ensure standards are met. Code enforcement in nonprofit colleges and universities or system boards can be challenging due to growth and development. As enrollments increase, so do the responsibilities of the trustees. Of the 50,000 trustees and regents in

the United States, fewer than 10,000 govern public institutions (Cole & Banerjee, 2010, p. 437). Cole and Banerjee (2010) further noted that trustees of nonprofit colleges and universities act on behalf of the public as their individual consciences and judgments dictate.

To adhere to a clear mission and purpose outlined by a governing board and stakeholders, leaders of proprietary institutions must have full authority to make adjustments (Altbach, 2011; Garrity, Garrison, & Fiedler, 2010). The impact on for-profit colleges is greater than on nonprofit colleges because the "governance of higher education is relatively diverse" (Conway, 2012, p. 36). However, interest in the effectiveness of private-sector governing bodies in relation to accountability, monetary value, and competiveness and traditional distinction has been greater than for the public sector (Leadership Foundation, 2010, p. 2). Luoma (2010) noted the nonprofit sector increased governance issues from public companies to which the Sarbanes-Oxley Act is applicable; however, nonprofit organizations require review boards based on the size of the corporation (Cole & Banerjee, 2010).

Changes associated with corporate governance within proprietary colleges and universities may have a positive impact on stockholders, students, federal and state governments, and institutional revenue. Chopka, Hughes, and White-Mincarelli (2011) supported Wilson's (2009) statement fearing that socioeconomic inequalities raised within higher education policy and maintaining commitment to higher educational funding are more challenging as government funding for student loan subsidies decline. As a result of the economic downtown and leverage from federal student aid programs,

administrators and investors of proprietary institutions have begun to look closely at accreditation practices and how they will affect the bottom line. Adhering to accreditation requirements promotes value in all aspects of higher education (Chopka et al., 2011). Postsecondary funding, as well as the rational manner in which some educators are disregarding educational funding and accreditation practices altogether, is becoming a relevant topic for higher education leaders across the United States.

Rational Choice in Educational Finance

Rational choice theory has become the paradigmatic way to analyze behavior and has deep roots in economics (Clark, 2010). Researchers in previous studies have indicated personal attitudes toward economics are the most successful and assumed that the love of money and the potential for earning a profit are what drive people (Billot, 2011). In social interaction, incorporating rational choice into standard economic theory is not possible. However, Billot (2011) contended a correlation exists between rational choice of human behavior and social consistency based on individual preferences, social interaction, and the community in which one resides. Social economic downturns and reduced consumer spending that stops the creation of flourishing new businesses can also affect irrational behavior (Irons, 2009, p. 1).

The recession and statewide budget cuts across the United States have weakened the foundation of the American Dream (Clark, 2010) as people become aware of the "irrationality that drives human decision making" (Mandel, 2013, p. 162). During the decline in the U.S. economy in 2009, college affordability became the focal point for many Americans. At the same time, President Obama unveiled his higher education plan

to Congress, which included a focus on college affordability. Domina, Conley, and Farkas (2011) noted Americans accepted President Obama's higher education initiative, which increases the probability that rising high school seniors may attend college by 85% (p. 94). Domina et al. further supported this position by citing prior research by Jacob and Wilder (2010), who indicated that obtaining a college degree is a civic obligation and not a right or rational choice.

Higher education is a path to professional success and economic security for many college-bound students and their families (Willetts, 2011). U.S. higher education leaders were at a crossroads (Hudzik, 2010, para. 5) as governmental deliberations took place to determine if the economic stimulus package should include postsecondary institutions. Ashford and Biswas (2010) contended basic or perceived essentials (food, shelter, clothing, and government) and the cost of college attendance were aspects of higher education that were coming to the forefront. The implementation of regulatory changes in higher education by DOE leaders raised important issues and concerns for stakeholders (National Association of Student Financial Aid Administrators, 2012). The new requirements only increased the bureaucracy and the concomitant expenses (Scott, 2009b). In addition, the requirements denied access to underserved students who rely on the hands-on, flexible approaches of private-sector institutions (Bienkowski, Feng, & Means, 2012).

High poverty levels (exceeding 14 million) and foreclosures (above 4.3%) force families to rationalize their plans of higher education (Irons, 2009). The weight of paying for college has shifted from general taxpayers to students and their families, which has

had an impact on increased student debt. Ashford and Biswas (2010) noted government lawmakers are looking for ways to balance educational operating expenditures across the United States (p. 1). Student tuition and federal and local government funding account for more than 66% of institutional daily operating procedures, and private resources, endowments, and sales and services during the fiscal year generates the remaining 34% (Willetts, 2011). According to Campbell (2010), college graduates accumulated an average debt of $24,000 in 2009, compared with $19,200 in 2008. Debt by default fills the gap between family resources and rising college prices; however, students have failed to adapt to the underlying economic realities (Good, 2010).

Title IV Regulatory Changes

Postsecondary expenditures at the DOE have reached almost $1 billion, and it is no longer possible to ignore regulatory changes. Applicants who attended for-profit and nonprofit colleges throughout the United States during the 2005–2006 academic years received $135 billion in Title IV funding (Cellini, 2010). Despite the amount of funding allocated to postsecondary education, applicants are still unable to meet postsecondary educational costs. Even with increased funding, solutions to manage the system more effectively are necessary (Toby, 2010). Baum (as cited in Cellini, 2010) noted the significant increase in the percentage of subprime loans funding, even though the DOE had not shifted its support for the Pell Grant program.

A College Board analysis survey in 2007 showed that U.S. students had received inadequate preparation for college (Toby, 2010), which left students with the burden of navigating the bureaucratic system that has allowed them to fail (Cellini, 2010).

Politicians have suggested that students with satisfactory academic progress, which includes a minimum cumulative grade point average of 2.0 prior to college enrollment, receive Title IV funding. Toby (2010) showed that students without adequate preparation had received funding. Educators built the higher education system to focus on college access, quality, and subsidies to students; however, the primary focus of the program is students with financial need.

In 2000, DOE leaders reviewed DOE regulations related to the Title IV Federal Student Program. Section 498(B) of the Higher Education Act allows DOE leaders to implement Title IV regulations that are currently in place to determine the effect of regulatory changes on Title IV participants (Chopka et al., 2011). Leaders of proprietary and nonprofit institutions must ensure the institutions meet the following guidelines prior to determining eligibility for federal student aid assistance: "(a) post-secondary education institutions have a legal operations license within the housed state; (b) be accredited by a governmental agency recognized by the DOE; and (c) be eligible to disburse federal funds based on the DOE guidelines" (Skinner, 2007, p. 1). Prior to implementing the reauthorization of the key provision in 2008, institutional eligibility entailed the following determinants: (a) the 90/10 rule, which indicates that 10% of revenue must come from third-party resources; (b) refund policy modification if the recipients withdraw before 60% of course completion; and (c) establishment of a distance learning demonstration program (Skinner, 2007, p. 1). The 90/10 rule affected proprietary and vocational programs at nonprofit institutions (Cellini, 2010). Proprietary institutions are

more likely to fail a financial strength test due to fines and penalties, as recipients tend to have a higher debt ratio (Cellini, 2010).

Prior to the close of the 2007–2008 academic year, the student loan default rates reached $39.1 billion, and that total increased nearly 30% by the end of the 2009 fiscal year to $50.8 billion based on data obtained from the DOE (Field & Brainard, 2010). Johnson (2011) noted the reasons for the 16% increase in the student loan default rates at proprietary institutions with 4-year degrees were student retention, limited funding, and lower graduation ratess. The results from a DOE survey indicated that the subprime loan volume will continue to grow at double-digit rates; however, volume will have no impact on 2-year cohort default rates (DOE, 2010). The cohort default rates existed prior to the changes made by the Higher Education Opportunity Act of 2008. The cohort default rates represents the percentage of borrowers entering repayment in one fiscal year who defaulted by the end of the following fiscal year. Good (2010) indicated the 1-year window from when the default occurred can affect the cohort default rates.

The financial strength test is a key component of the Student Aid and Fiscal Responsibilities Act. The financial strength test findings affect the disbursal of Title IV funds at nonprofit and proprietary institutions (Scott, 2009a). Institutions lost Title IV funding access if the debt-to-income ratio was too high for the students served; however, institutions with student loan repayment rates above 45% did not face penalties (Cellini, 2010). Thirty-seven of 214 proprietary colleges failed the DOE test of financial strength in 2009, and degree-granting institutions that failed in 2007 experienced a 22% decline in financial strength (Blumenstyk & Fields, 2010). Scores range from -1.0 to 3 based on a

calculation that factors debt, assets, operating deficits, and surpluses; higher scores result in the loss of Title IV financial aid eligibility (Blumenstyk & Fields, 2010).

Implementation of the American Recovery and Reinvestment Act in 2009 by President Obama made history as it provided policies to replenish the economy. The act has a built-in mechanism to renovate the organizational structure, enhance energy independence, and develop learning opportunities in the United States (U.S. Government Accountability Office, 2010). The bill increased educational opportunity in the United States by raising (a) the $500 maximum Pell Grant (discretionary funding) for 2009–2010, (b) the Hope Scholarship tax credit from $1800 to $2500 (40% partial refund ability increased from 2 to 4 years); (c) $200 million in work study; and (d) $200 million in AmeriCorps funding (FinAid, 2010, para. 1). The signing of the Health Care and Education Reconciliation Act of 2010 led to major changes in the federal education program. With the cancellation of the federal-guaranteed student loan program (the Federal Family Education Loan Program); all new federal educations loans became possible through direct loans effective July 1, 2010 (FinAid, 2010, para. 2). Kantrowitz (2010b) indicated that the Congressional Budget Office would generate savings of $68 billion through eliminating the Federal Family Education Loan Program between 2008–2009 and 2009–2010.

Financial Aid

Each year, staff at the DOE process over 15 million institutional student information records from applicants seeking federal assistance to offset educational expenditures. The history of financial aid dates back to 1643, when Harvard University

created the first scholarship, and the establishment of the DOE in 1867. Education is a prominent national issue, and its functionality serves to establish policy for administrating and coordinating most federal assistance to education (Cross, Islas, Garcia, & Nevarez, 2010). The Higher Education Act of 1965, signed by President Johnson, included key components of the Title IV program, including the Educational Opportunity Grant program and the Guaranteed Student Loan program. The Educational Opportunity Grant program was the first need-based federal educational grant funded by the DOE; in 1972, the Educational Opportunity Grant program became the Pell Grant, named after late U.S. Senator Claiborne Pell (Pell, 2010).

Congressional policy makers use a need-based analysis formula to determine financial need for the Free Application for Federal Student Aid. In 1992, Higher Education Act amendments added the Free Application for Federal Student Aid to determine a recipient's estimated family contribution (EFC) toward education expenditures based on financial need. The EFC formula includes federal methodology based on (a) the prior tax year from students' and parents' income and assets when applicable; (b) household size; and (c) the number of people in college in the household, excluding parents if the student is dependent (Pell, 2010, p. 2).

Title IV financial aid recipients assume the EFC is the amount needed to pay educational expenses; however; the actual amount of the EFC, which is a fixed variable, may or may not be the amount paid toward college (Jacobe, 2011, p. 20). Federal regulations indicate that financial need is the basis for determining the amount of financial aid awarded to a recipient. Institutional staff calculates financial need by

deducting the EFC from the cost of attendance. The cost of attendance is different at each institution and includes the following variables: (a) tuition, (b) fees, (c) room and board, (d) books, (e) miscellaneous, and (f) transportation expenses over a 9-month academic year (DOE, 2010; Jacobe, 2011). Financial aid includes five categories based upon eligibility to help cover educational expenditures: (a) federal grants; (b) Stafford and Plus loans; (b) GI bill and veterans benefits; (c) state funding; and (d) self-help, which includes private loans, employment, third-party resources, and outside scholarships.

The amount of federal funds disbursed to colleges and universities throughout the United States in 2010 was $73 billion (DOE, 2010). A longitudinal national average study conducted by researchers at NCES (2010) showed 46.6% of students enrolled in college received financial aid. Kim (2012) noted the educational finance structure included a large debt; however, monetary assistance programs traditionally provided low-income students expense subsidies that would cover the cost of college tuition (p. 142). Despite generous federal and state award offers, college applicants choose to offset living expenditures by applying for federal Stafford loans and subprime loans. Toby (2010) reported during the housing market crash in 2007–2008, the rates of unemployment increased, which may have led to college graduates being unable to repay their loans. Toby further noted the relationship between the subprime student loans and the housing market crash that led to the credit crunch in 2007 (Toby, 2010, p. 45).

Toby (2010) showed the social inequalities between the social classes during the credit crush of 2007 led to increases in enrollment at proprietary colleges and

universities. However, Chopka et al. (2011) supported Cellini's (2012) findings that leaders of proprietary colleges and universities focused on the human capital aspect rather than the opportunity for learners to benefit (p. 37). However, recent changes to financial aid regulations are holding proprietary colleges' liable for students whom society deems the unemployable. The Higher Education Act of 1965 requires that applicants enrolled in proprietary institutions be employable in a recognized occupation (Kantrowitz, 2010a). Threatened by a weakened economy and the high cost of tuition, applicants enrolled within proprietary institutions rely on Title IV funding. According to Cellini (2010), financial aid funds 81% of the operational revenue received by proprietary colleges and universities (p. 534).

Proprietary Colleges

Student enrollment has increased significantly for the proprietary college and university system since 2002, and the student-debt ratio exceeds $1 trillion (O'Malley, 2012). O'Malley (2012) further noted the conceptual framework behind the for-profit education system was to make money for "partners within private organization, or for stakeholders in publically held companies" (p. 22). Prior researchers, however, have noted that proprietary institutions are a significant benefit to the U.S. workforce as they increase demand for highly skilled laborers (Cellini, 2012; Presidium, 2010). Over 1.8 million students enrolled in proprietary institutions in 2008 were Title IV eligible (Said, 2011), while traditional nonprofit institutions struggled with low enrollment and high general operating expenditures (Santo & Rall, 2010).

Increased enrollment resulted in a unique set of challenges, including "high default rates, lower retention and graduation numbers, and maximum access to financial aid" (Presidium, 2010, para. 2) so students could remain enrolled in proprietary institutions. However, the completion rates of Pell Grant recipients have raised some controversy at proprietary institutions. Institutions of higher education rely on Title IV financial aid; statistics have shown that eligible recipients received $18.3 million in awards, with $4.6 million in Pell Grants awarded to students at proprietary colleges (Student Loan Borrower Assistance [SLBA], 2010). The average tuition cost at a proprietary college is 7.6% higher than at a nonprofit institution, and only "8.9% students without prior college earn a degree compared to the 56.1% of students from 4 year colleges and 30.6% from community colleges" (SLBA, 2010, p. 3).

The DOE dropped 1,500 proprietary colleges from the financial aid program and began pushing students to take out private loans to avoid high default rates (Santo & Rall, 2010). Private loans are a more expensive resource for funding education and carry variable interest rates such as LIBOR or prime (FinAid, 2010). In 2004, Sallie Mae leaders agreed to provide private loan funds to proprietary colleges. The agreement made Sallie Mae the largest provider of federal loans guaranteed by the government (Santo & Rall, 2010). College Board analysis trends showed that out of 88% of loans borrowed at proprietary institutions in the 2008–2009 academic year, 42% were private loans (SLBA, 2010). In 2009, 7% of applicants enrolled at proprietary colleges; however, 44% of enrolled applicants defaulted on student loans (SLBA, 2010), as DOE researchers

revealed that DOE leaders considered revising the changes made by the Bush administration (Santo & Rall, 2010).

Said (2011) contended that the Bush administration stripped away regulations that increased the private sector's access to public funding. Leaders of the DOE opposed tighter regulations on institutions of higher education. However, the regulations would have a larger impact on proprietary colleges based on the following: (a) falsification of buyer or student information, (b) the definition of a high school diploma, and (c) gainful employment (Gonzalez, 2010, p. 1). The gainfully employed provision would "link federal aid to proprietary institutions to the level of student debt" (Scott, 2009a, p. 5; Taylor, 2010). The penalties for graduate programs that carry a high debt-to-income ratio result in withholding Title IV federal funding (Gonzalez, 2010). However, to maintain eligibility under the gainfully employed provision, leaders of proprietary institutions need to demonstrates the "debt-to income ratio does not exceed and the loans are not in default for recipients who have graduated or left the institution" (Taylor, 2010, p. 769).

Subprime Loans

In past decades, subprime lending served as an alternative for applicants who had higher risk of repayment in a market of social welfare by reducing borrower constraints (An & Bostic, 2009; Woo, 2011). In 2008, Mark Kantrowitz, publisher of FinAid.org, testified before Congress about the economic effect of the credit crisis on borrowers (Santo & Rall, 2010). Woo (2011) noted, "The problem behind the higher education loan market stemmed from the subprime mortgage" (p. 69). Congress cut loan subsidies when

the announcement was made that 14% of home mortgage market stopped federal back government loans (Woo, 2011).

The DOE (2010) estimated 7 million borrowers would need student loans, of which $20 billion would come from the subprime loan market. A federally backed organization prior to 2004 and an independent corporation since then, Sallie Mae is the most commonly used subprime lender and guarantor in higher education with the highest interest rates (Supaino, 2012). According to Woo (2011), Flowers's $25 billion buyout proposal would carry along with it double interest rates for borrowers. However, prior to the buyout, Senator Edward Kennedy launched an investigation into ethics violations between lenders and schools (DOE, 2010), and changes from those findings were implemented under the Obama administration's regulatory educational funding reform act (Marginson, 2011). Woo also noted 16% of Sallie Mae's subprime loan division made up 23% of companies' $142 billion lending portfolio. Shortly after the congressional hearing in which Mark Kantrowitz, testified, Sallie Mae announced it would no longer offer subprime loans to applicants of lower socioeconomic backgrounds (Bowen, 2013).

Sallie Mae, along with other banking institutions, was experiencing financial setbacks due to the economy. Santo and Rall (2010) noted this was due in part to federal subsidy cuts and the subprime mortgage lending crisis. As a result, higher education lending companies are facing higher costs. Smaller lenders, including (a) the College Board, (b) Goal Financial, (c) FinanSure, and (d) Next Student, backed the federal loan guarantee as well (Bowen, 2013); the remaining lenders chose to offer borrowers

reductions in loan fees (Woo, 2011). Typically applicants borrowed subprime loans when they exceeded their annual or aggregate federal loan limits, were suspended from receiving federal financial aid, or owed a past-due balance. Most private loans offer a variable interest rates tied to either the LIBOR or prime financial rates (FinAid, 2010).

The interest rates and fees are based on credit score and the credit score of the cosigner, if any. Supiano (2012) indicated that interest rates based on the LIBOR index will increase more slowly than rates based on the prime index. FinAid (2010) subprime or alternative education loans bridged the gap between the cost of education, government funding limits, and the loss of eligibility. However, rising tuition costs and no increase to the amount of federal aid in the declining economy made it difficult for applicants and their families to afford college. Stokes and Wright (2010) noted since 2000 the cost of education has exceeded the growth of federal grants and loan limits with the Title IV federal student aid program; therefore, subprime loan offers are necessary to meet educational expenditures.

Prior to Supiano's (2012) finding, the DOE (2010) noted as enrollment increased at proprietary colleges, thousands of low-income applicants applied for high-interest-rates loans. Unregulated private loan funding lies beyond the government's reach and often carries interest rates as high as 27% (Woo, 2011), which should be a cause for concern due to inadequate loan counseling to the borrowers. Santo and Rall (2010) supported Simmons' (2013) statement that borrowers enrolled in proprietary colleges and universities received inadequate information regarding the consumer price index. The subprime loan market is likely to have a greater impact on applicants with a lower

socioeconomic status. Stokes and Wright (2010) indicated that nearly 90% of the loan applicants enrolled at proprietary colleges are Asian, Black, Hispanic, or international and likely have the following socioeconomic characteristics: (a) credit delinquencies, (b) bankruptcies, (c) high debt-to-income ratios, and (d) low income (Muller-Kahle & Lewellyn, 2011). The subprime loan crisis has affected lenders and applicants as well.

Transition and Summary

Understanding the correlation between the presence of subprime loans awarded by proprietary institutions and the impact on the 1-year student loan or 2-year cohort default rates of proprietary colleges and universities is an ongoing issue for leaders of postsecondary institutions across the United States. Proprietary institutions administrators served more students who were at high risk of failing to complete their education and defaulting on their student loans. DOE (2010) legislation defined regulatory changes required to provide quality education to at risks students. The problem is that regulatory policy within the DOE affecting only proprietary institutions is that 10% of earned revenue must come from outside recourse other than Title IV student assistance. This change is commonly known as the "90-10 rule." The literature review set the groundwork for the research problem and questions presented in Section 1. The approach best suited for the research was to exploit the advantages of a pragmatic approach to research using a quantitative, correlational, multiple-regression analysis, described in Section 2. A presentation of findings, application to professional practice,implications for social change. I will conclude with recommendations for future research and my personal reflections of the doctoral study process in section 3.

Section 2: The Project

To address the rising cost of educational expenditures and the economic impact of subprime lending (Scott-Clayton, 2012), this correlational, multiple-regression analysis involved examining the impact of the presence of subprime loans and the demographic profile of student-awarded subprime loans on 1-year student loan and 2-year cohort default rates. This section includes a discussion on the role of the researcher, research methodology, reach design, population, and sampling selection technique, data collection, and data analysis method.

Purpose Statement

A correlational analysis was appropriate to determine if a relationship exists between variables. I examined the extent of the relationship between the presence of subprime loans awarded by proprietary institutions to students and either the 1-year student loan default rates or the 2-year institutional cohort default rates. Because I included additional independent variables including age, gender, and race, a multiple-regression analysis was suitable to determine the strength and nature of the relationship between the independent and the dependent variables. The results of the study may create a positive effect on social change by increasing academic administrator leaders' awareness of rational choice in educational finance and taxpayers' understanding about the effects of subprime student loans on students and institutions. In addition, the results of the study may increase legislators' understanding of the 90-10 rule. Scott-Clayton (2012) suggested that the 90-10 rule might restore market incentive to education. The population for the research study included all U.S. proprietary institutions that grant 4-

year degrees as outlined in Appendix B. As a researcher, I elected to use the publicly accessible archival data from the College Navigator on the IPEDS database. The financial aid fiscal year periods were from the 2007–2008 through the 2009–2010 academic years, as the 2010–2011 data were not readily available.

Role of the Researcher

In any study, the researcher must remain objectively separated from the subject matter to maintain research integrity (Barroqueiro, 2010, para. 10). Therefore, I used correlational analysis to examine the extent and type of relationship between the presence of subprime loans and the 1-year student loan default rates and 2-year cohort default rates of proprietary institutions. In correlational research, the construction of statistical models is necessary to explain what is under observation (Onwuegbuzie et al., 2010); I used publicly accessible data for this study.

Publicly accessible records for the study came from a variety of sources. I used cohort default rates data from NCES, and the NSLDS. Findings from prior studies involving NSLDS and IPEDS data showed 12 frequently used data elements (Stokes & Wright, 2010). As a financial administrator in higher education for 19 years, I readily identified the appropriate data elements for the study.

Participants

The quantitative study included only archived data, and there were no participants. I only used external secondary data located in three publicly available repositories representing 1-year student loan default rates, the 2-year cohort default rates, and demographic variables from U.S.-based proprietary institutions that offer 4-year

degrees. The three sources of data were IES NCES on the IPEDS College Navigation database, institutional default rates from the NSLDS, and the 2-year cohort default rates as measured by the percentage of borrowers who enter repayment during a particular federal fiscal year.

Research Method and Design

Research Method

I chose quantitative methodology for this study to determine if a relationship exists between the dependent and the independent variables. Because my goal was to understand relationships, a qualitative approach was not appropriate. Denk (2010) noted that qualitative investigations are difficult because reactions are neither logical nor standardized, whereas quantitative measures are systematic and exist in small intervals. Qualitative studies assist in understanding the human experience from the perspective of participants, but this was not my goal. Although there is value in each method, a quantitative correlational regression on data in the public domain was more suitable for my purposes. The goal for the study was to assess the degree of the relationship between 1-year student loan default rates and the amount of subprime loans awarded by proprietary institutions. Sanders (2012) supported Neuman's (2011) findings that quantitative researchers can refute or add support to qualitative research. Using preset survey questions from the public domain to obtain and analyze numerical data is appropriate in quantitative research; therefore, quantitative research was appropriate when examining the relationship between the independent and dependent variables.

Research Design

A correlational research design was appropriate for the study as I determined whether a relationship exists among variables that did not readily lend themselves to experimental manipulation (Black, 1999; Neuman, 2011). Vargha, Bergman, and Delaney (2013) noted, "When correlating two variables, predicting the value of one variable is possible if the value of the other is present" (p. 3397). The correlation determined if a relationship exists among the data observed. Kent (2009) reported that correlational research methods identify observable relationships that researchers can measure by the effectiveness and objectiveness of a linear relationship between two or more variables. The advantage to correlational studies is the ability to collect data on multiple subjects at a single time and study multiple variables and interactions (Tanlamai, 2011). The primary independent variable in this study was the percentage of students awarded subprime loans. To add to the understanding of the student population who ultimately affect the cohort default rates, I included three additional variables (age, gender, and race) to define the demographic profile of students who use subprime loans to help finance their education.

A potential alternative to conducting correlational analysis to test the relationship between the dependent and the independent variables would be to conduct a descriptive analysis on the data. Although I included a descriptive analysis, this alone was not sufficient to address the research questions. Descriptive analysis expresses the characteristics of qualitative data only, but in quantitative research, a researcher wants to understand the relationship between two or more variables (Onwuegbuzie et al., 2010, p.

60). Using correlational analysis allows for a more in-depth assessment of the relationship between independent and dependent variables. Multiple uses of correlation exist; however, "regression will allow for a sophisticated exploration of the interrelationships among a set of variables" (Vargha et al, 2013, p. 3397). Leedy and Ormrod (2012) contended that using multiple regressions is more flexible because it includes the weight of predictor variables and criteria.

Preexisting data, observational data, and survey data were possible sources for examining and understanding how proprietary colleges' administrators need to change due to the regulatory changes made within the DOE. Observational research might help to examine how participants make decisions; however, the focus of observational research is studying the behavior of respondents in their natural environment (Leicht, Hunter, Saluja, & Messner, 2010). Manipulating one or more participants in a natural setting alters the outcome of research; therefore, a design employing observations was not appropriate for this study.

Researchers assess trends using a survey research tool that can be an indirect form of observational research (Online Education Database, 2010, para. 2). The survey tool permits researchers to collect data by asking the respondents questions related to the problem statement. Although surveys are useful tools, they only allow for topics that involve private behavior (Darics, 2010). For this study, I could not directly observe the phenomenon, nor survey participants. Therefore collecting data via surveys was not an acceptable design consideration.

Population and Sampling

The goal of this study was to determine the extent and nature of the relationship between the presence of subprime loans and the 1-year student loan default rates and 2-year cohort default rates of proprietary institutions. I used the complete IPEDS, NCES, and cohort default rates databases to represent the population of U.S. proprietary institutions that offer 4-year degrees. Because data on the complete population of students were readily available, I did not identify a sample from the population but included the complete population of U.S. proprietary institutions.

Ethical Research

To protect the privacy of the institutions in this study, I obtained approval from the Walden Institutional Review Board (IRB) before conducting any research. The anonymity of participants in a study is always important, as is ensuring the ethical protection of the participants. The data for this study were available publicly, and each participant had a federal school identification number. Coding the identities of the participants helped to ensure their anonymity. The codes for the list of participants extracted from NCES based on degree and type of institution were A1 through A500.

After I obtained the data, I analyzed them and compiled them into a Microsoft Excel spreadsheet. The data remained on my desktop computer, an external drive, and two backup jump drives. Only I could access these devices through an authentication code known only by me. The external hard drive and back jump drives will remain in a fireproof, locked file cabinet in my home for 5 years.

Data Collection

Instruments

This study's design required drawing archival data from two core postsecondary databases: the NCES and the NSLDS cohort default rates. The data were publicly accessible through two websites in Appendix C and D. Annual institutional reports are available to the public at the beginning of each new fiscal academic year. The elements for this study included results from data submitted by the administrators of proprietary institutions to the national databases. Institutional leaders must submit annual reports updated quarterly.

Data Collection Technique

I extracted specific data elements from the NSLDS, NCES, and cohort default rates database from the 2008–2009 and 2009–2010 academic years. The predesigned data elements in the survey data included (a) state, (b) radius, (c) program or major, (d) level of award, (e) institution type, (f) tuition comparison, (g) undergraduate enrollment, (h) housing, (i) percentage of applicants admitted, (j) campus setting, and (k) test scores in the 25th percentile. The elements included in the study were (a) the percentage of subprime loans awarded by proprietary institutions, (b) traditional students (age $\leq$ 24 years) and nontraditional students (age $\geq$ 25 years), (c) gender, (d) race, (e) 1-year student loan default rates, and (f) 2-year cohort default rates. The two sites used in this study are outlined in Appendices C and D.

Data Organization Techniques

The data organization techniques were as follows: (a) obtain prior permission to extract data from the cohort default rates, NCES, and NSLDS databases and (b) adhere to confidentiality guidelines according to IRB regulatory guidelines. The data for this study were available publicly, and each participant had an associated federal school identification number. Coding the identities of the participants helped to ensure their anonymity. Each code assigned to participants included the letter A for applicant followed by a number. The list of participants extracted from NCES based on degree and type of institution were coded A1 through A500. The coding scheme was as follows : (a) the percentage of subprime loans awarded by proprietary institutions, (b) traditional students (age $\leq$ 24 years) and nontraditional students (age $\geq$ 25 years), (c) gender, (d) race, (e) 1-year student loan default rates, and (f) 2-year cohort default rates.

Data Analysis Technique

To test the hypotheses, I used quantitative, correlational regression analysis. The correlational analysis allowed me to examine the extent and type of correlation between the independent and dependent variables. As part of examining the regression models, I also conducted an analysis of variance (ANOVA) to measure the reliability of the estimates of the regression models (Elsayed, 2012). Findings from this analysis helped explain how policies of proprietary colleges need to change following the implementation of the Health Care and Education Reconciliation Act of 2010. The passing of the Health Care and Education Reconciliation Act put an end to the subprime loan subsidies, which

comprised 64% of the revenue within proprietary colleges and universities (Sparks, 2011).

In addition to the multiple-regression models, I included a descriptive analysis of the individual variables. Descriptive analysis permits researchers to provide a picture of the data. The descriptive inferential analysis was not to test hypotheses but to describe the statistical characteristics of the data (Wild, Pfannkuch, Regan, & Horton, 2011) and to identify potential outliners. Table 1 contains a summary of the appropriate data analysis plan and statistical hypothesis testing for the study.

Table 1

Summary of the Correlational Multiple Regression Analysis (CMRA)

Research question	Related hypotheses	Data elements	Statistical approach
To what extent if any does the % of students with private subprime loans awarded by proprietary institutions relate to the 1-year student loan default rates of as measured by the NLSDS?	$H1_0$: There is no relationship between the presence of subprime loans awarded by proprietary institutions and the 1- year student loan default rates as measured by the NSLDS.	% of subprime loan awarded, 1-year student loan default rates, and all the other elements listed below.	CMRA
	$H1_a$: There is a relationship between the presence of subprime loans awarded by proprietary institutions and the 1-year student loan default rates as measured by the NSLDS.	% of subprime loan awarded, 1 year student loan default rates and all the other elements listed below	CMRA
To what extent if any does the demographic profile (as defined by age, gender, and race) of students who used subprime loans to finance their education relate the 1-year student loan default rates as measured by NSLDS?	$H2_0$: There is no relationship between the demographic profile as defined by average age of 1-year students awarded subprime loans by proprietary institutions and the student loan default rates.	1-year student default rates and age	CMRA
	$H2_a$: There is a relationship between the demographic profile as defined by average age of students awarded subprime loans by proprietary institutions and the 1-yer student loan default rates.	1-year student default rates and age	CMRA
	$H3_0$: There is no relationship between the demographic profile as defined by genders of students awarded subprime loans by proprietary institutions and the 1- year student loan default rates.	1-year student default rates and gender	CMRA
	$H4_0$: There is no relationship between the demographic profile as defined by race of students awarded subprime loans by proprietary institutions and the 1-year student loan default rates.	1-year student default rates and race	CMRA
	$H4_a$: There is a relationship between the demographic profile as defined by race and the 1-year student loan default rates.	1-year Student default rates and race	CMRA

(continued)

Research question	Related hypotheses	Data elements	Statistical approach
To what extent if any does the % of students with private subprime loans relate to the 2-year cohort default rates as measured by CDR?	$H5_0$: There is no relationship between the presence of subprime loans awarded by proprietary institutions and the 2-year cohort default rates as measured by the cohort default rates.	% of subprime loan awarded, 2-year cohort default rates, and all the other elements listed below.	CMRA
	$H5_a$: There is a relationship between the subprime loans awarded by proprietary institutions and the 2-year cohort default rates as measured by the cohort default rates.	% of subprime loan awarded, 2-year cohort default rates, and all the other elements listed below.	CMRA
To what extent if any does the demographic profile (as defined by age, gender, and race) of students who used subprime loans to finance their education relate the 2-year cohort default rates of proprietary institutions as measured by CDR?	$H6_0$: There is no relationship between the demographic profile as defined by average age of students awarded subprime loans by proprietary institutions and the 2-year cohort default rates	2-year cohort default rates and age	CMRA
	$H6_a$: There is a relationship between the demographic profile as defined by average age of students awarded subprime loans by proprietary institutions and the 2-year cohort default rates.	2-year cohort default rates and age	CMRA
	$H7_0$: There is no relationship between the demographic profile as defined by gender of students awarded subprime loans by proprietary institutions and the 2-year cohort default rates.	2-year cohort default rates and gender	CMRA
	$H7_a$: There is a relationship between the demographic profile as defined by gender of students awarded subprime loans by proprietary institutions and the 2-year cohort default rates.	2-year cohort default rates and gender	CMRA
	$H8_0$: There is no relationship between the demographic profile as defined by race of students awarded subprime loans by proprietary institutions and the 2-year cohort default rates.	2-year cohort default rates and race	CMRA
	$H8_a$: There is a relationship between the demographic profile as defined by race of students awarded subprime loans by proprietary institutions and the 2-year cohort default rates.	2-year cohort default rates and race	CMRA

Note. NSLDS = National Student Loan Database System. CMRA = correlational multiple regression analysis. CDR = cohort default rates.

Through the use of the statistical analysis in SPSS and Excel, I determined whether a correlation exists between the variables as proposed by the following hypotheses:

$H1_0$: There is no relationship between the presence of subprime loans awarded by proprietary institutions by proprietary institutions and the 1-year student loan default rates as measured by the NSLDS

$H1_a$: There is a relationship between the presence of subprime loans awarded by proprietary institutions and the 1-year student loan default rates as measured by the NSLDS.

$H2_0$: There is no relationship between the demographic profile as defined by average age of students awarded subprime loans and the 1-year student loan default rates.

$H2_a$: There is a relationship between the demographic profile as defined by average age of students awarded subprime loans and the 1-year student loan default rates.

$H3_0$: There is no relationship between the demographic profile as defined by genders of students awarded subprime loans and the 1-year student loan default rates.

$H3_a$: There is a relationship between the demographic profile as defined by genders of students awarded subprime loans and the 1-year student loan default rates.

$H4_0$: There is no relationship between the demographic profile as defined by race of students awarded subprime loans and the 1-year student loan default rates.

$H4_a$: There is a relationship between the demographic profile as defined by race and the 1-year student loan default rates.

$H5_0$: There is no relationship between the presence of subprime loans awarded by proprietary institutions and the 2-year cohort default rates as measured by the cohort default rates.

$H5_a$: There is a relationship between the subprime loans awarded by proprietary institutions and the 2-year cohort default rates as measured by the cohort default rates.

$H6_0$: There is no relationship between the demographic profile as defined by average age of students awarded subprime loans and the 2-year cohort default rates of proprietary institutions.

$H6_a$: There is a relationship between the demographic profile as defined by average age of students awarded subprime loans and the 2-year cohort default rates of proprietary institutions.

$H7_0$: There is no relationship between the demographic profile as defined by gender of students awarded subprime loans and the 2-year cohort default rates of proprietary institutions.

$H7_a$: There is a relationship between the demographic profile as defined by gender of students awarded subprime loans and the 2-year cohort default rates of proprietary institutions.

$H8_0$: There is no relationship between the demographic profile as defined by race of students awarded subprime loans and the 2-year cohort default rates of proprietary institutions.

$H8_a$: There is a relationship between the demographic profile as defined by race of students awarded subprime loans and the 2-year cohort default rates of proprietary institutions.

I accepted or rejected the hypotheses for the study based upon a two-tailed test using $p = .05$. Johnson and Christensen (2010) defined the p value as "the likelihood of achieving a difference at least as great as that observed due to sampling variation, if the null value were true" (p. 4).

Reliability and Validity

Reliability

Researchers cannot reach valid conclusions in research without reliability testing (Russo, 2011). When estimating reliability for public data accessible through an application other than the original source, researchers should consider four general classes: "(a) the engagement type; (b) anticipate if data will support finding, conclusions or recommendations; (c) if research questions require a determination of the liability; and (d) disclose objectives, scope, methodology, results, and any limits found" (U.S. Government Accountability Office, 2009, p. 7). As part of my regression analysis, I

included an ANOVA that provided insights for reviewing the reliability and validity of the regression model (Elsayed, 2012).

Validity

The two types of validity considered for the study were internal and external. Researchers can apply findings with external validity to the real world (Kingsley, 2012). Internal validity has six major functions of control, and "all variables excluding the dependent variable are controlled by the experimenter" (Wahyuni, 2012, p. 73). Findings that have internal validity indicated that a program has had some effect on the observation (U.S. Government Accountability Office, 2009). Wahyuni (2012) suggested that a researcher's understanding of results increases through a process of using different variables to measure the same phenomenon. Because I conducted two separates regression models with similar but unique dependent variables, the consistency of results increased confidence in internal validity. The analysis provided a measure of internal validity, as recommended by Tippett and DelSole (2013). Kingsley (2012) indicated that a high degree of internal validity suggests a strong evidence of causality, whereas low internal validity has little or no evidence of causality.

The data I used in my two regression models included ratios and proportional data. Norman (2010) attested to the robustness of Pearson's linear correlation coefficient and linear regression models even with departures to normality. In addition Field (2013) suggested that the central limit theorem will be true without regard to the shape of the population. Thus I was able to draw appropriate conclusions based upon the results of the analysis (Norman, 2010).

Transition and Summary

Section 2 contained an outline of the research methodology, design, and analysis for the study. Preexisting data were the only data used for the quantitative, correlational regression analysis. The population was U.S. proprietary institutions with 4-year degrees. In Section 3, I provide a presentation of the findings. I also present an application to professional practice and implications for social change. Finally, I conclude with recommendations for future research and my personal reflections of the doctoral study process.

Section 3: Application to Professional Practice and Implications for Change

The purpose of this quantitative, correctional study was to determine the extent and nature of the relationship between the amount of subprime loans awarded by proprietary institutions and the 1-year student loan default rates or the 2-year cohort default rates. The specific problem is the lack of understanding the extent to which the presence of subprime loans relates to 1-year student default rates and the 2-year cohort default rates of proprietary educational institutions. Presented in this section is an explanation of how I conducted this study, a presentation of the research findings, applications for professional practices, and implications for social change. In addition, I discuss recommendations, future research, and the significance of my finding. Finally, I provide reflections and a summary.

Overview of Study

The purpose of this quantitative, correlational study was to determine the extent and nature of the relationship between the presence of subprime loans awarded to students at proprietary colleges on the either the 1-year student loan default rates or 2-year cohort default rates. To add to the understanding of the student population that affects the cohort default rates, three additional variables defined the demographic profile (age, gender, and race) of students using subprime loans to assist with financing their education. I used publicly accessible archival data for IPEDS, NLSDS, and cohort default rates in two separates regression models. The archival data covered financial aid in fiscal years 2007–2008 through 2009–2010. In this study, I included several descriptive and other statistical approaches including ANOVA, multiple regression, and

Pearson product–moment correlation coefficient to examine the effect on student loan default and 2-cohort default of 500 U.S.-based proprietary institutions.

The Pearson correlation coefficients included as part of descriptive statistics demonstrated the intensity of relationships between all independent and dependent variables. Vaccaro (2009) noted that the Pearson correlation coefficient is appropriate for research questions when researchers can operationalize one of the variables as continuous. I included the ANOVA analysis and used two separates multiple regression models to determine the interrelationships among sets of variables and as the basis of my hypotheses testing. Using a regression model allows researchers to determine the interrelationship several variables have with a specified dependent variable. This study yielded results that showed Model 1 using the 1-year student default rates as defined by NSLDS data to be valid. Model 2 using the 2-year cohort default rates as defined by cohort default rates did not show a significant relationship. Therefore, I rejected several hypotheses. The next section contains a detailed description of the findings for this study.

Presentation of the Findings

Presented in this section are the finding and result of the statistical analysis used to answer the primary research question for this study: To what extent does the presence of subprime loans relate to either the 1-year student loan default rates or the 2-year cohort default rates of proprietary institutions? The demographic variables were age, gender, and race. Although the total population was 500 institutions, based upon the analysis of the data, I determined that 368 of the 500 institutional datasets reported duplicate data

from multiple locations. The total population consisted of 132 separates institutions; therefore, I removed duplicate data files prior to the analysis.

Table 2 shows a descriptive analysis for the variables analyzed. The percentage of subprime loans awarded by proprietary institutions between the 2008–2009 and 2009–2010 academic year ranged from 1% to 74%, the 1-year student loan default rates ranged from 0 to 19.9%, and the 2-year cohort default rates ranged from 0 to 46.2%. The demographic profile based on age, race, and gender ranged between 3% and 92%, 7% and 99%, and 0.0% and 100%, respectively.

Table 2

Descriptive Statistics for Variables

	Minimum	Maximum	Mean	*SD*
1 year default rates	0.0	19.9	7.44	4.138
2-year cohort	0.0	46.2	18.42	8.074
Nonfederal loans	1.0	74.0	12.52	15.938
Age ≥ 25	3.0	92.0	52.37	20.960
Female	7.0	99.0	64.91	21.743
Non-white	0.0	100.0	55.28	25.710

Note. $N = 132$. All values are in percentages.

I conducted a correlation (see Table 3) not to test the hypotheses but to increase the validity to the regression models. Based on the correlation results presented in Table 3, the strongest linear correlational relationship found was between the two individual *dependent* variables (Y1 and Y2). The relationship was significant where $r\ (132) = .753$, $p \leq .05$. Furthermore, the 1-year student loan default rates related significantly to the percentage of subprime loans as $r\ (132) = .216$, $p \leq .05$. The relationship between the 1-

year student loan default rates and the demographic profile based on race was estimated as r (132) = .184, $p \leq .05$.

The correlation analysis between the 2-year cohort default rates and the percentage of nonfederal loans showed minimal significant as r (132) = .124, $p \geq .05$. Secondly, the analysis between the percentage of females and the 2-year cohort default rates was negatively correlated with r (132) = -.011, $p \leq .05$. The percentage of nonfederal loans was also negatively correlated with age $\geq$ 25, r (132) = -.082, $p \leq .05$. The results also showed females were less likely to acquire nonfederal loans than males, as r (132) = -.177, $p \leq .05$. Finally, the demographic profile analysis based on age and race revealed significant correlations with r (132) = .198, $p \leq .05$, and r (132) = -.197, $p \leq$ 05 respectively.

Table 3

Correlation Analysis

	1	*2*	*3*	*4*	*5*	*6*
1. 2-year cohort						
Pearson correlation	1	.753**	.124	.167	-.011	.071
Sig. (2-tailed)		.000	.157	.055	.898	.416
2. 1-year default						
Pearson correlation	.753**	1	.216*	.142	.011	.184*
Sig. (2-tailed)	.000		.013	.104	.903	.035
3. % nonfederal loans						
Pearson correlation	.124	.216*	1	-.082	-.177*	.010
Sig. (2-tailed)	.157	.013		.347	.043	.909
4. % age $\geq$ 25						
Pearson correlation	.167	.142	-.082	1	.198*	-.075
Sig. (2-tailed)	.055	.104	.347		.023	.392
5. % Female						
Pearson correlation	-.011	.011	-.177*	.198*	1	-.197*

Sig. (2-tailed)	.898	.903	.043	.023		.024
6. % non-white						
Pearson correlation	.071	.184*	.010	-.075	-.197*	1
Sig. (2-tailed)	.416	.035	.909	.392	.024	

Note. $N = 132$. Correlations with **are significant at the 0.01 level (2-tailed), and Correlations with * are significant at the 0.05 level (2-tailed).

Model 1 Research Questions 1 and 2

I used a p value of less than .05 as the criterion to reject the null hypotheses. The primary research question addressed in this study was as follows: To what extent does the presence of subprime loans relate to either the 1-year student default or the 2-year cohort default rates of proprietary institutions? The subquestions and related hypotheses related to the 1-year loan default rates as measured by the NSLDS were as follows:

1. To what extent does the percentage of students with private subprime loans awarded by proprietary institutions relate to the 1-year student loan default rates as measured by the NSLDS?
2. To what extent does the demographic profile (as defined by age, gender, and race) of students who use subprime loans awarded by proprietary institutions to finance their education relate to the 1-year student loan default rates as measured by the NSLDS?

$H1_{0:}$ There is no relationship between the presence of subprime loans awarded proprietary institutions and the 1-year student loan default rates as measured by the NSLDS

$H1_a$: There is a relationship between the presence of subprime loans awarded by proprietary institutions and the 1-year student loan default rates as measured by the NSLDS.

$H2_0$: There is no relationship between the demographic profile as defined by average age of students awarded subprime loans by proprietary institutions and the 1-year student loan default rates.

$H2_a$: There is a relationship between the demographic profile as defined by average age of students awarded subprime loans by proprietary institutions and the 1-year student loan default rates.

$H3_0$: There is no relationship between the demographic profile as defined by genders of students awarded subprime loans by proprietary institutions and the 1-year student loan default rates.

$H3_a$: There is a relationship between the demographic profile as defined by genders of students awarded subprime loans by proprietary institutions and the 1-year student loan default rates.

$H4_0$: There is no relationship between the demographic profile as defined by race of students awarded subprime loans by proprietary institutions and the 1-year student loan default rates.

$H4_a$: There is a relationship between the demographic profile as defined by race of students awarded subprime loans by proprietary institutions and the 1-year student loan default rates.

To address Research Question 1 and related hypotheses, I used an ANOVA, multiple regression model, and Pearson product–moment correlation coefficient. I choose the multiple-regression model because it allowed the examination of a relationship between several independent variables and a dependent variable. The purpose of the multiple-regression analysis was to address the research question by testing the related hypotheses to determine whether the independent variables were significantly correlated with the 1-year student loan default rates. The output of the regression R, R^2, and the standard error of estimate ($S_{y.x}$) for the model are in Table 4. As seen in Table 4 where $R = .337$, as the correlation of the Y default rates 1-year with the predicted values $\hat{Y}$. The standard error of estimate 3.9575% is the square root of the mean squared error. The value of R^2 was 0.113, which means the regression model explains 11.3% of the total variance for the 1-year student loan default has been determined. The multiple regression model summary statistics include the adjusted $R^2 = .085$.

Table 4

Model Summary 1-Year Student Default Rates for the X Data

Model	R	R square	Adjusted R square	Std. error of the estimate
1	.337[a]	.113	.085	3.9575%

[a]Predictors: (Constant), % non-white, % nonfederal loans , % age $\geq$ 25 , and % female

The multiple regression model ANOVA analysis for the 1-year student default shown in Table 5 includes the sums of square, regression, and residual. The variance of

the residuals in the value of the mean square was 15.662 and the variance of the regression was 63.531. The total variance had *N* - 1, or 131 degrees of freedom. The regression *df* corresponds to the number of coefficients estimated minus 1. Including the intercept, there were five coefficients, so the model had 5 - 1 = 4 degrees of freedom. The error *df* was the *df* total minus the *df* model: 131 - 4 = 127.

The *F* test reflected the mean square regression divided by the mean square residual (63.531/15.662) = 4.057. I used the analysis of variance to measure the validity and reliability of the model. Table 5 shows that the F value (4.057) was significant at the, $p = .004$ level and. I therefore determined that the null hypothesis was false and the overall multiple-regression model for the relationship between the 1-year default rates and the independent variables was statistically significant at the .004 level.

Table 5

ANOVA Variance Result for 1-Year Student Default Rates for X Data

	Model	Sum of squares	df	Mean Square	F	Sig.
1	Regression	254.126	4	63.531	4.057	.004[b]
	Residual	1989.011	127	15.662		
	Total	2243.137	131			

[a]Dependent variable: 1-year student loan default rates.

[b]Predictors: (Constant), % non-white, % nonfederal loans , % age > 25 , and % female

To determine the statistical significance of the individual independent/predictor variables and the 1-year default rate, I reviewed the coefficients and significance level for each independent variable. The independent variables included: (a) the percentage of

nonfederal loans, (b) the percentage of students over 25 years old, (c) gender, and (d) the percentage of nonwhite students. Table 6 shows that the coefficient for *nonfederal loans* was .062. For every unit increase in nonfederal loans, there was a prediction for a .06-unit increase in the 1-year student loan default rates, holding all other variables constant. The *t* statistics and two-tailed significant tests tested whether the given coefficient percentage of nonfederal loans was significantly different from 0 using an alpha of .05. The calculated significance results measured .006, which is less than .05, thereby resulting in rejecting the null hypothesis that a relationship does not exist between the presence of subprime loans awarded proprietary institutions and the 1-year student loan default rates.

The coefficient for *age* $\geq$ *25* was .033, and for every percent increase for age $\geq$ 25, there was a .03 % increase in the 1-year default rates. The calculated significance level result showed that .055 > .05, thereby failing to reject the hypothesis that no relationship between the demographic profile as defined by average age of students awarded subprime loans by proprietary institutions and the 1-year student loan default rates. The results showed that the relationship between age and the 1-year default rates is close .05, which indicated a relationship may exist. If the cutoff used was different from age 25, the results may have been significant.

The coefficient for *female* was .012, and for every percent increase in female population, there was a .012 % increase in the 1-year default rates, holding all other variables constant. The results failed to reject the null hypothesis, because the

significance of .493 was greater than .05. These findings indicated that no significant relationship existed between gender and 1-year default rates.

The coefficient for *nonwhite* was .032, and for every percent increase in the non-white student population there was a .03 % increase in the 1-year default rates, holding all variables constant. I concluded that the 1-year default rates would be .03 point higher than for whites. I rejected the null hypothesis because .017 was greater than .05; thus, a significant relationship existed between race and 1-year student loan default rates among students. Based on these findings for Model 1, a significant relationship existed between the presence of subprime loans awarded by proprietary institutions to students and race with the 1-year default rates as measured by NSLDS.

Table 6

Statistical Summary of 1-Year Default Rates Coefficients

		Unstandardized coefficients		Standardized coefficients		
Model		*B*	Std. error	Beta	*t*	Sig.
1	(Constant)	2.454	1.683		1.458	.147
	% nonfederal loans	.062	.022	.238	2.801	.006*
	% age ≥ 25	.033	.017	.165	1.935	.055
	% female	.012	.017	.060	.688	.493
	% non-white	.032	.013	.206	2.409	.017*

Note. Dependent variable: 1-year default rates. Coefficients with **are significant at the 0.01 level (2-tailed). Coefficients with * are significant at the 0.05 level (2-tailed)

Model 2 Research Questions 3 and 4

The second pair of subquestions and derivative hypotheses for the overriding research questions were:

3. To what extent does the percentage of students with private subprime loans awarded by proprietary institutions relate to the 2-year cohort default rates of proprietary institutions as measured by the cohort default rates?
4. To what extent does the demographic profile (as defined by age, gender, and race) of students who use subprime loans awarded by proprietary institutions finance their education relate to the 2 year cohort default rates of proprietary institutions as measured by the cohort default rates?

$H5_0$: There is no relationship between the presence of subprime loans awarded by proprietary institutions and the 2-year cohort default rates as measured by the cohort default rates.

$H5_a$: There is a relationship between the subprime loans awarded by proprietary institutions and the 2-year cohort default rates as measured by the cohort default rates.

$H6_0$: There is no relationship between the demographic profile as defined by average age of students awarded subprime loans by proprietary institutions and the 2-year cohort default rates of proprietary institutions.

$H6_a$: There is a relationship between the demographic profile as defined by average age of students awarded subprime loans by proprietary institutions and the 2-year cohort default rates of proprietary institutions.

$H7_0$: There is no relationship between the demographic profile as defined by gender of students awarded subprime loans by proprietary institutions and the 2-year cohort default rates of proprietary institutions.

$H7_a$: There is a relationship between the demographic profile as defined by gender of students awarded subprime loans by proprietary institutions and the 2-year cohort default rates of proprietary institutions.

$H8_0$: There is no relationship between the demographic profile as defined by race of students awarded subprime loans by proprietary institutions and the 2-year cohort default rates of proprietary institutions.

$H8_a$: There is a relationship between the demographic profile as defined by race of students awarded subprime loans by proprietary institutions and the 2-year cohort default rates of proprietary institutions.

The multiple-regression analysis helped to determine the significance of the relationship between the independent variables and the 2-year cohort default rate by testing the related hypotheses to determine whether the independent variables were significantly correlated with the 2-year cohort default rates. The regression significance of R, R^2, and the standard error of estimate ($S_{y.x}$) are in Table 7. As seen from Table 7, $R = .233^a$ was the correlation of the Y 2-year cohort with the predicted values $\hat{Y}$. The standard error of estimate 7.975% is the square root of the mean squared error. The value of our $R^2 = .054$, which means that 5.4% of the total variance for the 2-year cohort default at proprietary institutions is explained by the predictor variables. The regression included the adjusted $R^2 = .024$.

Table 7

Model Summary of 2-Year Cohort

Model	*R*	*R* square	Adjusted *R* square	Std. error of the estimate
1	.233[a]	.054	.024	7.975%

[a]Predictors: (Constant), % non-white, % nonfederal loans , % age $\geq$ 25 , and % female

The multiple regression model ANOVA analysis for the 2-year cohort default shown in Table 8 introduces the sums of square, the regression, and the residual variation. The variance of the residuals in the value of the mean square was 63.6 and the variance of the regression was 115.5. The total variance has $N - 1 = 131$ degrees of freedom. The regression *df* corresponds to the number of coefficients estimated minus 1. Including the intercept, there were five coefficients, so the model had 5 - 1 = 4 degrees of freedom. The error *df* is the *df* total minus the *df* model, 131 - 4 = 127. The *F* test for the overall regression model reflects dividing the mean square regression by the mean square residual (115.484/63.606) = 1.818. The ANOVA measured the reliability of the model. Table 8 shows the regression model was not significant ($p = .130$). Thus, I determined that the reliability of the regression model was insufficient for my hypothesis testing.

Table 8

ANOVA Variance Result for 2-Year Cohort Default Rates

	Model	Sum of squares	*df*	Mean square	*F*	Sig.
2	Regression	461.936	4	115.484	1.816	.130[b]
	Residual	8077.978	127	63.606		

Total	8539.915	131

a. Dependent variable: 2-year cohort

b. Predictors: (Constant), % non-white, % nonfederal loans , % age ≥ 25 , and % female

While I rejected the model using the 2-year cohort default rates, I completed the regression analysis. The coefficients outlined in Table 9 determine whether to accept or reject the null hypotheses based on age, race, and gender. The predictor variables included: (a) the percentage of nonfederal loans, (b) the percentage of students 25 years old or greater, (c) the percentage female students, and (d) the percentage of nonwhite students. Table 9 shows the coefficient for *nonfederal loans* was .069. For every unit increase in nonfederal loans, a .07-unit increase in the 2-year cohort default rates occurs, holding all other variables constant. I used the *t* statistics and two-tailed significance test to test whether the given coefficient percentage of nonfederal loans was significantly different from 0 using an alpha of .05. The results showed a value of .121, which is greater than .05, and I failed to reject the null hypothesis relationship between the presence of subprime loans awarded by proprietary institutions and the 2-year cohort default rates.

Table 9

Statistical Summary of 2-Year Cohort Default Rates Coefficients

		Unstandardized coefficients		Standardized coefficients		
Model		*B*	Std. error	Beta	*t*	Sig.
1	(Constant)	12.604	3.392		3.716	.000
	% nonfederal loans	.069	.044	.137	1.562	.121
	% age ≥ 25	.072	.034	.186	2.110	.037*

% female	-.003	.034	-.008	-.084	.933
% non-white	.025	.027	.082	.936	.351

Note. Dependent variable: 2-year cohort. Coefficients with **are significant at the 0.01 level (2-tailed). Coefficients with * are significant at the 0.05 level (2-tailed).

The coefficient for *age ≥ 25 was* .072. For every percent increase in the age ≥ 25 population, there was a .07 % increase predicted in the 2-year cohort default rates. The result showed that the associated significance level of *p* was .037, which is less than .05, thereby rejecting the null hypothesis. The results were part of a rejected model; however, the direction of impact was the same as Model 1 using the 1-year default rates.

The coefficient for *gender* was -.003 and for every percent decrease in female, there was a decrease of .003 in the 2-year cohort default rates, holding all other variables constant. Based on these findings, no significant relationship existed between gender and the 2-year cohort default rates in this model.

Finally, the coefficient for *nonwhite* was .025, and for every percent increase in the non-white population there was a .03 increase in the 2-year cohort default rates, holding all variables constant. The null hypothesis could not be rejected because .351 > .05; however, there was no significant relationship between minority and causation in students. In summary, I rejected Model 2 based upon the ANOVA results. However, one significant correlation existed between age and the 2-year cohort default rates as measured by cohort default rates. Within the context of the overall study, the relationship between subprime loans and the 2-year cohort default rate needs further exploration.

Applications to Professional Practice

I used quantitative research to examine the relationship between percentage of subprime loans awarded to students enrolled in proprietary colleges and 1-year student loan default rates and 2 year cohort default rates. The population consisted of archival data for the 2008–2009 through 2009–2010 academic years for two separates regression models from proprietary institutions in the United States that has 4-year degrees. The results of the study indicated that a significant relationship existed between the presence subprime awarded to student at proprietary and the 1-year student default rates. However the model describing the relationship between the 2-year cohort default rates and the presence of subprime loans awarded by proprietary institutions to students at proprietary colleges was not statistically significant at .05 level.

The first model results demonstrated that a significant relationship existed between two independent variables including the percentage nonwhite students and the presence of subprime loans awarded by proprietary institutions to students and the 1-year student loan default rates. In addition, my first model demonstrated that the predictor variable of *age > 25* was marginally significant to the 1-year student default rate. However, the results from the second model showed a significant relationship to the 2-year cohort default rate. Together, the results suggest that older students have unique issues related to debt accumulation. Alon (2011) noted that 45% of all Americans hold student loans, and borrowers older than 25 hold 63% of all student loans. Alon also indicated that the average default obligation of borrowers older than 25 was twice the amount for borrowers younger than 25. Economic obstacles that have a greater impact

on borrowers over the age of 25 as compared to younger borrowers include: (a) declining income, (b) increased cost of living, (c) higher debt-to-income ratios, and (d) limited federal funding (Johnson, 2011). Due to the dependency upon their parents, younger students are traditionally less likely to use subprime loans to finance their education. Further research into a more detailed assessment of the age of students may lead to additional insights. Furthermore, Wang (2011) found no correlation between gender and student loan default rates. While the results showed men received 17.7% more subprime loans than women the two models demonstrated no significant differences in the likelihood of default based upon gender.

The results of this study showed that minority students are more likely to default on student loans than white students. This findings is consistent with Campbell's (2010) prior research regarding student loan default and race have shown trends that indicated minority students are more likely to default on student loans. The findings showed that minority students acquire more subprime loans to assist with educational funding, which makes them more vulnerable to predatory lending. As a result, borrowers have high variable interest rates that could leading to inability pay the students' debt.

Lack of employment opportunities among minority students could result in greater debts before and after degree completion. Including the relevance of these finding is important to the educational policy makers on the federal and state levels due to the relationship between the 1-year student loan and 2-year cohort default rates of proprietary institutions. From the perspective of making sound business decisions, it is important to understand the factors that contribute to student loan default and to know

what procedures a college administrator can implement to address these factors. The lack of employment historically played a major in student loan defaults, and lowering unemployment can potentially lower the student loan default rates. More important, a high debt-to-income ratio would make it difficult for borrowers to repay their student loan debt.

The DOE (2010) outlined the question for the cohort default rate in the *Higher Education Opportunity Act of 2008* as follows: "percentage of borrowers entering repayment in one fiscal year who default by the end of the following fiscal year" (p. 15). DOE (2010) analysts calculated 2-year cohort by the number of borrowers who went to repayment during a particular fiscal year, and defaulted by the end if the following year. *The Higher Education Opportunity Act of 2008* further defined "section 436(e) expands the cohort default rate window from 2 years (end of the following fiscal year)" (DOE, 2010, p 20). Therefore the results from Model 1 could serve as a proxy for Model 2, which is important because federal and state legislators measure the efficacy of the educational funding program, as student loan lending has become the primary means for postsecondary educational funding. The results could catalyze further investigation by the Consumer Financial Protection Bureau (CFPB) and U.S. Department of Education, into the impact of subprime lending on the 1-year student loan default and 2-year cohort default rates. The following section contains implications for social change based on the findings for this study.

Implications for Social Change

Subprime lending has generated interest in sociological studies and professionals concerned with the ethical aspects of business. In the current economic climate, such awareness is critical because it is the key to an individual's economic success. My review in Section 1 provides a useful tool to bring awareness to the impact of subprime educational loans on Title IV funding. The results of my study confirmed that a relationship exists between the subprime loans awarded by proprietary institutions, and the 1-year default rate. Model 1 was statistically significant to the social economic factors that borrowers are currently facing in regard to age and race (Campbell, 2010). Social economic factors also affect students' (a) ability to benefit, (b) the inability to pay their debt, (c) graduation rates, and (d) unemployment rates. Subprime private loans' default rates tend to differ between racial minority and White students, as minority students struggle to make payments on time, which often results in hidden fees and delayed payment options. Subprime private loans are more expensive when taking into consideration any increasing interest rates that accrued, and when a student defaults, taxpayers eventually bear the loss due to the backing of the federal government.

Recommendations for Action

The results of this study may provide opportunity for community leaders, legislators, and academic leaders to assess the impact subprime lending has on the federal default rates. The first recommendation for further action is to expand research to include public and private institutions. Other recommendations are first to reevaluate current subprime loan counseling and money management tools available to consumers.

Secondly, require administrators at proprietary institutions to work with federal and state legislators and to require subprime loan lenders to work proactively to protect borrowers. Furthermore, I recommend that leaders of all institutions develop a default management plan and support legislation that would make private loan payment options more affordable for borrowers. Finally, I recommend requiring leaders of proprietary institutions to determine if all Title IV funding options have been exhausted prior to the certification of subprime loans. These efforts could contribute to decreasing private loan awards and lowering 1-year student loan default rates that affect the 2-year cohort default rates.

Recommendations for Further Study

The results of this study showed that a statistically-significant relationship exists between the presence of subprime loans awarded by proprietary institutions to students and either the 1-year student loan default rates as indicated in the application to professional practice sections. Although this relationship exists, Model 1 and Model 2 showed weak to moderates correlations. My research was limited to proprietary colleges with 4-year degrees in the United States; future researchers might consider either nonprofit and private institutions or both with 4-year degrees in the United States, which would increase the potential for increasing the range of application (external validity). Future researchers may also consider the correlation between the 2-year and 3-year cohort default due to the regulations enacted in the Higher Education Opportunity Act of 2009.

Reflections

The road towards my doctoral completion has been one of many obstacles, but I was able to persevere by adapting to change. Reflecting on this process, I recall, feeling much like Hem and Haw of *Who Moved My Cheese* (Johnson, 1998). I was very discouraged during this time and wanted give up the on the dream of earning my degree. Metaphorically speaking, Wheelock (2010) supported Johnson's (1998) theory that "look at us and think about how exciting life can be and do not give into our fears" (Wheelock, 2010). If asked whether I saw myself completing this program 2 years ago, I would have said no. However, it was during this time that two of my mentors believed in me and encouraged me to believe in myself. Therefore, I believe that my faith, courage, and persistence are what helped me through this program.

The research performed in this study, which involved examining the extent to which a relationship exists between the presence of subprime loans awarded by proprietary institutions and either the student loan default rates or the 2-year institutional cohort default rates, was insightful for several reasons. First, it provided documented proof that the problem does exist and the effect it has on society and the U.S. education system. Second, this process provided in-depth insights into the social responsibility of higher education processes and the impact that it directly has on the field of business. Not only does student loan default impact the nation's education system, it also impacts the stock market of proprietary, mortgages, and governmental educational subsidies. Finally, this process has allowed me to broaden my knowledge of research and forced me to look deep within to determine if the career path I have chosen is the perfect fit for me.

Summary and Study Conclusions

The relationship between subprime loans, student loan default is prevalent during a time when Government Accountability Office staff reported a 16.7% increase of defaults at proprietary colleges. The purpose of this quantitative, correlational study was to determine the extent to which a relationship exists between the presence of subprime loans awarded by proprietary institutions and either the student loan default rates or the 2-year institutional cohort default rates. I used the ANOVA to conduct analysis with continuous dependent variables, which was appropriate for each research question, and two separates multiple regression models to determine the interrelationships among sets of variables and as the basis to test the hypotheses. The findings revealed an interrelationship between several variables on a specified dependent variable.

Model 1, which included the 1-year default rate as defined by NSLDS, showed a statistically-significant relationship between variables of age, gender, and the 1-year default rate. Although Model 2, which included using the 2-year cohort default rates as defined by measuring the percentage of borrowers who enter repayment during a partial federal fiscal year, did not show a significant overall relationship, the variable *age* was significant as a singular linear correlation coefficient. Although the result from Model 2 appears inconclusive, lowering the 1-year student loan default rate may also lower the 2-year cohort default as well.

Although, Model 2 did not identify a significant correlation overall, the results should receive consideration as proprietary institutions' leaders are in jeopardy of losing Title IV eligibility with a 2-year cohort default rates greater than or equal to 25%. The

National Student Loan Data System (2010) indicted that "schools are subject to loss of Title IV funding due to FY 2008, FY 2009, and FY 2010 official 2-year cohort default rates of 25.0% or greater" (p.15). The results of this study could have a positive impact on improving the quality of the loan program by providing affordable and reliable loans to all families and lowering the "deficit by covering the pay-as-you-go fiscal liability" (Gottlieb, 2012, p. 556). The results from this study contribute to social change by revealing the impact private loan, subprime lending has on federal student loan default rates. The findings suggest that the leaders of the Government Accountability Office and Department of Education should implement policies and procedures for subprime lending that would decrease subprime lending practices, increase Title IV funding, and decrease student debt burden, which directly impact the 2-cohort default rates, and could increase the quality of life for the student.

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Appendix A: IRB Approval

Dear Ms. White,

This email is to notify you that the Institutional Review Board (IRB) has approved your application for the study entitled, "The presence of subprime loans awards and default rates of proprietary colleges."

Your approval # is 07-03-13-0067097. You will need to reference this number in your doctoral study and in any future funding or publication submissions.

Your IRB approval expires on June 2nd, 2014. One month before this expiration date, you will be sent a Continuing Review Form, which must be submitted if you wish to collect data beyond the approval expiration date.

Your IRB approval is contingent upon your adherence to the exact procedures described in the final version of the IRB application document that has been submitted as of this date. If you need to make any changes to your research staff or procedures, you must obtain IRB approval by submitting the IRB Request for Change in Procedures Form. You will receive confirmation with a status update of the request within 1 week of submitting the change request form and are not permitted to implement changes prior to receiving approval. Please note that Walden University does not accept responsibility or liability for research activities conducted without the IRB's approval, and the University will not accept or grant credit for student work that fails to comply with the policies and procedures related to ethical standards in research.

When you submitted your IRB application, you made a commitment to communicate both discrete adverse events and general problems to the IRB within 1 week of their occurrence/realization. Failure to do so may result in invalidation of data, loss of academic credit, and/or loss of legal protections otherwise available to the researcher.

Both the Adverse Event Reporting form and Request for Change in Procedures form can be obtained at the IRB section of the Walden web site or by emailing irb@waldenu.edu: http://researchcenter.waldenu.edu/Application-and-General-Materials.htm

Researchers are expected to keep detailed records of their research activities (i.e., participant log sheets, completed consent forms, etc.) for the same period of time they retain the original data. If, in the future, you require copies of the originally submitted IRB materials, you may request them from Institutional Review Board.

Please note that this letter indicates that the IRB has approved your research. You may not begin the research phase of your dissertation, however, until you have received the **Notification of Approval to Conduct Research** e-mail. Once you have received this notification by email, you may begin your data collection.

Both students and faculty are invited to provide feedback on this IRB experience at the link below:

http://www.surveymonkey.com/s.aspx?sm=qHBJzkJMUx43pZegKlmdiQ_3d_3d

Sincerely,
Jenny Sherer, M.Ed., CIP
Associate Director
Office of Research Ethics and Compliance
Email: irb@waldenu.edu
Fax: 626-605-0472
Phone: 612-312-1341
Office address for Walden University:
100 Washington Avenue South
Suite 900
Minneapolis, MN 55401

Appendix B: Proprietary Colleges and Universities in the United States

	State	School
A1.	AK	Charter College
A2.	AL	Columbia Southern University
A3.	AL	Virginia College-Birmingham
A4.	AZ	Carrington College
A5.	AZ	Pima Medical Institute
A6.	AZ	Anthem College
A7.	AZ	Everest College Phoenix
A8.	AZ	Le Cordon Bleu College of Culinary Arts
A9.	AZ	CollegeAmerica - Flagstaff
A10.	AZ	Art Institute of Phoenix (The)
A11.	CA	Fashion Institute of Design & Merchandising
A12.	CA	Academy of Art University
A13.	CA	American Univeristy of Health Science
A14.	CA	The National Hispanic University
A15.	CA	Trident University International
A16.	CA	Unitek College
A17.	CA	Brooks Institute
A18.	CA	Cogswell College
A19.	CA	Westwood College - South Bay
A20.	CA	California College San Diego
A21.	CA	Musicians Institute
A22.	CA	Design Institute of San Diego
A23.	CA	Platt College - San Diego
A24.	CA	LA College International
A25.	CA	Santa Barbara Business College
A26.	CA	Santa Barbara Business College
A27.	CA	Fremont College
A28.	CA	Platt College
A29.	CA	Southern California Institute of Technology
A30.	CA	Mt. Sierra College
A31.	CA	Pacific College
A32.	CA	Ex'pression College for Digital Arts
A33.	CO	Westwood College - Denver North
A34.	CO	Art Institute of Colorado (The)

A35.	CO	CollegeAmerica Denver
A36.	CO	Platt College
A37.	CO	Denver School of Nursing
A38.	CT	Paier College of Art
A39.	CT	Lincoln College of New England
A40.	CT	American Institute
A41.	DC	Potomac College
A42.	FL	Art Institute of Fort Lauderdale (The)
A43.	FL	Florida Technical College
A44.	FL	Southwest Florida College
A45.	FL	Lincoln College of Technology
A46.	FL	Florida Career College
A47.	FL	Florida National College
A49.	FL	International Academy of Design and Technology
A50.	FL	College of Business & Technology
A51.	FL	Dade Medical College
A52.	GA	Art Institute of Atlanta (The)
A53.	GA	Bauder College
A54.	HI	Remington College
A55.	IA	Waldorf College
A56.	IA	Hamilton Technical College
A57.	ID	Stevens Henager College
A58.	IL	American Academy of Art
A59.	IL	Kendall College
A60.	IL	Midstate College
A61.	IL	Illinois Institute of Art (The)
A63.	IL	International Academy of Design and Technology
A64.	IL	Westwood College - O'Hare Airport
A65.	IL	Westwood College - DuPage
A66.	IN	International Business College
A67.	IN	National College
A68.	IN	Harrison College
A69.	KY	Daymar College
A70.	KY	Daymar College
A71.	KY	Sullivan College of Technology and Design
A72.	KY	Beckfield College
A73.	MA	Bay State College

A74.	MA	New England Institute of Art (The)
A75.	MN	Brown College
A76.	MN	Rasmussen College
A77.	MN	Duluth Business University
A78.	MN	Walden
A79.	MN	Art Institutes International Minnesota (The)
A80.	MN	Academy College
A81.	MO	Stevens Institute of Business & Arts
A82.	MO	Missouri College
A83.	MO	Hickey College
A84.	MO	Sanford-Brown College
A85.	MO	Everest College
A86.	MO	Missouri Technical School
A87.	MO	Vatterott College
A88.	NC	South College
A89.	NC	Art Institute of Charlotte (The)
A90.	NC	School of Communication Arts of North Carolina
A91.	NE	Creative Center (The)
A92.	NH	Hesser College
A93.	NJ	Berkeley College
A94.	NM	Brookline College- Albuquerque
A95.	NV	Morrison University
A96.	NY	Bryant & Stratton College
A97.	NY	College of Westchester (The)
A98.	NY	Berkeley College
A99.	NY	Jamestown Business College
A100.	NY	Plaza College
A101.	NY	Briarcliffe College
A102.	NY	Globe Institute of Technology
A103.	OH	Fortis College
A104.	OH	Fortis College
A105.	OH	Hondros College
A106.	OK	Spartan College of Aeronautics and Technology
A107.	OK	Platt College
A108.	OR	Art Institute of Portland (The)
A109.	OR	Pioneer Pacific College
A110.	PA	Central Penn College
A111.	PA	Art Institute of Pittsburgh (The)

A112.	PA	Art Institute of Philadelphia (The)
A113.	PA	Walnut Hill College
A114.	PA	Art Institute of York (The) - Pennsylvania
A114.	SC	Bob Jones University
A115.	SD	Globe University
A116.	TN	Daymar Institute
A117.	TN	Fountainhead College of Technology
A118.	TN	Nossi College of Art
A119.	TN	Miller - Motte Technical College
A120.	TX	Wade College
A121.	TX	Hallmark College of Technology
A122.	TX	Art Institute of Houston (The)
A123.	TX	Career Point College
A124.	UT	Eagle Gate College
A125.	UT	Everest College
A126.	UT	Careers Unlimited
A127.	VA	Sanford-Brown College
A128.	VA	Centura College
A129.	VA	Skyline College
A130.	VT	New England Culinary Institute
A131.	WA	Art Institute of Seattle (The)
A132.	WA	Northwest College of Art & Design
A133.	WA	ITT Technical Institute
A134.	WI	Madison Media Institute

Appendix C: NCES Dataset

The information obtained from http://nces.ed.gov/collegenavigator/ is in the public domain.

Appendix D: Cohort Default Rate Survey

The information obtained from http://www2.ed.gov/offices/OSFAP/defaultmanagement/cdr2yr.html is in the public domain.

Curriculum Vitae

Loucynda Gynell White

EDUCATION

Doctor of Business Administration – Finance June 2014
Doctoral Study Topic: The Presence of Subprime Loan Awards and Default Rates of Proprietary Universities
Walden University, Minneapolis, Minnesota

Master of Business Administration
Master Project: Athens Technical College Change Management Project June 2006
University of Phoenix, Atlanta, Georgia

Bachelors of Arts and Science – Board of Governors December 1999
Chicago State University, Chicago, Illinois

Associates of Arts and Science – Liberal Arts May 1993
Harold Washington College, Chicago, Illinois

BUSINESS EXPERIENCE

Director Financial Aid
City Colleges of Chicago, Richard J. Daley
Chicago, Illinois 2014 - Present
Responsible for college-wide financial aid operations and the administration of federal and state veteran benefits, ensuring responsive and accurate policies and procedures that comply with regulatory agencies, meeting the strategic goals of the District and the College, and providing an exceptional customer service environment for students.

Financial Aid Outreach Counselor
Central Washington University
Ellensburg, Washington 2008 – 2014
Successfully coordinate the Office of Financial Aid's customer service and public relations campaign. Ensure university-wide cohesion by developing and executing training in customer service, financial aid rules and regulations, and mandatory federal and state regulations.

Financial Aid Counselor II
Georgia Perimeter College 2007 - 2008
Clarkson, Georgia

Efficiently fulfilled multifaceted role that included gathering and evaluating student financial and scholastic information in order to make an informed decision about financial aid awards. Improved organizational cohesion by utilizing excellent communication skills to liaise among departments, initiating a cross-departmental approach to financial aid awards and counseling.

Interim Financial Aid Advisor
Georgia State University 2006 - 2006
Atlanta, GA
Advanced interdepartmental communication by acting as a liaison between financial aid department and individuals in upper management/other departments. Played key administrative role by ensuring students continued to meet eligibility guidelines, providing key data to university departments, and updating students' files.

Interim Financial Aid Coordinator
Life University 2005 – 2006
Marietta, GA
Demonstrated enthusiastic initiative by exceeding department expectations in satisfying numerous responsibilities, thus bolstering productivity and morale. Maintained departmental workflow by displaying excellent decision-making skills in evaluating financial aid awards for individuals by mentoring students and administering program.

Tuition Planner, Processor, and Student Services Manager
Le Cordon Bleu College of Culinary Arts 2003 – 2005
Tucker, GA
Increased staff productivity and student satisfaction by planning and executing training in customer service, financial aid regulations, and school policy. Developed financial aid outreach protocol for all prospective students and focused university goals by co-developing satisfactory academic progress policy, and contributed to the development and implementation of $834,067 student loan program for new start-up school.

Financial Aid Advisor
Clark Atlanta University 2001 – 2003
Atlanta, GA
Contributed to students and their families' transition to college by evaluating and counseling students/families regarding financial decisions and responsibilities. Bolstered office coordination by communicating effectively with management and many departments, and participating in outreach activities, and effectively analyzed student data to isolate problems/concerns and recommend resolutions.

Assistant Banner Director
Morris Brown College 2000 – 2001
Atlanta, GA.

Increased and maintained office productivity and workflow by assuming many administrative responsibilities. Managing $19,157,125 student loan program for 89% of student body population while collaborating departments to reconcile accounts and monitor for compliance.

Loan Coordinator
Chicago State University 1997 – 2000
Chicago, IL

Processed, created, and disbursed Title IV Federal loans as set forth by the Department of Education guidelines. Analyzed student performance and state and federal guidelines to make informed financial award decisions, by providing entrance and exit counseling. Managed the $20,157,158 student loan program for 91% of student population, and collaborated with bursar office and student accounts to ensure reconciliation of previous and current student accounts.

Additional employment in secondary education as tutor in math, general business, and science courses at Brainfuse, Inc.

PROFESSIONAL ORGANIZATIONS

Georgia Association of Student Financial Aid Administrators (GASFSA)

National Association of Student Financial Aid Administrators (NASFAA)

Southern Association of Student Financial Aid Administrators (SASFAA)

Washington Student Achievement Council (WSAC)

Western Association of Student Financial Aid Administrators (WASFAA)