ECONOMIC CAPITAL AND HISPANIC ECONOMICALLY DISADVANTAGED STUDENT PERSISTENCE AT A HISPANIC-SERVING INSTITUTION

A Dissertation

by

GRISELDA C. CASTILLA

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ABSTRACT

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The purpose of this study was to examine the relationship between college persistence and family income, parental education level, and type of financial aid for first-time, full-time economically disadvantaged Hispanic students selected from a South Texas Hispanic-serving institution. The dependent variable, college persistence, was measured by completed college credit hours per academic year. Predictor variables included family income, collected from the Free Application for Federal Student Aid (FAFSA), and parental education level, collected from the FAFSA for Parent 1 and Parent 2, as provided, indicating level of schooling received. Type of financial aid was the category of aid received, such as grants, loans, scholarships, work-study, or other.

A quantitative design was useful to examine the relationship of family income, parental education level, and type of financial aid on college persistence for first-time, full-time college students attending a Hispanic-serving institution in South Texas. A multiple linear regression analysis was the statistic used to determine if there was a relationship between the dependent variable, college persistence, and the predictor variables: family income, parental education level, and type of financial aid. Testing the null hypothesis occurred using a *F*-distribution and a level of significance, or alpha level, of .05.

The literature review includes a historical Hispanic population growth background, how researchers have historically measured persistence, Hispanic student persistence, understanding the college price, and loan debt impact. Two theoretical frameworks comprised of Tinto's (1975) theory of student departure and Becker's (1975) human capital theory. This study focused on the persistence section of the theory of student departure and the relationship between persistence and financial aid variables, with human capital theory used to tie the economic aspect of financial aid, particularly student loans, to student persistence.

The results showed a relationship between persistence and family income, parental education level, and type of financial aid. The multiple linear regression, conducted independently for enrolled students for 4 academic years, showed grants and scholarships consistently among the top three contributing variables of the total variance in predicting persistence. All seven predictor variables were significant in the first year, with grants and scholarships the top two contributing variables to predict persistence. Six of the seven predictor variables were significant in the second year, with grants and scholarships the top two contributing variables to predict persistence and family income next; parental education level was not significant. In the third year, six of the seven predictor variables were significant, with grants and scholarships the top two contributing variables to predict persistence and family income next; parental education level was not significant. Six predictor variables were significant in the fourth year, with grants and scholarships the top two contributing variables to predict persistence followed by scholarships. Work-study was not significant.

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I must begin by thanking the Lord for giving me the wisdom and strength to begin and complete this journey. With him, all things are possible.

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To my sisters Mari (Juan), Nelly (Ernie), Linda (Jael), and my brother Manuel: As we reflect on where we came from and where we are now, it is hard to believe that four kids from Rio Bravo, Mexico, had the opportunity to live and achieve the American Dream. And, of course, we owe it to our mom, Barbarita. As she sat in the McAllen, Texas, bus terminal to go work cleaning homes, she told us about seeing young people in their cars, going about their lives, and dreamed that would be us someday. It happened. She wanted us to live in the United States, learn the language, go to school, and on to college. *Tus sueños se hicieron realidad, mami.* To my nieces and nephews, whom I always strive to be a role model for: I hope that you see the impact education has had in all our lives. It is your turn to keep this going.

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the magnitude of the impact of our jobs. We often said we did not come to work for the paycheck; we truly believed in what we did, ***and we still do***.

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CHAPTER I

INTRODUCTION

Financial aid assistance dates back to the first scholarship program at Harvard University in 1643 (Fuller, 2014). However, The Higher Education Act of 1965 resulted in most of the financial aid programs today, including grants and student loans. President Lyndon B. Johnson signed the law to provide U.S. youth with educational opportunities during the difficult economic times of that era. According to Venezia (2017), since the programs' inception, many students have had access to and benefited from having financial resources to pursue their educational endeavors. Additionally, some populations have become highly dependent on federal financial aid programs. For the 2018–2019 academic year (the most recent data as of April 2021), the U.S. Department of Education's Office of Federal Student Aid provided over $119 billion in financial aid, including grants and student loans, to more than 11 million aid recipients (Federal Student Aid Data Center, 2019).

Despite the significant financial investment by the federal government in higher education, the Hispanic or Latino population is not persisting and graduating on a timely basis. This can partly be attributed to the rising costs of higher education which are adversely impacting the persistence of Hispanic economically disadvantaged students. In Texas, for example, per the 2020 U.S. Census Bureau, Hispanics have become the largest minority group in the state; however, six-year college graduation rates are still lacking for such a fast-growing

minority group. According to the Texas Higher Education Coordinating Board's Accountability System (n.d.), 58.6% of Hispanics who enroll in a Texas public or independent institution graduate in six years. The Hispanic Association of Colleges and Universities (2021) estimates the number of enrolled Hispanic undergraduate students will exceed 4.4 million by 2025. Much work remains to be done as HACU further notes that in an 18-year span, from 2001-2019, the share of bachelor's degrees conferred to Hispanic students only increased by 8.4%.

Statement of the Problem

According to the U.S. Census Bureau's (2020a) American Community Survey, 30.8% of the Texas population aged 25 years and over have attained a bachelor's degree or higher. Of these individuals, 16.1% are Hispanic or Latino, the largest minority population in Texas. The economic impact of the Hispanic population could "affect the social standing of the local, regional, state, and national levels threatening the prestige of the U.S." (Wright, 2013, p. 10). The U.S. Census Bureau (2020b) identified the Hispanic or Latino population as the largest minority group in Texas, accounting for 39.3% of the population. However, the problem is that college costs have had adverse impacts on the persistence of Hispanic students of low socioeconomic status. Therefore, the goal of this quantitative study was to examine the relationship among family income, parental education level, and type of financial aid on the college persistence of first-time, full-time college students who enrolled in a Hispanic-serving institution (HSI) in South Texas in Fall 2016. This research was a means of determining the relationship between college persistence and family income, parental education level, and type of financial aid (grants, loans, scholarships, work-study, and other) for HSI "institutional researchers and administrators to gain additional insights into the influence of costs (e.g., tuition,

housing, and food) and financial aid (e.g., grants, loans, work-study and other) on students' persistence" (Hwang, 2003, p. 5).

The U.S. Department of Education has made substantial investments in providing financial aid assistance to students pursuing a college education. Thus, it is no surprise that college student persistence is a significant area of interest for economists, sociologists, and higher education researchers (Hwang, 2003). According to Franke (2012), studies have shown a positive relationship between financial aid and student persistence; however, that relationship appears to be decreasing, leading to discussions on the adequacy of financial aid to support persistence. Furthermore, at-risk student populations, such as Black students, have become more reliant on student loans due to increasing costs at public and private institutions, as these populations "are less likely than whites to complete their degrees within 6 years and are much more likely to end up with a loan default and no degree" (Jackson & Reynolds, 2013, p. 356).

Student loans have an essential role in financing a student's education. The U.S. government has expanded federal loan programs' accessibility by removing income limits, increasing the borrowing ceiling, and consolidating loans under the Direct Loan program; accordingly, students and their families can more easily apply for and borrow from the federal government (Elliott & Friedline, 2013). For many individuals, student loans are a determining factor in whether they can receive a college education. Dwyer et al. (2012) noted, "many students have thus been placed in the potentially precarious situation of taking on high levels of debt while attending college" (p. 1134). Significant student debt is a severe problem for Hispanic students from economically disadvantaged backgrounds, as their families cannot help them finance their education. According to Elliott and Friedline (2013), "a problem that lower income, African American and Latino/Hispanic families face is that they have very little money to save

or to use for college after they pay all of their other expenses" (p. 149). Furthermore, economically disadvantaged Hispanic families must understand the short-term sacrifice and the long-term benefits of higher education. Cho et al. (2015) stated,

> in the instance of educational investments, the anticipated return is in the form of higher lifetime earnings compared to an individual with less education. Those who complete a 4-year degree, or beyond, can generally anticipate greater lifetime earnings than those who do not. (p. 239)

Need for the Study

The previous section indicated the need for additional knowledge to identify the relationship between financial aid on the college persistence of economically disadvantaged Hispanic students. A need exists to discern the rates at which economically disadvantaged Hispanic students with different types of financial aid progress academically and their retention in college. Hispanics have now become the largest minority group in Texas per the U.S. Census bureau (2020b); therefore, it is necessary to study the relationship between financial aid and the persistence of economically disadvantaged Hispanic students.

Purpose of the Study

The main purpose of this study was to examine the relationship between persistence and financial aid among Hispanic economically disadvantaged students at a South Texas HSI. For this study, persistence was a factor measured via completed college credit hours. Specifically, this study focused on the relationship between persistence and different types of financial aid, including grants, loans, scholarships, work-study opportunities, and other aid. A deep analysis commenced examining the relationship between persistence and student loans. Additional

predictor variables, such as family income and parental education level, underwent analysis to determine their relationship with persistence. The study's population consisted of full-time, first-time-in-college students enrolled at the South Texas HSI in Fall 2016. Data analysis showed the relationship between persistence and the predictor variables.

Theoretical Framework

Theory of Student Departure

This study's theoretical framework was Tinto's (1975) theory of student departure. According to Tinto, the theory of student departure suggests that

> the process of dropout from college can be viewed as a longitudinal process of interactions between the individual and the academic and social systems of the college during which a person's experiences in those systems (as measured by his normative and structural integration) continually modify his goal and institutional commitments in ways which lead to persistence and/or to varying forms of dropout. (p. 94)

Based on Tinto's theory, the concept map in Figure 1 shows the path students navigate to integrate into the campus community. Students begin the process by separating themselves from the attributes and experiences they bring to the college campus as they transition to the new college environment. The students must interact with peers and adopt formal and informal processes to integrate into the new community and its set of academic and social systems. Students' ability to achieve this integration is a determining factor of persistence, as those who integrate successfully achieve higher retention and graduation rates. Voluntary attrition can occur if students do not consider integration beneficial or if they had not planned to finish their

education at that institution. Involuntary attrition can occur if students do not progress academically, lose financial support, leave due to family obligations, or face disciplinary matters.

Berger and Braxton (1998) elaborated on Tinto's theory to study the impact of institutional attributes on student withdrawal. Theory elaboration is "the application of new concepts borrowed from other theoretical perspectives to explain the focal phenomenon" (p. 103). Berger and Braxton determined that institutional attributes, such as institutional communication, fairness in policy and rule enforcement, and participation in decision-making, directly impact social integration and thus student persistence. The authors noted, "the findings provide strong support for the inclusion of organizational attributes as a potential source of social integration" (p. 116).

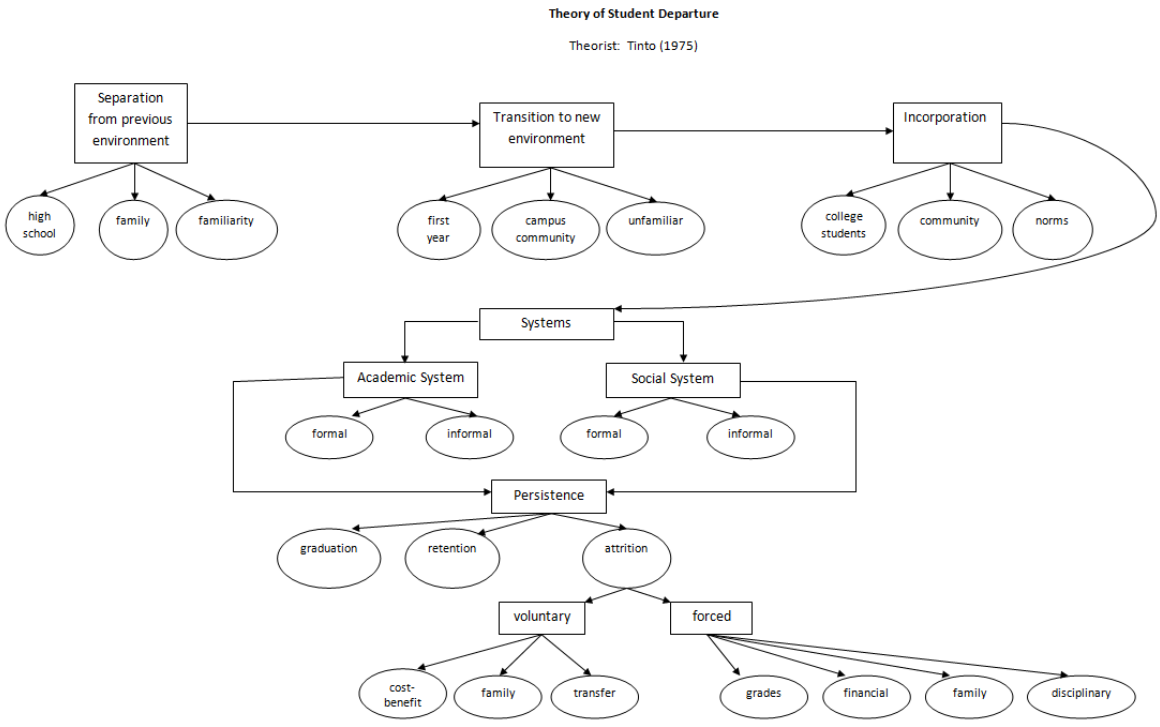


Figure 1.1 *Concept Map*

Adapted from Tinto's (1975) theory of student departure.

Hwang (2003) used Tinto's theory in the financial nexus model to focus on the influence of cost and financial aid on student persistence. Hwang looked at the financial factors impacting the persistence of full-time, first-time, first-year college students. Hwang stated,

> this financial nexus model provides a theoretical perspective that can help institutional researchers and administrators gain additional insights into the influence of costs (e.g., tuition, housing, and food) and financial aid (e.g., grants, loans, and work-study) on students' persistence. (p. 5)

Hwang identified a financial nexus between college choice and persistence among the study's population. The nexus varied based on the institution's Carnegie Classification. Hwang also found that variables, such as tuition and financial aid, positively affected enrollment, even with high costs, due to the perception that higher tuition meant higher educational quality.

Le (2016) analyzed various factors, including student background characteristics, high school performance, and financial aid, to determine their impact on student persistence beyond the first year of college. Le emphasized "the importance of students' social and academic integration into the institution" (p. 36). The author focused on 11 variables: spring grade point average (GPA), state grants, high school GPA, ACT composite score, gender, federal loans, federal grants, athletic scholarships, age, race, and ethnicity. According to Le, "the strongest predictor found in this study to affect significantly college persistence [was] spring GPA" (p. 132). Additionally, Le noted, "students who had a spring cumulative GPA of 2.04 or higher are 8.25 times more likely to persist than students with a spring cumulative GPA of 2.03 or less" (p. 116). Accordingly, Le recommended the leaders of higher education institutions and state and federal governments design first-year experience programming to support students transitioning

to college. Le also suggested implementing financial aid programs to encourage college students' academic performance during the critical second semester of college.

Reisinger (2016) looked at the variables students bring onto the college campus upon enrollment, such as the background traits of "educational aspirations, socioeconomic status, high school grades, ability, sex, and ethnicity that influence success" (p. 10). The author used Braxton's theory to examine student athletes' persistence. Reisinger stated,

> six variables: ability to pay, initial institutional commitment, institutional commitment to the welfare of students, communal potential, institutional integrity, proactive social adjustment, and psychosocial engagement influence social integration that in turn influences subsequent intuitional commitment and finally the decision to persist. (p. 123)

According to Reisinger, student-athletes are more likely to persist due to factors such as faculty interaction and student college commitment.

Human Capital Theory

The perceived value and return of investment in education have a vital role in student persistence. Therefore, Becker's human capital theory was the framework used in this study to find the correlation between the economic aspect of financial aid, particularly student loans, to student persistence. About the theory, developed in the early 1960s and expanded in 1975 to include the value of a college education for human capital, Adam (2007) said,

> Human Capital Theory claims that people invest in their own level of training and education based on the same kinds of rate-of-return calculations that they use when they are making other kinds of investments, such as in the areas of stocks and bonds. (p. 53)

Becker (1975) suggested that a relationship exists between the investment made in college education and future income earnings, finding that the "rate of return to an average college entrant is considerable" (p. 246). Thus, Becker concluded that college graduates have an advantage over high school graduates, and a college degree has more gains than any other type of capital investment.

The human capital theory suggests that pursuing education after high school graduation is a worthwhile investment, as it will have an expected return equal to or greater than the initial cost. Cho et al. (2015) stated,

> in the instance of educational investments, the anticipated return is in the form of higher lifetime earnings compared to an individual with less education. Those who complete a 4-year degree, or beyond, can generally anticipate greater lifetime earnings than those who do not. (p. 239)

Flores and Park (2015) also used the human capital theory to focus on the student decision-making process in choosing to enroll in college and complete degrees. The authors found that students saw the value in their learned skills in increasing their competitiveness in the labor market. Thus, the students considered their monetary investment in education beneficial. Students and families with this mind frame could be more likely to take out student loans, seeing them as investments in their future.

Research Questions

The following research questions will be addressed:

RQ1: What is the relationship between persistence, as measured by completed college credit hours before Fall 2017, and family income, parental education level, and type of financial

aid (grants, loans, scholarships, work-study, and other) for first-time, full-time college students entering a university in Fall 2016?

RQ2: What is the relationship between persistence, as measured by completed college credit hours before Fall 2018, and family income, parental education level, and type of financial aid (grants, loans, scholarships, work-study, and other) for first-time, full-time college students entering a university in Fall 2016?

RQ3: What is the relationship between persistence, as measured by completed college credit hours before the Fall of 2019, and family income, parental education level, and type of financial aid (grants, loans, scholarships, work-study, and other) for first-time, full-time college students entering a university in Fall 2016?

RQ4: What is the relationship between persistence, as measured by completed college credit hours before Fall 2020, and family income, parental education level, and type of financial aid (grants, loans, scholarships, work-study, and other) for first-time, full-time college students entering a university in Fall 2016?

Null Hypotheses

The following null hypotheses match their corresponding research questions.

Null Hypothesis 1: There is no relationship between persistence, as measured by completed college credit hours before Fall 2017, and family income, parental education level, and type of financial aid (grants, loans, scholarships, work-study, and other) for first-time, full-time college students entering a university in Fall 2016.

Null Hypothesis 2: There is no relationship between persistence, as measured by completed college credit hours before Fall 2018, and family income, parental education level, and type of financial aid (grants, loans, scholarships, work-study, and other) for first-time, full-time college students entering a university in Fall 2016.

Null Hypothesis 3: There is no relationship between persistence, as measured by completed college credit hours before Fall 2019, and family income, parental education level, and type of financial aid (grants, loans, scholarships, work-study, and other) for first-time, full-time college students entering a university in Fall 2016.

Null Hypothesis 4: There is no relationship between persistence, as measured by completed college credit hours before Fall 2020, and family income, parental education level, and type of financial aid (grants, loans, scholarships, work-study, and other) for first-time, full-time college students entering a university in Fall 2016.

Methodology Overview

The goal of this quantitative study was to examine the relationship of family income, parental education level, and type of financial aid on the college persistence of first-time, full-time college students at an HSI in South Texas. Multiple regression analyses were used to analyze the relationship between family income, parental education level, and type of financial aid and college persistence. The dependent variable of college persistence was specific to completed college hours per academic year. The independent variables were family income, parental education level, and type of financial aid. Family income was a variable collected from the Free Application for Federal Student Aid (FAFSA) and the sums of parental and student income. Parental education level was a variable collected from the FAFSA for Parent 1 and

Parent 2 of schooling received, such as middle or junior high school, high school, college or beyond, or other/unknown. Type of financial aid was a variable based on the category of aid received, such as grant, loan, scholarship, work-study, or other.

The population of this study consisted of students from the Fall 2016 first year, first-time-in-college class at a South Texas HSI. The total enrollment for the Fall 2016 class was 3,944, of whom 3,616 were students enrolled full-time with at least 12 credit hours, and 328 were students enrolled part-time with 11 credit hours or fewer. Although some students had a Summer 2016 start date, they were part of the Fall 2016 cohort if they continued their enrollment in the fall semester. The Fall 2016 class consisted of 92.7% Hispanic students, and the overall student population was 45.6% male and 54.4% female. The students came primarily from the Rio Grande Valley, with 95.4% from Hidalgo, Cameron, Starr, and Willacy Counties. Out-of-valley residents comprised 4.6% of the student population and consisted of other Texas residents, other U.S. residents, Mexican nationals, and other foreign nationals. For the Fall 2016 cohort, 75% of the entering first-year students receiving aid received the Pell Grant (The University of Texas Rio Grande Valley, n.d.b). The sample population of 3,616 students met the following characteristics: (a) entering first-year, first-time-in-college students (b) enrolled full time with 12 or more credit hours (c) at a South Texas HSI for the Fall 2016 semester.

The University of Texas Rio Grande Valley (UTRGV) is located in the Rio Grande Valley, created by the Texas Legislature in 2013 and established in 2015. UTRGV is a general academic institution with a medical school component and a member institution of The University of Texas System. The institution had its first class in Fall 2015 and its first School of Medicine class in Summer 2016. The institution has an annual budget of $691,598,439 (FY2022) and a primary service region of the Rio Grande Valley, which comprises Cameron, Hidalgo,

Starr and Willacy Counties. As of July 2019, the Rio Grande Valley had a total population of 1,377,861. The HSI has campuses and off-campus research and teaching sites throughout the Rio Grande Valley, including Brownsville (formerly The University of Texas at Brownsville campus), Edinburg (formerly The University of Texas Pan American campus), Weslaco, Harlingen, McAllen, Starr County, and the Coastal Studies Lab at South Padre Island. As of Fall 2021, the institution offered 142 degree programs: 68 bachelor's, 61 master's, 10 doctoral, and three professional doctorate (The University of Texas Rio Grande Valley, n.d.a).

Fall 2021 total enrollment consisted of 31,939 students, 92.4% from the Rio Grande Valley. Of the total student enrollment, 84.1% were undergraduate students, 67.3% were enrolled full-time, 60.2% were female, 90.8% were Hispanic, and 62.4% were Pell Grant recipients (The University of Texas Rio Grande Valley, n.d.a).

Significance of the Study

Santiago (2012) stated,

> given the increased awareness of Hispanics' demographic growth in the United States, the importance of an educated citizenry, and the need for a well-educated workforce to remain economically competitive, the educational attainment of Hispanics is a critical public policy issue. (pp. 163–164)

According to the Texas Higher Education Coordinating Board's Accountability System (n.d.) Six-Year Graduation Rates for Public Universities, Hispanics comprised 35.3% of first-time, full-time students at a Texas public or independent institution in Fall 2014. Of those students, only 58.6% graduated in 6 years; in contrast, 73.2% of White students graduated in 6

years. Per the 2020 U.S. Census Bureau, Hispanics make up 39.3% of the total Texas population, a close second to the 39.7% held by White, not Hispanic or Latino.

This study contributed to the body of knowledge on the relationship between financial aid and the persistence of economically disadvantaged Hispanic students. The study's results could contribute to the educational growth of this population. Furthermore, because this study entailed analyzing an economically disadvantaged student population from an HSI in South Texas,

> the data collected from this study can be used to guide future institutional student financial aid policy, and the development of services and resources offered to support student retention could be modified as a result of the insights revealed through this study. (Orefice, 2007, p. 11).

The results expand the understanding of financial aid personnel, enrollment managers, student affairs staff, and other administrators of the relationship between financial aid and student persistence (Hwang, 2003). Scholars could repeat, replicate, and expand the analysis in this study at similar HSIs to further contribute to the body of knowledge on the college persistence of this student population.

Definition of Terms

Academic Year 1617. For this study, AY1617 consisted of enrollment before Fall 2017, including Fall 2016, Spring 2017, and Summer 2017.

Academic Year 1718. For this study, AY1718 consisted of enrollment before Fall 2018, including Fall 2017, Spring 2018, and Summer 2018.

Academic Year 1819. For this study AY1819, consisted of enrollment before Fall 2019, including Fall 2018, Spring 2019, and Summer 2019.

Academic Year 1920. For this study, AY20 consisted of enrollment before Fall 2020, including Fall 2019, Spring 2020, and Summer 2020.

Economically disadvantaged students. Per the Texas Higher Education Board's (2015) *Higher Education Strategic Plan*, economically disadvantaged students are undergraduate students who are Pell Grant recipients at any time while earning their degrees.

Entering freshman. Also known as first-time-in-college students. According to the Texas Higher Education Coordinating Board's (2021) *Reporting and Procedures Manual for Texas Public Universities*, entering first-year students have never attended college or other postsecondary institutions. This student population includes those who entered with advanced standing (college credits earned before graduation from high school).

Free Application for Federal Student Aid (FAFSA). Individuals use the FAFSA, a form provided by the U.S. Department of Education (2021a), to apply for Federal Student Aid programs at no charge.

Grants. The U.S. Department of Education (2021b) identifies grants as types of financial aid that students do not have to repay.

Hispanic. A Hispanic or Latino is a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race (Texas Higher Education Coordinating Board, 2021).

Hispanic-serving institution. As defined in the Higher Education Act, an HSI is a degree-granting institution with a full-time equivalent undergraduate enrollment of at least 25% Hispanic students (Hispanic Association of Colleges and Universities, 2021).

Loans. Loans are financial aid borrowed to attend college that accrue interest and that students must repay (U.S. Department of Education, n.d.).

Other. For this study, the other aid category consisted of state exemptions and waivers provided by the State of Texas to eligible students. These other types of financial assistance for Texas residents do not require students to pay tuition or fees or for nonresident students to pay the in-state tuition rate (Texas Higher Education Coordinating Board, 2022).

Persistence. Persistence is a student's "progressive reenrollment in college, whether continuous from one term to the next or temporarily interrupted and then resumed" (Pascarella & Terenzini, 2005, as cited in Hwang, 2003, p. 374). For this study, persistence was a variable measured via completed college credit hours.

Scholarships. Scholarships are a form of financial aid provided to help students based on academic merit, talent, or a particular area of study (U.S. Department of Education, n.d.).

Work-study. Work-study is a form of financial aid that enables students to earn money to pay for school via part-time work (U.S. Department of Education, n.d.).

CHAPTER II

REVIEW OF LITERATURE

This study focused on the relationship between college persistence and financial aid for economically disadvantaged Hispanic students. Specifically, this study addressed the relationship between persistence and types of financial aid, including grants, loans, scholarships, work-study, and other. A deep analysis commenced to examine the relationship between persistence and student loans. This chapter addresses the following question: What is the relationship of financial aid on the student persistence of economically disadvantaged Hispanics, particularly those receiving student loans? This focus question provided the frame for this study. The literature review includes a historical background of the population growth of Hispanics in Texas to show the importance of educating this population, historical measures of persistence, the student persistence of Hispanics, and the college price and loan debt impact.

Hispanic Population Growth

According to the U.S. Census Bureau (2020b), the Hispanic or Latino population in Texas increased by 1.9 million between 2010 and 2020. Additionally, Hispanics comprise 39.3% of the total Texas population, a close second to the 39.7% held by White, not Hispanic or Latino. Per the U.S. Census Bureau (2020a) American Community Survey, 30.8% of the Texas population aged 25 years and over have attained a bachelor's degree or higher, with 16.1% of them being Hispanic or Latino. College and university leaders across the state have sought to

address the higher education needs of this growing population, particularly those at HSIs. According to the U.S. Department of Education (n.d.), an HSI is a higher education institution with a full-time equivalent undergraduate enrollment of at least 25% Hispanic students. In 2019, there were 569 HSIs in the United States, with 100 in Texas and another 41 emerging HSIs (15%–24.9% full-time equivalent Hispanic enrollment) in the state (Hispanic Association of Colleges and Universities, 2021). A 2008 study by Excelencia in Education focused on eight Texas Border HSIs with an average population of 75% Hispanics. The findings showed these higher education institutions were state leaders in developing plans to increase postsecondary education attainment for much of the Texas Hispanic population (Hoogeveen, 2009). Santiago (2012) said,

> given the increased awareness of Hispanics' demographic growth in the United States, the importance of an educated citizenry, and the need for a well-educated workforce to remain economically competitive, the educational attainment of Hispanics is a critical public policy issue. (pp. 163–164)

Economically, a need exists for an educated Hispanic workforce to minimize the lower income levels among this population (Wright, 2013). As a fast-growing minority population, Hispanics can have an economic impact that "affects the social standing of the local, regional, state, and national levels threatening the prestige of the U.S." (Wright, 2013, p. 10).

Hispanics are the fastest-growing minority population in Texas, indicating the need for equal political representation at the state level to address the social problems of this growing group (Kelly, 2016). Hispanics in the Texas legislature hold approximately 21% of the total seats, despite the Hispanic population comprising approximately 35% of the total population in Texas (Kelly, 2016). In this study, the theory of acculturation, developed by psychologist John

Berry, provided a framework to address the importance of blending the Hispanic culture successfully into the majority culture. Acculturation theory suggests that "intervention models that address cultural identity, cultural engagement, and cultural interaction could lead to acceptance of the dominant culture, help in creating policies that promote engagement, and build positive mutual regard" (Kelly, 2016, p. 158).

Measurements of Persistence

Due to the U.S. Department of Education's significant investment in providing financial aid assistance to students in pursuit of college education, it is no surprise that college student persistence is one of the major research interests for economists, sociologists, and higher education scholars (Hwang, 2003). As noted by Le (2016), interest in this research area began in the 1970s (e.g., Astin, 1984; Spady, 1971; Tinto, 1975). Throughout the years, scholars have evolved early research and contributed to the body of knowledge on persistence related to higher education to explain and predict this phenomenon.

Measuring persistence has varied slightly among researchers; however, the basis used by early pioneers remains a foundation for the current study. As cited by Hwang (2003), researchers looked at persistence as "whether an enrolled student chose to continue his or her studies during the next semester or year (Astin, 1975; Bean, 1980; Pascarella & Terenzini, 1980; Tinto, 1987)," (p. 3). In the 21st century, researchers have continued to measure persistence in a similar but modified aspect based on their research focus. Related to financial aid studies, researchers have defined persistence as the reenrollment of a selected cohort of students, either within-year or between-year. Within-year persistence is the reenrollment from the Fall to Spring semester within the same academic year. Between-year persistence is reenrollment from Fall to Fall in the next academic year.

In a nonexperimental predictive research study, Hwang (2003) used within-year persistence to analyze 64,500 financial aid recipients to estimate the effects of financial variables on within-year persistence. The results showed that

> grant amounts, for students in the overall public sample, public comprehensive/ baccalaureate sub-sample and public research/doctoral sub-sample were positive and significant. Hence, each $1,000 grant increase is associated with a higher probability that the average student would persist. It suggests that more grant aid increases persistence. (p. 188)

Specifically, Hwang found students in public institutions more sensitive to grant aid.

Franke (2012) adopted a different approach to explore the impact of financial aid and various other factors during the precollege, transition, and college attendance phases on 6-year degree attainment. The sample consisted of 6,561 students enrolled full-time in bachelor's degree-seeking programs at 4-year institutions. The cohort students began their studies in 2004, had eligibility for Federal Title IV financial aid programs, and obtained their degrees in 2009. Franke (2012) "results for low-income students shows that need-based grants from all sources increase chances to complete a degree within six years and that unsubsidized (federal) loans exert a strong negative influence on degree attainment" (p. 184). Also, the study showed that federal grant aid correlated with increased chances for low-income students to graduate for every $1,000 in additional aid. For "students coming from the lowest income backgrounds, need-based grants do have a large impact on their chances to graduate. Federal and state need-based grants are found most influential, with the former showing even slightly larger positive effects" (Franke, 2012, p. 185). Additionally, Franke noted, "for low-income students, receiving need-

based grants from all sources increases their chances to graduate" (p. 187). Further, "federal work-study was not found to significantly predict degree attainment" (p. 185).

Le (2016) conducted a quantitative study to examine persistence beyond the second semester in college. The scholar noted, "persistence refers to a student who enters an institution as a full-time or part-time student and remains in that same institution beyond the second semester" (p. 11). The sample size consisted of 16,991 students who enrolled from Fall 2012 to Fall 2013. The intent of the study was to analyze this population and identify the factors useful for creating prediction equations to predict student persistence beyond the second semester. Le analyzed various factors, including student background characteristics, high school performance, and financial aid, to determine their relationship on student persistence beyond the first year of college. The 11 variables studied were spring GPA, state grants, high school GPA, ACT composite score, gender, federal loans, federal grants, athletic scholarships, age, race, and ethnicity.

For the financial aid variables, Le (2016) found that a "linear regression analysis conducted indicated that financial aid factors were significant in predicting college performance" (p. 113). Le analyzed the Pell Grant, Oklahoma Higher Learning Access Program Scholarship, Stafford loans, athletic scholarships, tuition waivers, Perkins loans, and Oklahoma Higher Learning Access Program. Of the financial aid variable, "Oklahoma Higher Learning Access Program was one of the most prominent variables that significantly predicted student persistence" (Le, 2016, p. 115). According to Le (2016), this "scholarship was very powerful in helping students persist" (p. 129) and contributed to the body of knowledge on student persistence scholarships. Of the 11 variables studied, "the strongest predictor found in this study to significantly affect college persistence was spring GPA" (p. 132). Le (2016) recommended

that higher education institutions and state and federal governments design first-year experience programming to support students in the transition process to college and financial aid programs to encourage academic performance during the critical second semester of college.

Lerma (2018) defined persistence as successfully persisting through the first year of college. The study sample consisted of nine first-generation, part-time Hispanic community college students who completed their first year in college. Using semistructured interviews with an established questionnaire, Lerma identified the supports the students used during their first year in college to persist, the perceived role of families in their college success, and their internal expectations for completing the first year of college. Lerma found that the students successfully completed their first year of college by being "able to maneuver the struggles of being a college student as well they acknowledged that they were recipients of support and encouragement their first year of college" (p. 108). As persistence related to financial support, the participants acknowledged they could identify and seek needed assistance, including financial assistance. Furthermore, the participants confirmed they received financial assistance through grants, scholarships, family members, or jobs.

Hispanic Student Persistence

Per the Hispanic Association of Colleges and Universities (2021) *Fact Sheet*, in the 2019–2020 year, there were approximately 3.3 million Hispanics enrolled in postsecondary institutions and Hispanic enrollment in higher education. Additionally, this population will exceed 4.4 million students by 2025. Hispanic undergraduate enrollment comprised 20.9% of total undergraduate headcount enrollment in the United States. In 2019–2020, HSIs also provided enrollment for two-thirds of all Hispanic undergraduates. Furthermore, between 2001–2019, the share of bachelor's degrees conferred to Hispanic students increased from 6.5% to

14.9%. Hispanics made up 35.3% of the total population of students who began and enrolled in a Texas public or independent institution in Fall 2014 (Texas Higher Education Coordinating Board, n.d.). However, only 58.6% of those students graduated in 6 years, and comparatively, 73.2% of White students graduated in 6 years.

California and Texas have the largest concentration of HSIs in their postsecondary sector (Contreras & Contreras, 2015). If the leaders of these states

> invested in Latino students in these institutions, and these institutions make concerted efforts to raise college success rates, a socioeconomic transformation among Latinos is possible. That is, investing strategically in HSIs to produce a greater number of degree completers might serve to transform the next generation of Latino families and the communities in which they live. (Contreras & Contreras, 2015, p. 153)

Some low-income families support their children pursuing a college education; however, in Latino/a families, support usually comes with contingencies. Calderone (2015) found that "low-income parents did not insist that their daughters work. Rather, they preferred that their daughters focus on their academics, their obligations to family" (p. 179).

Despite the availability of education support, there could be conflicts with college completion. According to Alvarez (2016), other family expectations and limitations can present barriers to college persistence, such as family involvement in the college search process, familial obligations, college financing priority, understanding of short-term sacrifices versus long-term benefits, language and interpretation limitations, the distance of children too far from home, safety, and financial stress. Alvarez also found that some children chose regional or close-to-

home institutions to minimize the financial burden on their families. In contrast, others consider taking out student loans when their families could not assist with the financial gap.

Moreno (2014) examined the academic success of residential students at The University of Texas at El Paso, an institution on the U.S.–Mexico border with a predominantly Hispanic and first-generation student population (i.e., an HSI). Moreno concluded that familial obligations cause Hispanic students who initially begin school by living on campus to move home. Hispanic students could depart on-campus facilities due to required family expectations, even though they do not live at home. Moreno stated,

> their immediate family created unforeseen obstacles such as keeping their home responsibilities, making several trips home during the week, and sharing their financial aid refund with their parents. By living so close to home, students had added stress, which took time away from their course work. (p. 82)

Additionally, Moreno (2014) said,

> when a student is working or engaging with their family, it translated to time away from their academic responsibilities; work and family took away their valuable time from their course work. These students ended up not performing at their best. Their grades suffered and they did not establish the necessary relationship with professors and their peers in the classroom. (pp. 75–76)

Moreno also found that students who lived on campus achieved greater academic success. These students stayed involved with on-campus activities, clubs, and organizations and had better working relationships with faculty and staff. As a result, the residential students had higher GPAs and completed more credit hours than those who stopped living on campus.

Understanding the College Price

Determining college price (the price the student has to pay) requires examining how colleges and universities determine the cost of attending their institutions and students' financial aid eligibility and amount. The *Federal Student Aid Handbook*, published annually by the U.S. Department of Education (2021c), requires higher education institutions to manage and administer federal financial aid programs and determine students' financial aid awards packages. The first step is determining the cost of attendance, the maximum amount a student can receive in financial aid. Attendance costs include tuition fees, books and supplies, room and board, travel, and miscellaneous expenses. Although law dictates the cost of attendance components (Higher Education Act, 1965) and the types of costs within them, each institution should "determine the appropriate and reasonable amounts to include for each eligible cost of attendance category for students at your school, based on the criteria" (U.S. Department of Education, 2021c, Vol. 3, Ch. 2, pp. 3–36). While financial aid professionals can use guidelines to determine the cost of attendance, erroneous ideas about perceived costs can cause individuals to make incorrect decisions about the cost benefits of attending colleges or universities (Hall, 2009).

The next step is to determine the estimated family contribution, a measure of how much the student and family can contribute to the cost of the student's education for the year (U.S. Department of Education (2021a, Ch. 3). Determining the estimated family contribution entails using an annually published formula that includes the information the student and/or parent provided in the FAFSA (U.S. Department of Education, 2021b). The final step is to determine the student's unmet need. Essentially, a formula indicates the student's financial aid awards: cost of attendance - EFC = unmet need. The unmet need is the amount colleges and universities

provide to students via federal, state, and institutional financial aid programs and includes grants, loans, scholarships, work-study, and other aid.

The family must review the award package to determine if the student can afford to attend the institution, as the aid might not provide for all the student's needs. First-year students and their families should thoroughly analyze their financial aid offer letters to make final decisions on their colleges of choice. The award package can include various types of aid, including need-based, merit, and loan aid. The provision of need-based aid tends to occur based on the EFC, while merit aid tends to be a strategy for recruiting top-achieving students. Loans are funds that accrue interest that students must repay.

Jones-White et al. (2014) used a model to determine the effects of the aid offered on students' persistence or departure from their initial colleges. The authors analyzed the types of financial aid, such as need-based and merit-based aid and loans, and found that need-based aid was an equalization factor. Jones-White et al. noted that the students who received merit aid felt encouraged to persist; therefore, merit aid was a strategy for successfully retaining and graduating students. Additionally, high merit award amounts might not impact persistence, as students receiving merit aid are likely to succeed. Jones-White et al. concluded that "accepting a financial aid package heavily reliant upon student loans significantly increases the risk of student departure" (p. 348).

Despite the risks of loan debt, borrowing funds to finance educational expenditures is an increasingly popular practice that has more than quadrupled in real dollars since the early 1990s (Avery & Turner, 2012). Struggles to overcome the rising cost of tuition have led many families to take student loans to fill the gap between the grant aid and unmet needs (Dwyer et al., 2012). In addition to using loans to cover the gap, many students, such as economically disadvantaged

Hispanic students, cannot realistically rely on their parents to provide the estimated family contribution. Although Parent Plus loans can provide additional parental support, eligibility is based on the parents' creditworthiness, which could also be a factor for this population (Elliott & Friedline, 2013). Elliott and Friedline (2013) stated, "students from racial/ethnic minority groups may rely more on loans because they might receive fewer family contributions to pay for college" (p. 137).

Loan Debt Impact

New college students need to learn to live within their budgets. Many colleges and universities provide financial literacy courses; however, these classes tend to be optional. Students must learn to set budgets to avoid unnecessarily borrowing or using credit cards. The College Board sought to assist higher education institutions and students by creating living expense budgets that include students' costs beyond tuition, fees, and books (DiMaria, 2008). The budgets account for everyday living expenses, such as housing, for which personal choice is key. Many students rely on student loans to cover their everyday living expenses. Although many families perceive student loans to be a worthwhile investment, Elliott and Lewis (2015) considered them unrealistic in the long run. Students' inability to pay back loans early in their careers could cause them to make decisions out of necessity and not by choice. Student loan debt can affect students' future wealth, asset accumulation, and career selection. Students with loans might feel obligated to accept job offers prematurely or lease or rent apartments because they cannot afford mortgages. Additionally, loan debt and loan payments can affect the cars graduates purchase, the investments they make, or the entrepreneurial opportunities in which they engage. All these decisions and impacts occur after students have taken out the loans; ideally, they should consider these factors before acquiring debt.

High loan debt can also be a barrier to residential independence for graduates, who may need to live with their parents because of their inability to secure mortgages. Wu (2015) found that an increased amount of student loan debt owed at the time of graduation significantly correlated with the increased likelihood of individuals moving back home after graduation. Also, Wu referenced a Gallup–Purdue University study finding that significant student loan debt had an adverse impact on students' entrepreneurial ability to start their own businesses. The study showed that approximately 26% of graduates without undergraduate debt started their own businesses, compared to just 20% of those carrying $20,000 to $40,000 of student loan debt.

Racial and socioeconomic status and institution type could give students from economically disadvantaged families no choice but to take large student loans; however, these students face a higher risk of default than White students (Jackson & Reynolds, 2015). Student loans are financial assistance for reducing the educational inequality among students from low socioeconomic status who struggle to pay for college and impact their college completion. However, loans can hurt students if they cannot meet their loan payment obligations. Jackson and Reynolds (2015) found Black students more likely to borrow loans than any other student population. The degree to which loans reduced racial inequality diminished with larger loan amounts. Additionally, many Black students borrowed student loans but did not finish college; thus, racial differences created a higher likelihood of student loan default. Braun (2016) found that Black students from Bowling Green State University were more likely to graduate with more outstanding student loan debt than students of other races. Braun stated, "these differences between various racial groups may be attributable to several factors such as family income, individual familial values and priorities, or cultural and racial mores" (p. 70).

Summary

Financial aid, including student loans, has a critical role in college persistence. Additionally, financial aid has important benefits for economically disadvantaged Hispanic students. Although perceived as a burden by many, loans are an available form of financial aid that many students find helpful. Media and research show the number of students in debt and the amount of debt; however, students often find these loans beneficial. Many students and families see loans as investments in their future. Some students in need can access significant financial aid; however, many do not qualify for need-based aid or receive gift aid insufficient for their college expenses. Therefore, such students take out student loans to pay for college.

Student loans are a vital source of financial aid for educational costs for countless economically disadvantaged Hispanic students. Increasing Hispanic populations at higher education institutions across the United States and Texas indicate the need for colleges and universities to implement student programming and financial aid programs that encourage Hispanic student persistence and degree completion. Such interventions could be means of enabling students to meet their debt obligations. Additionally, an educated Hispanic workforce benefits students and the Hispanic community and provides critical support for the health of the economy. Drawing upon the theory of student departure and the human capital theory could help higher education institutions implement and execute strategies to strengthen the relationship between college persistence and financial aid. Such strategies would better support students transitioning from high school to college and integrating with the university culture. In addition, these theories could be means of minimizing involuntary student attrition.

CHAPTER III

METHODOLOGY

The research objectives in this quantitative study were to determine if a relationship exists between persistence and family income, parent education level, and the type of financial aid received (grants, loans, scholarships, work-study, and other). This chapter presents the methodology used to conduct the study. It includes the following sections: (a) research design, (b) hypotheses, (c) variables, (d) population and sample, (e) ethical considerations, (f) data collection, (g) data analysis, (h) delimitations of the study, and (i) limitations of the study.

Research Design

Quantitative methodology was appropriate to examine the relationship of family income, parental education level, and type of financial aid on the college persistence of first-time, full-time college students at an HSI in South Texas. Multiple linear regression analysis commenced to analyze the relationship between the dependent variable (criterion), college persistence, and the independent (predictor) variables of family income, parental education level, and type of financial aid. Multiple linear regression is a statistical method for analyzing the data when two or more independent (predictor) variables could produce an outcome (criterion variable). Multiple linear regression includes predicting the scores of the criterion variable with multiple predictor variables (Hinkle et al., 2003). The goal of multiple linear regression is to find the most suitable linear model for the relationships between the predictor variables and the criterion variable.

Combining the predictor variables in the multiple regression equation occurs to predict scores on the criterion variable from the scores on the predictor variables, with regression coefficients for the respective predictor variables and a regression constant. In this study, the standard or enter method was the approach used to conduct the multiple linear regression. Warner (2013) described the standard approach as preferable, as it consists of entering all predictor variables simultaneously and treating them equally: "All predictor variables are treated equally; the predictive usefulness of each X_i predictor variable is assessed controlling for all other predictors" (p. 549). Warner continued, "[the standard method] usually provides a more conservative assessment of the unique predictive contribution made by each X_i variable" (p. 560). In this study, the multiple linear regression with the standard or enter method enabled determining how well the set of seven predictor variables predicted persistence, as measured by completed college credit hours. Additionally, the standard method showed the variance accounted for by each predictor variable.

Null Hypotheses

The null hypotheses were:

Null Hypothesis 1: There is no relationship between persistence, as measured by completed college credit hours before Fall 2017, and family income; parental education level; and type of financial aid (grants, loans, scholarships, work-study, and other) for first-time, full-time college students entering a university in Fall 2016.

Null Hypothesis 2: There is no relationship between persistence, as measured by completed college credit hours before Fall 2018, and family income; parental education level;

and type of financial aid (grants, loans, scholarships, work-study, and other) for first-time, full-time college students entering a university in Fall 2016.

Null Hypothesis 3: There is no relationship between persistence, as measured by completed college credit hours before Fall 2019, and family income; parental education level; and type of financial aid (grants, loans, scholarships, work-study, and other) for first-time, full-time college students entering a university in Fall 2016.

Null Hypothesis 4: There is no relationship between persistence, as measured by completed college credit hours before Fall 2020, and family income; parental education level; and type of financial aid (grants, loans, scholarships, work-study, and other) for first-time, full-time college students entering a university in Fall 2016.

Variables

College persistence was the dependent variable measured with completed college credit hours per academic year. The independent variables were family income from the FAFSA via the sum of parent and student income; parental education level from the FAFSA for Parent 1 and Parent 2 for the level of schooling received, such as middle or junior high school, high school, college or beyond, or other/unknown; and type of financial aid based on the category of aid received, such as grants, loans, scholarships, work-study, or other.

Population and Sample

The selection of the population for this study occurred from the first-year, first-time-in-college class entering a South Texas HSI beginning in Fall 2016. Total enrollment for the Fall 2016 class was 3,944 students; 3,616 were enrolled full-time with at least 12 credit hours, and 328 were enrolled part-time with 11 or fewer credit hours. Some of these students could have

initiated their enrollment in Summer 2016; however, they were still part of the Fall 2016 cohort if they continued their enrollment to the fall semester. The Fall 2016 class consisted of 92.7% Hispanic students, and the overall student population was 45.6% male and 54.4% female students. The enrolled students came primarily from the Rio Grande Valley, with 95.4% of residents from the Hidalgo, Cameron, Starr, and Willacy Counties. Out-of-Valley residents comprised 4.6% of the student population and included other Texas residents, other U.S. residents, Mexican nationals, and other foreign nationals. For the Fall 2016 cohort, 75% of entering first-year students receiving aid received the Pell Grant (The University of Texas Rio Grande Valley, n.d.b). The sample population for this study was 3,616 students who were (a) entering first-year, first-time-in-college students (b) enrolled full-time with 12 or more credit hours (c) at the South Texas HSI for the Fall 2016 semester.

The selected South Texas HSI is an institution in the Rio Grande Valley created via the Texas Legislature in 2013 and established in 2015. The HSI is a general academic institution with a medical school component. The HSI, a member institution of The University of Texas System, had its first class in Fall 2015 and its first School of Medicine class in Fall 2016. The institution has an annual budget of $691,598,439 (FY2022), and its primary service region is the Rio Grande Valley, which includes the Cameron, Hidalgo, Starr, and Willacy Counties. As of July 2019, the Rio Grande Valley population was 1,377,861. UTRGV has campuses and off-campus research and teaching sites throughout the Rio Grande Valley, including Brownsville (formerly The University of Texas at Brownsville campus), Edinburg (formerly The University of Texas-Pan American campus), Weslaco, Harlingen, McAllen, Starr County, and the Coastal Studies Lab at South Padre Island. As of Fall 2021, the institution offered 142 degree programs: 68 bachelor's, 61 master's, 10 doctoral, and three professional doctorate. Fall 2021 total

enrollment was 31,939, with 92.4% of enrolled students from the Rio Grande Valley. Of the total student enrollment, 84.1% were undergraduates, 67.3% were full-time, 60.2% identified as female, 90.8% were Hispanic, and 62.4% were Pell Grant recipients (The University of Texas Rio Grande Valley, n.d.a).

Ethical Considerations and Data Sources

The study commenced after receiving approval from the Institutional Review Board (IRB) of the South Texas HSI. The research began with cognizance of the protection of human subjects, as documented per the researcher's knowledge on this matter and the completion of the Human Subjects Research online courses. The IRB submission followed the proposal defense, with the intent to receive an exemption or expedited review, including permission to access the data of the identified sample population from the Office of Strategic Analysis & Institutional Reporting (SAIR) at the South Texas HSI. For this study, the sample population consisted of 3,616 students who were (a) entering first-year, first-time-in-college students (b) enrolled full time with 12 credit hours or more (c) at the South Texas HSI for the Fall 2016 semester. The study consisted of analyzing Fall 2016 to Summer 2020 data on persistence, financial aid, and demographics. The obtained data underwent organization and coding for statistical analysis.

Data Collection Procedures

The South Texas HSI SAIR provided the information used to identify the target population. SAIR gathered the data for the subjects within the target population from the Ellucian (n.d.) Banner Student Information System. Banner is an enterprise resource planning software used by the South Texas HSI to record and maintain information and data for students, including student demographics, financial aid information, and academic records. The collection of student demographic information occurs when students submit their admissions applications

via ApplyTexas (n.d.), an online state admissions application used for most Texas schools, including the South Texas HSI. FAFSA information from the U.S. Department of Education loaded into Banner includes family income, parental education level, and other data from the applications. The college utilizes Banner to award various types of financial aid (i.e., grants, loans, scholarships, work-study, and other) based on student eligibility and funding. Another use of Banner is maintaining students' academic record by term, including registration, hours attempted and completed, student grades used to determine term and cumulative GPA, and records for the graduation term upon graduation from the institution. Additionally, the Banner system facilitates cohort tagging, with the institution coding entering first-year students for the respective fall year and identifying students as enrolled as full-time or part-time. Therefore, Banner was the system used to identify first-time, full-time college students for the corresponding fall semester. The corresponding data field for this population showed the first-time, full-time-in-college entering students for Fall 2016.

ApplyTexas is the platform used for online college admissions applications at the South Texas HSI. The institution receives an electronic file for each applicant for loading into the Banner system. Unique fields in the system enable the storage of various data elements, including biographical information, educational information, test scores, residency, extracurricular and volunteer activities, employment information, custom questions for the institution, and college essays (ApplyTexas, n.d.). Admissions professionals retrieve and export demographic information from the corresponding data fields, such as gender and ethnicity, into an Excel spreadsheet.

The South Texas HSI uses Banner to facilitate student enrollment. Each semester, students select courses for enrollment and store their registration within the Banner system.

Unique data fields indicate students' total hours attempted and total hours earned at the end of the academic term. In this study, data of the dependent variable of persistence, as measured by credit hours earned per term, were exported to a Microsoft Excel spreadsheet.

Students submit the FAFSA each academic year. The U.S. Department of Education's Central Processing System processes the information and delivers electronic file outputs, known as institutional student information records, to the students' designated higher education institutions. The Banner system has undergone configuration to capture the institutional student information records information in various data fields. For this study, the independent variables of family income and parental education level from the institutional student information records were the data retrieved from the corresponding data fields and exported to an Excel spreadsheet. The Banner system has programming logic for providing student financial aid based on student eligibility and funding. Therefore, each financial aid award has a unique category code, such as grants, loans, scholarships, work-study, and other. Banner's capabilities enable users to tabulate the total aid received by term and total aid received for the academic year within the unique fields. The independent variable of the type of financial aid was also data retrieved from Banner and included in the Excel spreadsheet. The information for each subject, each of whom received a unique ID number for confidentiality, was retrieved from the Banner student information system and exported to a consolidated Microsoft Excel spreadsheet for organization and coding for the statistical analysis.

Data Analysis

The collection of all student data occurred via the Banner student information system and SAIR's office at the South Texas HSI. The replacement of personally identifiable information with alphanumeric values occurred to protect the anonymity of students. The Statistical Package

for the Social Sciences (SPSS) was the software used to analyze the data within the consolidated Microsoft Excel spreadsheet. Multiple linear regression analyses commenced with the standard or enter method. The testing of the study's null hypotheses occurred using a *F*-distribution as the test of significance with a level of significance or alpha level of .05. The analysis included the assumptions of random sampling, normal distributions, and homoscedasticity, with the results indicating whether to fail to reject or reject each null hypothesis. Finally, the results indicated conclusions about the relationship between the predictor variables and the criterion variable. As Warner (2013) suggested,

> a regression equation will be estimated, all the X_i predictor variables will be added at the same time, and the predictive usefulness of each X_i will be assessed while statistically controlling for any linear association of X_i with all other predictor variables in the equation. (p. 559)

Additionally, descriptive statistics commenced to summarize and describe the data.

Delimitations of the Study

This study was delimited to students beginning college in Fall 2016 at an HSI in South Texas. Another delimitation of the study was the inclusion of first-time, full-time college students with continuous enrollment for 4 academic years.

Limitations of the Study

This study had certain limitations. Using data from one South Texas HSI limited the generalizability of the results. The sample size of Hispanic/Latinos in this study may not be representative of the overall Hispanic/Latino population in the United States or Texas. Furthermore, the research focused on the persistence section of Tinto's (1975) theory of student

departure and the relationship between persistence and financial aid variables. Future scholars should consider these limitations in further research.

CHAPTER IV

RESULTS

This chapter includes the result of the study. The purpose of this study was to examine the relationship between college persistence and family income, parental education level, and type of financial aid for first-time, full-time, economically disadvantaged Hispanic students at a South Texas HSI. This chapter presents the null hypotheses, followed by an explanation of the variables. Also included is a description of the sample population and data set utilized for the study, followed by a detailed breakdown of the multiple regression analyses using the standard or enter method in SPSS for the four research questions. The chapter concludes with a summary of the results from the four multiple linear regressions.

Null Hypotheses

Null Hypothesis 1: There is no relationship between persistence, as measured by completed college credit hours before Fall 2017, and family income; parental education level; and type of financial aid (grants, loans, scholarships, work-study, and other) for first-time, full-time college students entering a university in Fall 2016.

Null Hypothesis 2: There is no relationship between persistence, as measured by completed college credit hours before Fall 2018, and family income; parental education level; and type of financial aid (grants, loans, scholarships, work-study, and other) for first-time, full-time college students entering a university in Fall 2016.

Null Hypothesis 3: There is no relationship between persistence, as measured by completed college credit hours before Fall 2019, and family income; parental education level; and type of financial aid (grants, loans, scholarships, work-study, and other) for first-time, full-time college students entering a university in Fall 2016.

Null Hypothesis 4: There is no relationship between persistence, as measured by completed college credit hours before Fall 2020, and family income; parental education level; and type of financial aid (grants, loans, scholarships, work-study, and other) for first-time, full-time college students entering a university in Fall 2016.

Variables

College persistence was the dependent variable measured as the college credit hours completed per academic year. The persistence variable consisted of the total of completed hours for the full academic year for Fall through Summer. The study included independent variables measured as follows:

- Family income calculated as the sum of parental and student income from the FAFSA.
- Parental education level from the FAFSA for Parent 1 and Parent 2 for the level of schooling received: other/unknown (1), middle school or junior high (2), high school (3), or college or beyond (4). As indicated in the data analysis, the study did not include other/unknown data.
- Type of financial aid based on the category of aid received, such as grants, loans, scholarships, work-study, or other.

Description of Sample

The sample for this study consisted of the Fall 2016 class of entering first-year students. Total enrollment for the Fall 2016 class consisted of 3,944 students, with 3,616 enrolled full time with at least 12 credit hours and 328 enrolled part time with 11 or fewer credit hours. For this study, the sample population consisted of the 3,616 students who met the following characteristics: (a) entering first-year, first-time-in-college students (b) enrolled full time with 12 or more credit hours (c) at the South Texas HSI for the Fall 2016 semester. Table 4.1 shows the type and amount of financial aid paid out each year to enrolled students in this population in the 4 years analyzed in this study.

Table 4.1

Type and Amount of Financial Aid Paid to Enrolled Students per Academic Year

AY	Grants	Loans	Scholarships	Work-study	Other	Total aid
1617	$26,447,522.80	$2,767,443.00	$3,790,492.71	$501,542.55	$683,466.10	$34,190,467.16
1718	$21,608,449.31	$3,078,914.00	$2,280,527.25	$670,349.95	$538,756.15	$28,176,996.66
1819	$17,464,299.14	$3,896,043.00	$2,082,178.57	$688,050.31	$492,991.15	$24,623,562.17
1920	$13,056,981.51	$3,817,481.00	$2,380,038.84	$523,565.97	$369,620.47	$20,147,687.79

The study's population included 1,620 male students, as indicated by a value of 0 or 44.8% of the total population, and 1,996 female students, as noted by a value of 1, or 55.2% of the total population (see Table 4.2).

Table 4.2

Gender

	Code	Frequency	Percent	Valid percent	Cumulative percent
	0	1,620	44.8	44.8	44.8
Valid	1	1,996	55.2	55.2	100
Total	–	3,616	100	100	–

Note. 0 = Male, 1 = Female

Table 4.3 shows the age range for the 3,616 students. The ages ranged from 16–34 years, with 3,480 or 96.3% of the students between 18 and 19 years of age.

Table 4.3

Age

	Age	Frequency	Percent	Valid percent	Cumulative percent
Valid	16	1	.0	.0	.0
	17	51	1.4	1.4	1.4
	18	2,603	72.0	72.0	73.4
	19	877	24.3	24.3	97.7
	20	60	1.7	1.7	99.3
	21	11	.3	.3	99.6
	22	5	.1	.1	99.8
	24	1	.0	.0	99.8
	25	2	.1	.1	99.9
	26	1	.0	.0	99.9
	27	1	.0	.0	99.9
	28	1	.0	.0	99.9
	30	1	.0	.0	100.0
	34	1	.0	.0	100.0
Total	–	3,616	100.0	100.0	–

As shown in Table 4.4, the population included 3,324 students of Hispanic or Latino origin, as indicated by a value of 1 or 91.9% of the total population, and 292 students of non-Hispanic or non-Latino origin, as indicated by a value of 0 or 8.1 % of the total population.

Table 4.4

Ethnicity: Hispanic

	Code	Frequency	Percent	Valid percent	Cumulative percent
	0	292	8.1	8.1	8.1
Valid	1	3,324	91.9	91.9	100
Total	–	3,616	100	100	–

Note. 0 = Not Hispanic or Latino origin, 1 = Hispanic or Latino origin.

In this study, persistence was a variable measured as completed college credit hours among the students with actual enrollment in each academic year. However, 1,055 of the students in the sample graduated in 4 years, resulting in a 29% 4-year graduation rate, as shown in Table 4.5.

Table 4.5

First-Time Full-Time Four-Year Graduation Rate

Academic year	Graduated
1617	0
1718	37
1819	261
1920	757
4-year graduates	1,055
4-year graduation rate	29%

Enrollment and the aid received underwent analysis independently for each research question. For the corresponding academic year, as indicated in each research question, the study's sample included only enrolled students who submitted financial aid applications. Parental education level is an optional question on the FAFSA/TASFA; therefore, students could have the question blank or responded *other/unknown*. This study did not include any students with blank answers or responses of *other/unknown* for parental education. Therefore, the sample excluded

students who did not reenroll or graduated from the HSI, did not have financial aid applications, and did not indicate parental education.

Additionally, the sample included only students with financial aid applications, which provided data on family income and parental education level. Parental education was an independent variable; therefore, the study included only students who provided that information. Additionally, the study did not include the students who graduated, as those students no longer had enrollment data after graduation. The intent of excluding these students was to ensure the reliability and validity of the data. For each research question, the sample data included students enrolled at the institution for the indicated academic year who had submitted financial aid applications and indicated parental education. Table 4.6 shows the population enrolled within each academic year and the sample size of the study.

Table 4.6

Enrollment per Academic Year and Study Sample Size

Academic year	Enrolled (persisted)		FAFSA/TAFSA		Parental educational level		Study sample
	Y	N	Y	N	Y	N	*n*
1617	3,616	0	3,383	233	3,256	127	3,256
1718	2,984	632	2,700	284	2,608	92	2,608
1819	2,605	1,011	2,300	305	2,222	78	2,222
1920	2,132	1,484	1,868	264	1,802	66	1,802

Data Set

The HSI's SAIR provided the student data from the Banner student information system. The HSI uses Banner to record and maintain students' historical information and data, including student demographics, financial aid information, and academic records. The creation of a student

record in Banner occurs after identifying an individual as a prospective student, with the individual's information appended as it is received. The collection of admissions information occurs once a student applies for admission at the institution via ApplyTexas (n.d.). Additionally, the recording of financial aid information and the type and amount of aid awarded occurs annually for each respective year a student applies for financial aid via FAFSA or TASFA.

Banner allows the HSI to maintain academic records and record students' enrollment, grades, graduation dates, and other pertinent academic attributes. Banner's functionality enabled the retrieval and collection of the needed data set, which included completed college credit hours, family income, parental education level, and type of financial aid received. After import into various Microsoft Excel files, the data underwent consolidation into one spreadsheet to organize and code the data for statistical analysis.

Findings

Multiple linear regression analyses occurred with the standard or enter method to find whether a relationship existed between the predictor variables (i.e., family income, parental education level, and type of financial aid) and the criterion variable (persistence, as measured by completed college credit hours). Answering the research questions was possible using the findings. The following sections present the results.

Null Hypothesis 1

There is no relationship between persistence, as measured by completed college credit hours before Fall 2017, and family income; parental education level; and type of financial aid (grants, loans, scholarships, work-study, and other) for first-time, full-time college students entering a university in Fall 2016.

Multiple linear regression analysis commenced with the standard or enter method to test if a relationship existed between persistence, as measured by completed college credit hours before Fall 2017, and the independent variables of family income, parental education level, and type of financial aid (grants, loans, scholarships, work-study, and other). In addition, the analysis was a means to determine "how much unique variance in the dependent variable each of the independent variables explained" (Pallant, 2010, p. 149). SPSS allowed the researcher to consolidate, organize, and import the Microsoft Excel file with the data set for analysis. Null Hypothesis 1 required analyzing the data before Fall 2017. Therefore, the data set for this null hypothesis included only students with financial aid applications who had indicated parental education level and enrolled at the institution from Fall 2016 through Summer 2017. The original enrolled sample population consisted of 3,616 first-time, full-time students who started college in Fall 2016. However, 360 students did not have financial aid applications and did not indicate parental education, resulting in their exclusion from the analysis. Therefore, the final sample for this null hypothesis was n = 3,256.

Analysis of the appropriate data set for this hypothesis commenced with SPSS. In SPSS, under the data menu, the analysis consisted of selecting cases and "if condition is satisfied" and moving over 1617FAFSATASFA=1 to select cases only for the students with financial aid applications and 1617PARENT_HIGHEST_ED_LVL>=2. Setting the highest parental education level at 2 or higher was the means used to exclude students who did not report this value or reported 1 for *other/unknown*. After data set identification, multiple linear regression commenced with the standard or enter method.

Standard multiple regression involves entering the dependent variable and all the predictor variables simultaneously. From the statistics menu, the analysis consisted of selecting

estimates, confidence intervals at the 95% level, model fit, descriptives, part and partial correlations, and collinearity diagnostics. Under the residuals section, the analysis entailed selecting case-wise diagnostics with outliers outside three standard deviations. From the options menu, the analysis consisted of checking "exclude cases pairwise" in the missing values section to exclude subjects missing one of the variables. From the plots menu, this step consisted of moving *ZRESID to the Y axis and *ZPRED to the X axis. From the standardized residual plots, the selection of normal probability plot occurred. The process produced a sample of n = 3,256. The sample included all the enrolled students in AY 1617 with financial aid applications who indicated parental education level.

Appendix A shows the SPSS results for the AY 1617 linear regression standard (enter) method. The correlations indicate that the independent variables showed some relationship with the dependent variable, with scholarships having the strongest correlation at .29. The table also provided the opportunity to check for multicollinearity. The results showed some correlation between the independent variables; however, it was below .7. Pallant (2010) suggested that researchers do not "want to include two variables with a bivariate correlation of .7 or more in the same analysis" (p. 158). Furthermore, reviewing the coefficients under collinearity statistics showed tolerance values above .10, indicating a lack of multicollinearity. A value less than .10 would have suggested the possibility of multicollinearity among the variables (Pallant, 2010). The variance inflation factor (VIF) also had a value less than 10, further indicating no multicollinearity. A value above 10 would have been an indicator of multicollinearity (Pallant, 2010).

The normal P-P plot of regression standardized residual showed points somewhat close to the best fit line, and the scatterplot did not show too many outliers. Also, the results showed an

insignificant number of some standardized residuals near -4 and +4. The case-wise diagnostics indicated nine cases with a standardized residual value above 3.0 or below -3.0; however, these cases comprised no more than 1% of the total cases in the sample. Thus, the results showed the study had a normally distributed sample (Pallant, 2010).

The next step of the analysis was to evaluate the model's effectiveness, statistical significance, and accuracy as a predictor of the outcome. The model summary showed an R square, which indicated how much the model accounted for the variance in the dependent variable, 1617 completed persistence, as measured by completed college credit hours. The R^2 value of .15 on the model summary indicated that the model, with the predictor variables of family income, parent education level, and type of aid (scholarships, work-study, grants, loans, and other), accounted for about 15% of the variance in persistence. Other factors accounted for 85% of the variance in the first year of enrollment.

The next step of the analysis consisted of assessing the statistical significance of the model and whether it was a statistically significant predictor of the outcome. An analysis of the ANOVA commenced to determine whether the model was an accurate predictor of the outcome. The ANOVA showed a *p* value of less than .05, indicating the statistical significance of the model. Warner (2013) said,

> If the obtained *p* value is smaller than the preselected alpha level, then the null hypothesis is rejected; the researcher concludes that Y scores can be predicted significantly better than chance when the entire set of predictor variables (X_1 through X_k) is used to calculate the predicted Y score. (p. 565)

The next step was determining which variables and in what amount these variables contribute to the dependent or criterion variable (Y). The coefficients, under standardized coefficients beta, showed that scholarships (.31) were the strongest contributor to the outcome, followed by grants (.27), family income (.20), loans (.12), work-study (.09), other (.08), and highest parental education level (.08). The coefficients allowed for checking the statistical significance of the variables' contributions. Each variable, under Sig., had a statistical significance less than .05; therefore, each variable was a significant and unique contributor to the prediction of the outcome.

The overall regression for the full model showed statistical significance, with $R = .39$, $R^2 = .15$, and adjusted $R^2 = .15$, $F(7,3248) = 83.70$, $p < .05$. The model, with the predictor variables of family income, parental education level, and types of financial aid (grants, loans, scholarships, work-study, and other), accounted for 15% of any variance in persistence, with scholarships having the largest unique contribution. Therefore, the statistically significant model was a predictor of persistence for Year 1 of student enrollment. Table 4.7 shows the results of the standard multiple regression used to predict persistence, as measured by completed college hours (Y) from parental highest education level, family income, grants, scholarships, loans, work-study, and other.

Table 4.7

Results of Standard Multiple Regression to Predict Persistence, as Measured by Completed College Hours (Y) From Parent Highest Education Level, Family Income, Grants, Scholarships, Loans, Work-Study, and Other – Before Fall 2017

Variable	Persistence	Parent highest educational level	Family income	Grants	Work-study	Scholarships	Loans	Other		b	β	sr^2_{unique}
Parental highest education level	0.09									0.96*	0.08	0.01
Family income	0.13	0.29								0.00*	0.20	0.02
Grants	0.02	-0.3	-0.64							0.00*	0.27	0.04
Work-study	0.1	0.02	-0.01	0.04						0.00*	0.09	0.01
Scholarships	0.29	0.03	0.11	-0.14	-0.01					0.00*	0.31	0.09
Loans	0.08	0.16	0.27	-0.35	0.03	-0.04				0.00*	0.12	0.01
Other	0.05	0.08	0.09	-0.15	-0.03	-0.02	-0.04			0.00*	0.08	0.01
									Intercept =	12.24*		
Mean	23.1	3.3	40920.4	7765.4	151.1	975.4	830.3	172.7				
SD	8.6	0.7	51143.2	4162.1	726.3	2092.9	1871.8	1096.1				
									R^2	= .153		
									R^2_{adj}	= .151		
									R	= .391*		

Note. Table format adapted from Tabachnick and Fidell (2007), as cited by Warner, 2013, p. 574.

*p < .05

Furthermore, a stepwise multiple linear regression analysis commenced with the same dependent variable and independent variables to determine the total variance caused by each independent variable. (Appendix B shows the SPSS results for the AY 1617 linear regression stepwise method.) The model summary and ANOVA showed that the stepwise model presented the seven independent variables (scholarships, grants, work-study, loans, family income, other, and parental education level) as significant factors, with $F(7,3248) = 83.69$, $p < .05$, and an R^2 of .15. In this analysis, scholarships contributed to 8.6% of the total variance in persistence. Other contributors to the total variance in persistence were grants (2.4%), work-study (1.1%), loans (1.1%), family income (F0.9%), other (0.6%), and parental education level (0.6%).

As a result, the null hypothesis is rejected. A relationship existed between persistence, as measured by completed college credit hours before Fall 2017, and family income, parental education level, and type of financial aid (grants, loans, scholarships, work-study, and other) for first-time, full-time college students entering a university in Fall 2016.

Null Hypothesis 2

There is no relationship between persistence, as measured by completed college credit hours before Fall 2018, and family income; parental education level; and type of financial aid (grants, loans, scholarships, work-study, and other) for first-time, full-time college students entering a university in Fall 2016.

Multiple linear regression analysis commenced to test if a relationship existed between persistence, as measured by completed college credit hours before Fall 2018, and the independent variables of family income, parental education level, and type of financial aid (grants, loans, scholarships, work-study, and other). The analysis occurred to determine “how

much unique variance in the dependent variable each of the independent variables explained" (Pallant, 2010, p. 149). SPSS was the tool used to consolidate, organize, and import the data from the Microsoft Excel file for analysis. This null hypothesis consisted of analyzing data before Fall 2018. Therefore, the data set for the null hypothesis included only students with financial aid applications enrolled at the institution for Fall 2017 through Summer 2018 who had reported parental education. The original enrolled sample population consisted of 3,616 first-time, full-time students who started in Fall 2016. However, the exclusion of 632 students occurred due to no enrollment, no financial aid application, or no response for parental education level. Therefore, the final sample consisted of n = 2,608.

Analyzing the appropriate data set for this hypothesis in SPSS consisted of selecting data menu, select cases, and if condition is satisfied and moving over 1718 PERSISTED to select only students enrolled between Fall 2017 and Summer 2018, as well as moving over 1718FAFSATASFA=1 to select only cases of students with financial aid applications and 1718PARENT_HIGHEST_ED_LVL>=2. The analysis occurred with the highest parental education level of 2 or higher to exclude students who did not report this value or reported 1 for *other/unknown.* After data set identification, multiple linear regression occurred with the standard or enter method by entering the dependent variable and all the predictor variables simultaneously. The analysis in the statistics menu entailed selecting estimates, confidence intervals at the 95% level, model fit, descriptives, part and partial correlations, and collinearity diagnostics. Also, under the residuals section, the selection of case-wise diagnostics occurred with outliers outside three standard deviations. From the options menu, in the missing values section, the analysis consisted of checking "exclude cases pairwise." The process excluded subjects missing one of the variables from the analysis. From the Plots menu, the analysis

consisted of moving *ZRESID to the Y-axis and *ZPRED to the X-axis. From the standardized residual plots, the selection of normal probability plot occurred. This process produced a sample of n = 2,608 that included all the enrolled students for AY 1718 with financial aid applications who had indicated parental education level.

Appendix C shows the SPSS results for the AY 1718 linear regression standard (enter) method. The correlations indicate that the independent variables show some relationship with the dependent variable, with grants having the strongest correlation at .37. The correlations also provided the opportunity to check for multicollinearity. Some correlation existed between the independent variables; however, it was below .7. Furthermore, in reviewing the coefficients under collinearity statistics, the tolerance showed values above .10, indicating no multicollinearity. A value less than .10 would have suggested the possibility of multicollinearity among variables (Pallant, 2010). The data also showed a VIF below 10, further indicating no multicollinearity. A value above 10 would have been an indicator of multicollinearity (Pallant, 2010).

The normal P-P plot of regression standardized residual showed points somewhat close to the best fit line. The scatterplot showed a few outliers and some standardized residuals near -4 and +4, with one beyond +4 and one beyond -4. The case-wise diagnostics showed 11 cases with a standardized residual value above 3 or below -3 in no more than 1% of the total cases in the sample. This result showed a normally distributed sample (Pallant, 2010).

The next step was to evaluate the model for its effectiveness and statistical significance as an accurate predictor of the outcome. The model summary showed an R^2 level that indicates how much the model accounts for the variance in the dependent variable, AY 1718 completed persistence, as measured by completed college credit hours. The R^2 of .32 indicates that the

model, with the predictor variables of family income, parental education level, and type of aid (scholarships, work-study, grants, loans, and other), accounted for approximately 32% of the variance in persistence. This finding suggests that, in the second year of enrollment, other factors account for 68% of the variance in persistence.

The next step was to assess the statistical significance of the model and its statistical significance as a predictor of the outcome. An analysis of the ANOVA commenced to determine whether the model was an accurate predictor of the outcome. The ANOVA had a *p* value less than .05, indicating the statistical significance of this model.

The overall regression for the full model showed statistical significance, with $R = .57$, $R^2 = .32$, adjusted $R^2 = .32$, $F(7,2600) = 176.83$, $p < .05$. Table 4.8 shows the results of standard multiple regression to predict persistence, as measured by completed college hours (Y) from highest parental education level, family income, grants, scholarships, loans, work-study, and other.

Table 4.8

Results of Standard Multiple Regression to Predict Persistence, as Measured by Completed College Hours (Y) From Parent Highest Education Level, Family Income, Grants, Scholarships, Loans, Work-Study, and Other – Before Fall 2018

Variable	Persistence	Parental highest education level	Family income	Grants	Work-study	Scholarships	Loans	Other		b	β	sr^2_{unique}
Parental highest education level	-0.02									0.29	0.02	<.01
Family income	0.00	0.30								0.00*	0.29	0.05
Grants	0.37	-0.27	-0.58							0.00*	0.63	0.25
Work-study	0.12	0.04	-0.03	0.12						0.00*	0.07	<.01
Scholarships	0.23	0.04	0.10	-0.16	-0.03					0.00*	0.30	0.09
Loans	0.06	0.19	0.32	-0.26	0.00	-0.03				0.00*	0.14	0.02
Other	0.0	0.10	0.06	-0.10	-0.03	0.01	-0.03			0.00*	0.07	0.01
									Intercept =	8.284*		
Mean	24.5	3.3	37233.8	7957.9	248.9	684.4	1166.5	151.7				
SD	9.9	0.7	42362.1	4672.8	966.5	1833.8	2184.0	1017.3				
									R^2	= .323		
									R^2_{adj}	= .321		
									R	= .568 *		

Note. Table format adapted from Tabachnick and Fidell (2007), as cited by Warner, 2013, p. 574.

*$p < .05$

The next step was to determine which variables contributed the most to the prediction of the outcome. The coefficients, under standardized coefficients beta, showed that grants (.63) had the strongest contribution to explaining the outcome, followed by scholarships (.30), family income (.29), loans (.14), other (.07), work-study (.07), and highest parental education level (.02). The coefficients were also the means used to check the statistical significance of the variables' contribution. Each variable, under Sig., had a statistical significance of less than .05 for six of the seven variables, which were significant contributors to the prediction of the outcome. The results showed the highest parental education level of .23; therefore, parental education did not have statistical significance.

The variable of highest parental education level lacked statistical significance; therefore, an additional analysis commenced to predict college persistence, as measured by completed college credit hours based on family income and types of financial aid, excluding parental education level. Appendix D shows the SPSS results for the AY 1718 linear regression standard (enter) method, excluding parental education level. The model summary and ANOVA showed the statistical significance of the overall regression for the six predictor variables, with $R = .57$, $R^2 = .32$, adjusted $R^2 = .32$, $F(6,2601) = 206.03$, $p < .05$. The model, which included the predictor variables of family income and types of financial aid (grants, loans, scholarships, work-study, and other), accounted for 32% of the variance in persistence, as measured by completed college credit hours, with grants having the largest unique contribution. Therefore, the statistically significant model was a predictor of persistence, as measured by completed college credit hours, for Year 2 of student enrollment. Table 4.9 shows the results of the standard multiple regression for predicting persistence, as measured by completed college hours (Y) from family income, grants, scholarships, loans, work-study, and other.

Table 4.9

Results of Standard Multiple Regression to Predict Persistence, as Measured by Completed College Hours (Y) From Family Income, Grants, Scholarships, Loans, Work-Study, and Other – Before Fall 2018, Excluding Parental Highest Education Level

Variable	Persistence	Family income	Grants	Work-study	Scholarships	Loans	Other		b	β	sr^2_{unique}
Family income	0.00								0.00*	0.29	0.05
Grants	0.37	-0.58							0.00*	0.63	0.25
Work-study	0.12	-0.03	0.12						0.00*	0.07	<.01
Scholarships	0.23	0.10	-0.16	-0.03					0.00*	0.30	0.09
Loans	0.06	0.32	-0.26	0.00	-0.03				0.00*	0.14	0.02
Other	0.03	0.06	-0.10	-0.03	0.01	-0.03			0.00*	0.07	0.01
								Intercept =	9.246*		
Mean	24.5	37233.8	7957.9	248.9	684.4	1166.5	151.7				
SD	9.9	42362.1	4672.8	966.5	1833.8	2184.0	1017.3				
								R^2	= .322		
								R^2_{adj}	= .321		
								R	= .568 *		

Note. Table format adapted from Tabachnick and Fidell (2007), as cited by Warner, 2013, p. 574.

*$p < .05$

Additionally, a stepwise multiple linear regression analysis occurred with the same dependent variable and independent variables. Appendix E shows the SPSS results for the AY 1718 linear regression stepwise. The model summary and ANOVA show that the stepwise method presented the six independent variables (scholarships, grants, work-study, loans, family income, and other) as significant factors, with $F(6,2601) = 206.03$, $p < .05$, with an R^2 of .32. The analysis results showed grants contributed to 14% of the total variance in persistence, and scholarships contributed to an additional 8.3% of the variance. Family income contributed to 7.2% of the variance, while loans contributed to 1.7%. Other contributed to 0.6% of the variance, and work-study contributed to 0.4% of the variance.

As a result, the null hypothesis is rejected. A relationship existed between persistence, as measured by completed college credit hours before Fall 2018, and family income and type of financial aid (grants, loans, scholarships, work-study, other) for first-time, full-time college students entering a university in Fall 2016.

Null Hypothesis 3

There is no relationship between persistence, as measured by completed college credit hours before Fall 2019, and family income; parental education level; and type of financial aid (grants, loans, scholarships, work-study, other) for first-time, full-time college students entering a university in Fall 2016.

Multiple linear regression analysis commenced to test if a relationship existed between persistence, as measured by completed college credit hours before Fall 2019, and the independent variables of family income; parental education level; and type of financial aid (grants, loans, scholarships, work-study, and other). Furthermore, the analysis commenced to

determine “how much unique variance in the dependent variable each of the independent variables explained” (Pallant, 2010, p. 149). SPSS was the software used to consolidate, organize, and import the Microsoft Excel file containing the data set for analysis. This null hypothesis required analyzing the data before Fall 2019. Therefore, the data set for the null hypothesis included only students with financial aid applications who had indicated parental education level enrolled at the institution for Fall 2018 through Summer 2019. The original enrolled sample population consisted of 3,616 first-time, full-time students who started college in Fall 2016; however, there were 1,394 students excluded due to no enrollment, no financial aid applications, or no parental education level response. Thus, the final sample consisted of n = 2,222 students.

Analysis of the appropriate data set for this hypothesis occurred in SPSS. In SPSS, the analysis consisted of, under the data menu, selecting cases and “if condition is satisfied” and moving over 1819PERSISTED to select only students enrolled between Fall 2018 and Summer 2019 and 1819FAFSATASFA=1 to select cases for students with financial aid applications, and 1819PARENT_HIGHEST_ED_LVL>=2. The highest parental education level of 2 or higher was the means used to exclude students who did not report parental education or reported 1 for *other/unknown*. After identifying the data set, multiple linear regression commenced with the standard or enter method. The standard multiple regression consisted of entering the dependent variable and entering all the predictor variables simultaneously. From the statistics menu, the analysis entailed selecting estimates, confidence intervals at the 95% level, model fit, descriptives, part and partial correlations, and collinearity diagnostics. Under the residuals section, the selection was case-wise diagnostics with outliers outside three standard deviations. From the options menu, in the missing values section, the analysis included checking “exclude

cases pairwise" and excluding subjects missing one of the variables from the analysis. From the plots menu, the analysis consisted of moving *ZRESID to the Y-axis and *ZPRED to the X-axis. The standardized residual plots resulted in the selection of a normal probability plot. This process produced n = 2,222, which included all the enrolled students for the 2018–2019 academic year with financial aid applications who indicated parental education level.

Appendix F shows the SPSS results for the 1819 linear regression standard (enter) method. The correlations indicate the independent variables had some relationship with the dependent variable, with grants having the strongest correlation at .47. The correlations also provided the opportunity to check for multicollinearity. Some correlation existed between the independent variables; however, it was below .7, in line with Pallant's (2010) suggestion not to "include two variables with a bivariate correlation of .7 or more in the same analysis" (p. 158). Furthermore, in reviewing the coefficients, under collinearity statistics, the tolerance showed values above .10, indicating no multicollinearity. A value less than .10 would have suggested the possibility of multicollinearity among the variables (Pallant, 2010). The results also showed a VIF below 10, further indicating no multicollinearity. A value above 10 would have been an indicator of multicollinearity existence (Pallant, 2010).

The normal P-P plot of regression standardized residual showed points somewhat close to the best fit line, and the scatterplot reflected a few outliers. The results showed some standardized residuals near -4 and +4, with one beyond +4 and one beyond -4. The case-wise diagnostics showed that 13 cases with a standardized residual value above 3 or below -3 did not comprise more than 1% of the total cases in the sample, indicating a normally distributed sample (Pallant, 2010).

The next step was to evaluate the model to determine its effectiveness, statistical significance, and accuracy in predicting the outcome. The model summary showed an R^2, which indicates the variance in the dependent variable, 1819 Completed, Persistence as measured by completed college credit hours, is explained by the model. The R^2 of .37 indicates that the model with the predictor variables of family income, parental education level, and type of aid (scholarships, work-study, grants, loans, and other) accounted for about 37% of the variance in persistence. This finding suggests that, in the third year of enrollment, other factors accounted for 63% of the variance in persistence.

The next step was to assess the statistical significance of the model and its statistical significance as a predictor of the outcome. An analysis of the ANOVA commenced to determine whether the model was an accurate predictor of the outcome. The ANOVA showed a p value less than .05, which showed the statistical significance of the model.

The overall regression for the full model had statistical significance, with $R = .61$, $R^2 = .37$, adjusted $R^2 = .37$, $F(7,2214) = 185.89$, $p < .05$. Table 4.10 shows the results of the standard multiple regression to predict persistence, as measured by completed college hours (Y) from highest parental education level, family income, grants, scholarships, loans, work-study, and other.

Table 4.10

Results of Standard Multiple Regression to Predict Persistence, as Measured by Completed College Hours (Y) From Parental Highest Education Level, Family Income, Grants, Scholarships, Loans, Work-Study, and Other – Before Fall 2019

Variable	Persistence	Parental highest education level	Family income	Grants	Work-study	Scholarships	Loans	Other		b	β	sr^2_{unique}
Parental highest education level	-0.02									0.38	0.03	<.01
Family income	0.00	0.30								0.00*	0.31	0.06
Grants	0.47	-0.26	-0.53							0.00*	0.69	0.32
Work-study	0.13	0.03	-0.03	0.14						0.00*	0.05	<.01
Scholarships	0.16	0.06	0.11	-0.14	-0.03					0.00*	0.22	0.05
Loans	0.02	0.13	0.22	-0.21	-0.03	-0.07				0.00*	0.12	0.01
Other	0.04	0.09	0.03	-0.07	-0.03	0.03	-0.06			0.00*	0.09	0.01
									Intercept =	7.999*		
Mean	25.2	3.3	37855.5	7539.0	292.5	748.5	1695.8	157.4				
SD	10.1	0.7	42107.3	4667.0	1079.7	1918.2	2573.0	1100.9				
									R^2	= .370		
									R^2_{adj}	= .368		
									R	= .608 *		

Note. Table format adapted from Tabachnick and Fidell (2007), as cited by Warner, 2013, p. 574.

*$p < .05$

The next step was to determine which variables contributed the most to the prediction of the outcome. In the coefficients, under standardized coefficients beta, grants (.69) had the strongest contribution to the prediction of the outcome, followed by family income (.31), scholars (.22), loans (.12), other (.08), work-study (.05), and highest parental education level (.03). The coefficients were also the means used to check the statistical significance of the variables' contribution. Each variable, under Sig., had a statistical significance of less than .05 for six of the seven variables. The six variables were significant and unique contributors to the prediction of the outcome. The highest parental education level was .14; therefore, this variable lacked statistical significance.

The variable of highest parental education level lacked statistical significance; therefore, an additional analysis commenced to predict college persistence, as measured by completed college credit hours based on family income and types of financial aid, excluding parental education. The model summary and ANOVA indicated that the overall regression for the six predictor variables had statistical significance, with $R = .61$, $R^2 = .37$, adjusted $R^2 = .37$, $F(6,2215) = 216.39$, $p < .05$. The model with the predictor variables of family income and types of financial aid (grants, loans, scholarships, work-study, and other) accounted for 37% of any variance in persistence, with grants having the largest unique contribution. The model had statistical significance for predicting persistence, as measured by completed college credit hours for Year 3 of student enrollment. Table 4.11 shows the results of standard multiple regression used to predict persistence, as measured by completed college hours (Y) from family income, grants, scholarships, loans, work-study, and other.

Table 4.11

Results of Standard Multiple Regression to Predict Persistence, as Measured by Completed College Hours (Y) From Family Income, Grants, Scholarships, Loans, Work-Study, and Other – Before Fall 2019, Excluding Parental Highest Education Level

Variable	Persistence	Family income	Grants	Work-study	Scholarships	Loans	Other		*b*	*B*	sr^2_{unique}
Family income	0.00								0.00*	0.31	0.07
Grants	0.47	-0.53							0.00*	0.69	0.32
Work-study	0.13	-0.03	0.14						0.00*	0.05	<.01
Scholarships	0.16	0.11	-0.14	-0.03					0.00*	0.22	0.05
Loans	0.02	0.22	-0.21	-0.03	-0.07				0.00*	0.12	0.01
Other	0.04	0.03	-0.07	-0.03	0.03	-0.06			0.00*	0.08	0.01
								Intercept =	9.243*		
Mean	25.2	37855.5	7539.0	292.5	748.5	1695.8	157.4				
SD	10.1	42107.3	4667.0	1079.7	1918.2	2573.0	1100.9				
								R^2	= .370		
								R^2_{adj}	= .368		
								R	= .608 *		

Note. Table format adapted from Tabachnick and Fidell (2007), as cited by Warner, 2013, p. 574.

*$p < .05$

Additionally, a stepwise multiple linear regression analysis commenced with the same dependent variable and independent variables. Appendix H shows the SPSS results for the 1819 linear regression stepwise. The model summary and ANOVA showed that the stepwise model presented the six independent variables of scholarships, grants, work-study, loans, family income, and other as significant factors, with $F(6,2215) = 216.39$, $p < .05$, with an R^2 of .37. In this analysis, grants contributed to 21.9% of the total variance in persistence, as measured by completed college credit hours. Family income contributed to an additional 8.6% of the variance, while scholarships contributed to 4.4% of the variance. Loans contributed to 1.1% of the variance. Other contributed to 0.7% of the variance, and work-study contributed to 0.3% of the variance.

As a result, the null hypothesis is rejected. A relationship existed between persistence, as measured by completed college credit hours before Fall 2019, and family income and type of financial aid (grants, loans, scholarships, work-study, and other) for first-time, full-time college students entering a university in Fall 2016.

Null Hypothesis 4

There is no relationship between persistence, as measured by completed college credit hours before Fall 2020 and family income, parental education level, and type of financial aid (grants, loans, scholarships, work-study, and other) for first-time, full-time college students entering a university in Fall 2016.

Multiple linear regression analysis commenced to test if a relationship existed between persistence, as measured by completed college credit hours before Fall 2020, and the independent variables of family income; parental education level; and type of financial aid

(grants, loans, scholarships, work-study, and other). Furthermore, the analysis was the means used to determine "how much unique variance in the dependent variable each of the independent variables explained" (Pallant, 2010, p. 149). SPSS was the software used to consolidate, organize, and import the Microsoft Excel file containing the data set for analysis. This null hypothesis required analyzing the data before Fall 2020; therefore, this data set included only students with financial aid applications who indicated parental education level enrolled at the institution for Fall 2019 through Summer 2020. The original sample consisted of 3,616 first-time, full-time students who started college in Fall 2016; however, there were 1,814 students excluded due to no enrollment, no financial aid application, or parental education level response. Therefore, the final sample consisted of n = 1,802.

Analysis of the appropriate data set for this hypothesis occurred in SPSS. In SPSS, the analysis consisted of going to the data menu, choosing "select cases" and "if condition is satisfied" and moving over 1920PERSISTED to select only the students enrolled at the institution between Fall 2019 and Summer 2020, 1920FAFSATASFA=1 to select only cases for students with financial aid applications, and 1920PARENT_HIGHEST_ED_LVL>=2. Setting the highest parental education level at 2 or higher was the means used to exclude any students who did not report this value or reported 1 for *other/unknown*. After identifying the data set, a multiple linear regression commenced with the standard or enter method. The standard multiple regression occurred by entering the dependent variable and entering all the predictor variables simultaneously. From the statistics menu, the analysis began with selecting estimates, confidence intervals at the 95% level, model fit, descriptives, part and partial correlations, and collinearity diagnostics. Under the residuals section, the analysis occurred by selecting case-wise diagnostics with outliers outside three standard deviations. From the options menu, the analysis consisted of

selecting the missing values section and checking “exclude cases pairwise.” The analysis commenced to exclude subjects missing one of the variables from the analysis. From the plots menu, the analysis consisted of moving *ZRESID to the Y-axis and *ZPRED to the X-axis. From the standardized residual plots, the next step consisted of selecting a normal probability plot. This process produced n = 1,802, which included all the enrolled students for AY 1920 with financial aid applications who had indicated parental education level.

Appendix I shows the SPSS results for the AY 1920 linear regression standard (enter) method. The correlations indicate that the independent variables had some relationship with the dependent variable, with grants having the strongest correlation at .48. The correlations also provided the opportunity to check for multicollinearity. Some correlation existed between the independent variables; however, it was below .7. Furthermore, in reviewing the coefficients under collinearity statistics, the tolerance showed values above .10, indicating no multicollinearity. A value less than .10 would have suggested the possibility of multicollinearity among variables (Pallant, 2010). The results also showed VIF below 10, further indicating no multicollinearity. A value above 10 would also have been an indicator of multicollinearity (Pallant, 2010).

The normal P-P plot of regression standardized residual showed points very close to the best fit line, and the scatterplot showed a few outliers. The results also showed some standardized residuals near -4 and +4, with one beyond +4 and one to two beyond -4. The case-wise diagnostics showed 12 cases with a standardized residual value above 3 or below -3, which comprised no more than 1% of the total cases in the sample, indicating a normally distributed sample (Pallant, 2010).

The next step was to evaluate the model to determine its effectiveness, statistical significance, and accuracy in predicting the outcome. The model summary shows an R^2 that indicates how much the model accounts for the variance in the dependent variable, 1920 completed persistence, as measured by completed college credit hours. The R^2 of .37 indicates that the model with the predictor variables of family income, parental education level, and type of aid (scholarships, work-study, grants, loans, and other) accounts for about 37% of the variance in persistence. The results showed that, in the fourth year of enrollment, other factors accounted for 63% of the variance in persistence.

The next step was to assess the statistical significance of the model and its statistical significance as a predictor of the outcome. An analysis of the ANOVA commenced to determine whether the model was an accurate predictor of the outcome. The ANOVA showed a p value less than .05, which showed the statistical significance of the model.

The overall regression, for the full model, had statistical significance, $R = .60$, $R^2 = .37$, adjusted $R^2 = .36$, $F(7,1794) = 147.22$, $p < .05$. Table 4.12 shows the results of the standard multiple regression used to predict persistence, as measured by completed college hours (Y) from highest parental education level, family income, grants, scholarships, loans, work-study, and other.

Table 4.12

Results of Standard Multiple Regression to Predict Persistence, as Measured by Completed College Hours (Y) From Parental Highest Education Level, Family Income, Grants, Scholarships, Loans, Work-Study, and Other – Before Fall 2020

Variable	Persistence	Parental highest education level	Family income	Grants	Work-study	Scholarships	Loans	Other		b	*B*	sr^2_{unique}
Parental highest education level	0.02									0.95*	0.07	<.01
Family income	-0.02	0.27								0.00*	0.24	0.04
Grants	0.48	-0.22	-0.50							0.00*	0.66	0.31
Work-study	0.11	-0.03	-0.04	0.15						0.00	0.04	<.01
Scholarships	0.18	0.05	0.05	-0.06	0.00					0.00*	0.20	0.04
Loans	0.09	0.14	0.24	-0.19	-0.05	0.00				0.00*	0.15	0.02
Other	0.02	0.08	0.04	-0.05	-0.02	0.01	-0.06			0.00*	0.05	<.01
									Intercept =	6.819*		
Mean	24.5	3.3	40544.4	6933.0	255.1	998.1	1837.6	126.5				
SD	10.1	0.7	47401.7	4542.6	971.8	1771.5	2704.9	974.2				
									R^2 = .365			
									R^2_{adj} = .362			
									R = .604 *			

Note. Table format adapted from Tabachnick and Fidell (2007), as cited by Warner, 2013, p. 574.

*$p < .05$

The next step was to determine which variables contributed the most to the prediction of the outcome. In the coefficients, under standardized coefficients beta, grants (.66) had the strongest contribution to the outcome, followed by family income (.24), scholarships (.20), loans (.15), other (.05), work-study (.04), and highest parental education level (.07). The coefficients were also used to check the statistical significance of the variables' contribution. Each variable, under sig., had statistical significance less than .05 for six of the seven variables. The six variables were significant unique contributors to the prediction of the outcome. Work-study had a value of .07; therefore, this variable did not have statistical significance.

Work-study did not have statistical significance; therefore, an additional analysis commenced to predict college persistence, as measured by completed college credit hours based on parental education level, family income, and types of financial aid, excluding work-study. The model summary and ANOVA of the overall regression for the six predictor variables had statistical significance, with $R = .60$, $R^2 = .36$, adjusted $R^2 = .36$, $F(6,1795) = 170.97$, $p < .05$. The model with the predictor variables of family income; parental education level; and types of financial aid (grants, loans, scholarships, and other) accounted for 36% of any variance in persistence, with grants having the largest unique contribution. Therefore, the statistically significant model was a means of predicting persistence, as measured by completed college credit hours, for Year 4 of student enrollment. Table 4.13 shows the results of the standard multiple regression used to predict persistence, as measured by completed college hours (Y) from highest parental education level, family income, grants, scholarships, loans, and other.

Table 4.13

Results of Standard Multiple Regression to Predict Persistence, as Measured by Completed College Hours (Y) From Parental Highest Education Level, Family Income, Grants, Scholarships, Loans, and Other – Before Fall 2020, Excluding Work-Study

Variable	Persistence	Parental highest education level	Family income	Grants	Scholarships	Loans	Other		*b*	*B*	sr^2_{unique}
Parental highest education level	0.02								0.95*	0.07	<.01
Family income	-0.02	0.27							0.00*	0.25	0.04
Grants	0.48	-0.22	-0.50						0.00*	0.66	0.32
Scholarships	0.18	0.05	0.05	-0.06					0.00*	0.20	0.04
Loans	0.09	0.14	0.24	-0.19	0.00				0.00*	0.15	0.02
Other	0.02	0.08	0.04	-0.05	0.01	-0.06			0.00*	0.05	<.01
								Intercept =	6.814*		
	24.5	3.3	40544.4	6933.0	998.1	1837.6	126.5				
Mean	10.1	0.7	47401.7	4542.6	1771.5	2704.9	974.2				
SD								R^2	= .364		
								R^2_{adj}	= .362		
								R	= .603 *		

Note. Table format adapted from Tabachnick and Fidell (2007), as cited by Warner, 2013, p. 574.

*$p < .05$

Additionally, a stepwise multiple linear regression analysis commenced with the same dependent variable and independent variables. Appendix K shows the SPSS results for the AY 1920 linear regression stepwise. The model summary and ANOVA showed that the stepwise model presented the six independent variables of grants, family income, scholarships, loans, parental education level, and other as significant factors, with $F(6,1795) = 170.97$, $p < .05$, with an R^2 of .36. In this analysis, grants contributed to 23% of the total variance in persistence, while family income contributed to an additional 6.4%. Scholarships contributed to 4.1% of the variance, and loans contributed to 2.2% of the variance. Additionally, the highest parental education level contributed to 0.4% of the variance, and other contributed to 0.2% of the variance.

As a result, the null hypothesis was rejected. A relationship existed between persistence, as measured by completed college credit hours before Fall 2020, and family income; parental education level; and type of financial aid (grants, loans, scholarships, other) for first-time, full-time college students entering a university in Fall 2016.

Summary

The results of this study show that the data rejected the four null hypotheses that were tested in this study where the relationship was examined between college persistence, as measured by completed college credit hours, before Fall 2017, 2018, 2019, and 2020, and family income, parental education level, and type of financial aid (grants, loans, scholarships work-study, and other) among first-time, full-time economically disadvantaged Hispanic students at a South Texas HSI. Multiple linear regression occurred independently for enrolled students in each academic year. The results showed that in all 4 years, grants were consistently the top contributing variable to the total variance in predicting persistence. In the first year of enrollment

(AY 1617), all seven predictor variables showed significance, with grants and scholarships being the top two contributing variables for predicting persistence. For students enrolled in the second year (AY 1718), six of the seven predictor variables showed significance, with grants and scholarships being the top two contributing variables for predicting persistence, followed by family income. Parental education level lacked significance. For students enrolled in the third year (AY 1819), six of the seven predictor variables showed significance, with grants and family income being the top two contributing variables for predicting persistence, followed by scholarships. Parental education level lacked significance. For students enrolled in the fourth year (AY 1920), six of the seven predictor variables showed significance, with grants and family income being the top two contributing variables for predicting persistence, followed by scholarships. Work-study lacked significance. (See Table 4.14.)

Student Loans

Regarding student loans, the variance contribution from the stepwise method for this predictor variable ranged between 1.1% and 2.2% in all 4 years, as shown in Table 4.14. Student loans were the fourth contributing variable to the total variance. The results showed minimal percentage contribution; however, the variable remained significant in all 4 years.

Table 4.14

Variance Contributions

Predictor variables	Stepwise method variance contribution			
	1617	1718	1819	1920
Grants	2.4%	14.0%	21.9%	23.0%
Scholarships	8.6%	8.3%	4.4%	4.1%
Family income	0.9%	7.2%	8.6%	6.4%
Loans	1.1%	1.7%	1.1%	2.2%
Work-study	1.1%	0.4%	0.3%	
Other	0.6%	0.6%	0.7%	0.2%
Parental highest education level	0.6%			0.4%
Total variance	15.3%	32.2%	37.0%	36.4%

Table 4.15 shows the data for students with loans and other types of aid. The mean borrowed for each year was below $5,000. The mean attempted averaged at 30 hours, and the mean completed averaged at 25, indicating an attempted to complete hours mean of 82%. Mean family income averaged at $52,622, with the mean parental education level at 3 (high school level).

Table 4.16 shows the data for students who only took loans and did not receive other types of aid. The mean borrowed for each year was below $6,000. The mean attempted averaged at 26 hours and the mean completed averaged at 21, indicating an attempted to complete hours mean of 82%. Mean family income averaged at $113,129, with the mean parental education level at 4 (college or beyond).

Table 4.15

Loans and All Types of Aid

Academic year	# of students	Mean borrowed	Mean attempted	Mean completed	Attempted to completed	Mean family income	Mean parental education level
1617	721	3838.34	30	24	80%	61294.16	3
1718	776	3967.67	31	25	81%	52577.79	3
1819	871	4473.07	30	25	83%	46398.65	3
1920	767	4983.66	28	24	86%	50216.28	3

Table 4.16

Loans Only – No Other Aid

Academic year	# of students	Mean borrowed	Mean attempted	Mean completed	Attempted to completed	Mean family income	Mean parental education level
1617	114	4971.16	27	22	81%	117860.95	4
1718	149	5299.07	26	21	81%	108533.02	4
1819	101	5822.24	28	23	82%	106912.3	4
1920	67	5067.31	22	18	82%	119209.97	4

CHAPTER V

SUMMARY, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

The purpose of this study was to examine the relationship between college persistence and family income, parental education level, and type of financial aid for first-time, full-time, economically disadvantaged Hispanic students at a South Texas HSI. Data analysis occurred with multiple linear regression analysis with one dependent variable (criterion) of college persistence, as measured by completed college credit hours, and seven independent (predictor) variables of family income; parental education level; and types of financial aid, including grants, loans, scholarships, work-study and other.

Chapter 1 presented the problem, which was that college costs have an adverse impact on the persistence of Hispanic students of low socioeconomic status. Additionally, the subsections of this chapter set the foundations and rationale for conducting the study. Chapter 2 of this dissertation was a review of the extant research and literature on these topics. The areas of focus included the growth of the Hispanic population in Texas, the means of measuring persistence, the importance of persistence, Hispanic students' persistence, college prices and their various components, and the impact of student loan debt. Chapter 3 presented the methodology used in this study. The chapter provided a detailed review of the research design, null hypotheses, variables used, and the criterion and predictor variables. The chapter also presented the population and sample used in the study, as well as the ethical considerations, data collection

procedures, data analysis steps, and delimitations and limitations. Chapter 4 presented the detailed step-by-step process used for the data analysis and the findings to address the null hypotheses. Chapter 5 includes a summary, discussion, conclusions, implications, and recommendations for further study

Summary

In this study, multiple regression analysis was used to examine the relationship between the dependent variable and independent variables. Multiple linear regression is a statistical method for analyzing data when there are two or more independent (predictor) variables that indicate an outcome (criterion variable). The goal of the multiple linear regression is to find the best-fitting linear model for the relationships between the predictor variables and the criterion variable. In this study, multiple linear regression with the standard or enter method commenced to analyze the relationship between the dependent variable (criterion) of college persistence and the independent (predictor) variables of family income, parental education level, and type of financial aid. The standard or enter method commenced to enter the dependent variable and enter all the predictor variables simultaneously.

The standard (enter) method multiple linear regression analysis was the approach used to predict college persistence based on family income, parental education level, and type of financial aid for each null hypothesis. For Null Hypothesis 1, the results showed a significant regression equation for the full model, with $F(7,3248) = 83.69$, $p < .05$) and an R^2 of .15. Additionally, stepwise multiple linear regression analysis occurred with the same dependent variable and independent variables. The stepwise model presented the seven independent variables of scholarships, grants, work-study, loans, family income, other, and parental education level as significant factors, with $F(7,3248) = 83.69$, $p < .05$, with an R^2 of .15. In this analysis,

scholarships contributed to 8.6% of the total variance in persistence, grants contributed to an additional 2.4%, work-study contributed to 1.1%, loans contributed to 1.1%, family income contributed to 0.9%, other contributed to 0.6%, and parental education level contributed to 0.6%.

For Null Hypothesis 2, the results showed a significant regression equation for the full model, with $F(7,2600) = 176.83$, $p < .05$, and an R^2 of .32. One independent variable, parental education level, lacked significance; therefore, an additional analysis commenced to predict college persistence, as measured by completed college credit hours based on family income and types of financial aid, excluding parental education level. The results showed a significant regression equation for this model, with $F(6,2601) = 206.03$, $p < .05$, and an R^2 of .32. Additionally, stepwise multiple linear regression analysis occurred with the same dependent variable and independent variables. The stepwise model presented the six independent variables of scholarships, grants, work-study, loans, family income, and other as significant factors, with $F(6,2601) = 206.03$, $p < .05$, with an R^2 of .32. In this analysis, grants contributed to 14% of the total variance in persistence, as measured by completed college credit hours, scholarships contributed to an additional 8.3%, family income contributed to 7.2%, loans contributed to 1.7%, other contributed to 0.6%, and work-study contributed to 0.4%.

For Null Hypothesis 3, the results showed a significant regression equation for the full model, with $F(7,2214) = 185.89$, $p < .05$, and an R^2 of .37. One independent variable, parental education level, lacked significance. Therefore, an additional analysis commenced to predict college persistence, as measured by completed college credit hours based on family income and types of financial aid, excluding parental education level. The results showed a significant regression equation for this model, with $F(6,2215) = 216.39$, $p < .05$), with an R^2 of .37. Additionally, a stepwise multiple linear regression analysis occurred with the same dependent

variable and independent variables. The stepwise model presented the six independent variables of scholarships, grants, work-study, loans, family income, and other as significant factors, with $F(6,2215) = 216.39$, $p < .05$, and an R^2 of .37. In this analysis, grants contributed to 21.9% of the total variance in persistence, family income contributed to an additional 8.6%, scholarships contributed to 4.4%, loans contributed to 1.1%, other contributed to 0.7%, and work-study contributed to 0.3%.

For Null Hypothesis 4, the results showed a significant regression equation for the full model, with $F(7,1794) = 147.22$, $p < .05$, and an R^2 of .37. One independent variable, work-study, lacked significance. Therefore, an additional analysis commenced to predict college persistence, as measured by completed college credit hours based on parental education level, family income, and types of financial aid, excluding work-study. The results showed a significant regression equation for this model, with $F(6,1795) = 170.97$, $p < .05$, and an R^2 of .36. Additionally, stepwise multiple linear regression analysis commenced with the same dependent variable and independent variables. The stepwise model presented the six independent variables of grants, family income, scholarships, loans, parental education level, and other as significant factors, with $F(6,1795) = 170.97$, $p < .05$, and an R^2 of .36. In this analysis, the grants contributed to 23% of the total variance in persistence, as measured by completed college credit hours, family income contributed to an additional 6.4%, scholarships contributed to 4.1%, loans contributed to 2.2%, highest parental education level contributed to 0.4%, and other contributed to 0.2%.

Conclusions

The results of this study concluded that there was a relationship between persistence, as measured by completed college credit hours, and family income; parental education level; and type of financial aid (grants, scholarships, loans, work-study, and other). For the 4 academic years in the study, grants and scholarships were among the top three contributing variables of the total variance in predicting persistence. The results of this study are consistent with existing research.

The model for Year 1 of enrollment (AY 1617) accounted for 15% of the variance in persistence. The study's results showed that other factors accounted for 85% of the variance in persistence. This finding is consistent with Tinto's theory of student departure in that during Year 1, students are going through the process of acclimation and transition from a high school to a college setting. According to Tinto (1975), persistence and dropout can be impacted by the individual's interactions in various settings such as academic and social systems. Berger and Braxton (1998) further support that institutional attributes impact student withdrawal. During year 1, a student's financial aid package is just a portion of these social adjustments and interactions.

Furthermore, Year 1 results showed that scholarships and grants were the top two contributing variables to predict persistence. For Year 1, academic performance in high school and FAFSA information determine a student's financial aid package. Le (2016) looked at the variables of student background characteristics and high school performance, including high school GPA and ACT composite scores, to determine their impact on student persistence beyond the first year of college. Le noted, "Spring semester GPA was strongly associated with student persistence" (p. 116). Additionally, Le found student performance during the first spring

semester in college a strong predictor of whether a student would persist beyond the first year of college. Notably, high school GPA was the strongest predictor of spring GPA. College performance is not a consideration in determining financial aid eligibility until after a student completes the first semester in college.

In this study, the model for Year 2 of enrollment (1718) accounted for 32% of the variance in persistence, as measured by completed college credit hours. For Year 2, academic performance in college determines a student's eligibility for financial aid. In Year 2, grants and scholarships were the top two contributing variables to the total variance in predicting persistence. This finding supports a previous study by Hwang (2003) which showed that more grant aid increases persistence. In fact, Hwang (2003) found that a $1,000 grant increase yielded a higher likelihood of persistence.

The model for Year 3 of enrollment (1819) produced similar results. In Year 3, academic performance in the prior year continued to impact aid eligibility. The model in this study accounted for 37% of the variance in persistence, and grants and scholarships were the top two contributing variables. Similar to Hwang (2003), these finding also support a previous study conducted by Franke (2012). Franke (2012) also found that a $1000 increase in federal grant aid correlated with the likelihood of low-income student graduation.

Additionally, the model for Year 4 (AY 1920) accounted for 36% of the variance in persistence, with grants and scholarships among the top three variables. Again, academic performance determined aid eligibility in Year 4. Determining why grants and scholarships continue to be the top variables in all 4 years requires noting that although grants have a need-based component, students must progress academically in college to maintain their eligibility. The U.S. Department of Education requires institutions of higher education (IHEs) to conduct

the Satisfactory Academic Progress assessment after each completed term to measure students' progression via several standards. The Satisfactory Academic Progress assessment is a means of determining federal program eligibility, as well as continued eligibility for state and institutional programs.

> Federal Title IV financial aid regulations require students receiving federal student financial aid to meet Satisfactory Academic Progress (SAP) standards in order to maintain eligibility for the aid. There are three components of SAP: a qualitative standard (i.e., grade point average), pace of progression (number of credits attempted and earned), and a Maximum Time Frame to complete the degree or program (The University of Texas Rio Grande Valley, 2020).

Similarly, academic performance determined scholarship eligibility, regardless of whether students received renewable or one-semester or 1-year awards. Depending on the structure of the scholarship program, students might have to enroll in a minimum number of hours per semester, complete a minimum number of hours per semester or academic year, and maintain a minimum GPA to receive the awards during the current or subsequent semesters. The findings of this study aligned with Le's (2016) recommendation for IHEs to not only focus on students' transition from high school to college in Year 1 but to create financial aid programs to encourage academic performance. Financial aid programs with minimum-hour enrollment, completion, and GPA requirements are critical to encouraging and supporting persistence.

Implications and Recommendations for Practitioners

This study's data and statistical analyses have several implications relevant to the theory, practice, and research of higher education and IHEs. One major implication is that the results of this study suggest that although many factors have a role in student persistence, financial aid packages and the types of aid awarded have a significant relationship to student persistence. Tinto's (1975) theory of student departure and Becker's (1975) human capital theory indicate the importance of financial aid in enabling students to achieve their higher education goals. The loss of financial aid eligibility could result in involuntary attrition and withdrawal or dropout from college. There is a need to educate students and families on the benefits and value of 4-year degree so they consider college's cost, time, and effort worthwhile investments in the future. Such education could encourage students to persist and ultimately receive their degrees.

Another implication of this study is IHE's ability to effectively manage their institutional funds and use available sources to develop financial aid and scholarship programs to promote persistence. Although the federal government indicates how to award federal funds, IHEs can create programs with other less-restrictive funds, such as state, institutional, and private sources. IHE administrators should assess and develop programs for recruiting students to their institutions in Year 1. Although students may find a meaningful and robust financial aid and scholarship package attractive, IHEs must also consider the feasibility of sustaining those programs beyond Year 1 and tie academic performance factors to the extended programs. Continuous assessment of the utilization of funds and the success factors of programs could be a critical way to adjust to the evolving higher education horizon. Proper administration of the financial aspect of higher education is a critical part of IHEs successfully supporting their students and improving retention and graduation rates.

Another implication of this study is the study's contribution to the research on higher education, particularly HSIs. As the Hispanic population continues to grow, it is imperative to continue to add to the body of knowledge regarding the relationship between financial aid and the persistence of Hispanic economically disadvantaged students. HACU (2021) notes that by 2025, over 4.4 million Hispanic students will be enrolled in postsecondary institutions. In Texas, according, to the U.S. Census Bureau (2020b), the Hispanic or Latino population has become the largest minority group. However, as noted in the statement of the problem, of the Texas population aged 25 years and over who have attained a bachelor's degree or higher, only 16.1% are Hispanic or Latino (U.S. Census Bureau, 2020a). Furthermore, Hispanics comprised 35.3% of the total population who enrolled in a Texas public or independent institution for Fall of 2014; however, only 58.6% graduated in 6 years, compared to 73.2% of White students (Texas Higher Education Coordinating Board, n.d.). The results of this study found that the types of financial aid awarded have a significant relationship to student persistence, in particular grants and scholarships. As recommended by Frank (2012), "investment in form of need-based grant aid should be strengthened at the federal and state level (p.188). HSI's must continue to advocate for increases in federal and state grant programs, as well as develop institutional grant and scholarship programs to improve retention and graduation rates of the growing Hispanic student population who are and will be enrolled in higher education institutions.

The final implication related to student loans is the strategic use of student loans to support student persistence. The study found a relationship between student loans and student persistence. The literature review showed the apprehension of student loan borrowing; however, student loans are often a necessary means of financing education. While debt aversion is important, Avery and Turner (2012) noted that student loan debt has increased significantly since

the 1990's. For students that qualify for very little or no grant aid or scholarships, student loans assist in meeting this gap (Dwyer et al., 2012). Student loans are even more important for students whose parents cannot provide the estimated family contribution as determined by the FAFSA information.

Furthermore, Becker's (1975) human capital theory aligned with the findings of this study. As explained in detail in chapter 1, Human Capital Theory acknowledges that people are willing to invest in themselves, such as borrowing student loans, if they expect to receive a return on their investment. By demystifying student loan debt, IHEs practitioners can educate students on responsible student loan borrowing versus not continuing their education. Choe et al. (2015) stated that investing in a college education will yield higher lifetime earnings. Flores and Park (2015) also found that students saw the benefits of acquiring additional skills which would make them more competitive in the labor market; thus, seeing the investment in their education worthwhile. Consequently, IHEs should establish loan default prevention programs to avoid discouraging students from borrowing, focus on the educational aspect of responsible loan borrowing, and ensure that students utilize this federal program to support their educational endeavors.

The results of this study showed that the average income for students who borrowed and had other types of aid ranged from $46,000 to $61,000. The average family income for students that received loans only ranged from $106,000 to $119,000. In one assessment, students used the loans to supplement their financial aid packages to meet their educational needs; in another, higher-income students used loans as their only source of financial aid to finance their education. IHEs, particularly HSIs, have an obligation to provide for the higher education needs of the growing Hispanic population. This study presented findings useful for HSIs to effectively and

efficiently develop and use financial aid programs to improve student retention and graduation rates at their institutions.

IHEs must ensure that all federal programs, including student loans, are utilized to support student persistence. IHEs; however, must also strategically assess their available funds to create financial aid and scholarship programs. By identifying institutional, state, and private funds with the flexibility needed to develop programs and establish awards and renewable requirements, institutions could positively impact persistence. IHEs with large economically disadvantaged Hispanic student populations must provide financial aid and scholarship programs that produce positive persistence results. Although financial aid factors contribute to only a portion of persistence, they are still significant.

Recommendations for Further Research

There is a need for additional research on student persistence. Recommendations for further study include:

1. The total variance of the predictor variables for each model ranged from 15% to 37%. This finding suggests that other factors ranging from 63% to 85% have an impact on student persistence. Additional research on the nonfinancial aid factors impacting student persistence would help higher education administrators and enrollment managers develop financial aid and scholarship programs to encourage persistence and programming to help students meet and maintain their aid eligibility. IHEs should develop first-year experience programming to support students' transition from high school to college via academic and emotional support services.

Identifying the best combination of financial aid and nonfinancial aid factors could be a way to support students' persistence.

2. The AY 1617 total variance of 15% indicates that other variables have a significant relationship with student persistence in Year 1. This finding also indicates the need for further research on the factors that promote persistence beyond Year 1. New student recruitment and retention enrollment managers must collaborate to identify the high school factors that indicate persistence. Identifying persistence indicators could be a way to develop the recruitment plan, build a healthy student pipeline to support retention and graduation rates, and facilitate collaboration with K–12 partners to support and prepare students before they arrive on college campuses.

3. A need exists for a deeper analysis on assessing grants and scholarship programs with academic persistence components. Such an analysis could enable higher education administrators and enrollment managers to refine those factors, such as hours of enrollment, hours of completion, and minimum GPA requirements, to encourage continuous persistence to support timely graduation.

4. Parental highest education level was a significant contributing variable to the total variance in the first year, AY1617, and the fourth year, AY1920. This finding merits additional research to further analyze the relationship of parental education level in encouraging students to pursue higher education as well as persisting through year four.

5. Additional research is needed to analyze how colleges and universities are utilizing discretionary funds to support student persistence. The assessment of fund

utilization, specifically funds that provide the flexibility to create financial aid and scholarship programs with academic performance components, can further IHE's insight to strategically use available resources.

6. A final recommendation for further research is to examine the impact of the COVID-19 pandemic on student persistence. As of now, there are two high school graduating classes on college campuses, as well as many continuing students, that had to navigate online learning and transition back to traditional learning.

Dissertation Summary

The multiple regression analysis conducted in this study provided insight into the financial aid factors and their relationship to student persistence. The purpose of this study was to examine the relationship between college persistence, as measured by completed college credit hours before Fall 2017, 2018, 2019, and 2020, and family income, parental education level, and type of financial aid (e.g., grants, loans, scholarships, work-study, and other) for first-time, full-time economically disadvantaged Hispanic students at a South Texas HSI.

The sample consisted of students from the HSI's Fall 2016 entering first-year student class. The SAIR provided the student information for this study from the institution's student information system, Banner. Multiple linear regression analysis commenced to determine the total variance caused by the predictor variables. The results showed the significance of all seven predictor variables in Year 1 (AY 1617): family income, parental education level, and type of financial aid (e.g., grants, scholarships, loans, work-study, and other). In Year 2 of enrollment (AY 1718), the results showed the significance of six predictor variables: family income and type of financial aid (grants, scholarships, loans, work-study, and other); parental education level

lacked significance. In Year 3 of enrollment (AY 1819), the results showed the significance of six predictor variables: family income and types of financial aid (grants, scholarships, loans, work-study, and other); parental education level lacked significance. In Year 4 of enrollment (AY 1920), the results showed the significance of six predictor variables: family income, parental education level, and type of financial aid (grants, scholarships, loans, and other); work-study lacked significance. Grants and scholarships were consistently the top contributing variables for the 4 years analyzed. The null hypotheses for the present study were tested with the *F*-distribution at the .05 level of significance.

The results of the study showed a relationship between college persistence, as measured by completed college credit hours before Fall 2017, 2018, 2019, and 2020, and family income and type of financial aid (grants, loans, scholarships, and other) among first-time, full-time economically disadvantaged Hispanic students at a South Texas HSI. These results indicate the importance of continued research on the relationship between financial aid factors and student persistence.

REFERENCES

Adam, M. (2007). Use grants, not loans, for getting low-income Hispanics to college. *Education Digest*, *72*(8), 51–55.

Alvarez, C. L. (2016). *Sueños, corazón y posibilidades: Negotiations and the realm of possibility for Latina/o student and parent college-going* (Publication No. 10170623) [Doctoral dissertation, University of California, Los Angeles]. ProQuest Dissertations and Theses Global.

ApplyTexas. (n.d.). *Application*. www.applytexas.org

Astin, A. W. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Personnel*, *25*(4), 297–308.

Avery, C., & Turner, S. (2012). Student loans: Do college students borrow too much—or not enough? *The Journal of Economic Perspectives*, *26*(1), 165–192. https://doi.org/10.1257/jep.26.1.165

Bean, J. P. (1980). Dropouts and turnover: The synthesis and test of a causal model of student attrition. *Research in Higher Education*, *12*(2), 155-187. https://doi.org/10.1007/BF00976194

Becker, G. S. (1975). *Human capital: A theoretical and empirical analysis, with special reference to education* (2nd ed.). National Bureau of Economic Research.

Berger, J., & Braxton, J. (1998). Revising Tinto's interactionalist theory of student departure through theory elaboration: Examining the role of organizational attributes in the persistence process. *Research in Higher Education*, *39*(2), 103–119. https://doi.org/10.1023/A:1018760513769

Braun, T. P. (2016). *Demographic predictors of accrued undergraduate federal student loan debt* (Publication No. 10144900) [Doctoral dissertation, Bowling Green State University]. OhioLINK. https://etd.ohiolink.edu/apexprod/rws_olink/r/1501/10?clear=10&p10_accession_num=bgsu1466007445

Calderone, S. M. (2015). *Uncovering the virtuosities of social class: Family, habitus and postsecondary affordability* (Publication No. 3725871) [Doctoral dissertation, University of California, Los Angeles]. ProQuest Dissertations and Theses Global.

Cho, S. H., Xu, Y., & Kiss, D. E. (2015). Understanding student loan decisions: A literature review. *Family & Consumer Sciences Research Journal*, *43*(3), 229–243. https://doi.org/10.1111/fcsr.12099

Contreras, F., & Contreras, G. J. (2015). Raising the bar for Hispanic serving institutions: An analysis of college completion and success rates. *Journal of Hispanic Higher Education, 14*(2), 151–170. https://doi.org/10.1177/1538192715572892

DiMaria, F. (2008, January 28). Trends in college pricing. *The Hispanic Outlook in Higher Education, 18*, 20–23.

Dwyer, R. E., McCloud, L., & Hodson, R. (2012). Debt and graduation from American universities. *Social Forces, 90*(4), 1133–1155. https://doi.org/10.1093/sf/sos072

Elliott, W., & Friedline, T. (2013). "You pay your share, we'll pay our share": The college cost burden and the role of race, income, and college assets. *Economics of Education Review, 33*, 134–153. https://doi.org/10.1016/j.econedurev.2012.10.001

Elliott, W., & Lewis, M. (2015). Student debt effects on financial well-being: Research and policy implications. *Journal of Economic Surveys, 29*(4), 614–636. https://doi.org/10.1111/joes.12124

Ellucian. (n.d.). *Ellucian Banner Student Information System*. https://www.ellucian.com/solutions/ellucian-banner

Federal Student Aid. (2019). *Data center 2018–2019*. Title IV Program Volume Reports. https://studentaid.ed.gov/sa/about/data-center/student/title-iv

Flores, S. M., & Park, T. J. (2015). The effect of enrolling in a minority-serving institution for Black and Hispanic students in Texas. *Research in Higher Education, 56*(3), 247–276. https://doi.org/10.1007/s11162-014-9342-y

Franke, R. (2012). *Towards the education nation: Revisiting the impact of financial aid, college experience, and institutional context on baccalaureate degree attainment using a propensity score matching, multilevel modeling approach* (Publication No. 3539086) [Doctoral dissertation, University of California, Los Angeles]. *ProQuest Dissertations and Theses Global.*

Fuller, M. B. (2014). "A history of financial aid to students". *Journal of Student Financial Aid, 44*(1), Article 4. https://ir.library.louisville.edu/jsfa/vol44/iss1/4

Hall, R. A. (2009). *Exploring the relationship between perceived cost of attendance and college matriculation* [Doctoral dissertation, Virginia Tech]. VTechWorks. https://vtechworks.lib.vt.edu/handle/10919/29550

Higher Education Act of 1965, Pub. L. No. 89-329.

Hinkle, D. E., Wiersma, W., & Jurs, S. G. (2003). *Applied statistics for the behavioral sciences* (5th ed.). Houghton Mifflin Company.

Hispanic Association of Colleges and Universities. (2021). *2021 fact sheet*. https://www.hacu.net/images/hacu/OPAI/2021_HSI_FactSheet.pdf

Hoogeveen, P. (2009, March 9). ALASS! Texas border institutions take wing. *The Hispanic Outlook in Higher Education, 19*, 10–12.

Hwang, D. (2003). *The impact of financial aid on persistence: Application of the financial nexus model* (Publication No. 3106890) [Doctoral dissertation, University of North Texas]. ProQuest Dissertations and Theses Global.

Jackson, B. A., & Reynolds, J. R. (2013). The price of opportunity: Race, student loan debt, and college achievement. *Sociological Inquiry, 83*, 335–368. https://doi.org/10.1111/soin.12012

Jones-White, D. R., Radcliffe, P. M., Lorenz, L. M., & Soria, K. M. (2014). Priced out? The influence of financial aid on the educational trajectories of first-year students starting college at a large research university. *Research in Higher Education, 55*(4), 329–350. https://doi.org/10.1007/s11162-013-9313-8

Kelly, D. R. (2016). Applying acculturation theory and power elite theory on a social problem: Political underrepresentation of the Hispanic population in Texas. *Hispanic Journal of Behavioral Sciences, 38*(2), 155–165. https://doi.org/10.1177/0739986316638324

Le, K. (2016). *Factors affecting student persistence at public research universities in Oklahoma* (Publication No. 10190774) [Doctoral dissertation, Oklahoma State University]. ProQuest Dissertations and Theses Global.

Lerma, S. L. (2018). *Persistence of first-generation, part-time, Hispanic students in community colleges* [Doctoral dissertation, Texas Tech University]. Texas Tech University Libraries. http://hdl.handle.net/2346/74377

Moreno, R. (2014). *An analysis of current and former residential student academic success at a Hispanic serving institution on the United States-Mexico border* (Publication No. 3623442) [Doctoral dissertation, The University of Texas at El Paso]. ProQuest Dissertations and Theses Global.

Orefice, B. (2007). *Student perceptions of the impact of their merit-based financial aid on their college experiences* [Doctoral dissertation, The Ohio State University]. OhioLINK. https://etd.ohiolink.edu/apexprod/rws_olink/r/1501/10?clear=10&p10_accession_num=osu1187024773

Pallant, J. (2010). *SPSS survival manual: A step by step guide to data analysis using SPSS*. McGraw-Hill Education.

Pascarella, E. T., & Terenzini, P. T. (1980). Predicting freshman persistence and voluntary dropout decisions from a theoretical model. *The Journal of Higher Education, 51*(1), 60–75. https://doi.org/10.1080/00221546.1980.11780030

Reisinger, S. (2016). *Using a revised theory of student departure to understand student athlete persistence* (Publication No. 10143077) [Doctoral dissertation, The University of Iowa]. ProQuest Dissertations and Theses Global.

Santiago, D. A. (2012). Public policy and Hispanic-serving institutions: From invention to accountability. *Journal of Latinos and Education, 11*(3), 163–167. https://doi.org/10.1080/15348431.2012.686367

Spady, W. G. (1971). Dropouts from higher education: Toward an empirical model. *Interchange, 2*(3), 38–62. https://doi.org/10.1007/BF02282469

Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (7th ed.). Pearson.

Texas Higher Education Coordinating Board Accountability System. (n.d.). *Graduation rates*. http://www.txhigheredaccountability.org/AcctPublic/InteractiveReport/Predefined

Texas Higher Education Coordinating Board. (2015). *Texas higher education strategic plan: 2015–2030*. http://reportcenter.highered.texas.gov/agency-publication/miscellaneous/60x30tx-strategic-plan-for-higher-education/

Texas Higher Education Coordinating Board. (2021). *Reporting and procedures manual for Texas public universities*. https://reportcenter.highered.texas.gov/agency-publication/guidelines-manuals/reporting-and-procedures-manual-for-texas-public-universities-spring-2021/

Texas Higher Education Coordinating Board. (2022). *Types of financial aid.* http://www.collegeforalltexans.com/index.cfm?objectid=699B6A67-A725-CF93-E4BE5B7F74474508

The University of Texas Rio Grande Valley. (n.d.a). *Institutional summary 2021-2022.* https://www.utrgv.edu/sair/data-reports/instsummary2022.pdf

The University of Texas Rio Grande Valley. (n.d.b). *UTRGV enrollment profile fall 2016 entering freshman (first-time in college).* https://www.utrgv.edu/sair/_files/documents/utrgv%20fall%202016%20entfreshenprofile.pdf

The University of Texas Rio Grande Valley. (2020). *Satisfactory academic progress policy for undergraduates*. https://www.utrgv.edu/ucentral/_files/documents/fin-aid/1819/1819-sap-policy-undergraduates.pdf

Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Educational Research*, *45*(1), 89–125. https://doi.org/10.3102/00346543045001089

Tinto, V. (1987). *Leaving college: Rethinking the causes and cures of student attrition*. University of Chicago Press.

U.S. Census Bureau. (2020a). *American Community Survey*. https://data.census.gov/cedsci/table?t=Educational%20Attainment&g=0400000US48

U.S. Census Bureau. (2020b). *Racial and ethnic diversity in the United States: 2010 Census and 2020 Census*. https://www.census.gov/library/visualizations/interactive/racial-and-ethnic-diversity-in-the-united-states-2010-and-2020-census.html

U.S. Department of Education. (n.d.). *Federal student aid: Types of financial aid*. https://studentaid.gov/understand-aid/types

U.S. Department of Education. (2021a). *Application and verification guide*. https://fsapartners.ed.gov/sites/default/files/2021-03/2021FSAHbkAVG.pdf

U.S. Department of Education. (2021b). *EFC formula guide*. https://fsapartners.ed.gov/sites/default/files/attachments/2019-10/2021EFCFormulaGuideOct2019UpdateAttach.pdf

U.S. Department of Education. (2021c). *Federal student aid handbook.* https://fsapartners.ed.gov/knowledge-center/fsa-handbook/pdf/2020-2021

Venezia, S. (2017). *The relationship between financial aid and graduation rates for rural community college students* [Doctoral dissertation, Ohio University]. OhioLINK. https://etd.ohiolink.edu/!etd.send_file?accession=ohiou1487949882282262&disposition=inline

Warner, R. M. (2013). *Applied statistics: From bivariate through multivariate techniques* (2nd ed.). SAGE Publications.

Wright, C. R. (2013). *Hispanic student access to a higher education institution along the Texas-México border* (Publication No. 3563275) [Doctoral dissertation, The University of Texas at San Antonio]. ProQuest Dissertations and Theses Global.

Wu, X. (2015). *Student loan debt: Causes and consequences* [Doctoral dissertation, The Ohio State University]. OhioLINK. https://etd.ohiolink.edu/pg_10?0::NO:10:P10_ACCESSION_NUM:osu1429828545#abstract-files

APPENDIX A

APPENDIX A

1617 LINEAR REGRESSION STANDARD (ENTER) METHOD

Descriptive Statistics

	Mean	Std. Deviation	N
1617COMPLETED	23.05	8.627	3256
1617PARENT_HIGHEST_ED_LVL	3.30	.696	3256
1617FAMILY INCOME	40920.39	51143.244	3256
1617GRANTS_TOT_ACPT	7765.3592	4162.13103	3256
1617WORKSTUDY_TOT_ACPT	151.1332	726.29519	3256
1617SCHOLARS_TOT_ACPT	975.4063	2092.94452	3256
1617LOANS_TOT_ACPT	830.25	1871.771	3256
1617OTHER_TOT_ACPT	172.7373	1096.11175	3256

Correlations

		1617COMPLETED	1617PARENT_HIGHEST_ED_LVL	1617FAMILY INCOME	1617GRANTS_TOT_ACPT	1617WORKSTUDY_TOT_ACPT	1617SCHOLARS_TOT_ACPT	1617LOANS_TOT_ACPT	1617OTHER_TOT_ACPT
Pearson Correlation	1617COMPLETED	1.000	.091	.128	.022	.103	.293	.075	.051
	1617PARENT_HIGHEST_ED_LVL	.091	1.000	.292	-.303	.022	.026	.158	.084
	1617FAMILY INCOME	.128	.292	1.000	-.639	-.007	.114	.266	.093
	1617GRANTS_TOT_ACPT	.022	-.303	-.639	1.000	.043	-.139	-.346	-.146
	1617WORKSTUDY_TOT_ACPT	.103	.022	-.007	.043	1.000	-.013	.027	-.033
	1617SCHOLARS_TOT_ACPT	.293	.026	.114	-.139	-.013	1.000	-.044	-.020
	1617LOANS_TOT_ACPT	.075	.158	.266	-.346	.027	-.044	1.000	-.042
	1617OTHER_TOT_ACPT	.051	.084	.093	-.146	-.033	-.020	-.042	1.000
Sig. (1-tailed)	1617COMPLETED	.	.000	.000	.103	.000	.000	.000	.002
	1617PARENT_HIGHEST_ED_LVL	.000	.	.000	.000	.110	.068	.000	.000
	1617FAMILY INCOME	.000	.000	.	.000	.340	.000	.000	.000
	1617GRANTS_TOT_ACPT	.103	.000	.000	.	.007	.000	.000	.000
	1617WORKSTUDY_TOT_ACPT	.000	.110	.340	.007	.	.232	.060	.031
	1617SCHOLARS_TOT_ACPT	.000	.068	.000	.000	.232	.	.006	.123
	1617LOANS_TOT_ACPT	.000	.000	.000	.000	.060	.006	.	.009
	1617OTHER_TOT_ACPT	.002	.000	.000	.000	.031	.123	.009	.
N	1617COMPLETED	3256	3256	3256	3256	3256	3256	3256	3256
	1617PARENT_HIGHEST_ED_LVL	3256	3256	3256	3256	3256	3256	3256	3256

1617FAMILY INCOME	3256	3256	3256	3256	3256	3256	3256	3256
1617GRANTS_TOT_ACPT	3256	3256	3256	3256	3256	3256	3256	3256
1617WORKSTUDY_TOT_ACPT	3256	3256	3256	3256	3256	3256	3256	3256
1617SCHOLARS_TOT_ACPT	3256	3256	3256	3256	3256	3256	3256	3256
1617LOANS_TOT_ACPT	3256	3256	3256	3256	3256	3256	3256	3256
1617OTHER_TOT_ACPT	3256	3256	3256	3256	3256	3256	3256	3256

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	1617OTHER_TOT_ACPT, 1617SCHOLARS _TOT_ACPT, 1617WORKSTUDY_TOT_ACPT, 1617LOANS_TOT_ACPT, 1617PARENT_HIGHEST_ED_LVL, 1617FAMILY INCOME, 1617GRANTS_TOT_ACPT[b]	.	Enter

a. Dependent Variable: 1617COMPLETED

b. All requested variables entered.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.391[a]	.153	.151	7.949

a. Predictors: (Constant), 1617OTHER_TOT_ACPT, 1617SCHOLARS _TOT_ACPT, 1617WORKSTUDY_TOT_ACPT, 1617LOANS_TOT_ACPT, 1617PARENT_HIGHEST_ED_LVL, 1617FAMILY INCOME, 1617GRANTS_TOT_ACPT

b. Dependent Variable: 1617COMPLETED

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	37017.697	7	5288.242	83.695	.000[b]
	Residual	205224.323	3248	63.185		
	Total	242242.019	3255			

a. Dependent Variable: 1617COMPLETED

b. Predictors: (Constant), 1617OTHER_TOT_ACPT, 1617SCHOLARS _TOT_ACPT, 1617WORKSTUDY_TOT_ACPT, 1617LOANS_TOT_ACPT, 1617PARENT_HIGHEST_ED_LVL, 1617FAMILY INCOME, 1617GRANTS_TOT_ACPT

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	12.238	.885		13.824	.000	10.502	13.973					
	1617PARENT_HIGHEST_ED_LVL	.964	.213	.078	4.532	.000	.547	1.381	.091	.079	.073	.886	1.128
	1617FAMILY INCOME	3.397E-5	.000	.201	9.482	.000	.000	.000	.128	.164	.153	.578	1.730
	1617GRANTS_TOT_ACPT	.001	.000	.265	11.947	.000	.000	.001	.022	.205	.193	.530	1.888
	1617WORKSTUDY_TOT_ACPT	.001	.000	.094	5.824	.000	.001	.001	.103	.102	.094	.994	1.006
	1617SCHOLARS_TOT_ACPT	.001	.000	.313	19.054	.000	.001	.001	.293	.317	.308	.967	1.035
	1617LOANS_TOT_ACPT	.001	.000	.115	6.578	.000	.000	.001	.075	.115	.106	.855	1.170
	1617OTHER_TOT_ACPT	.001	.000	.079	4.802	.000	.000	.001	.051	.084	.078	.964	1.038

a. Dependent Variable: 1617COMPLETED

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions							
				(Constant)	1617PARENT_HIGHEST_ED_LVL	1617FAMILY INCOME	1617GRANTS_TOT_ACPT	1617WORKSTUDY_TOT_ACPT	1617SCHOLARS_TOT_ACPT	1617LOANS_TOT_ACPT	1617OTHER_TOT_ACPT
1	1	3.722	1.000	.00	.00	.01	.01	.01	.02	.01	.00
	2	1.026	1.905	.00	.00	.02	.01	.28	.00	.00	.54
	3	.953	1.977	.00	.00	.04	.02	.02	.01	.42	.14
	4	.928	2.003	.00	.00	.00	.00	.59	.13	.03	.21
	5	.791	2.169	.00	.00	.02	.02	.11	.68	.01	.00
	6	.488	2.761	.00	.00	.38	.01	.00	.14	.45	.07
	7	.077	6.931	.02	.18	.49	.67	.00	.02	.07	.02
	8	.016	15.361	.97	.82	.03	.28	.00	.01	.01	.00

a. Dependent Variable: 1617COMPLETED

Casewise Diagnostics[a]

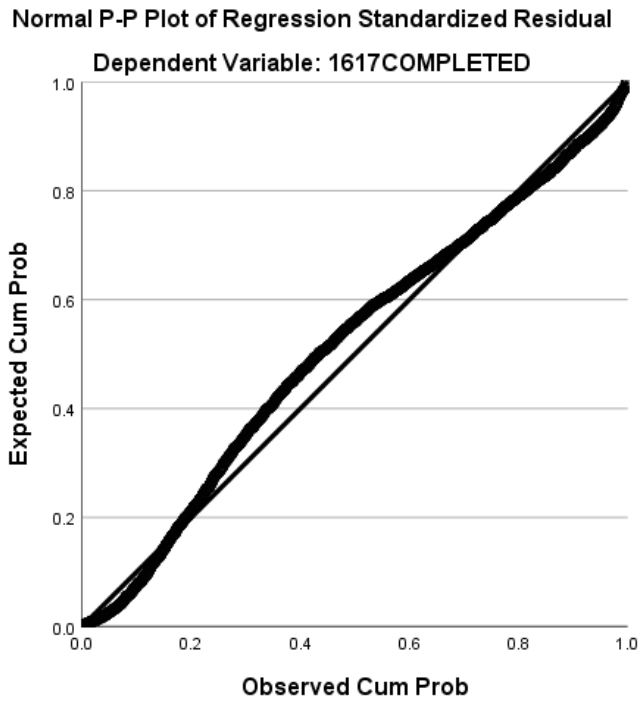
Case Number	Std. Residual	1617COMPLETED	Predicted Value	Residual
280	-3.484	39	66.69	-27.690
502	3.604	48	19.36	28.644
1003	-3.129	0	24.87	-24.868
1019	-3.104	0	24.68	-24.676
1154	3.212	35	9.47	25.532
1427	3.480	44	16.34	27.663
1501	-3.035	6	30.12	-24.122
1595	-4.057	12	44.25	-32.251
2597	3.243	51	25.22	25.780

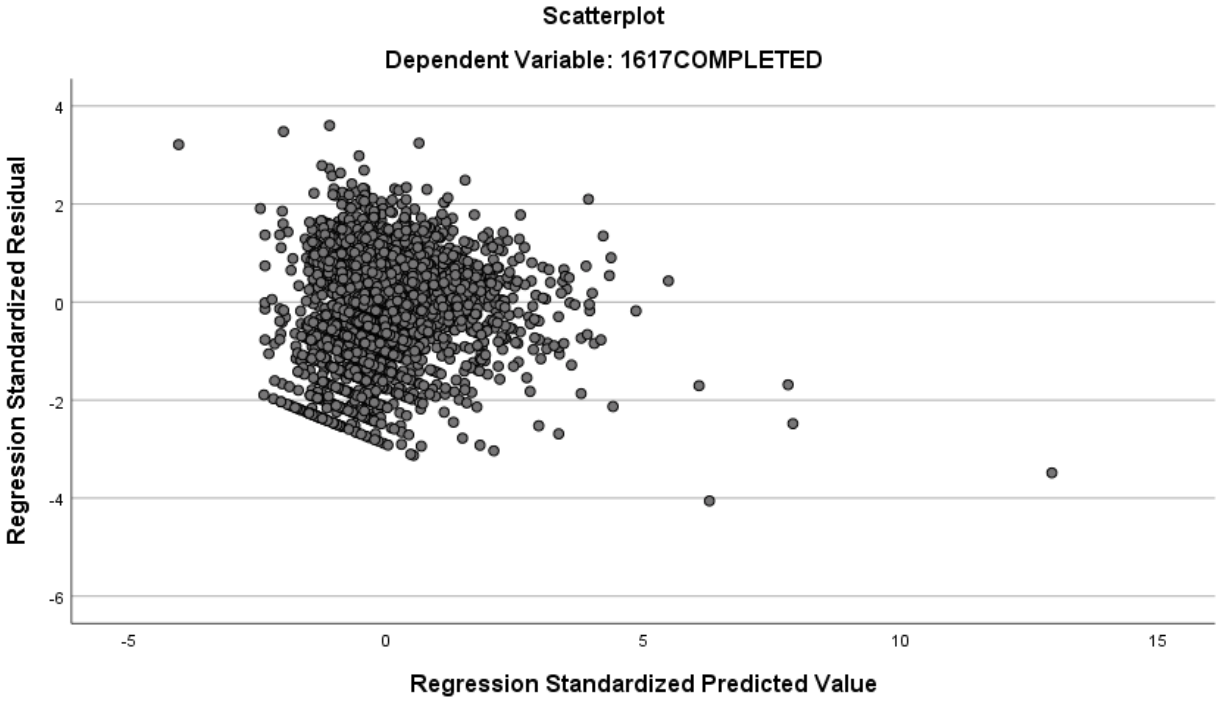
a. Dependent Variable: 1617COMPLETED

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	9.47	66.69	23.05	3.372	3256
Residual	-32.251	28.644	.000	7.940	3256
Std. Predicted Value	-4.028	12.940	.000	1.000	3256
Std. Residual	-4.057	3.604	.000	.999	3256

a. Dependent Variable: 1617COMPLETED


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: 1617COMPLETED
Expected Cum Prob
Observed Cum Prob
0.0
0.2
0.4
0.6
0.8
1.0


Scatterplot
Dependent Variable: 1617COMPLETED
Regression Standardized Residual
Regression Standardized Predicted Value
4
2
0
-2
-4
-6
-5
0
5
10
15

APPENDIX B

APPENDIX B

1617 LINEAR REGRESSION STEPWISE METHOD

Descriptive Statistics

	Mean	Std. Deviation	N
1617COMPLETED	23.05	8.627	3256
1617PARENT_HIGHEST_ED_LVL	3.30	.696	3256
1617FAMILY INCOME	40920.39	51143.244	3256
1617GRANTS_TOT_ACPT	7765.3592	4162.13103	3256
1617WORKSTUDY_TOT_ACPT	151.1332	726.29519	3256
1617SCHOLARS_TOT_ACPT	975.4063	2092.94452	3256
1617LOANS_TOT_ACPT	830.25	1871.771	3256
1617OTHER_TOT_ACPT	172.7373	1096.11175	3256

Correlations

		1617COMPLETED	1617PARENT_HIGHEST_ED_LVL	1617FAMILY INCOME	1617GRANTS_TOT_ACPT	1617WORKSTUDY_TOT_ACPT	1617SCHOLARS_TOT_ACPT	1617LOANS_TOT_ACPT	1617OTHER_TOT_ACPT
Pearson Correlation	1617COMPLETED	1.000	.091	.128	.022	.103	.293	.075	.051
	1617PARENT_HIGHEST_ED_LVL	.091	1.000	.292	-.303	.022	.026	.158	.084
	1617FAMILY INCOME	.128	.292	1.000	-.639	-.007	.114	.266	.093
	1617GRANTS_TOT_ACPT	.022	-.303	-.639	1.000	.043	-.139	-.346	-.146
	1617WORKSTUDY_TOT_ACPT	.103	.022	-.007	.043	1.000	-.013	.027	-.033
	1617SCHOLARS_TOT_ACPT	.293	.026	.114	-.139	-.013	1.000	-.044	-.020
	1617LOANS_TOT_ACPT	.075	.158	.266	-.346	.027	-.044	1.000	-.042
	1617OTHER_TOT_ACPT	.051	.084	.093	-.146	-.033	-.020	-.042	1.000
Sig. (1-tailed)	1617COMPLETED	.	.000	.000	.103	.000	.000	.000	.002
	1617PARENT_HIGHEST_ED_LVL	.000	.	.000	.000	.110	.068	.000	.000
	1617FAMILY INCOME	.000	.000	.	.000	.340	.000	.000	.000
	1617GRANTS_TOT_ACPT	.103	.000	.000	.	.007	.000	.000	.000

	1617WORKSTUDY_TOT_ACPT	.000	.110	.340	.007	.	.232	.060	.031
	1617SCHOLARS_TOT_ACPT	.000	.068	.000	.000	.232	.	.006	.123
	1617LOANS_TOT_ACPT	.000	.000	.000	.000	.060	.006	.	.009
	1617OTHER_TOT_ACPT	.002	.000	.000	.000	.031	.123	.009	.
N	1617COMPLETED	3256	3256	3256	3256	3256	3256	3256	3256
	1617PARENT_HIGHEST_ED_LVL	3256	3256	3256	3256	3256	3256	3256	3256
	1617FAMILY INCOME	3256	3256	3256	3256	3256	3256	3256	3256
	1617GRANTS_TOT_ACPT	3256	3256	3256	3256	3256	3256	3256	3256
	1617WORKSTUDY_TOT_ACPT	3256	3256	3256	3256	3256	3256	3256	3256
	1617SCHOLARS_TOT_ACPT	3256	3256	3256	3256	3256	3256	3256	3256
	1617LOANS_TOT_ACPT	3256	3256	3256	3256	3256	3256	3256	3256
	1617OTHER_TOT_ACPT	3256	3256	3256	3256	3256	3256	3256	3256

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	1617SCHOLARS_TOT_ACPT	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	1617WORKSTUDY_TOT_ACPT	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
3	1617FAMILY INCOME	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
4	1617GRANTS_TOT_ACPT	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

5	1617LOANS_TOT_ACPT	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
6	1617OTHER_TOT_ACPT	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
7	1617PARENT_HIGHEST_ED_LVL	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: 1617COMPLETED

Model Summary[h]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.293[a]	.086	.086	8.249
2	.312[b]	.097	.097	8.199
3	.326[c]	.106	.106	8.158
4	.361[d]	.130	.129	8.050
5	.375[e]	.141	.140	8.002
6	.384[f]	.147	.146	7.973
7	.391[g]	.153	.151	7.949

a. Predictors: (Constant), 1617SCHOLARS _TOT_ACPT

b. Predictors: (Constant), 1617SCHOLARS _TOT_ACPT, 1617WORKSTUDY_TOT_ACPT

c. Predictors: (Constant), 1617SCHOLARS _TOT_ACPT, 1617WORKSTUDY_TOT_ACPT, 1617FAMILY INCOME

d. Predictors: (Constant), 1617SCHOLARS _TOT_ACPT, 1617WORKSTUDY_TOT_ACPT, 1617FAMILY INCOME, 1617GRANTS_TOT_ACPT

e. Predictors: (Constant), 1617SCHOLARS _TOT_ACPT, 1617WORKSTUDY_TOT_ACPT, 1617FAMILY INCOME, 1617GRANTS_TOT_ACPT, 1617LOANS_TOT_ACPT

f. Predictors: (Constant), 1617SCHOLARS _TOT_ACPT, 1617WORKSTUDY_TOT_ACPT, 1617FAMILY INCOME, 1617GRANTS_TOT_ACPT, 1617LOANS_TOT_ACPT, 1617OTHER_TOT_ACPT

g. Predictors: (Constant), 1617SCHOLARS _TOT_ACPT, 1617WORKSTUDY_TOT_ACPT, 1617FAMILY INCOME, 1617GRANTS_TOT_ACPT, 1617LOANS_TOT_ACPT, 1617OTHER_TOT_ACPT, 1617PARENT_HIGHEST_ED_LVL

h. Dependent Variable: 1617COMPLETED

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	20840.320	1	20840.320	306.296	.000[b]
	Residual	221401.699	3254	68.040		
	Total	242242.019	3255			
2	Regression	23578.906	2	11789.453	175.389	.000[c]
	Residual	218663.113	3253	67.219		
	Total	242242.019	3255			
3	Regression	25786.882	3	8595.627	129.140	.000[d]
	Residual	216455.137	3252	66.561		
	Total	242242.019	3255			
4	Regression	31582.298	4	7895.575	121.848	.000[e]
	Residual	210659.721	3251	64.798		
	Total	242242.019	3255			
5	Regression	34124.008	5	6824.802	106.577	.000[f]
	Residual	208118.012	3250	64.036		
	Total	242242.019	3255			
6	Regression	35719.945	6	5953.324	93.658	.000[g]
	Residual	206522.074	3249	63.565		
	Total	242242.019	3255			
7	Regression	37017.697	7	5288.242	83.695	.000[h]
	Residual	205224.323	3248	63.185		
	Total	242242.019	3255			

a. Dependent Variable: 1617COMPLETED

b. Predictors: (Constant), 1617SCHOLARS _TOT_ACPT

c. Predictors: (Constant), 1617SCHOLARS _TOT_ACPT, 1617WORKSTUDY_TOT_ACPT

d. Predictors: (Constant), 1617SCHOLARS _TOT_ACPT, 1617WORKSTUDY_TOT_ACPT, 1617FAMILY INCOME

e. Predictors: (Constant), 1617SCHOLARS _TOT_ACPT, 1617WORKSTUDY_TOT_ACPT, 1617FAMILY INCOME, 1617GRANTS_TOT_ACPT

f. Predictors: (Constant), 1617SCHOLARS _TOT_ACPT, 1617WORKSTUDY_TOT_ACPT, 1617FAMILY INCOME, 1617GRANTS_TOT_ACPT, 1617LOANS_TOT_ACPT

g. Predictors: (Constant), 1617SCHOLARS _TOT_ACPT, 1617WORKSTUDY_TOT_ACPT, 1617FAMILY INCOME, 1617GRANTS_TOT_ACPT, 1617LOANS_TOT_ACPT, 1617OTHER_TOT_ACPT

h. Predictors: (Constant), 1617SCHOLARS _TOT_ACPT, 1617WORKSTUDY_TOT_ACPT, 1617FAMILY INCOME, 1617GRANTS_TOT_ACPT, 1617LOANS_TOT_ACPT, 1617OTHER_TOT_ACPT, 1617PARENT_HIGHEST_ED_LVL

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	21.873	.159		137.146	.000	21.561	22.186					
	1617SCHOLARS_TOT_ACPT	.001	.000	.293	17.501	.000	.001	.001	.293	.293	.293	1.000	1.000
2	(Constant)	21.677	.161		134.237	.000	21.360	21.994					
	1617SCHOLARS_TOT_ACPT	.001	.000	.295	17.688	.000	.001	.001	.293	.296	.295	1.000	1.000
	1617WORKSTUDY_TOT_ACPT	.001	.000	.106	6.383	.000	.001	.002	.103	.111	.106	1.000	1.000
3	(Constant)	21.057	.193		108.860	.000	20.677	21.436					
	1617SCHOLARS_TOT_ACPT	.001	.000	.284	17.000	.000	.001	.001	.293	.286	.282	.987	1.013
	1617WORKSTUDY_TOT_ACPT	.001	.000	.107	6.448	.000	.001	.002	.103	.112	.107	1.000	1.000
	1617FAMILY INCOME	1.621E-5	.000	.096	5.760	.000	.000	.000	.128	.100	.095	.987	1.013
4	(Constant)	16.884	.481		35.123	.000	15.942	17.827					
	1617SCHOLARS_TOT_ACPT	.001	.000	.297	17.978	.000	.001	.001	.293	.301	.294	.979	1.021

	1617WORKSTUDY_TOT_ACPT	.001	.000	.099	6.060	.000	.001	.002	.103	.106	.099	.997	1.003
	1617FAMILY INCOME	3.772E-5	.000	.224	10.508	.000	.000	.000	.128	.181	.172	.591	1.693
	1617GRANTS_TOT_ACPT	.000	.000	.202	9.457	.000	.000	.001	.022	.164	.155	.586	1.707
5	(Constant)	15.939	.501		31.824	.000	14.957	16.921					
	1617SCHOLARS_TOT_ACPT	.001	.000	.308	18.631	.000	.001	.001	.293	.311	.303	.969	1.032
	1617WORKSTUDY_TOT_ACPT	.001	.000	.095	5.820	.000	.001	.002	.103	.102	.095	.996	1.004
	1617FAMILY INCOME	3.624E-5	.000	.215	10.136	.000	.000	.000	.128	.175	.165	.588	1.700
	1617GRANTS_TOT_ACPT	.000	.000	.236	10.775	.000	.000	.001	.022	.186	.175	.550	1.818
	1617LOANS_TOT_ACPT	.001	.000	.110	6.300	.000	.000	.001	.075	.110	.102	.866	1.154
6	(Constant)	15.536	.505		30.737	.000	14.545	16.527					
	1617SCHOLARS_TOT_ACPT	.001	.000	.312	18.935	.000	.001	.001	.293	.315	.307	.967	1.034
	1617WORKSTUDY_TOT_ACPT	.001	.000	.097	5.955	.000	.001	.002	.103	.104	.096	.995	1.005
	1617FAMILY INCOME	3.608E-5	.000	.214	10.127	.000	.000	.000	.128	.175	.164	.588	1.700
	1617GRANTS_TOT_ACPT	.001	.000	.251	11.397	.000	.000	.001	.022	.196	.185	.540	1.852
	1617LOANS_TOT_ACPT	.001	.000	.119	6.806	.000	.000	.001	.075	.119	.110	.857	1.167

	1617OTHER_TOT_ACPT	.001	.000	.083	5.011	.000	.000	.001	.051	.088	.081	.966	1.035
7	(Constant)	12.238	.885		13.824	.000	10.502	13.973					
	1617SCHOLARS_TOT_ACPT	.001	.000	.313	19.054	.000	.001	.001	.293	.317	.308	.967	1.035
	1617WORKSTUDY_TOT_ACPT	.001	.000	.094	5.824	.000	.001	.001	.103	.102	.094	.994	1.006
	1617FAMILY INCOME	3.397E-5	.000	.201	9.482	.000	.000	.000	.128	.164	.153	.578	1.730
	1617GRANTS_TOT_ACPT	.001	.000	.265	11.947	.000	.000	.001	.022	.205	.193	.530	1.888
	1617LOANS_TOT_ACPT	.001	.000	.115	6.578	.000	.000	.001	.075	.115	.106	.855	1.170
	1617OTHER_TOT_ACPT	.001	.000	.079	4.802	.000	.000	.001	.051	.084	.078	.964	1.038
	1617PARENT_HIGHEST_ED_LVL	.964	.213	.078	4.532	.000	.547	1.381	.091	.079	.073	.886	1.128

a. Dependent Variable: 1617COMPLETED

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics		
						Tolerance	VIF	Minimum Tolerance
1	1617PARENT_HIGHEST_ED_LVL	.083[b]	4.998	.000	.087	.999	1.001	.999
	1617FAMILY INCOME	.095[b]	5.687	.000	.099	.987	1.013	.987
	1617GRANTS_TOT_ACPT	.064[b]	3.801	.000	.067	.981	1.020	.981
	1617WORKSTUDY_TOT_ACPT	.106[b]	6.383	.000	.111	1.000	1.000	1.000
	1617LOANS_TOT_ACPT	.088[b]	5.250	.000	.092	.998	1.002	.998
	1617OTHER_TOT_ACPT	.057[b]	3.432	.001	.060	1.000	1.000	1.000
2	1617PARENT_HIGHEST_ED_LVL	.081[c]	4.888	.000	.085	.999	1.001	.999
	1617FAMILY INCOME	.096[c]	5.760	.000	.100	.987	1.013	.987
	1617GRANTS_TOT_ACPT	.060[c]	3.559	.000	.062	.979	1.022	.979
	1617LOANS_TOT_ACPT	.085[c]	5.111	.000	.089	.997	1.003	.997
	1617OTHER_TOT_ACPT	.061[c]	3.667	.000	.064	.998	1.002	.998
3	1617PARENT_HIGHEST_ED_LVL	.058[d]	3.369	.001	.059	.914	1.094	.903
	1617GRANTS_TOT_ACPT	.202[d]	9.457	.000	.164	.586	1.707	.586
	1617LOANS_TOT_ACPT	.064[d]	3.688	.000	.065	.923	1.084	.913
	1617OTHER_TOT_ACPT	.052[d]	3.144	.002	.055	.989	1.011	.978
4	1617PARENT_HIGHEST_ED_LVL	.087[e]	5.023	.000	.088	.890	1.123	.571
	1617LOANS_TOT_ACPT	.110[e]	6.300	.000	.110	.866	1.154	.550
	1617OTHER_TOT_ACPT	.071[e]	4.302	.000	.075	.976	1.024	.578

5	1617PARENT_HIGHEST_ED_LVL	.082[f]	4.752	.000	.083	.888	1.126	.539
	1617OTHER_TOT_ACPT	.083[f]	5.011	.000	.088	.966	1.035	.540
6	1617PARENT_HIGHEST_ED_LVL	.078[g]	4.532	.000	.079	.886	1.128	.530

a. Dependent Variable: 1617COMPLETED

b. Predictors in the Model: (Constant), 1617SCHOLARS _TOT_ACPT

c. Predictors in the Model: (Constant), 1617SCHOLARS _TOT_ACPT, 1617WORKSTUDY_TOT_ACPT

d. Predictors in the Model: (Constant), 1617SCHOLARS _TOT_ACPT, 1617WORKSTUDY_TOT_ACPT, 1617FAMILY INCOME

e. Predictors in the Model: (Constant), 1617SCHOLARS _TOT_ACPT, 1617WORKSTUDY_TOT_ACPT, 1617FAMILY INCOME, 1617GRANTS_TOT_ACPT

f. Predictors in the Model: (Constant), 1617SCHOLARS _TOT_ACPT, 1617WORKSTUDY_TOT_ACPT, 1617FAMILY INCOME, 1617GRANTS_TOT_ACPT, 1617LOANS_TOT_ACPT

g. Predictors in the Model: (Constant), 1617SCHOLARS _TOT_ACPT, 1617WORKSTUDY_TOT_ACPT, 1617FAMILY INCOME, 1617GRANTS_TOT_ACPT, 1617LOANS_TOT_ACPT, 1617OTHER_TOT_ACPT

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions							
				(Constant)	1617SCHOLARS_TOT_ACPT	1617WORKSTUDY_TOT_ACPT	1617FAMILY INCOME	1617GRANTS_TOT_ACPT	1617LOANS_TOT_ACPT	1617OTHER_TOT_ACPT	1617PARENT_HIGHEST_ED_LVL
1	1	1.422	1.000	.29	.29						
	2	.578	1.569	.71	.71						
2	1	1.501	1.000	.25	.22	.09					
	2	.942	1.262	.01	.15	.83					
	3	.557	1.642	.75	.63	.09					
3	1	1.996	1.000	.10	.09	.03	.10				
	2	.956	1.445	.00	.06	.92	.01				
	3	.687	1.705	.05	.81	.03	.21				
	4	.361	2.350	.85	.04	.03	.68				
4	1	2.566	1.000	.01	.04	.01	.03	.01			
	2	.959	1.636	.00	.08	.85	.01	.00			
	3	.766	1.831	.01	.47	.13	.04	.05			
	4	.660	1.972	.00	.38	.00	.33	.02			
	5	.050	7.177	.98	.02	.00	.59	.92			
5	1	2.783	1.000	.01	.03	.01	.03	.01	.03		
	2	.973	1.691	.00	.00	.57	.04	.01	.15		
	3	.931	1.728	.00	.18	.29	.01	.01	.28		
	4	.764	1.909	.01	.59	.13	.02	.04	.00		
	5	.503	2.352	.00	.16	.00	.39	.01	.46		
	6	.046	7.756	.98	.03	.00	.51	.93	.08		
6	1	2.810	1.000	.01	.03	.01	.03	.01	.03	.00	

	2	1.025	1.655	.00	.00	.28	.02	.01	.00	.54	
	3	.948	1.722	.00	.01	.09	.03	.01	.36	.21	
	4	.924	1.744	.00	.19	.49	.00	.01	.08	.15	
	5	.763	1.918	.01	.58	.13	.02	.04	.01	.00	
	6	.485	2.407	.00	.16	.00	.41	.00	.44	.07	
	7	.045	7.880	.98	.03	.00	.49	.93	.08	.02	
7	1	3.722	1.000	.00	.02	.01	.01	.01	.01	.00	.00
	2	1.026	1.905	.00	.00	.28	.02	.01	.00	.54	.00
	3	.953	1.977	.00	.01	.02	.04	.02	.42	.14	.00
	4	.928	2.003	.00	.13	.59	.00	.00	.03	.21	.00
	5	.791	2.169	.00	.68	.11	.02	.02	.01	.00	.00
	6	.488	2.761	.00	.14	.00	.38	.01	.45	.07	.00
	7	.077	6.931	.02	.02	.00	.49	.67	.07	.02	.18
	8	.016	15.361	.97	.01	.00	.03	.28	.01	.00	.82

a. Dependent Variable: 1617COMPLETED

Casewise Diagnostics[a]

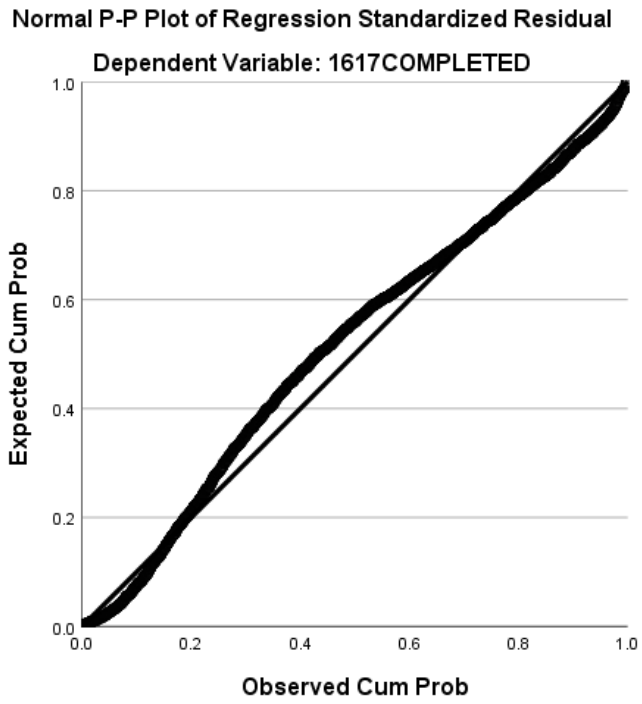
Case Number	Std. Residual	1617COMPLETED	Predicted Value	Residual
280	-3.484	39	66.69	-27.690
502	3.604	48	19.36	28.644
1003	-3.129	0	24.87	-24.868
1019	-3.104	0	24.68	-24.676
1154	3.212	35	9.47	25.532
1427	3.480	44	16.34	27.663
1501	-3.035	6	30.12	-24.122
1595	-4.057	12	44.25	-32.251
2597	3.243	51	25.22	25.780

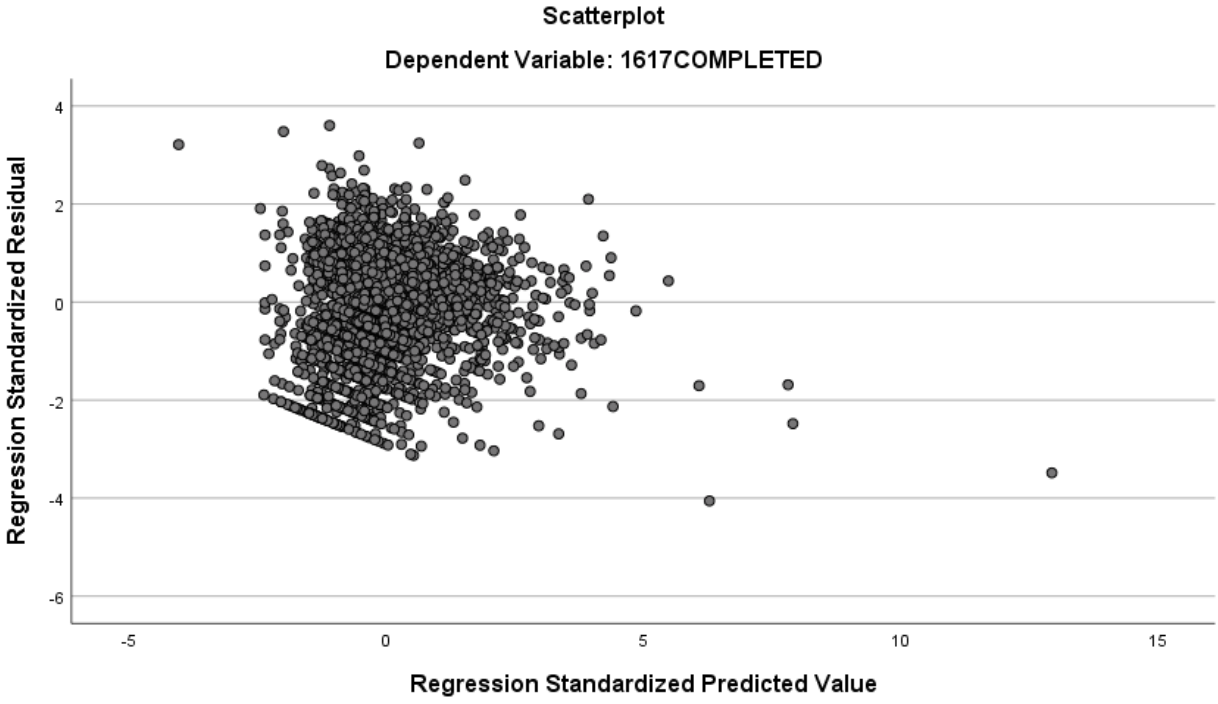
a. Dependent Variable: 1617COMPLETED

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	9.47	66.69	23.05	3.372	3256
Residual	-32.251	28.644	.000	7.940	3256
Std. Predicted Value	-4.028	12.940	.000	1.000	3256
Std. Residual	-4.057	3.604	.000	.999	3256

a. Dependent Variable: 1617COMPLETED


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: 1617COMPLETED
Expected Cum Prob
Observed Cum Prob
0.0
0.2
0.4
0.6
0.8
1.0


Scatterplot
Dependent Variable: 1617COMPLETED
Regression Standardized Residual
Regression Standardized Predicted Value
4
2
0
-2
-4
-6
-5
0
5
10
15

APPENDIX C

APPENDIX C

1718 LINEAR REGRESSION STANDARD (ENTER) METHOD

Descriptive Statistics

	Mean	Std. Deviation	N
1718COMPLETED	24.50	9.910	2608
1718PARENT_HIGHEST_ED_LVL	3.29	.701	2608
1718FAMILY INCOME	37233.75	42362.070	2608
1718GRANTS_TOT_ACPT	7957.8533	4672.79946	2608
1718WORKSTUDY_TOT_ACPT	248.9314	966.53488	2608
1718SCHOLARS_TOT_ACPT	684.3721	1833.80139	2608
1718LOANS_TOT_ACPT	1166.50	2184.009	2608
1718OTHER_TOT_ACPT	151.6690	1017.33255	2608

Correlations

		1718COMPLETED	1718PARENT_HIGHEST_ED_LVL	1718FAMILY INCOME	1718GRANTS_TOT_ACPT	1718WORKSTUDY_TOT_ACPT	1718SCHOLARS_TOT_ACPT	1718LOANS_TOT_ACPT	1718OTHER_TOT_ACPT
Pearson Correlation	1718COMPLETED	1.000	-.019	.004	.374	.121	.227	.059	.026
	1718PARENT_HIGHEST_ED_LVL	-.019	1.000	.302	-.274	.039	.035	.186	.097
	1718FAMILY INCOME	.004	.302	1.000	-.582	-.034	.100	.322	.056
	1718GRANTS_TOT_ACPT	.374	-.274	-.582	1.000	.118	-.155	-.264	-.099
	1718WORKSTUDY_TOT_ACPT	.121	.039	-.034	.118	1.000	-.031	.000	-.030
	1718SCHOLARS_TOT_ACPT	.227	.035	.100	-.155	-.031	1.000	-.032	.012
	1718LOANS_TOT_ACPT	.059	.186	.322	-.264	.000	-.032	1.000	-.031
	1718OTHER_TOT_ACPT	.026	.097	.056	-.099	-.030	.012	-.031	1.000
Sig. (1-tailed)	1718COMPLETED	.	.169	.424	.000	.000	.000	.001	.095
	1718PARENT_HIGHEST_ED_LVL	.169	.	.000	.000	.022	.038	.000	.000
	1718FAMILY INCOME	.424	.000	.	.000	.041	.000	.000	.002
	1718GRANTS_TOT_ACPT	.000	.000	.000	.	.000	.000	.000	.000

	1718WORKSTUDY_TOT_ACPT	.000	.022	.041	.000	.	.055	.496	.063
	1718SCHOLARS_TOT_ACPT	.000	.038	.000	.000	.055	.	.053	.272
	1718LOANS_TOT_ACPT	.001	.000	.000	.000	.496	.053	.	.056
	1718OTHER_TOT_ACPT	.095	.000	.002	.000	.063	.272	.056	.
N	1718COMPLETED	2608	2608	2608	2608	2608	2608	2608	2608
	1718PARENT_HIGHEST_ED_LVL	2608	2608	2608	2608	2608	2608	2608	2608
	1718FAMILY INCOME	2608	2608	2608	2608	2608	2608	2608	2608
	1718GRANTS_TOT_ACPT	2608	2608	2608	2608	2608	2608	2608	2608
	1718WORKSTUDY_TOT_ACPT	2608	2608	2608	2608	2608	2608	2608	2608
	1718SCHOLARS_TOT_ACPT	2608	2608	2608	2608	2608	2608	2608	2608
	1718LOANS_TOT_ACPT	2608	2608	2608	2608	2608	2608	2608	2608
	1718OTHER_TOT_ACPT	2608	2608	2608	2608	2608	2608	2608	2608

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	1718OTHER_TOT_ACPT, 1718SCHOLARS_TOT_ACPT, 1718WORKSTUDY_TOT_ACPT, 1718LOANS_TOT_ACPT, 1718PARENT_HIGHEST_ED_LVL, 1718GRANTS_TOT_ACPT, 1718FAMILY INCOME[b]	.	Enter

a. Dependent Variable: 1718COMPLETED

b. All requested variables entered.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.568[a]	.323	.321	8.168

a. Predictors: (Constant), 1718OTHER_TOT_ACPT, 1718SCHOLARS_TOT_ACPT, 1718WORKSTUDY_TOT_ACPT, 1718LOANS_TOT_ACPT, 1718PARENT_HIGHEST_ED_LVL, 1718GRANTS_TOT_ACPT, 1718FAMILY INCOME

b. Dependent Variable: 1718COMPLETED

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	82584.886	7	11797.841	176.829	.000[b]
	Residual	173469.112	2600	66.719		
	Total	256053.998	2607			

a. Dependent Variable: 1718COMPLETED

b. Predictors: (Constant), 1718OTHER_TOT_ACPT, 1718SCHOLARS_TOT_ACPT, 1718WORKSTUDY_TOT_ACPT, 1718LOANS_TOT_ACPT, 1718PARENT_HIGHEST_ED_LVL, 1718GRANTS_TOT_ACPT, 1718FAMILY INCOME

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	8.284	.947		8.747	.000	6.427	10.141					
	1718PARENT_HIGHEST_ED_LVL	.293	.244	.021	1.202	.230	-.185	.771	-.019	.024	.019	.877	1.140
	1718FAMILY INCOME	6.700E-5	.000	.286	13.896	.000	.000	.000	.004	.263	.224	.614	1.630
	1718GRANTS_TOT_ACPT	.001	.000	.629	30.747	.000	.001	.001	.374	.516	.496	.622	1.608
	1718WORKSTUDY_TOT_ACPT	.001	.000	.067	4.117	.000	.000	.001	.121	.080	.066	.979	1.022
	1718SCHOLARS_TOT_ACPT	.002	.000	.300	18.319	.000	.001	.002	.227	.338	.296	.969	1.032
	1718LOANS_TOT_ACPT	.001	.000	.141	8.141	.000	.000	.001	.059	.158	.131	.871	1.148
	1718OTHER_TOT_ACPT	.001	.000	.073	4.452	.000	.000	.001	.026	.087	.072	.980	1.021

a. Dependent Variable: 1718COMPLETED

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions							
				(Constant)	1718PARENT_HIGHEST_ED_LVL	1718FAMILY INCOME	1718GRANTS_TOT_ACPT	1718WORKSTUDY_TOT_ACPT	1718SCHOLARS_TOT_ACPT	1718LOANS_TOT_ACPT	1718OTHER_TOT_ACPT
1	1	3.784	1.000	.00	.00	.01	.01	.01	.01	.02	.00
	2	1.029	1.917	.00	.00	.02	.01	.36	.05	.01	.36
	3	.956	1.989	.00	.00	.02	.01	.18	.02	.11	.55
	4	.883	2.070	.00	.00	.01	.00	.00	.63	.20	.03
	5	.785	2.195	.00	.00	.03	.04	.44	.18	.08	.01
	6	.451	2.898	.00	.00	.38	.02	.00	.08	.56	.03
	7	.095	6.321	.03	.13	.51	.72	.00	.02	.02	.01
	8	.017	14.782	.96	.87	.01	.20	.01	.01	.00	.00

a. Dependent Variable: 1718COMPLETED

Casewise Diagnostics[a]

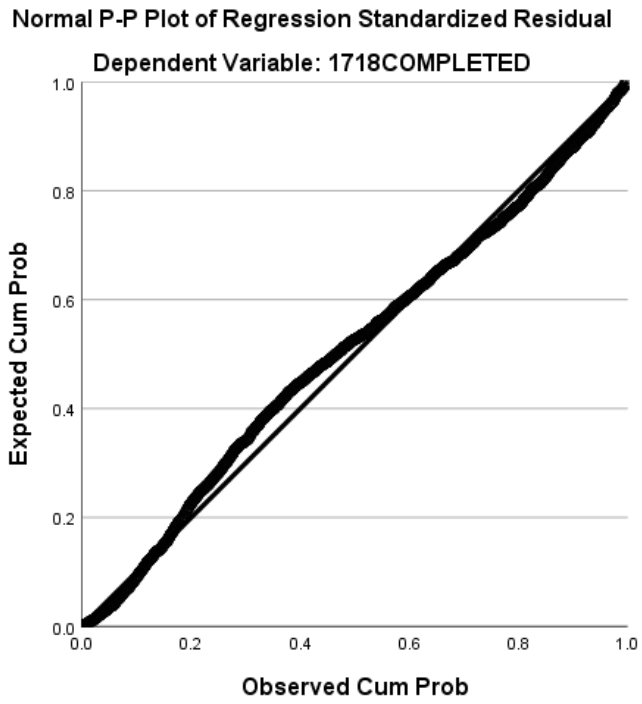
Case Number	Std. Residual	1718COMPLETED	Predicted Value	Residual
153	3.815	57	25.84	31.164
857	-3.032	0	24.76	-24.762
1154	3.568	30	.85	29.146
2038	-4.166	7	41.03	-34.028
2267	-3.431	0	28.03	-28.027
2361	3.182	48	22.01	25.990
2374	3.111	44	18.59	25.409
2646	7.191	34	-24.73	58.735
2788	3.278	45	18.23	26.774
3232	3.896	61	29.18	31.820
3603	-3.222	32	58.31	-26.315

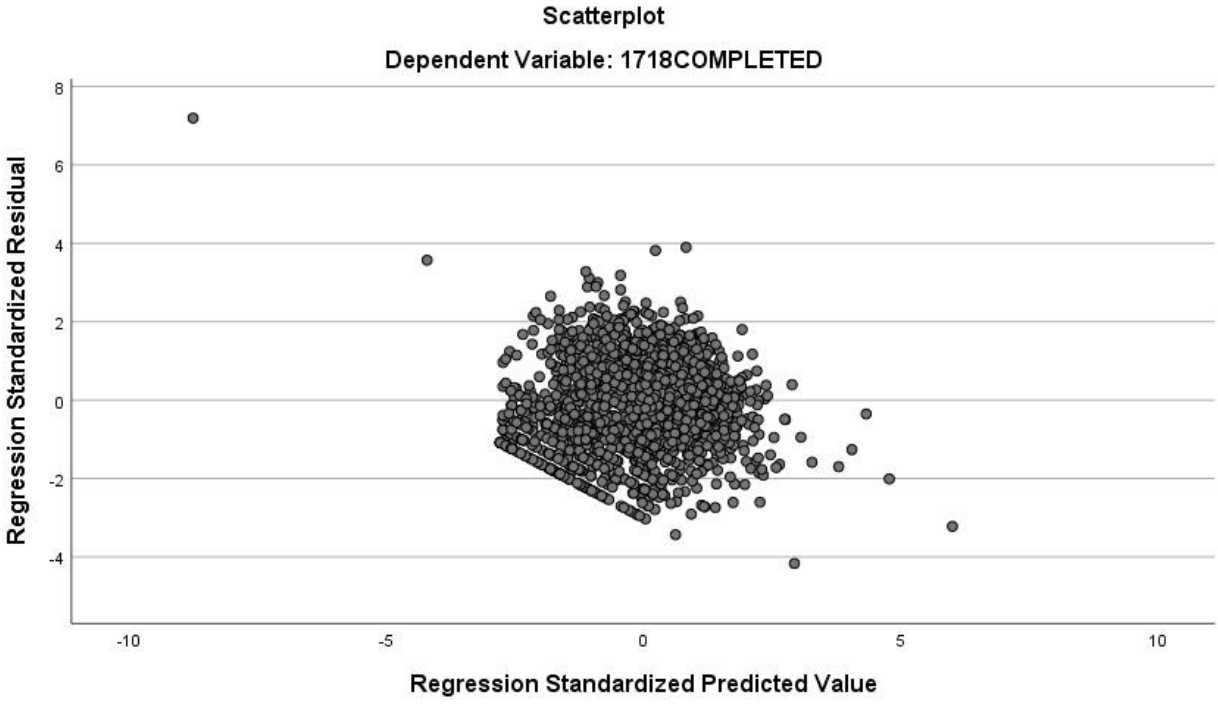
a. Dependent Variable: 1718COMPLETED

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-24.73	58.31	24.50	5.628	2608
Residual	-34.028	58.735	.000	8.157	2608
Std. Predicted Value	-8.748	6.008	.000	1.000	2608
Std. Residual	-4.166	7.191	.000	.999	2608

a. Dependent Variable: 1718COMPLETED


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: 1718COMPLETED
Expected Cum Prob
Observed Cum Prob
0.0
0.2
0.4
0.6
0.8
1.0


Scatterplot
Dependent Variable: 1718COMPLETED
Regression Standardized Residual
Regression Standardized Predicted Value
8
6
4
2
0
-2
-4
-10
-5
0
5
10

APPENDIX D

APPENDIX D

1718 LINEAR REGRESSION STANDARD (ENTER) METHOD - EXCLUDING PARENT ED LVL

Appendix D: 1718 Linear Regression Standard (Enter) Method – Excluding Parent Ed Lvl

Descriptive Statistics

	Mean	Std. Deviation	N
1718COMPLETED	24.50	9.910	2608
1718FAMILY INCOME	37233.75	42362.070	2608
1718GRANTS_TOT_ACPT	7957.8533	4672.79946	2608
1718WORKSTUDY_TOT_ACPT	248.9314	966.53488	2608
1718SCHOLARS_TOT_ACPT	684.3721	1833.80139	2608
1718LOANS_TOT_ACPT	1166.50	2184.009	2608
1718OTHER_TOT_ACPT	151.6690	1017.33255	2608

Correlations

		1718COMPLETED	1718FAMILY INCOME	1718GRANTS_TOT_ACPT	1718WORKSTUDY_TOT_ACPT	1718SCHOLARS_TOT_ACPT	1718LOANS_TOT_ACPT	1718OTHER_TOT_ACPT
Pearson Correlation	1718COMPLETED	1.000	.004	.374	.121	.227	.059	.026
	1718FAMILY INCOME	.004	1.000	-.582	-.034	.100	.322	.056
	1718GRANTS_TOT_ACPT	.374	-.582	1.000	.118	-.155	-.264	-.099
	1718WORKSTUDY_TOT_ACPT	.121	-.034	.118	1.000	-.031	.000	-.030
	1718SCHOLARS_TOT_ACPT	.227	.100	-.155	-.031	1.000	-.032	.012
	1718LOANS_TOT_ACPT	.059	.322	-.264	.000	-.032	1.000	-.031
	1718OTHER_TOT_ACPT	.026	.056	-.099	-.030	.012	-.031	1.000
Sig. (1-tailed)	1718COMPLETED	.	.424	.000	.000	.000	.001	.095
	1718FAMILY INCOME	.424	.	.000	.041	.000	.000	.002
	1718GRANTS_TOT_ACPT	.000	.000	.	.000	.000	.000	.000
	1718WORKSTUDY_TOT_ACPT	.000	.041	.000	.	.055	.496	.063
	1718SCHOLARS_TOT_ACPT	.000	.000	.000	.055	.	.053	.272
	1718LOANS_TOT_ACPT	.001	.000	.000	.496	.053	.	.056

	1718OTHER_TOT_ACPT	.095	.002	.000	.063	.272	.056	.
N	1718COMPLETED	2608	2608	2608	2608	2608	2608	2608
	1718FAMILY INCOME	2608	2608	2608	2608	2608	2608	2608
	1718GRANTS_TOT_ACPT	2608	2608	2608	2608	2608	2608	2608
	1718WORKSTUDY_TOT_ACPT	2608	2608	2608	2608	2608	2608	2608
	1718SCHOLARS_TOT_ACPT	2608	2608	2608	2608	2608	2608	2608
	1718LOANS_TOT_ACPT	2608	2608	2608	2608	2608	2608	2608
	1718OTHER_TOT_ACPT	2608	2608	2608	2608	2608	2608	2608

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	1718OTHER_TOT_ACPT, 1718SCHOLARS_TOT_ACPT, 1718WORKSTUDY_TOT_ACPT, 1718LOANS_TOT_ACPT, 1718GRANTS_TOT_ACPT, 1718FAMILY INCOME[b]	.	Enter

a. Dependent Variable: 1718COMPLETED

b. All requested variables entered.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.568[a]	.322	.321	8.169

a. Predictors: (Constant), 1718OTHER_TOT_ACPT, 1718SCHOLARS_TOT_ACPT, 1718WORKSTUDY_TOT_ACPT, 1718LOANS_TOT_ACPT, 1718GRANTS_TOT_ACPT, 1718FAMILY INCOME

b. Dependent Variable: 1718COMPLETED

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	82488.529	6	13748.088	206.025	.000[b]
	Residual	173565.470	2601	66.730		
	Total	256053.998	2607			

a. Dependent Variable: 1718COMPLETED

b. Predictors: (Constant), 1718OTHER_TOT_ACPT, 1718SCHOLARS_TOT_ACPT, 1718WORKSTUDY_TOT_ACPT, 1718LOANS_TOT_ACPT, 1718GRANTS_TOT_ACPT, 1718FAMILY INCOME

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	9.246	.507		18.234	.000	8.251	10.240					
	1718FAMILY INCOME	6.792E-5	.000	.290	14.267	.000	.000	.000	.004	.269	.230	.629	1.589
	1718GRANTS_TOT_ACPT	.001	.000	.627	30.817	.000	.001	.001	.374	.517	.497	.631	1.586
	1718WORKSTUDY_TOT_ACPT	.001	.000	.069	4.209	.000	.000	.001	.121	.082	.068	.983	1.017
	1718SCHOLARS_TOT_ACPT	.002	.000	.300	18.315	.000	.001	.002	.227	.338	.296	.969	1.032
	1718LOANS_TOT_ACPT	.001	.000	.143	8.282	.000	.000	.001	.059	.160	.134	.878	1.139
	1718OTHER_TOT_ACPT	.001	.000	.074	4.566	.000	.000	.001	.026	.089	.074	.986	1.014

a. Dependent Variable: 1718COMPLETED

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions						
				(Constant)	1718FAMILY INCOME	1718GRANTS_TOT_ACPT	1718WORKSTUDY_TOT_ACPT	1718SCHOLARS_TOT_ACPT	1718LOANS_TOT_ACPT	1718OTHER_TOT_ACPT
1	1	2.875	1.000	.01	.03	.01	.01	.02	.03	.00
	2	1.029	1.671	.00	.02	.01	.37	.05	.01	.37
	3	.956	1.734	.00	.02	.01	.19	.02	.11	.55
	4	.883	1.805	.00	.01	.00	.00	.64	.20	.03
	5	.752	1.955	.01	.02	.07	.41	.15	.06	.01
	6	.446	2.539	.00	.42	.01	.00	.09	.57	.03
	7	.060	6.938	.97	.48	.89	.00	.03	.02	.01

a. Dependent Variable: 1718COMPLETED

Casewise Diagnostics[a]

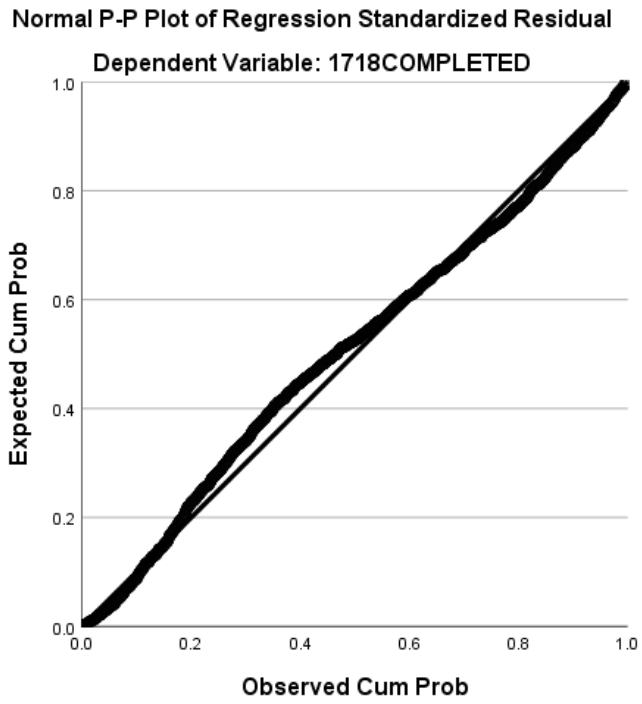
Case Number	Std. Residual	1718COMPLETED	Predicted Value	Residual
153	3.847	57	25.57	31.428
857	-3.035	0	24.79	-24.792
1154	3.605	30	.56	29.445
2038	-4.139	7	40.81	-33.811
2065	3.004	44	19.46	24.538
2267	-3.398	0	27.76	-27.760
2361	3.198	48	21.88	26.123
2374	3.130	44	18.43	25.568
2646	7.296	34	-25.60	59.597
2788	3.291	45	18.11	26.886
3232	3.859	61	29.47	31.527
3603	-3.191	32	58.07	-26.070

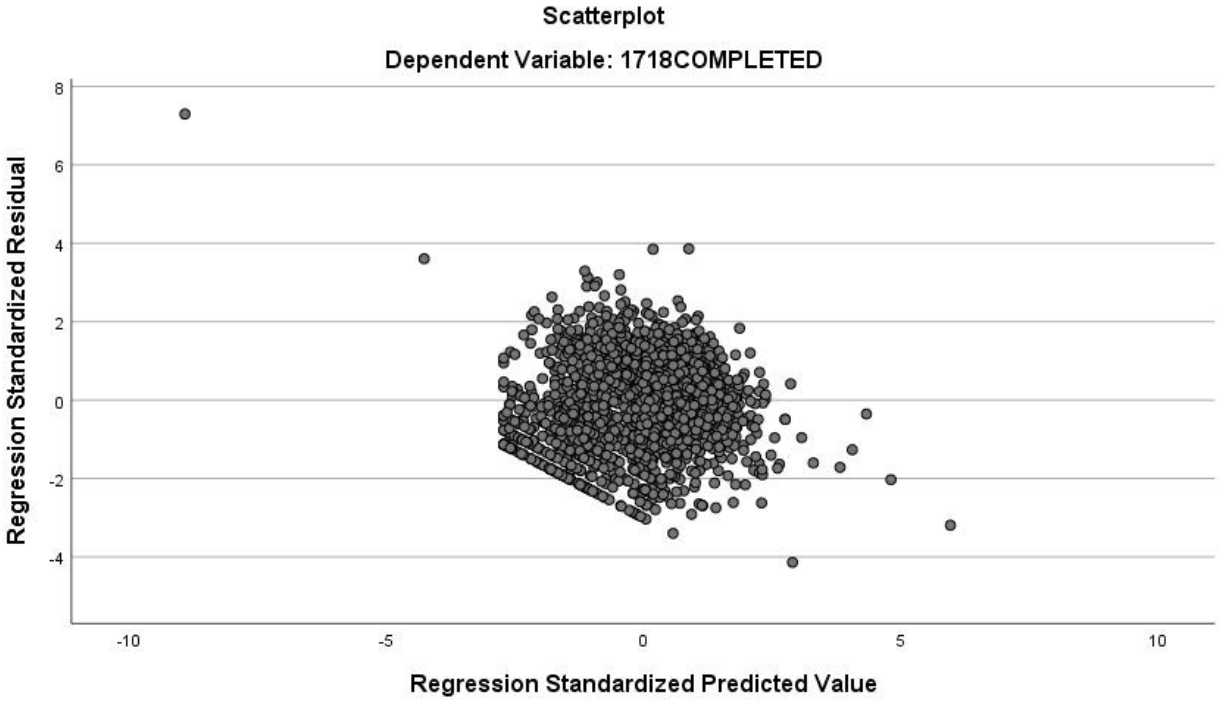
a. Dependent Variable: 1718COMPLETED

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-25.60	58.07	24.50	5.625	2608
Residual	-33.811	59.597	.000	8.159	2608
Std. Predicted Value	-8.906	5.968	.000	1.000	2608
Std. Residual	-4.139	7.296	.000	.999	2608

a. Dependent Variable: 1718COMPLETED


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: 1718COMPLETED
Expected Cum Prob
Observed Cum Prob
0.0
0.2
0.4
0.6
0.8
1.0


Scatterplot
Dependent Variable: 1718COMPLETED
Regression Standardized Residual
Regression Standardized Predicted Value
8
6
4
2
0
-2
-4
-10
-5
0
5
10

APPENDIX E

APPENDIX E

1718 LINEAR REGRESSION STEPWISE METHOD

Descriptive Statistics

	Mean	Std. Deviation	N
1718COMPLETED	24.50	9.910	2608
1718PARENT_HIGHEST_ED_LVL	3.29	.701	2608
1718FAMILY INCOME	37233.75	42362.070	2608
1718GRANTS_TOT_ACPT	7957.8533	4672.79946	2608
1718WORKSTUDY_TOT_ACPT	248.9314	966.53488	2608
1718SCHOLARS_TOT_ACPT	684.3721	1833.80139	2608
1718LOANS_TOT_ACPT	1166.50	2184.009	2608
1718OTHER_TOT_ACPT	151.6690		2608

Correlations

		1718COMPLETED	1718PARENT_HIGHEST_ED_LVL	1718FAMILY INCOME	1718GRANTS_TOT_ACPT	1718WORKSTUDY_TOT_ACPT	1718SCHOLARS_TOT_ACPT	1718LOANS_TOT_ACPT	1718OTHER_TOT_ACPT
Pearson Correlation	1718COMPLETED	1.000	-.019	.004	.374	.121	.227	.059	.026
	1718PARENT_HIGHEST_ED_LVL	-.019	1.000	.302	-.274	.039	.035	.186	.097
	1718FAMILY INCOME	.004	.302	1.000	-.582	-.034	.100	.322	.056
	1718GRANTS_TOT_ACPT	.374	-.274	-.582	1.000	.118	-.155	-.264	-.099
	1718WORKSTUDY_TOT_ACPT	.121	.039	-.034	.118	1.000	-.031	.000	-.030
	1718SCHOLARS_TOT_ACPT	.227	.035	.100	-.155	-.031	1.000	-.032	.012
	1718LOANS_TOT_ACPT	.059	.186	.322	-.264	.000	-.032	1.000	-.031
	1718OTHER_TOT_ACPT	.026	.097	.056	-.099	-.030	.012	-.031	1.000
Sig. (1-tailed)	1718COMPLETED	.	.169	.424	.000	.000	.000	.001	.095
	1718PARENT_HIGHEST_ED_LVL	.169	.	.000	.000	.022	.038	.000	.000
	1718FAMILY INCOME	.424	.000	.	.000	.041	.000	.000	.002

	1718GRANTS_TOT_ACPT	.000	.000	.000	.	.000	.000	.000	.000
	1718WORKSTUDY_TOT_ACPT	.000	.022	.041	.000	.	.055	.496	.063
	1718SCHOLARS_TOT_ACPT	.000	.038	.000	.000	.055	.	.053	.272
	1718LOANS_TOT_ACPT	.001	.000	.000	.000	.496	.053	.	.056
	1718OTHER_TOT_ACPT	.095	.000	.002	.000	.063	.272	.056	.
N	1718COMPLETED	2608	2608	2608	2608	2608	2608	2608	2608
	1718PARENT_HIGHEST_ED_LVL	2608	2608	2608	2608	2608	2608	2608	2608
	1718FAMILY INCOME	2608	2608	2608	2608	2608	2608	2608	2608
	1718GRANTS_TOT_ACPT	2608	2608	2608	2608	2608	2608	2608	2608
	1718WORKSTUDY_TOT_ACPT	2608	2608	2608	2608	2608	2608	2608	2608
	1718SCHOLARS_TOT_ACPT	2608	2608	2608	2608	2608	2608	2608	2608
	1718LOANS_TOT_ACPT	2608	2608	2608	2608	2608	2608	2608	2608
	1718OTHER_TOT_ACPT	2608	2608	2608	2608	2608	2608	2608	2608

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	1718GRANTS_TOT_ACPT	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	1718SCHOLARS_TOT_ACPT	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
3	1718FAMILY INCOME	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
4	1718LOANS_TOT_ACPT	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

5	1718OTHER_TOT_ACPT	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
6	1718WORKSTUDY_TOT_ACPT	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: 1718COMPLETED

Model Summary[g]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.374[a]	.140	.140	9.192
2	.472[b]	.223	.222	8.740
3	.543[c]	.295	.294	8.325
4	.559[d]	.312	.311	8.225
5	.564[e]	.318	.316	8.195
6	.568[f]	.322	.321	8.169

a. Predictors: (Constant), 1718GRANTS_TOT_ACPT

b. Predictors: (Constant), 1718GRANTS_TOT_ACPT, 1718SCHOLARS_TOT_ACPT

c. Predictors: (Constant), 1718GRANTS_TOT_ACPT, 1718SCHOLARS_TOT_ACPT, 1718FAMILY INCOME

d. Predictors: (Constant), 1718GRANTS_TOT_ACPT, 1718SCHOLARS_TOT_ACPT, 1718FAMILY INCOME, 1718LOANS_TOT_ACPT

e. Predictors: (Constant), 1718GRANTS_TOT_ACPT, 1718SCHOLARS_TOT_ACPT, 1718FAMILY INCOME, 1718LOANS_TOT_ACPT, 1718OTHER_TOT_ACPT

f. Predictors: (Constant), 1718GRANTS_TOT_ACPT, 1718SCHOLARS_TOT_ACPT, 1718FAMILY INCOME, 1718LOANS_TOT_ACPT, 1718OTHER_TOT_ACPT, 1718WORKSTUDY_TOT_ACPT

g. Dependent Variable: 1718COMPLETED

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	35844.457	1	35844.457	424.190	.000[b]
	Residual	220209.542	2606	84.501		
	Total	256053.998	2607			
2	Regression	57086.399	2	28543.199	373.704	.000[c]
	Residual	198967.600	2605	76.379		
	Total	256053.998	2607			
3	Regression	75561.497	3	25187.166	363.380	.000[d]
	Residual	180492.501	2604	69.314		
	Total	256053.998	2607			
4	Regression	79958.612	4	19989.653	295.482	.000[e]
	Residual	176095.387	2603	67.651		
	Total	256053.998	2607			
5	Regression	81306.531	5	16261.306	242.132	.000[f]
	Residual	174747.467	2602	67.159		
	Total	256053.998	2607			
6	Regression	82488.529	6	13748.088	206.025	.000[g]
	Residual	173565.470	2601	66.730		
	Total	256053.998	2607			

a. Dependent Variable: 1718COMPLETED

b. Predictors: (Constant), 1718GRANTS_TOT_ACPT

c. Predictors: (Constant), 1718GRANTS_TOT_ACPT, 1718SCHOLARS_TOT_ACPT

d. Predictors: (Constant), 1718GRANTS_TOT_ACPT, 1718SCHOLARS_TOT_ACPT, 1718FAMILY INCOME

e. Predictors: (Constant), 1718GRANTS_TOT_ACPT, 1718SCHOLARS_TOT_ACPT, 1718FAMILY INCOME, 1718LOANS_TOT_ACPT

f. Predictors: (Constant), 1718GRANTS_TOT_ACPT, 1718SCHOLARS_TOT_ACPT, 1718FAMILY INCOME, 1718LOANS_TOT_ACPT, 1718OTHER_TOT_ACPT

g. Predictors: (Constant), 1718GRANTS_TOT_ACPT, 1718SCHOLARS_TOT_ACPT, 1718FAMILY INCOME, 1718LOANS_TOT_ACPT, 1718OTHER_TOT_ACPT, 1718WORKSTUDY_TOT_ACPT

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	18.184	.356		51.146	.000	17.487	18.882					
	1718GRANTS_TOT_ACPT	.001	.000	.374	20.596	.000	.001	.001	.374	.374	.374	1.000	1.000
2	(Constant)	16.343	.356		45.961	.000	15.646	17.041					
	1718GRANTS_TOT_ACPT	.001	.000	.419	23.987	.000	.001	.001	.374	.425	.414	.976	1.025
	1718SCHOLARS_TOT_ACPT	.002	.000	.292	16.677	.000	.001	.002	.227	.311	.288	.976	1.025
3	(Constant)	10.245	.504		20.316	.000	9.256	11.234					
	1718GRANTS_TOT_ACPT	.001	.000	.611	29.987	.000	.001	.001	.374	.507	.493	.652	1.534
	1718SCHOLARS_TOT_ACPT	.002	.000	.288	17.298	.000	.001	.002	.227	.321	.285	.976	1.025
	1718FAMILY INCOME	7.727E-5	.000	.330	16.326	.000	.000	.000	.004	.305	.269	.661	1.512
4	(Constant)	9.479	.507		18.690	.000	8.484	10.473					

	1718GRANTS_TOT_ACPT	.001	.000	.629	31.048	.000	.001	.001	.374	.520	.505	.644	1.552
	1718SCHOLARS_TOT_ACPT	.002	.000	.299	18.104	.000	.001	.002	.227	.334	.294	.969	1.032
	1718FAMILY INCOME	6.890E-5	.000	.295	14.386	.000	.000	.000	.004	.271	.234	.630	1.586
	1718LOANS_TOT_ACPT	.001	.000	.140	8.062	.000	.000	.001	.059	.156	.131	.881	1.134
5	(Constant)	9.218	.509		18.124	.000	8.221	10.216					
	1718GRANTS_TOT_ACPT	.001	.000	.637	31.434	.000	.001	.001	.374	.525	.509	.639	1.564
	1718SCHOLARS_TOT_ACPT	.002	.000	.299	18.207	.000	.001	.002	.227	.336	.295	.969	1.032
	1718FAMILY INCOME	6.866E-5	.000	.293	14.387	.000	.000	.000	.004	.271	.233	.630	1.587
	1718LOANS_TOT_ACPT	.001	.000	.144	8.350	.000	.001	.001	.059	.162	.135	.878	1.139
	1718OTHER_TOT_ACPT	.001	.000	.073	4.480	.000	.000	.001	.026	.087	.073	.987	1.014
6	(Constant)	9.246	.507		18.234	.000	8.251	10.240					
	1718GRANTS_TOT_ACPT	.001	.000	.627	30.817	.000	.001	.001	.374	.517	.497	.631	1.586
	1718SCHOLARS_TOT_ACPT	.002	.000	.300	18.315	.000	.001	.002	.227	.338	.296	.969	1.032
	1718FAMILY INCOME	6.792E-5	.000	.290	14.267	.000	.000	.000	.004	.269	.230	.629	1.589

1718LOANS_TOT_ACPT	.001	.000	.143	8.282	.000	.000	.001	.059	.160	.134	.878	1.139
1718OTHER_TOT_ACPT	.001	.000	.074	4.566	.000	.000	.001	.026	.089	.074	.986	1.014
1718WORKSTUDY_TOT_ACPT	.001	.000	.069	4.209	.000	.000	.001	.121	.082	.068	.983	1.017

a. Dependent Variable: 1718COMPLETED

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics		
						Tolerance	VIF	Minimum Tolerance
1	1718PARENT_HIGHEST_ED_LVL	.091[b]	4.814	.000	.094	.925	1.081	.925
	1718FAMILY INCOME	.335[b]	15.673	.000	.294	.662	1.512	.662
	1718WORKSTUDY_TOT_ACPT	.078[b]	4.270	.000	.083	.986	1.014	.986
	1718SCHOLARS_TOT_ACPT	.292[b]	16.677	.000	.311	.976	1.025	.976
	1718LOANS_TOT_ACPT	.170[b]	9.150	.000	.176	.930	1.075	.930
	1718OTHER_TOT_ACPT	.063[b]	3.469	.001	.068	.990	1.010	.990
2	1718PARENT_HIGHEST_ED_LVL	.093[c]	5.201	.000	.101	.925	1.081	.904
	1718FAMILY INCOME	.330[c]	16.326	.000	.305	.661	1.512	.652
	1718WORKSTUDY_TOT_ACPT	.082[c]	4.718	.000	.092	.986	1.014	.963
	1718LOANS_TOT_ACPT	.194[c]	11.024	.000	.211	.925	1.081	.904
	1718OTHER_TOT_ACPT	.064[c]	3.708	.000	.072	.990	1.010	.967
3	1718PARENT_HIGHEST_ED_LVL	.043[d]	2.491	.013	.049	.894	1.119	.639
	1718WORKSTUDY_TOT_ACPT	.070[d]	4.250	.000	.083	.984	1.016	.643
	1718LOANS_TOT_ACPT	.140[d]	8.062	.000	.156	.881	1.134	.630
	1718OTHER_TOT_ACPT	.065[d]	3.927	.000	.077	.990	1.010	.648
4	1718PARENT_HIGHEST_ED_LVL	.032[e]	1.833	.067	.036	.887	1.127	.614

	1718WORKSTUDY_TOT_ACPT	.067[e]	4.116	.000	.080	.984	1.017	.630
	1718OTHER_TOT_ACPT	.073[e]	4.480	.000	.087	.987	1.014	.630
5	1718PARENT_HIGHEST_ED_LVL	.026[f]	1.481	.139	.029	.882	1.134	.614
	1718WORKSTUDY_TOT_ACPT	.069[f]	4.209	.000	.082	.983	1.017	.629
6	1718PARENT_HIGHEST_ED_LVL	.021[g]	1.202	.230	.024	.877	1.140	.614

a. Dependent Variable: 1718COMPLETED

b. Predictors in the Model: (Constant), 1718GRANTS_TOT_ACPT

c. Predictors in the Model: (Constant), 1718GRANTS_TOT_ACPT, 1718SCHOLARS_TOT_ACPT

d. Predictors in the Model: (Constant), 1718GRANTS_TOT_ACPT, 1718SCHOLARS_TOT_ACPT, 1718FAMILY INCOME

e. Predictors in the Model: (Constant), 1718GRANTS_TOT_ACPT, 1718SCHOLARS_TOT_ACPT, 1718FAMILY INCOME, 1718LOANS_TOT_ACPT

f. Predictors in the Model: (Constant), 1718GRANTS_TOT_ACPT, 1718SCHOLARS_TOT_ACPT, 1718FAMILY INCOME, 1718LOANS_TOT_ACPT, 1718OTHER_TOT_ACPT

g. Predictors in the Model: (Constant), 1718GRANTS_TOT_ACPT, 1718SCHOLARS_TOT_ACPT, 1718FAMILY INCOME, 1718LOANS_TOT_ACPT, 1718OTHER_TOT_ACPT, 1718WORKSTUDY_TOT_ACPT

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions (Constant)	1718GRANTS_TOT_ACPT	1718SCHOLARS_TOT_ACPT	1718FAMILY INCOME	1718LOANS_TOT_ACPT	1718OTHER_TOT_ACPT	1718WORKSTUDY_TOT_ACPT
1	1	1.862	1.000	.07	.07					
	2	.138	3.679	.93	.93					
2	1	2.026	1.000	.05	.05	.06				
	2	.846	1.547	.01	.03	.86				
	3	.128	3.977	.94	.91	.08				
3	1	2.449	1.000	.02	.02	.04	.03			
	2	.851	1.696	.01	.03	.77	.01			
	3	.639	1.958	.00	.06	.16	.39			
	4	.062	6.308	.98	.89	.03	.57			
4	1	2.763	1.000	.01	.01	.02	.03	.04		
	2	.886	1.766	.00	.01	.55	.02	.27		
	3	.838	1.816	.01	.08	.30	.05	.10		
	4	.453	2.471	.00	.01	.09	.41	.58		
	5	.061	6.757	.98	.89	.03	.49	.02		
5	1	2.791	1.000	.01	.01	.02	.03	.04	.01	
	2	.982	1.685	.00	.00	.00	.00	.02	.93	
	3	.884	1.777	.00	.01	.53	.02	.25	.02	
	4	.837	1.826	.01	.07	.32	.05	.10	.00	
	5	.446	2.501	.00	.01	.09	.42	.57	.03	
	6	.060	6.825	.98	.89	.03	.48	.02	.01	
6	1	2.875	1.000	.01	.01	.02	.03	.03	.00	.01
	2	1.029	1.671	.00	.01	.05	.02	.01	.37	.37

3	.956	1.734	.00	.01	.02	.02	.11	.55	.19
4	.883	1.805	.00	.00	.64	.01	.20	.03	.00
5	.752	1.955	.01	.07	.15	.02	.06	.01	.41
6	.446	2.539	.00	.01	.09	.42	.57	.03	.00
7	.060	6.938	.97	.89	.03	.48	.02	.01	.00

a. Dependent Variable: 1718COMPLETED

Casewise Diagnostics[a]

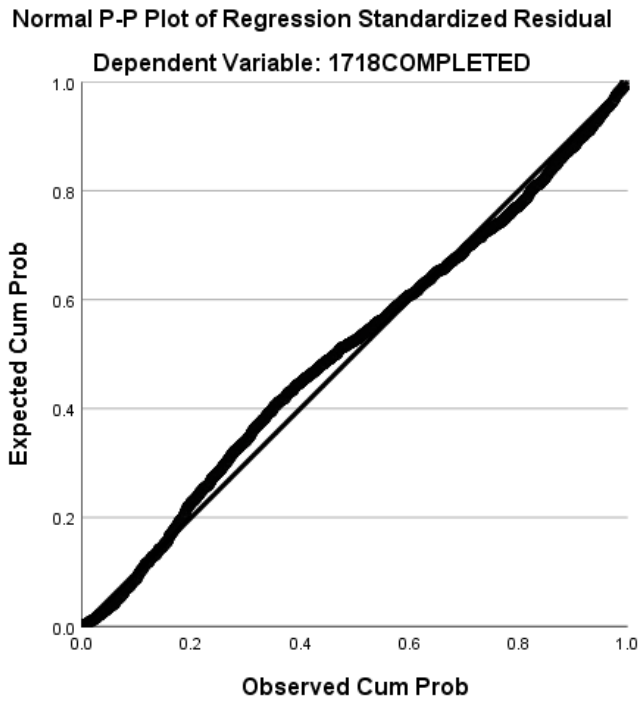
Case Number	Std. Residual	1718COMPLETED	Predicted Value	Residual
153	3.847	57	25.57	31.428
857	-3.035	0	24.79	-24.792
1154	3.605	30	.56	29.445
2038	-4.139	7	40.81	-33.811
2065	3.004	44	19.46	24.538
2267	-3.398	0	27.76	-27.760
2361	3.198	48	21.88	26.123
2374	3.130	44	18.43	25.568
2646	7.296	34	-25.60	59.597
2788	3.291	45	18.11	26.886
3232	3.859	61	29.47	31.527
3603	-3.191	32	58.07	-26.070

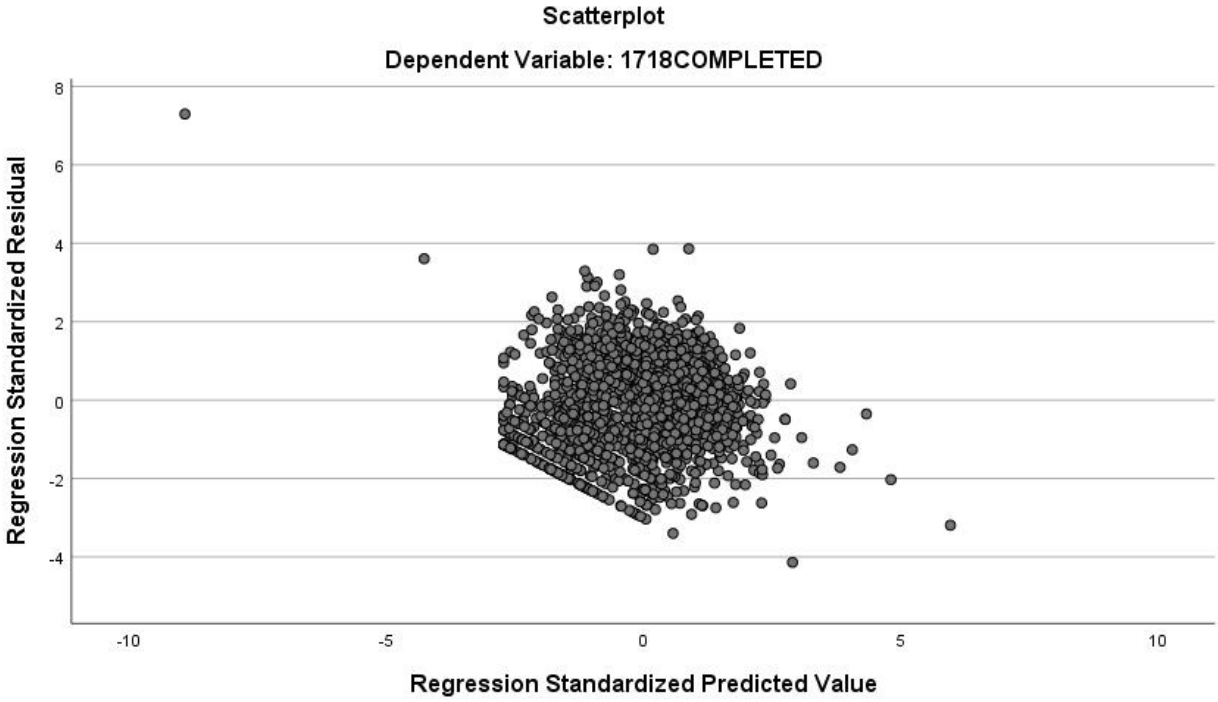
a. Dependent Variable: 1718COMPLETED

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-25.60	58.07	24.50	5.625	2608
Residual	-33.811	59.597	.000	8.159	2608
Std. Predicted Value	-8.906	5.968	.000	1.000	2608
Std. Residual	-4.139	7.296	.000	.999	2608

a. Dependent Variable: 1718COMPLETED


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: 1718COMPLETED
Expected Cum Prob
Observed Cum Prob
0.0
0.2
0.4
0.6
0.8
1.0


Scatterplot
Dependent Variable: 1718COMPLETED
Regression Standardized Residual
Regression Standardized Predicted Value
8
6
4
2
0
-2
-4
-10
-5
0
5
10

APPENDIX F

APPENDIX F

1819 LINEAR REGRESSION STANDARD (ENTER) METHOD

Descriptive Statistics

	Mean	Std. Deviation	N
1819COMPLETED	25.24	10.087	2222
1819PARENT_HIGHEST_ED_LVL	3.28	.700	2222
1819FAMILY INCOME	37855.54	42107.317	2222
1819GRANTS_TOT_ACPT	7538.9958	4666.95859	2222
1819WORKSTUDY_TOT_ACPT	292.5250	1079.71274	2222
1819SCHOLARS_TOT_ACPT	748.4664	1918.23906	2222
1819LOANS_TOT_ACPT	1695.76	2573.003	2222
1819OTHER_TOT_ACPT	157.3788	1100.86455	2222

Correlations

		1819COMPLETED	1819PARENT_HIGHEST_ED_LVL	1819FAMILY INCOME	1819GRANTS_TOT_ACPT	1819WORKSTUDY_TOT_ACPT	1819SCHOLARS_TOT_ACPT	1819LOANS_TOT_ACPT	1819OTHER_TOT_ACPT
Pearson Correlation	1819COMPLETED	1.000	-.022	.001	.468	.129	.156	.016	.044
	1819PARENT_HIGHEST_ED_LVL	-.022	1.000	.296	-.255	.033	.057	.128	.089
	1819FAMILY INCOME	.001	.296	1.000	-.530	-.027	.114	.221	.031
	1819GRANTS_TOT_ACPT	.468	-.255	-.530	1.000	.142	-.140	-.214	-.068
	1819WORKSTUDY_TOT_ACPT	.129	.033	-.027	.142	1.000	-.029	-.026	-.034
	1819SCHOLARS_TOT_ACPT	.156	.057	.114	-.140	-.029	1.000	-.073	.030
	1819LOANS_TOT_ACPT	.016	.128	.221	-.214	-.026	-.073	1.000	-.061
	1819OTHER_TOT_ACPT	.044	.089	.031	-.068	-.034	.030	-.061	1.000
Sig. (1-tailed)	1819COMPLETED	.	.147	.477	.000	.000	.000	.232	.018
	1819PARENT_HIGHEST_ED_LVL	.147	.	.000	.000	.062	.003	.000	.000
	1819FAMILY INCOME	.477	.000	.	.000	.106	.000	.000	.074
	1819GRANTS_TOT_ACPT	.000	.000	.000	.	.000	.000	.000	.001

	1819WORKSTUDY_TOT_ACPT	.000	.062	.106	.000	.	.089	.108	.056
	1819SCHOLARS_TOT_ACPT	.000	.003	.000	.000	.089	.	.000	.080
	1819LOANS_TOT_ACPT	.232	.000	.000	.000	.108	.000	.	.002
	1819OTHER_TOT_ACPT	.018	.000	.074	.001	.056	.080	.002	.
N	1819COMPLETED	2222	2222	2222	2222	2222	2222	2222	2222
	1819PARENT_HIGHEST_ED_LVL	2222	2222	2222	2222	2222	2222	2222	2222
	1819FAMILY INCOME	2222	2222	2222	2222	2222	2222	2222	2222
	1819GRANTS_TOT_ACPT	2222	2222	2222	2222	2222	2222	2222	2222
	1819WORKSTUDY_TOT_ACPT	2222	2222	2222	2222	2222	2222	2222	2222
	1819SCHOLARS_TOT_ACPT	2222	2222	2222	2222	2222	2222	2222	2222
	1819LOANS_TOT_ACPT	2222	2222	2222	2222	2222	2222	2222	2222
	1819OTHER_TOT_ACPT	2222	2222	2222	2222	2222	2222	2222	2222

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	1819OTHER_TOT_ACPT, 1819SCHOLARS_TOT_ACPT, 1819WORKSTUDY_TOT_ACPT, 1819LOANS_TOT_ACPT, 1819PARENT_HIGHEST_ED_LVL, 1819FAMILY INCOME, 1819GRANTS_TOT_ACPT[b]	.	Enter

a. Dependent Variable: 1819COMPLETED

b. All requested variables entered.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.608[a]	.370	.368	8.018

a. Predictors: (Constant), 1819OTHER_TOT_ACPT, 1819SCHOLARS_TOT_ACPT, 1819WORKSTUDY_TOT_ACPT, 1819LOANS_TOT_ACPT, 1819PARENT_HIGHEST_ED_LVL, 1819FAMILY INCOME, 1819GRANTS_TOT_ACPT

b. Dependent Variable: 1819COMPLETED

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	83647.030	7	11949.576	185.890	.000[b]
	Residual	142322.454	2214	64.283		
	Total	225969.483	2221			

a. Dependent Variable: 1819COMPLETED

b. Predictors: (Constant), 1819OTHER_TOT_ACPT, 1819SCHOLARS_TOT_ACPT, 1819WORKSTUDY_TOT_ACPT, 1819LOANS_TOT_ACPT, 1819PARENT_HIGHEST_ED_LVL, 1819FAMILY INCOME, 1819GRANTS_TOT_ACPT

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	7.999	.981		8.155	.000	6.076	9.923					
	1819PARENT_HIGHEST_ED_LVL	.383	.258	.027	1.483	.138	-.123	.890	-.022	.032	.025	.886	1.129
	1819FAMILY INCOME	7.393E-5	.000	.309	15.065	.000	.000	.000	.001	.305	.254	.678	1.475
	1819GRANTS_TOT_ACPT	.001	.000	.692	33.689	.000	.001	.002	.468	.582	.568	.674	1.485
	1819WORKSTUDY_TOT_ACPT	.000	.000	.051	2.964	.003	.000	.001	.129	.063	.050	.972	1.029
	1819SCHOLARS_TOT_ACPT	.001	.000	.223	12.995	.000	.001	.001	.156	.266	.219	.965	1.036
	1819LOANS_TOT_ACPT	.000	.000	.115	6.537	.000	.000	.001	.016	.138	.110	.917	1.090
	1819OTHER_TOT_ACPT	.001	.000	.082	4.812	.000	.000	.001	.044	.102	.081	.982	1.019

a. Dependent Variable: 1819COMPLETED

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions							
				(Constant)	1819PARENT_HIGHEST_ED_LVL	1819FAMILY INCOME	1819GRANTS_TOT_ACPT	1819WORKSTUDY_TOT_ACPT	1819SCHOLARS_TOT_ACPT	1819LOANS_TOT_ACPT	1819OTHER_TOT_ACPT
1	1	3.869	1.000	.00	.00	.01	.01	.01	.01	.02	.00
	2	1.028	1.940	.00	.00	.01	.01	.25	.09	.00	.52
	3	.946	2.022	.00	.00	.02	.01	.41	.02	.08	.35
	4	.861	2.120	.00	.00	.00	.00	.05	.70	.12	.07
	5	.700	2.351	.00	.00	.10	.08	.27	.02	.16	.01
	6	.470	2.869	.00	.00	.35	.01	.00	.14	.58	.02
	7	.107	6.011	.04	.11	.50	.72	.01	.02	.04	.01
	8	.018	14.695	.96	.88	.00	.17	.01	.00	.00	.00

a. Dependent Variable: 1819COMPLETED

Casewise Diagnostics[a]

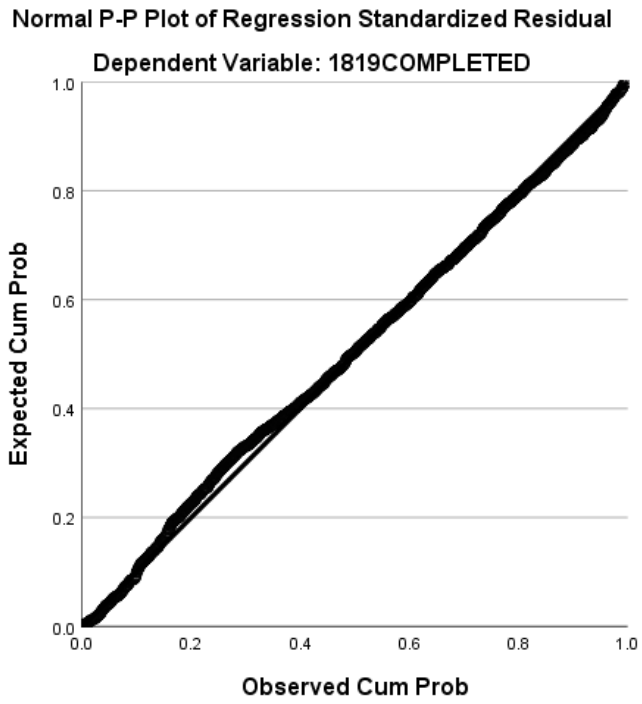
Case Number	Std. Residual	1819COMPLETED	Predicted Value	Residual
629	3.044	46	21.59	24.409
695	-3.893	0	31.21	-31.211
983	3.026	43	18.74	24.264
1364	3.052	36	11.53	24.469
2080	3.015	33	8.82	24.175
2172	-3.098	0	24.84	-24.842
2323	3.760	40	9.86	30.143
2341	-4.383	22	57.14	-35.141
2420	3.303	48	21.51	26.486
2553	3.362	51	24.05	26.952
2646	6.566	34	-18.64	52.642
2682	3.187	39	13.45	25.553
3477	-3.049	3	27.45	-24.446

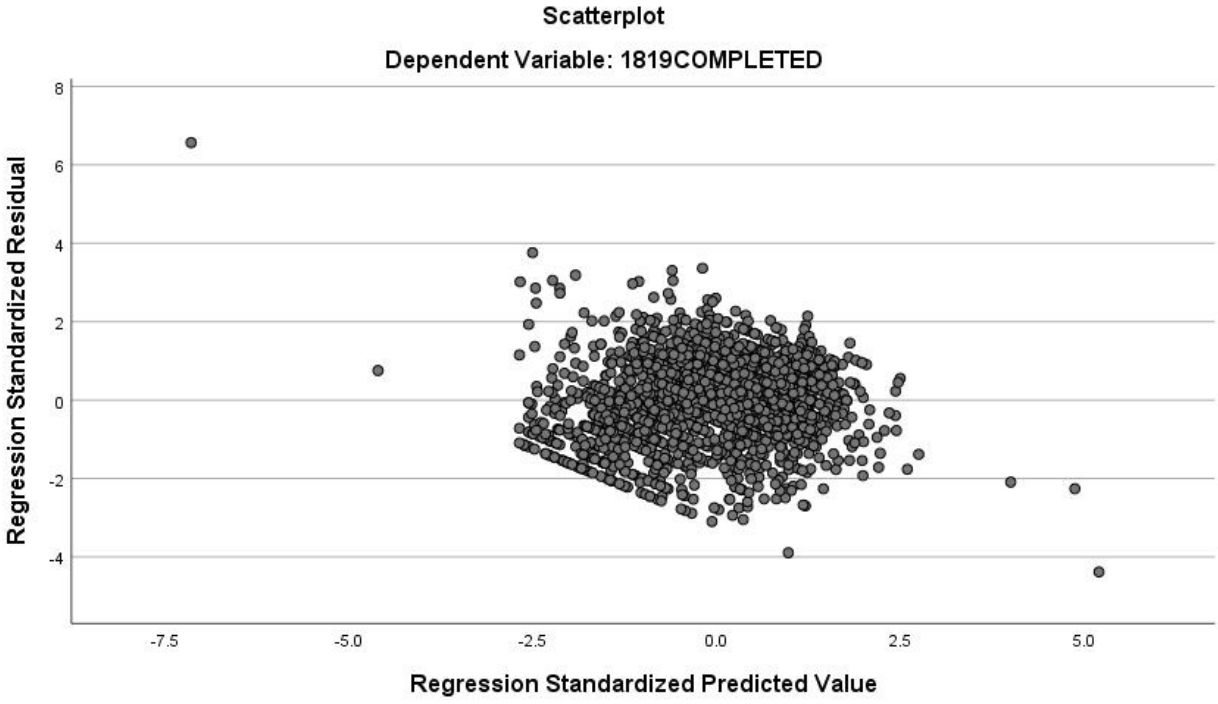
a. Dependent Variable: 1819COMPLETED

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-18.64	57.14	25.24	6.137	2222
Residual	-35.141	52.642	.000	8.005	2222
Std. Predicted Value	-7.150	5.199	.000	1.000	2222
Std. Residual	-4.383	6.566	.000	.998	2222

a. Dependent Variable: 1819COMPLETED


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: 1819COMPLETED
Expected Cum Prob
Observed Cum Prob
0.0
0.2
0.4
0.6
0.8
1.0


Scatterplot
Dependent Variable: 1819COMPLETED
Regression Standardized Residual
Regression Standardized Predicted Value
8
6
4
2
0
-2
-4
-7.5
-5.0
-2.5
0.0
2.5
5.0

APPENDIX G

APPENDIX G

1819 LINEAR REGRESSION STANDARD (ENTER) METHOD - EXCLUDING PARENT ED LVL

Descriptive Statistics

	Mean	Std. Deviation	N
1819COMPLETED	25.24	10.087	2222
1819FAMILY INCOME	37855.54	42107.317	2222
1819GRANTS_TOT_ACPT	7538.9958	4666.95859	2222
1819WORKSTUDY_TOT_ACPT	292.5250	1079.71274	2222
1819SCHOLARS_TOT_ACPT	748.4664	1918.23906	2222
1819LOANS_TOT_ACPT	1695.76	2573.003	2222
1819OTHER_TOT_ACPT	157.3788	1100.86455	2222

Correlations

		1819COMPLETED	1819FAMILY INCOME	1819GRANTS_TOT_ACPT	1819WORKSTUDY_TOT_ACPT	1819SCHOLARS_TOT_ACPT	1819LOANS_TOT_ACPT	1819OTHER_TOT_ACPT
Pearson Correlation	1819COMPLETED	1.000	.001	.468	.129	.156	.016	.044
	1819FAMILY INCOME	.001	1.000	-.530	-.027	.114	.221	.031
	1819GRANTS_TOT_ACPT	.468	-.530	1.000	.142	-.140	-.214	-.068
	1819WORKSTUDY_TOT_ACPT	.129	-.027	.142	1.000	-.029	-.026	-.034
	1819SCHOLARS_TOT_ACPT	.156	.114	-.140	-.029	1.000	-.073	.030
	1819LOANS_TOT_ACPT	.016	.221	-.214	-.026	-.073	1.000	-.061
	1819OTHER_TOT_ACPT	.044	.031	-.068	-.034	.030	-.061	1.000
Sig. (1-tailed)	1819COMPLETED	.	.477	.000	.000	.000	.232	.018
	1819FAMILY INCOME	.477	.	.000	.106	.000	.000	.074
	1819GRANTS_TOT_ACPT	.000	.000	.	.000	.000	.000	.001
	1819WORKSTUDY_TOT_ACPT	.000	.106	.000	.	.089	.108	.056
	1819SCHOLARS_TOT_ACPT	.000	.000	.000	.089	.	.000	.080
	1819LOANS_TOT_ACPT	.232	.000	.000	.108	.000	.	.002

	1819OTHER_TOT_ACPT	.018	.074	.001	.056	.080	.002	.
N	1819COMPLETED	2222	2222	2222	2222	2222	2222	2222
	1819FAMILY INCOME	2222	2222	2222	2222	2222	2222	2222
	1819GRANTS_TOT_ACPT	2222	2222	2222	2222	2222	2222	2222
	1819WORKSTUDY_TOT_ACPT	2222	2222	2222	2222	2222	2222	2222
	1819SCHOLARS_TOT_ACPT	2222	2222	2222	2222	2222	2222	2222
	1819LOANS_TOT_ACPT	2222	2222	2222	2222	2222	2222	2222
	1819OTHER_TOT_ACPT	2222	2222	2222	2222	2222	2222	2222

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	1819OTHER_TOT_ACPT, 1819SCHOLARS_TOT_ACPT, 1819WORKSTUDY_TOT_ACPT, 1819LOANS_TOT_ACPT, 1819FAMILY INCOME, 1819GRANTS_TOT_ACPT[b]	.	Enter

a. Dependent Variable: 1819COMPLETED

b. All requested variables entered.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.608[a]	.370	.368	8.020

a. Predictors: (Constant), 1819OTHER_TOT_ACPT, 1819SCHOLARS_TOT_ACPT, 1819WORKSTUDY_TOT_ACPT, 1819LOANS_TOT_ACPT, 1819FAMILY INCOME, 1819GRANTS_TOT_ACPT

b. Dependent Variable: 1819COMPLETED

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	83505.569	6	13917.595	216.388	.000[b]
	Residual	142463.915	2215	64.318		
	Total	225969.483	2221			

a. Dependent Variable: 1819COMPLETED

b. Predictors: (Constant), 1819OTHER_TOT_ACPT, 1819SCHOLARS_TOT_ACPT, 1819WORKSTUDY_TOT_ACPT, 1819LOANS_TOT_ACPT, 1819FAMILY INCOME, 1819GRANTS_TOT_ACPT

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	9.243	.510		18.129	.000	8.243	10.243					
	1819FAMILY INCOME	7.527E-5	.000	.314	15.600	.000	.000	.000	.001	.315	.263	.702	1.425
	1819GRANTS_TOT_ACPT	.001	.000	.689	33.732	.000	.001	.002	.468	.583	.569	.683	1.465
	1819WORKSTUDY_TOT_ACPT	.000	.000	.052	3.065	.002	.000	.001	.129	.065	.052	.976	1.025
	1819SCHOLARS_TOT_ACPT	.001	.000	.224	13.023	.000	.001	.001	.156	.267	.220	.965	1.036
	1819LOANS_TOT_ACPT	.000	.000	.117	6.641	.000	.000	.001	.016	.140	.112	.921	1.086
	1819OTHER_TOT_ACPT	.001	.000	.084	4.952	.000	.000	.001	.044	.105	.084	.989	1.012

a. Dependent Variable: 1819COMPLETED

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions						
				(Constant)	1819FAMILY INCOME	1819GRANTS_TOT_ACPT	1819WORKSTUDY_TOT_ACPT	1819SCHOLARS_TOT_ACPT	1819LOANS_TOT_ACPT	1819OTHER_TOT_ACPT
1	1	2.958	1.000	.01	.03	.01	.01	.02	.03	.00
	2	1.028	1.696	.00	.01	.01	.25	.09	.00	.52
	3	.946	1.768	.00	.02	.01	.41	.02	.08	.36
	4	.859	1.856	.00	.00	.00	.04	.68	.14	.08
	5	.679	2.088	.01	.10	.11	.28	.01	.10	.01
	6	.461	2.532	.00	.39	.00	.01	.14	.59	.02
	7	.069	6.563	.97	.45	.86	.01	.03	.05	.01

a. Dependent Variable: 1819COMPLETED

Casewise Diagnostics[a]

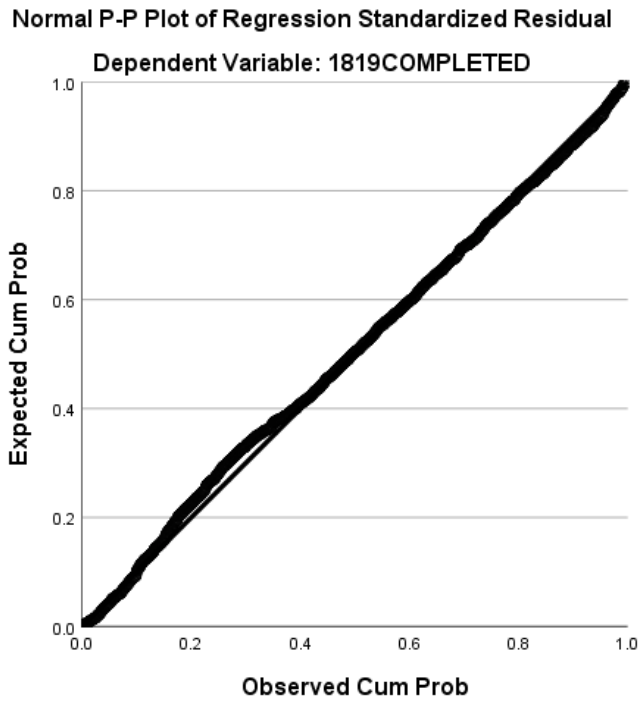
Case Number	Std. Residual	1819COMPLETED	Predicted Value	Residual
629	3.039	46	21.63	24.370
695	-3.901	0	31.29	-31.288
983	3.041	43	18.61	24.387
1364	3.083	36	11.28	24.723
2172	-3.157	0	25.32	-25.317
2323	3.794	40	9.57	30.426
2341	-4.441	22	57.62	-35.620
2420	3.313	48	21.43	26.572
2553	3.355	51	24.09	26.906
2646	6.699	34	-19.73	53.729
2682	3.165	39	13.62	25.381
3477	-3.055	3	27.50	-24.497

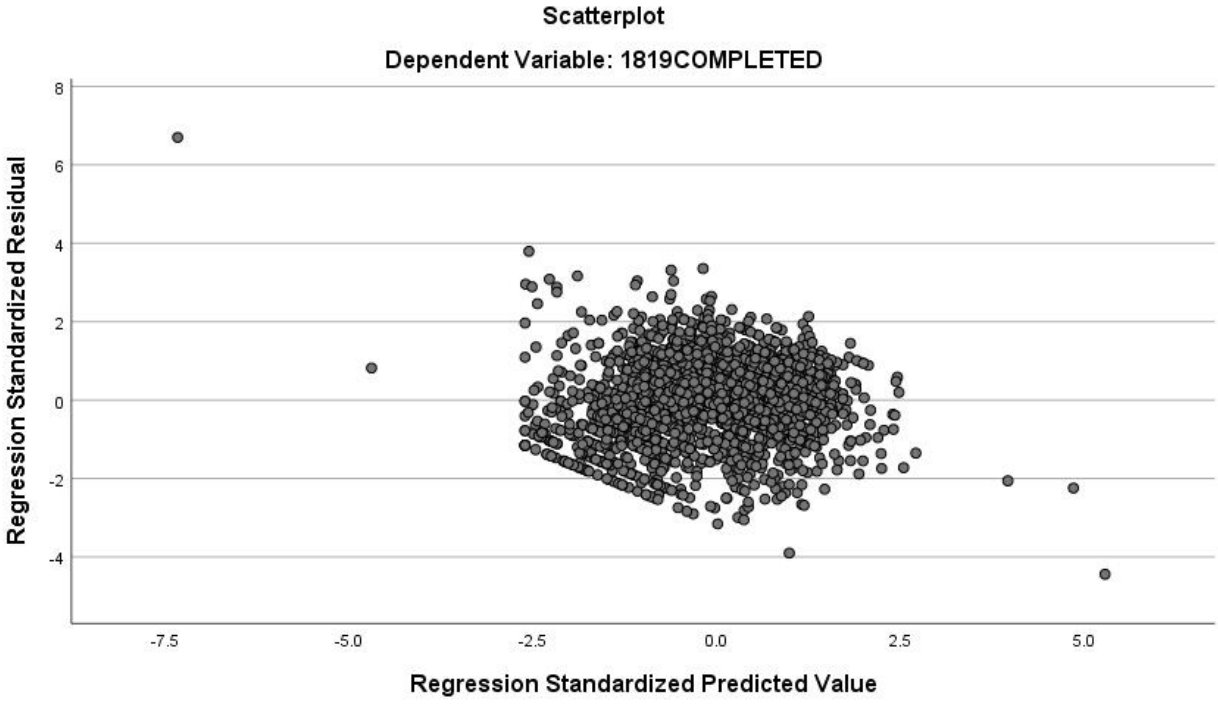
a. Dependent Variable: 1819COMPLETED

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-19.73	57.62	25.24	6.132	2222
Residual	-35.620	53.729	.000	8.009	2222
Std. Predicted Value	-7.333	5.281	.000	1.000	2222
Std. Residual	-4.441	6.699	.000	.999	2222

a. Dependent Variable: 1819COMPLETED


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: 1819COMPLETED
Expected Cum Prob
Observed Cum Prob
0.0
0.2
0.4
0.6
0.8
1.0


Scatterplot
Dependent Variable: 1819COMPLETED
Regression Standardized Residual
Regression Standardized Predicted Value
8
6
4
2
0
-2
-4
-7.5
-5.0
-2.5
0.0
2.5
5.0

APPENDIX H

APPENDIX H

1819 LINEAR REGRESSION STEPWISE METHOD

Descriptive Statistics

	Mean	Std. Deviation	N
1819COMPLETED	25.24	10.087	2222
1819PARENT_HIGHEST_ED_LVL	3.28	.700	2222
1819FAMILY INCOME	37855.54	42107.317	2222
1819GRANTS_TOT_ACPT	7538.9958	4666.95859	2222
1819WORKSTUDY_TOT_ACPT	292.5250	1079.71274	2222
1819SCHOLARS_TOT_ACPT	748.4664	1918.23906	2222
1819LOANS_TOT_ACPT	1695.76	2573.003	2222
1819OTHER_TOT_ACPT	157.3788	1100.86455	2222

Correlations

		1819COMPLETED	1819PARENT_HIGHEST_ED_LVL	1819FAMILY INCOME	1819GRANTS_TOT_ACPT	1819WORKSTUDY_TOT_ACPT	1819SCHOLARS_TOT_ACPT	1819LOANS_TOT_ACPT	1819OTHER_TOT_ACPT
Pearson Correlation	1819COMPLETED	1.000	-.022	.001	.468	.129	.156	.016	.044
	1819PARENT_HIGHEST_ED_LVL	-.022	1.000	.296	-.255	.033	.057	.128	.089
	1819FAMILY INCOME	.001	.296	1.000	-.530	-.027	.114	.221	.031
	1819GRANTS_TOT_ACPT	.468	-.255	-.530	1.000	.142	-.140	-.214	-.068
	1819WORKSTUDY_TOT_ACPT	.129	.033	-.027	.142	1.000	-.029	-.026	-.034
	1819SCHOLARS_TOT_ACPT	.156	.057	.114	-.140	-.029	1.000	-.073	.030
	1819LOANS_TOT_ACPT	.016	.128	.221	-.214	-.026	-.073	1.000	-.061
	1819OTHER_TOT_ACPT	.044	.089	.031	-.068	-.034	.030	-.061	1.000
Sig. (1-tailed)	1819COMPLETED	.	.147	.477	.000	.000	.000	.232	.018
	1819PARENT_HIGHEST_ED_LVL	.147	.	.000	.000	.062	.003	.000	.000
	1819FAMILY INCOME	.477	.000	.	.000	.106	.000	.000	.074
	1819GRANTS_TOT_ACPT	.000	.000	.000	.	.000	.000	.000	.001

	1819WORKSTUDY_TOT_ACPT	.000	.062	.106	.000	.	.089	.108	.056
	1819SCHOLARS_TOT_ACPT	.000	.003	.000	.000	.089	.	.000	.080
	1819LOANS_TOT_ACPT	.232	.000	.000	.000	.108	.000	.	.002
	1819OTHER_TOT_ACPT	.018	.000	.074	.001	.056	.080	.002	.
N	1819COMPLETED	2222	2222	2222	2222	2222	2222	2222	2222
	1819PARENT_HIGHEST_ED_LVL	2222	2222	2222	2222	2222	2222	2222	2222
	1819FAMILY INCOME	2222	2222	2222	2222	2222	2222	2222	2222
	1819GRANTS_TOT_ACPT	2222	2222	2222	2222	2222	2222	2222	2222
	1819WORKSTUDY_TOT_ACPT	2222	2222	2222	2222	2222	2222	2222	2222
	1819SCHOLARS_TOT_ACPT	2222	2222	2222	2222	2222	2222	2222	2222
	1819LOANS_TOT_ACPT	2222	2222	2222	2222	2222	2222	2222	2222
	1819OTHER_TOT_ACPT	2222	2222	2222	2222	2222	2222	2222	2222

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	1819GRANTS_TOT_ACPT	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	1819FAMILY INCOME	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
3	1819SCHOLARS_TOT_ACPT	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
4	1819LOANS_TOT_ACPT	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

5	1819OTHER_TOT_ACPT	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
6	1819WORKSTUDY_TOT_ACPT	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: 1819COMPLETED

Model Summary[g]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.468[a]	.219	.218	8.918
2	.552[b]	.305	.304	8.413
3	.591[c]	.349	.348	8.145
4	.600[d]	.360	.359	8.076
5	.606[e]	.367	.365	8.035
6	.608[f]	.370	.368	8.020

a. Predictors: (Constant), 1819GRANTS_TOT_ACPT

b. Predictors: (Constant), 1819GRANTS_TOT_ACPT, 1819FAMILY INCOME

c. Predictors: (Constant), 1819GRANTS_TOT_ACPT, 1819FAMILY INCOME, 1819SCHOLARS_TOT_ACPT

d. Predictors: (Constant), 1819GRANTS_TOT_ACPT, 1819FAMILY INCOME, 1819SCHOLARS_TOT_ACPT, 1819LOANS_TOT_ACPT

e. Predictors: (Constant), 1819GRANTS_TOT_ACPT, 1819FAMILY INCOME, 1819SCHOLARS_TOT_ACPT, 1819LOANS_TOT_ACPT, 1819OTHER_TOT_ACPT

f. Predictors: (Constant), 1819GRANTS_TOT_ACPT, 1819FAMILY INCOME, 1819SCHOLARS_TOT_ACPT, 1819LOANS_TOT_ACPT, 1819OTHER_TOT_ACPT, 1819WORKSTUDY_TOT_ACPT

g. Dependent Variable: 1819COMPLETED

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	49396.347	1	49396.347	621.045	.000[b]
	Residual	176573.137	2220	79.537		
	Total	225969.483	2221			
2	Regression	68927.582	2	34463.791	486.973	.000[c]
	Residual	157041.901	2219	70.771		
	Total	225969.483	2221			
3	Regression	78843.066	3	26281.022	396.199	.000[d]
	Residual	147126.418	2218	66.333		
	Total	225969.483	2221			
4	Regression	81370.028	4	20342.507	311.891	.000[e]
	Residual	144599.456	2217	65.223		
	Total	225969.483	2221			
5	Regression	82901.368	5	16580.274	256.814	.000[f]
	Residual	143068.115	2216	64.561		
	Total	225969.483	2221			
6	Regression	83505.569	6	13917.595	216.388	.000[g]
	Residual	142463.915	2215	64.318		
	Total	225969.483	2221			

a. Dependent Variable: 1819COMPLETED

b. Predictors: (Constant), 1819GRANTS_TOT_ACPT

c. Predictors: (Constant), 1819GRANTS_TOT_ACPT, 1819FAMILY INCOME

d. Predictors: (Constant), 1819GRANTS_TOT_ACPT, 1819FAMILY INCOME, 1819SCHOLARS_TOT_ACPT

e. Predictors: (Constant), 1819GRANTS_TOT_ACPT, 1819FAMILY INCOME, 1819SCHOLARS_TOT_ACPT, 1819LOANS_TOT_ACPT

f. Predictors: (Constant), 1819GRANTS_TOT_ACPT, 1819FAMILY INCOME, 1819SCHOLARS_TOT_ACPT, 1819LOANS_TOT_ACPT, 1819OTHER_TOT_ACPT

g. Predictors: (Constant), 1819GRANTS_TOT_ACPT, 1819FAMILY INCOME, 1819SCHOLARS_TOT_ACPT, 1819LOANS_TOT_ACPT, 1819OTHER_TOT_ACPT, 1819WORKSTUDY_TOT_ACPT

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	17.619	.360		49.007	.000	16.914	18.324					
	1819GRANTS_TOT_ACPT	.001	.000	.468	24.921	.000	.001	.001	.468	.468	.468	1.000	1.000
2	(Constant)	11.477	.502		22.876	.000	10.493	12.460					
	1819GRANTS_TOT_ACPT	.001	.000	.651	31.208	.000	.001	.001	.468	.552	.552	.719	1.391
	1819FAMILY INCOME	8.307E-5	.000	.347	16.613	.000	.000	.000	.001	.333	.294	.719	1.391
3	(Constant)	10.367	.494		20.981	.000	9.398	11.336					
	1819GRANTS_TOT_ACPT	.001	.000	.675	33.246	.000	.001	.002	.468	.577	.570	.712	1.404
	1819FAMILY INCOME	8.028E-5	.000	.335	16.563	.000	.000	.000	.001	.332	.284	.717	1.395
	1819SCHOLARS_TOT_ACPT	.001	.000	.212	12.226	.000	.001	.001	.156	.251	.209	.978	1.022
4	(Constant)	9.478	.510		18.572	.000	8.477	10.479					
	1819GRANTS_TOT_ACPT	.001	.000	.691	34.049	.000	.001	.002	.468	.586	.578	.701	1.428
	1819FAMILY INCOME	7.620E-5	.000	.318	15.710	.000	.000	.000	.001	.317	.267	.704	1.420
	1819SCHOLARS_TOT_ACPT	.001	.000	.224	12.957	.000	.001	.001	.156	.265	.220	.966	1.036

	1819LOANS_TOT_ACPT	.000	.000	.110	6.224	.000	.000	.001	.016	.131	.106	.926	1.080
5	(Constant)	9.212	.511		18.038	.000	8.210	10.213					
	1819GRANTS_TOT_ACPT	.002	.000	.698	34.477	.000	.001	.002	.468	.591	.583	.697	1.434
	1819FAMILY INCOME	7.613E-5	.000	.318	15.776	.000	.000	.000	.001	.318	.267	.704	1.420
	1819SCHOLARS_TOT_ACPT	.001	.000	.223	12.963	.000	.001	.001	.156	.265	.219	.965	1.036
	1819LOANS_TOT_ACPT	.000	.000	.116	6.608	.000	.000	.001	.016	.139	.112	.921	1.086
	1819OTHER_TOT_ACPT	.001	.000	.083	4.870	.000	.000	.001	.044	.103	.082	.989	1.011
6	(Constant)	9.243	.510		18.129	.000	8.243	10.243					
	1819GRANTS_TOT_ACPT	.001	.000	.689	33.732	.000	.001	.002	.468	.583	.569	.683	1.465
	1819FAMILY INCOME	7.527E-5	.000	.314	15.600	.000	.000	.000	.001	.315	.263	.702	1.425
	1819SCHOLARS_TOT_ACPT	.001	.000	.224	13.023	.000	.001	.001	.156	.267	.220	.965	1.036
	1819LOANS_TOT_ACPT	.000	.000	.117	6.641	.000	.000	.001	.016	.140	.112	.921	1.086
	1819OTHER_TOT_ACPT	.001	.000	.084	4.952	.000	.000	.001	.044	.105	.084	.989	1.012
	1819WORKSTUDY_TOT_ACPT	.000	.000	.052	3.065	.002	.000	.001	.129	.065	.052	.976	1.025

a. Dependent Variable: 1819COMPLETED

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics		
						Tolerance	VIF	Minimum Tolerance
1	1819PARENT_HIGHEST_ED_LVL	.104[b]	5.389	.000	.114	.935	1.070	.935
	1819FAMILY INCOME	.347[b]	16.613	.000	.333	.719	1.391	.719
	1819WORKSTUDY_TOT_ACPT	.064[b]	3.402	.001	.072	.980	1.020	.980
	1819SCHOLARS_TOT_ACPT	.225[b]	12.288	.000	.252	.980	1.020	.980
	1819LOANS_TOT_ACPT	.121[b]	6.374	.000	.134	.954	1.048	.954
	1819OTHER_TOT_ACPT	.077[b]	4.092	.000	.087	.995	1.005	.995
2	1819PARENT_HIGHEST_ED_LVL	.046[c]	2.467	.014	.052	.899	1.113	.691
	1819WORKSTUDY_TOT_ACPT	.047[c]	2.645	.008	.056	.977	1.024	.702
	1819SCHOLARS_TOT_ACPT	.212[c]	12.226	.000	.251	.978	1.022	.712
	1819LOANS_TOT_ACPT	.084[c]	4.613	.000	.097	.938	1.066	.707
	1819OTHER_TOT_ACPT	.079[c]	4.449	.000	.094	.995	1.005	.716
3	1819PARENT_HIGHEST_ED_LVL	.043[d]	2.383	.017	.051	.899	1.113	.690
	1819WORKSTUDY_TOT_ACPT	.050[d]	2.877	.004	.061	.977	1.024	.697
	1819LOANS_TOT_ACPT	.110[d]	6.224	.000	.131	.926	1.080	.701
	1819OTHER_TOT_ACPT	.074[d]	4.339	.000	.092	.995	1.005	.710

4	1819PARENT_HIGHEST_ED_LVL	.037[e]	2.058	.040	.044	.896	1.116	.679
	1819WORKSTUDY_TOT_ACPT	.050[e]	2.931	.003	.062	.977	1.024	.685
	1819OTHER_TOT_ACPT	.083[e]	4.870	.000	.103	.989	1.011	.697
5	1819PARENT_HIGHEST_ED_LVL	.030[f]	1.675	.094	.036	.890	1.124	.679
	1819WORKSTUDY_TOT_ACPT	.052[f]	3.065	.002	.065	.976	1.025	.683
6	1819PARENT_HIGHEST_ED_LVL	.027[g]	1.483	.138	.032	.886	1.129	.674

a. Dependent Variable: 1819COMPLETED

b. Predictors in the Model: (Constant), 1819GRANTS_TOT_ACPT

c. Predictors in the Model: (Constant), 1819GRANTS_TOT_ACPT, 1819FAMILY INCOME

d. Predictors in the Model: (Constant), 1819GRANTS_TOT_ACPT, 1819FAMILY INCOME, 1819SCHOLARS_TOT_ACPT

e. Predictors in the Model: (Constant), 1819GRANTS_TOT_ACPT, 1819FAMILY INCOME, 1819SCHOLARS_TOT_ACPT, 1819LOANS_TOT_ACPT

f. Predictors in the Model: (Constant), 1819GRANTS_TOT_ACPT, 1819FAMILY INCOME, 1819SCHOLARS_TOT_ACPT, 1819LOANS_TOT_ACPT, 1819OTHER_TOT_ACPT

g. Predictors in the Model: (Constant), 1819GRANTS_TOT_ACPT, 1819FAMILY INCOME, 1819SCHOLARS_TOT_ACPT, 1819LOANS_TOT_ACPT, 1819OTHER_TOT_ACPT, 1819WORKSTUDY_TOT_ACPT

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions (Constant)	1819GRANTS_TOT_ACPT	1819FAMILY INCOME	1819SCHOLARS_TOT_ACPT	1819LOANS_TOT_ACPT	1819OTHER_TOT_ACPT	1819WORKSTUDY_TOT_ACPT
1	1	1.850	1.000	.07	.07					
	2	.150	3.516	.93	.93					
2	1	2.274	1.000	.02	.03	.04				
	2	.652	1.868	.00	.11	.39				
	3	.074	5.534	.97	.86	.56				
3	1	2.469	1.000	.02	.02	.04	.04			
	2	.837	1.717	.01	.04	.01	.76			
	3	.621	1.994	.00	.07	.42	.17			
	4	.073	5.824	.97	.86	.54	.02			
4	1	2.842	1.000	.01	.02	.03	.02	.04		
	2	.879	1.798	.00	.00	.00	.78	.11		
	3	.742	1.957	.01	.12	.12	.01	.22		
	4	.468	2.466	.00	.00	.40	.15	.58		
	5	.070	6.389	.97	.86	.45	.03	.05		
5	1	2.865	1.000	.01	.01	.03	.02	.04	.00	
	2	.997	1.695	.00	.00	.00	.05	.04	.85	
	3	.865	1.820	.00	.00	.00	.76	.07	.11	
	4	.741	1.967	.01	.12	.12	.01	.21	.00	
	5	.462	2.489	.00	.00	.40	.14	.58	.02	
	6	.069	6.443	.97	.86	.45	.03	.05	.01	
6	1	2.958	1.000	.01	.01	.03	.02	.03	.00	.01
	2	1.028	1.696	.00	.01	.01	.09	.00	.52	.25

3	.946	1.768	.00	.01	.02	.02	.08	.36	.41
4	.859	1.856	.00	.00	.00	.68	.14	.08	.04
5	.679	2.088	.01	.11	.10	.01	.10	.01	.28
6	.461	2.532	.00	.00	.39	.14	.59	.02	.01
7	.069	6.563	.97	.86	.45	.03	.05	.01	.01

a. Dependent Variable: 1819COMPLETED

Casewise Diagnostics[a]

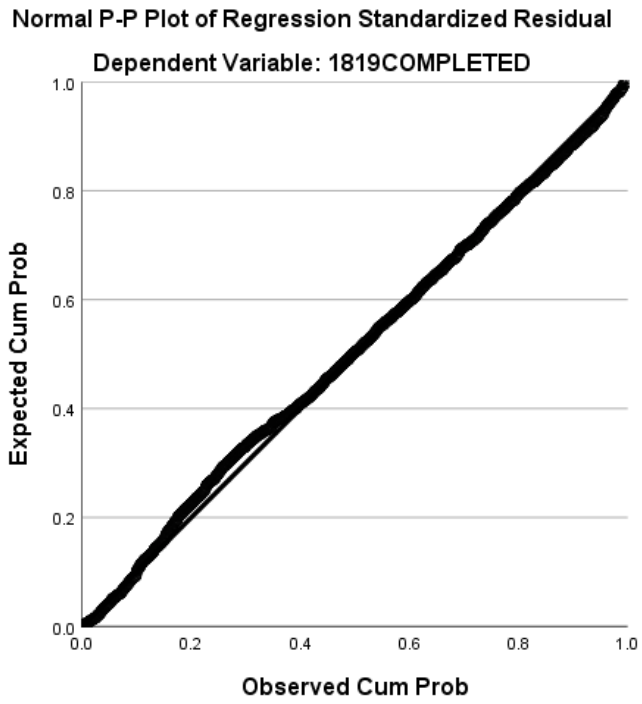
Case Number	Std. Residual	1819COMPLETED	Predicted Value	Residual
629	3.039	46	21.63	24.370
695	-3.901	0	31.29	-31.288
983	3.041	43	18.61	24.387
1364	3.083	36	11.28	24.723
2172	-3.157	0	25.32	-25.317
2323	3.794	40	9.57	30.426
2341	-4.441	22	57.62	-35.620
2420	3.313	48	21.43	26.572
2553	3.355	51	24.09	26.906
2646	6.699	34	-19.73	53.729
2682	3.165	39	13.62	25.381
3477	-3.055	3	27.50	-24.497

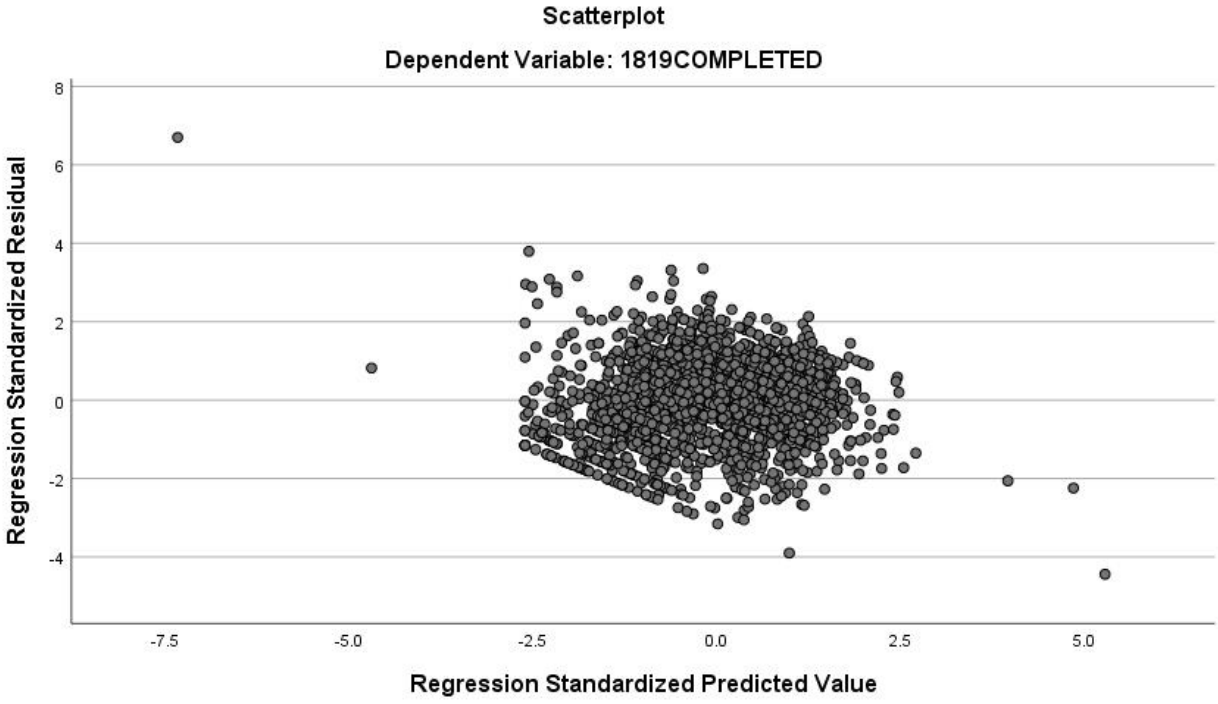
a. Dependent Variable: 1819COMPLETED

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-19.73	57.62	25.24	6.132	2222
Residual	-35.620	53.729	.000	8.009	2222
Std. Predicted Value	-7.333	5.281	.000	1.000	2222
Std. Residual	-4.441	6.699	.000	.999	2222

a. Dependent Variable: 1819COMPLETED


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: 1819COMPLETED
Expected Cum Prob
Observed Cum Prob
0.0
0.2
0.4
0.6
0.8
1.0


Scatterplot
Dependent Variable: 1819COMPLETED
Regression Standardized Residual
Regression Standardized Predicted Value
8
6
4
2
0
-2
-4
-7.5
-5.0
-2.5
0.0
2.5
5.0

APPENDIX I

APPENDIX I

1920 LINEAR REGRESSION STANDARD (ENTER) METHOD

Descriptive Statistics

	Mean	Std. Deviation	N
1920COMPLETED	24.52	10.097	1802
1920PARENT_HIGHEST_ED_LVL	3.30	.701	1802
1920FAMILY INCOME	40544.38	47401.749	1802
1920GRANTS_TOT_ACPT	6933.0424	4542.59581	1802
1920WORKSTUDY_TOT_ACPT	255.0867	971.75188	1802
1920SCHOLARS_TOT_ACPT	998.1326	1771.53988	1802
1920LOANS_TOT_ACPT	1837.64	2704.939	1802
1920OTHER_TOT_ACPT	126.5405	974.19918	1802

Correlations

		1920COMPLETED	1920PARENT_HIGHEST_ED_LVL	1920FAMILY INCOME	1920GRANTS_TOT_ACPT	1920WORKSTUDY_TOT_ACPT	1920SCHOLARS_TOT_ACPT	1920LOANS_TOT_ACPT	1920OTHER_TOT_ACPT
Pearson Correlation	1920COMPLETED	1.000	.021	-.023	.480	.113	.176	.089	.019
	1920PARENT_HIGHEST_ED_LVL	.021	1.000	.273	-.221	-.030	.053	.136	.077
	1920FAMILY INCOME	-.023	.273	1.000	-.504	-.037	.047	.236	.036
	1920GRANTS_TOT_ACPT	.480	-.221	-.504	1.000	.148	-.062	-.191	-.054
	1920WORKSTUDY_TOT_ACPT	.113	-.030	-.037	.148	1.000	.000	-.048	-.024
	1920SCHOLARS_TOT_ACPT	.176	.053	.047	-.062	.000	1.000	-.001	.014
	1920LOANS_TOT_ACPT	.089	.136	.236	-.191	-.048	-.001	1.000	-.060
	1920OTHER_TOT_ACPT	.019	.077	.036	-.054	-.024	.014	-.060	1.000
Sig. (1-tailed)	1920COMPLETED	.	.182	.163	.000	.000	.000	.000	.211
	1920PARENT_HIGHEST_ED_LVL	.182	.	.000	.000	.103	.012	.000	.001
	1920FAMILY INCOME	.163	.000	.	.000	.057	.023	.000	.061
	1920GRANTS_TOT_ACPT	.000	.000	.000	.	.000	.004	.000	.010

	1920WORKSTUDY_TOT_ACPT	.000	.103	.057	.000	.	.494	.020	.157
	1920SCHOLARS_TOT_ACPT	.000	.012	.023	.004	.494	.	.489	.271
	1920LOANS_TOT_ACPT	.000	.000	.000	.000	.020	.489	.	.005
	1920OTHER_TOT_ACPT	.211	.001	.061	.010	.157	.271	.005	.
N	1920COMPLETED	1802	1802	1802	1802	1802	1802	1802	1802
	1920PARENT_HIGHEST_ED_LVL	1802	1802	1802	1802	1802	1802	1802	1802
	1920FAMILY INCOME	1802	1802	1802	1802	1802	1802	1802	1802
	1920GRANTS_TOT_ACPT	1802	1802	1802	1802	1802	1802	1802	1802
	1920WORKSTUDY_TOT_ACPT	1802	1802	1802	1802	1802	1802	1802	1802
	1920SCHOLARS_TOT_ACPT	1802	1802	1802	1802	1802	1802	1802	1802
	1920LOANS_TOT_ACPT	1802	1802	1802	1802	1802	1802	1802	1802
	1920OTHER_TOT_ACPT	1802	1802	1802	1802	1802	1802	1802	1802

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	1920OTHER_TOT_ACPT, 1920SCHOLARS_TOT_ACPT, 1920WORKSTUDY_TOT_ACPT, 1920FAMILY INCOME, 1920LOANS_TOT_ACPT, 1920PARENT_HIGHEST_ED_LVL, 1920GRANTS_TOT_ACPT[b]	.	Enter

a. Dependent Variable: 1920COMPLETED

b. All requested variables entered.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.604[a]	.365	.362	8.062

a. Predictors: (Constant), 1920OTHER_TOT_ACPT, 1920SCHOLARS_TOT_ACPT, 1920WORKSTUDY_TOT_ACPT, 1920FAMILY INCOME, 1920LOANS_TOT_ACPT, 1920PARENT_HIGHEST_ED_LVL, 1920GRANTS_TOT_ACPT

b. Dependent Variable: 1920COMPLETED

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	66984.303	7	9569.186	147.216	.000[b]
	Residual	116611.762	1794	65.001		
	Total	183596.065	1801			

a. Dependent Variable: 1920COMPLETED

b. Predictors: (Constant), 1920OTHER_TOT_ACPT, 1920SCHOLARS_TOT_ACPT, 1920WORKSTUDY_TOT_ACPT, 1920FAMILY INCOME, 1920LOANS_TOT_ACPT, 1920PARENT_HIGHEST_ED_LVL, 1920GRANTS_TOT_ACPT

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	6.819	1.062		6.420	.000	4.736	8.903					
	1920PARENT_HIGHEST_ED_LVL	.949	.285	.066	3.331	.001	.390	1.508	.021	.078	.063	.906	1.104
	1920FAMILY INCOME	5.189E-5	.000	.244	10.836	.000	.000	.000	-.023	.248	.204	.700	1.428
	1920GRANTS_TOT_ACPT	.001	.000	.656	29.516	.000	.001	.002	.480	.572	.555	.716	1.397
	1920WORKSTUDY_TOT_ACPT	.000	.000	.035	1.827	.068	.000	.001	.113	.043	.034	.975	1.026
	1920SCHOLARS_TOT_ACPT	.001	.000	.201	10.668	.000	.001	.001	.176	.244	.201	.994	1.006
	1920LOANS_TOT_ACPT	.001	.000	.153	7.799	.000	.000	.001	.089	.181	.147	.926	1.080
	1920OTHER_TOT_ACPT	.000	.000	.048	2.524	.012	.000	.001	.019	.059	.047	.986	1.014

a. Dependent Variable: 1920COMPLETED

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions							
				(Constant)	1920PARENT_HIGHEST_ED_LVL	1920FAMILY INCOME	1920GRANTS_TOT_ACPT	1920WORKSTUDY_TOT_ACPT	1920SCHOLARS_TOT_ACPT	1920LOANS_TOT_ACPT	1920OTHER_TOT_ACPT
1	1	3.965	1.000	.00	.00	.01	.01	.01	.02	.02	.00
	2	1.008	1.983	.00	.00	.01	.01	.29	.00	.00	.58
	3	.969	2.023	.00	.00	.02	.01	.40	.00	.09	.35
	4	.756	2.289	.00	.00	.06	.01	.10	.55	.16	.02
	5	.674	2.426	.00	.00	.09	.09	.18	.36	.02	.00
	6	.488	2.849	.00	.00	.31	.00	.00	.05	.69	.03
	7	.121	5.722	.04	.09	.49	.75	.01	.02	.02	.01
	8	.019	14.585	.96	.90	.00	.12	.00	.00	.00	.00

a. Dependent Variable: 1920COMPLETED

Casewise Diagnostics[a]

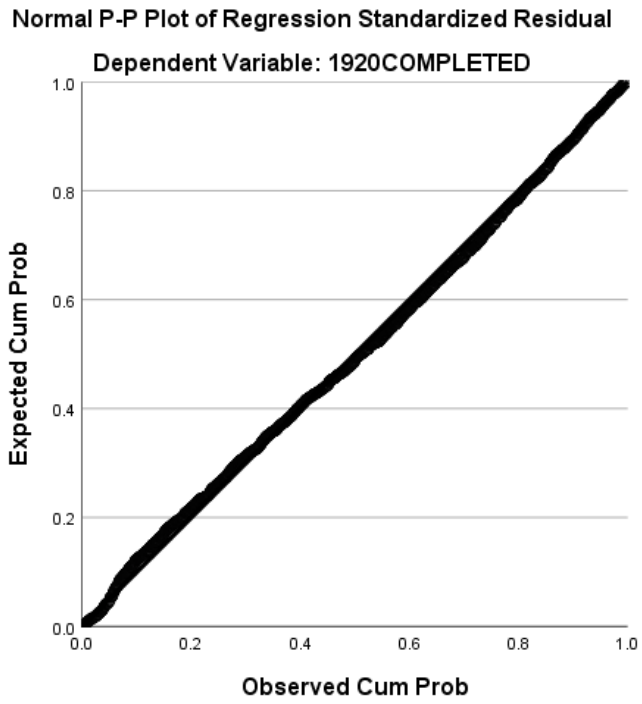
Case Number	Std. Residual	1920COMPLETED	Predicted Value	Residual
47	-3.164	0	25.51	-25.511
157	3.142	42	16.67	25.333
541	3.171	36	10.43	25.569
711	-4.201	15	48.87	-33.866
1025	3.009	57	32.74	24.255
1276	-3.048	0	24.57	-24.571
1725	3.567	43	14.24	28.761
2532	3.290	44	17.47	26.527
2646	4.438	30	-5.78	35.784
2736	-3.846	18	49.01	-31.011
2818	3.135	42	16.72	25.277
3242	3.557	46	17.32	28.681

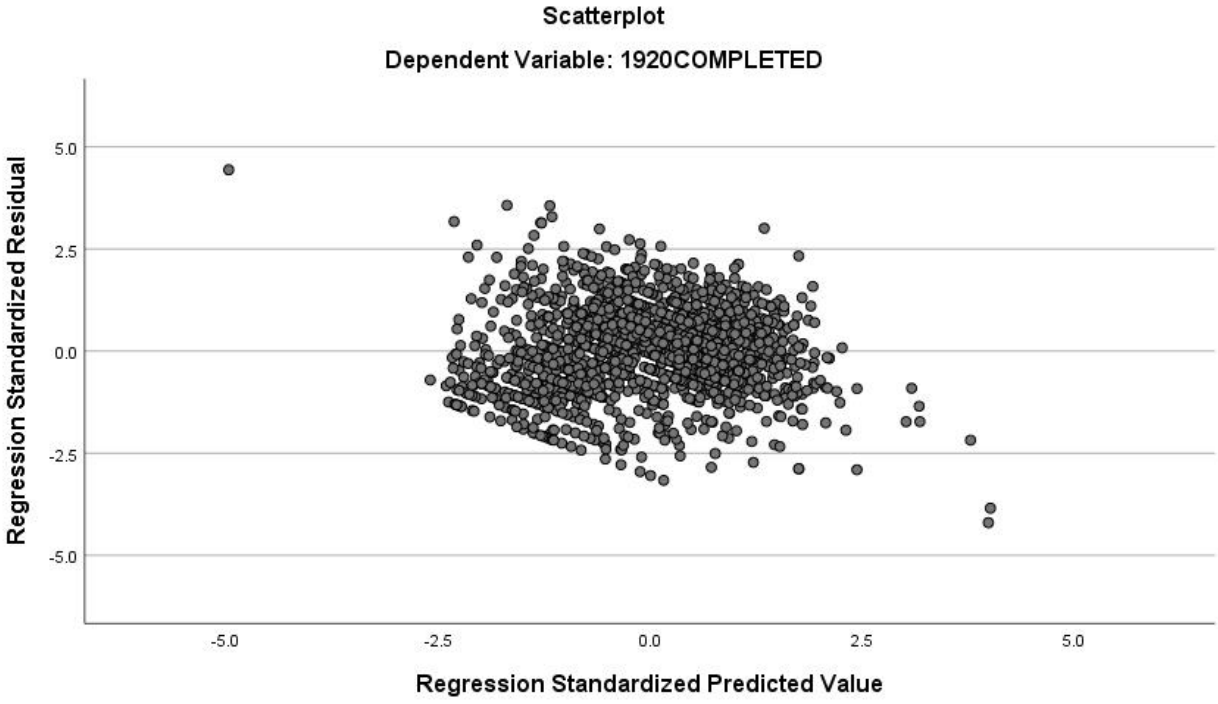
a. Dependent Variable: 1920COMPLETED

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-5.78	49.01	24.52	6.099	1802
Residual	-33.866	35.784	.000	8.047	1802
Std. Predicted Value	-4.968	4.017	.000	1.000	1802
Std. Residual	-4.201	4.438	.000	.998	1802

a. Dependent Variable: 1920COMPLETED


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: 1920COMPLETED
Expected Cum Prob
Observed Cum Prob
0.0
0.2
0.4
0.6
0.8
1.0


Scatterplot
Dependent Variable: 1920COMPLETED
Regression Standardized Residual
Regression Standardized Predicted Value
5.0
2.5
0.0
-2.5
-5.0

APPENDIX J

APPENDIX J

1920 LINEAR REGRESSION STANDARD (ENTER) METHOD - EXCLUDING WORKSTUDY

Descriptive Statistics

	Mean	Std. Deviation	N
1920COMPLETED	24.52	10.097	1802
1920PARENT_HIGHEST_ED_LVL	3.30	.701	1802
1920FAMILY INCOME	40544.38	47401.749	1802
1920GRANTS_TOT_ACPT	6933.0424	4542.59581	1802
1920SCHOLARS_TOT_ACPT	998.1326	1771.53988	1802
1920LOANS_TOT_ACPT	1837.64	2704.939	1802
1920OTHER_TOT_ACPT	126.5405	974.19918	1802

Correlations

		1920COMPLETED	1920PARENT_HIGHEST_ED_LVL	1920FAMILY INCOME	1920GRANTS_TOT_ACPT	1920SCHOLARS_TOT_ACPT	1920LOANS_TOT_ACPT	1920OTHER_TOT_ACPT
Pearson Correlation	1920COMPLETED	1.000	.021	-.023	.480	.176	.089	.019
	1920PARENT_HIGHEST_ED_LVL	.021	1.000	.273	-.221	.053	.136	.077
	1920FAMILY INCOME	-.023	.273	1.000	-.504	.047	.236	.036
	1920GRANTS_TOT_ACPT	.480	-.221	-.504	1.000	-.062	-.191	-.054
	1920SCHOLARS_TOT_ACPT	.176	.053	.047	-.062	1.000	-.001	.014
	1920LOANS_TOT_ACPT	.089	.136	.236	-.191	-.001	1.000	-.060
	1920OTHER_TOT_ACPT	.019	.077	.036	-.054	.014	-.060	1.000
Sig. (1-tailed)	1920COMPLETED	.	.182	.163	.000	.000	.000	.211
	1920PARENT_HIGHEST_ED_LVL	.182	.	.000	.000	.012	.000	.001
	1920FAMILY INCOME	.163	.000	.	.000	.023	.000	.061
	1920GRANTS_TOT_ACPT	.000	.000	.000	.	.004	.000	.010
	1920SCHOLARS_TOT_ACPT	.000	.012	.023	.004	.	.489	.271
	1920LOANS_TOT_ACPT	.000	.000	.000	.000	.489	.	.005

	1920OTHER_TOT_ACPT	.211	.001	.061	.010	.271	.005	.
N	1920COMPLETED	1802	1802	1802	1802	1802	1802	1802
	1920PARENT_HIGHEST_ED_LVL	1802	1802	1802	1802	1802	1802	1802
	1920FAMILY INCOME	1802	1802	1802	1802	1802	1802	1802
	1920GRANTS_TOT_ACPT	1802	1802	1802	1802	1802	1802	1802
	1920SCHOLARS_TOT_ACPT	1802	1802	1802	1802	1802	1802	1802
	1920LOANS_TOT_ACPT	1802	1802	1802	1802	1802	1802	1802
	1920OTHER_TOT_ACPT	1802	1802	1802	1802	1802	1802	1802

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	1920OTHER_TOT_ACPT, 1920SCHOLARS_TOT_ACPT, 1920FAMILY INCOME, 1920LOANS_TOT_ACPT, 1920PARENT_HIGHEST_ED_LVL, 1920GRANTS_TOT_ACPT[b]	.	Enter

a. Dependent Variable: 1920COMPLETED

b. All requested variables entered.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.603[a]	.364	.362	8.068

a. Predictors: (Constant), 1920OTHER_TOT_ACPT, 1920SCHOLARS_TOT_ACPT, 1920FAMILY INCOME, 1920LOANS_TOT_ACPT, 1920PARENT_HIGHEST_ED_LVL, 1920GRANTS_TOT_ACPT

b. Dependent Variable: 1920COMPLETED

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	66767.407	6	11127.901	170.973	.000[b]
	Residual	116828.658	1795	65.086		
	Total	183596.065	1801			

a. Dependent Variable: 1920COMPLETED

b. Predictors: (Constant), 1920OTHER_TOT_ACPT, 1920SCHOLARS_TOT_ACPT, 1920FAMILY INCOME, 1920LOANS_TOT_ACPT, 1920PARENT_HIGHEST_ED_LVL, 1920GRANTS_TOT_ACPT

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	6.814	1.063		6.411	.000	4.730	8.899					
	1920PARENT_HIGHEST_ED_LVL	.948	.285	.066	3.324	.001	.389	1.507	.021	.078	.063	.906	1.104
	1920FAMILY INCOME	5.231E-5	.000	.246	10.929	.000	.000	.000	-.023	.250	.206	.702	1.424
	1920GRANTS_TOT_ACPT	.001	.000	.662	30.084	.000	.001	.002	.480	.579	.566	.732	1.367
	1920SCHOLARS_TOT_ACPT	.001	.000	.202	10.675	.000	.001	.001	.176	.244	.201	.994	1.006
	1920LOANS_TOT_ACPT	.001	.000	.151	7.744	.000	.000	.001	.089	.180	.146	.927	1.079
	1920OTHER_TOT_ACPT	.000	.000	.047	2.489	.013	.000	.001	.019	.059	.047	.986	1.014

a. Dependent Variable: 1920COMPLETED

Collinearity Diagnostics[a]

				Variance Proportions						
Model	Dimension	Eigenvalue	Condition Index	(Constant)	1920PARENT_HIGHEST_ED_LVL	1920FAMILY INCOME	1920GRANTS_TOT_ACPT	1920SCHOLARS_TOT_ACPT	1920LOANS_TOT_ACPT	1920OTHER_TOT_ACPT
1	1	3.885	1.000	.00	.00	.01	.01	.02	.02	.00
	2	.992	1.979	.00	.00	.00	.00	.00	.02	.95
	3	.789	2.219	.00	.00	.13	.06	.18	.26	.01
	4	.705	2.348	.00	.00	.03	.06	.73	.00	.00
	5	.489	2.818	.00	.00	.32	.00	.05	.68	.03
	6	.122	5.640	.04	.09	.49	.74	.02	.02	.01
	7	.019	14.436	.96	.90	.00	.13	.00	.00	.00

a. Dependent Variable: 1920COMPLETED

Casewise Diagnostics[a]

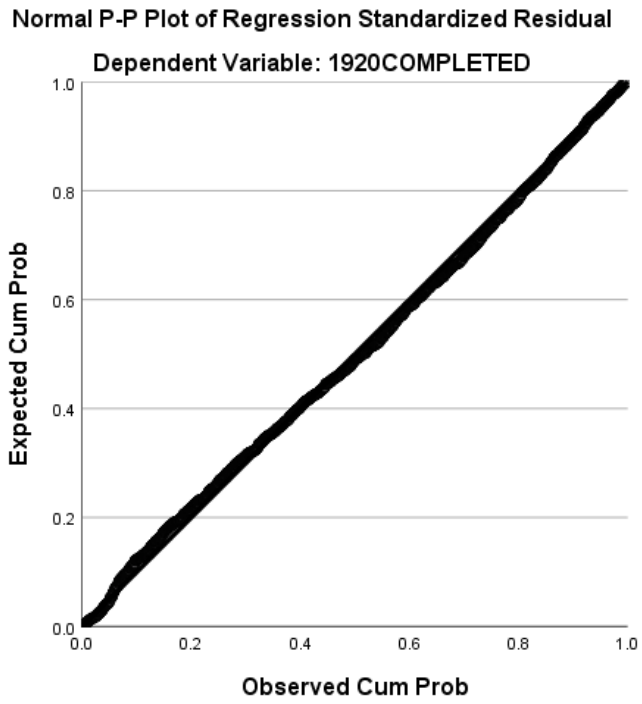
Case Number	Std. Residual	1920COMPLETED	Predicted Value	Residual
47	-3.170	0	25.57	-25.574
157	3.136	42	16.70	25.302
541	3.172	36	10.41	25.589
711	-4.235	15	49.16	-34.165
1025	3.143	57	31.64	25.360
1276	-3.058	0	24.67	-24.674
1725	3.562	43	14.26	28.741
2532	3.287	44	17.48	26.519
2646	4.452	30	-5.92	35.915
2736	-3.855	18	49.10	-31.101
2818	3.130	42	16.75	25.254
3242	3.621	46	16.79	29.210

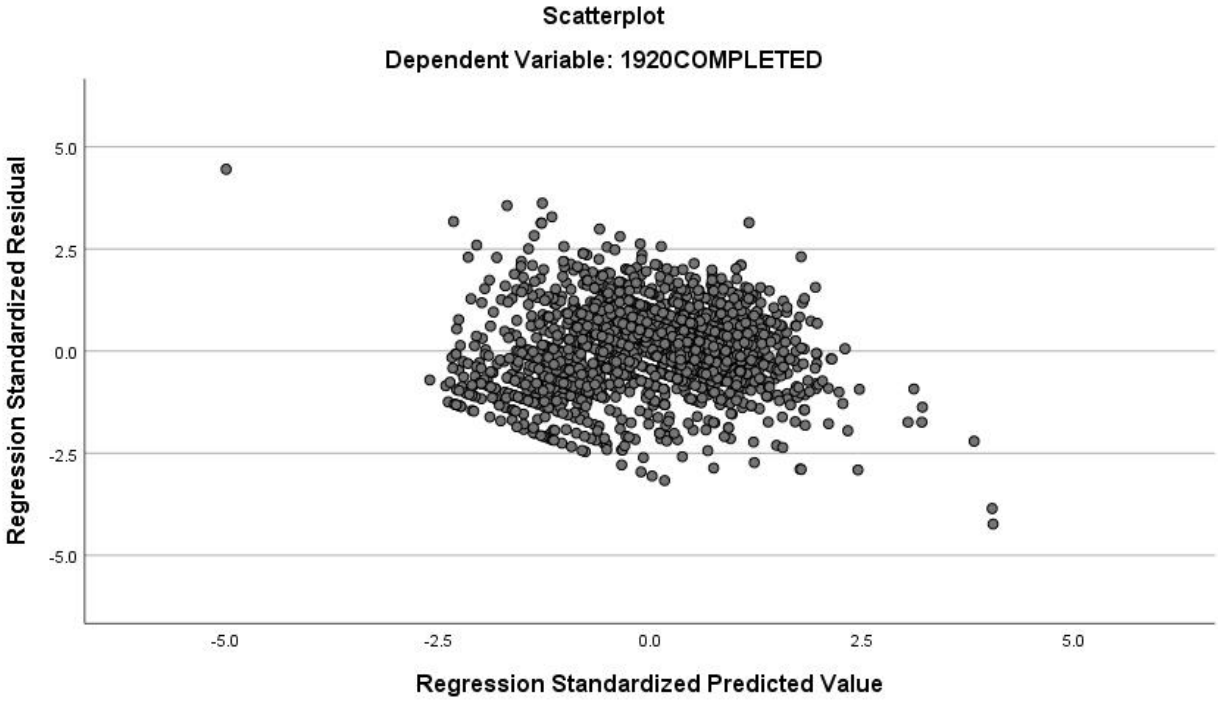
a. Dependent Variable: 1920COMPLETED

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-5.92	49.16	24.52	6.089	1802
Residual	-34.165	35.915	.000	8.054	1802
Std. Predicted Value	-4.998	4.048	.000	1.000	1802
Std. Residual	-4.235	4.452	.000	.998	1802

a. Dependent Variable: 1920COMPLETED


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: 1920COMPLETED
Expected Cum Prob
Observed Cum Prob
0.0
0.2
0.4
0.6
0.8
1.0


Scatterplot
Dependent Variable: 1920COMPLETED
Regression Standardized Residual
Regression Standardized Predicted Value
5.0
2.5
0.0
-2.5
-5.0

APPENDIX K

APPENDIX K

1920 LINEAR REGRESSION STEPWISE METHOD

Descriptive Statistics

	Mean	Std. Deviation	N
1920COMPLETED	24.52	10.097	1802
1920PARENT_HIGHEST_ED_LVL	3.30	.701	1802
1920FAMILY INCOME	40544.38	47401.749	1802
1920GRANTS_TOT_ACPT	6933.0424	4542.59581	1802
1920WORKSTUDY_TOT_ACPT	255.0867	971.75188	1802
1920SCHOLARS_TOT_ACPT	998.1326	1771.53988	1802
1920LOANS_TOT_ACPT	1837.64	2704.939	1802
1920OTHER_TOT_ACPT	126.5405	974.19918	1802

Correlations

		1920COMPLETED	1920PARENT_HIGHEST_ED_LVL	1920FAMILY INCOME	1920GRANTS_TOT_ACPT	1920WORKSTUDY_TOT_ACPT	1920SCHOLARS_TOT_ACPT	1920LOANS_TOT_ACPT	1920OTHER_TOT_ACPT
Pearson Correlation	1920COMPLETED	1.000	.021	-.023	.480	.113	.176	.089	.019
	1920PARENT_HIGHEST_ED_LVL	.021	1.000	.273	-.221	-.030	.053	.136	.077
	1920FAMILY INCOME	-.023	.273	1.000	-.504	-.037	.047	.236	.036
	1920GRANTS_TOT_ACPT	.480	-.221	-.504	1.000	.148	-.062	-.191	-.054
	1920WORKSTUDY_TOT_ACPT	.113	-.030	-.037	.148	1.000	.000	-.048	-.024
	1920SCHOLARS_TOT_ACPT	.176	.053	.047	-.062	.000	1.000	-.001	.014
	1920LOANS_TOT_ACPT	.089	.136	.236	-.191	-.048	-.001	1.000	-.060
	1920OTHER_TOT_ACPT	.019	.077	.036	-.054	-.024	.014	-.060	1.000
Sig. (1-tailed)	1920COMPLETED	.	.182	.163	.000	.000	.000	.000	.211
	1920PARENT_HIGHEST_ED_LVL	.182	.	.000	.000	.103	.012	.000	.001
	1920FAMILY INCOME	.163	.000	.	.000	.057	.023	.000	.061
	1920GRANTS_TOT_ACPT	.000	.000	.000	.	.000	.004	.000	.010

	1920WORKSTUDY_TOT_ACPT	.000	.103	.057	.000	.	.494	.020	.157
	1920SCHOLARS_TOT_ACPT	.000	.012	.023	.004	.494	.	.489	.271
	1920LOANS_TOT_ACPT	.000	.000	.000	.000	.020	.489	.	.005
	1920OTHER_TOT_ACPT	.211	.001	.061	.010	.157	.271	.005	.
N	1920COMPLETED	1802	1802	1802	1802	1802	1802	1802	1802
	1920PARENT_HIGHEST_ED_LVL	1802	1802	1802	1802	1802	1802	1802	1802
	1920FAMILY INCOME	1802	1802	1802	1802	1802	1802	1802	1802
	1920GRANTS_TOT_ACPT	1802	1802	1802	1802	1802	1802	1802	1802
	1920WORKSTUDY_TOT_ACPT	1802	1802	1802	1802	1802	1802	1802	1802
	1920SCHOLARS_TOT_ACPT	1802	1802	1802	1802	1802	1802	1802	1802
	1920LOANS_TOT_ACPT	1802	1802	1802	1802	1802	1802	1802	1802
	1920OTHER_TOT_ACPT	1802	1802	1802	1802	1802	1802	1802	1802

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	1920GRANTS_TOT_ACPT	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	1920FAMILY INCOME	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
3	1920SCHOLARS_TOT_ACPT	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
4	1920LOANS_TOT_ACPT	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

5	1920PARENT_HIGHEST_ED_LVL	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
6	1920OTHER_TOT_ACPT	.	Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: 1920COMPLETED

Model Summary[g]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.480[a]	.230	.230	8.859
2	.543[b]	.295	.294	8.484
3	.579[c]	.335	.334	8.238
4	.598[d]	.357	.356	8.105
5	.601[e]	.361	.360	8.079
6	.603[f]	.364	.362	8.068

a. Predictors: (Constant), 1920GRANTS_TOT_ACPT

b. Predictors: (Constant), 1920GRANTS_TOT_ACPT, 1920FAMILY INCOME

c. Predictors: (Constant), 1920GRANTS_TOT_ACPT, 1920FAMILY INCOME, 1920SCHOLARS_TOT_ACPT

d. Predictors: (Constant), 1920GRANTS_TOT_ACPT, 1920FAMILY INCOME, 1920SCHOLARS_TOT_ACPT, 1920LOANS_TOT_ACPT

e. Predictors: (Constant), 1920GRANTS_TOT_ACPT, 1920FAMILY INCOME, 1920SCHOLARS_TOT_ACPT, 1920LOANS_TOT_ACPT, 1920PARENT_HIGHEST_ED_LVL

f. Predictors: (Constant), 1920GRANTS_TOT_ACPT, 1920FAMILY INCOME, 1920SCHOLARS_TOT_ACPT, 1920LOANS_TOT_ACPT, 1920PARENT_HIGHEST_ED_LVL, 1920OTHER_TOT_ACPT

g. Dependent Variable: 1920COMPLETED

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	42318.865	1	42318.865	539.181	.000[b]
	Residual	141277.200	1800	78.487		
	Total	183596.065	1801			
2	Regression	54099.310	2	27049.655	375.780	.000[c]
	Residual	129496.755	1799	71.983		
	Total	183596.065	1801			
3	Regression	61571.553	3	20523.851	302.414	.000[d]
	Residual	122024.512	1798	67.867		
	Total	183596.065	1801			
4	Regression	65562.734	4	16390.683	249.540	.000[e]
	Residual	118033.331	1797	65.684		
	Total	183596.065	1801			
5	Regression	66364.125	5	13272.825	203.340	.000[f]
	Residual	117231.940	1796	65.274		
	Total	183596.065	1801			
6	Regression	66767.407	6	11127.901	170.973	.000[g]
	Residual	116828.658	1795	65.086		
	Total	183596.065	1801			

a. Dependent Variable: 1920COMPLETED

b. Predictors: (Constant), 1920GRANTS_TOT_ACPT

c. Predictors: (Constant), 1920GRANTS_TOT_ACPT, 1920FAMILY INCOME

d. Predictors: (Constant), 1920GRANTS_TOT_ACPT, 1920FAMILY INCOME, 1920SCHOLARS_TOT_ACPT

e. Predictors: (Constant), 1920GRANTS_TOT_ACPT, 1920FAMILY INCOME, 1920SCHOLARS_TOT_ACPT, 1920LOANS_TOT_ACPT

f. Predictors: (Constant), 1920GRANTS_TOT_ACPT, 1920FAMILY INCOME, 1920SCHOLARS_TOT_ACPT, 1920LOANS_TOT_ACPT, 1920PARENT_HIGHEST_ED_LVL

g. Predictors: (Constant), 1920GRANTS_TOT_ACPT, 1920FAMILY INCOME, 1920SCHOLARS_TOT_ACPT, 1920LOANS_TOT_ACPT, 1920PARENT_HIGHEST_ED_LVL, 1920OTHER_TOT_ACPT

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	17.117	.381		44.941	.000	16.370	17.864					
	1920GRANTS_TOT_ACPT	.001	.000	.480	23.220	.000	.001	.001	.480	.480	.480	1.000	1.000
2	(Constant)	12.307	.524		23.492	.000	11.279	13.334					
	1920GRANTS_TOT_ACPT	.001	.000	.628	27.390	.000	.001	.001	.480	.542	.542	.746	1.340
	1920FAMILY INCOME	6.247E-5	.000	.293	12.793	.000	.000	.000	-.023	.289	.253	.746	1.340
3	(Constant)	11.036	.523		21.107	.000	10.011	12.062					
	1920GRANTS_TOT_ACPT	.001	.000	.638	28.641	.000	.001	.002	.480	.560	.551	.745	1.343
	1920FAMILY INCOME	6.154E-5	.000	.289	12.977	.000	.000	.000	-.023	.293	.250	.746	1.341
	1920SCHOLARS_TOT_ACPT	.001	.000	.202	10.493	.000	.001	.001	.176	.240	.202	.996	1.004
4	(Constant)	10.000	.531		18.821	.000	8.958	11.042					

	1920GRANTS_TOT_ACPT	.001	.000	.653	29.674	.000	.001	.002	.480	.573	.561	.739	1.353
	1920FAMILY INCOME	5.542E-5	.000	.260	11.716	.000	.000	.000	-.023	.266	.222	.725	1.379
	1920SCHOLARS_TOT_ACPT	.001	.000	.205	10.789	.000	.001	.001	.176	.247	.204	.996	1.004
	1920LOANS_TOT_ACPT	.001	.000	.152	7.795	.000	.000	.001	.089	.181	.147	.937	1.067
5	(Constant)	6.765	1.064		6.357	.000	4.678	8.853					
	1920GRANTS_TOT_ACPT	.001	.000	.660	29.963	.000	.001	.002	.480	.577	.565	.733	1.365
	1920FAMILY INCOME	5.243E-5	.000	.246	10.937	.000	.000	.000	-.023	.250	.206	.702	1.424
	1920SCHOLARS_TOT_ACPT	.001	.000	.202	10.678	.000	.001	.001	.176	.244	.201	.994	1.006
	1920LOANS_TOT_ACPT	.001	.000	.148	7.559	.000	.000	.001	.089	.176	.143	.933	1.072
	1920PARENT_HIGHEST_ED_LVL	.998	.285	.069	3.504	.000	.439	1.557	.021	.082	.066	.910	1.099
6	(Constant)	6.814	1.063		6.411	.000	4.730	8.899					
	1920GRANTS_TOT_ACPT	.001	.000	.662	30.084	.000	.001	.002	.480	.579	.566	.732	1.367
	1920FAMILY INCOME	5.231E-5	.000	.246	10.929	.000	.000	.000	-.023	.250	.206	.702	1.424
	1920SCHOLARS_TOT_ACPT	.001	.000	.202	10.675	.000	.001	.001	.176	.244	.201	.994	1.006
	1920LOANS_TOT_ACPT	.001	.000	.151	7.744	.000	.000	.001	.089	.180	.146	.927	1.079

1920PARENT_HIGHEST_ED_LVL	.948	.285	.066	3.324	.001	.389	1.507	.021	.078	.063	.906	1.104
1920OTHER_TOT_ACPT	.000	.000	.047	2.489	.013	.000	.001	.019	.059	.047	.986	1.014

a. Dependent Variable: 1920COMPLETED

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics		
						Tolerance	VIF	Minimum Tolerance
1	1920PARENT_HIGHEST_ED_LVL	.134[b]	6.395	.000	.149	.951	1.051	.951
	1920FAMILY INCOME	.293[b]	12.793	.000	.289	.746	1.340	.746
	1920WORKSTUDY_TOT_ACPT	.042[b]	2.024	.043	.048	.978	1.022	.978
	1920SCHOLARS_TOT_ACPT	.207[b]	10.269	.000	.235	.996	1.004	.996
	1920LOANS_TOT_ACPT	.188[b]	9.107	.000	.210	.964	1.038	.964
	1920OTHER_TOT_ACPT	.045[b]	2.184	.029	.051	.997	1.003	.997
2	1920PARENT_HIGHEST_ED_LVL	.087[c]	4.245	.000	.100	.916	1.092	.718
	1920WORKSTUDY_TOT_ACPT	.031[c]	1.551	.121	.037	.976	1.024	.729
	1920SCHOLARS_TOT_ACPT	.202[c]	10.493	.000	.240	.996	1.004	.745
	1920LOANS_TOT_ACPT	.149[c]	7.390	.000	.172	.937	1.067	.726
	1920OTHER_TOT_ACPT	.043[c]	2.147	.032	.051	.997	1.003	.745
3	1920PARENT_HIGHEST_ED_LVL	.080[d]	3.973	.000	.093	.915	1.093	.718
	1920WORKSTUDY_TOT_ACPT	.029[d]	1.513	.131	.036	.976	1.025	.728
	1920LOANS_TOT_ACPT	.152[d]	7.795	.000	.181	.937	1.067	.725
	1920OTHER_TOT_ACPT	.040[d]	2.097	.036	.049	.997	1.003	.743

4	1920PARENT_HIGHEST_ED_LVL	.069[e]	3.504	.000	.082	.910	1.099	.702
	1920WORKSTUDY_TOT_ACPT	.034[e]	1.759	.079	.041	.975	1.025	.723
	1920OTHER_TOT_ACPT	.052[e]	2.723	.007	.064	.991	1.009	.725
5	1920WORKSTUDY_TOT_ACPT	.034[f]	1.778	.076	.042	.975	1.025	.700
	1920OTHER_TOT_ACPT	.047[f]	2.489	.013	.059	.986	1.014	.702
6	1920WORKSTUDY_TOT_ACPT	.035[g]	1.827	.068	.043	.975	1.026	.700

a. Dependent Variable: 1920COMPLETED

b. Predictors in the Model: (Constant), 1920GRANTS_TOT_ACPT

c. Predictors in the Model: (Constant), 1920GRANTS_TOT_ACPT, 1920FAMILY INCOME

d. Predictors in the Model: (Constant), 1920GRANTS_TOT_ACPT, 1920FAMILY INCOME, 1920SCHOLARS_TOT_ACPT

e. Predictors in the Model: (Constant), 1920GRANTS_TOT_ACPT, 1920FAMILY INCOME, 1920SCHOLARS_TOT_ACPT, 1920LOANS_TOT_ACPT

f. Predictors in the Model: (Constant), 1920GRANTS_TOT_ACPT, 1920FAMILY INCOME, 1920SCHOLARS_TOT_ACPT, 1920LOANS_TOT_ACPT, 1920PARENT_HIGHEST_ED_LVL

g. Predictors in the Model: (Constant), 1920GRANTS_TOT_ACPT, 1920FAMILY INCOME, 1920SCHOLARS_TOT_ACPT, 1920LOANS_TOT_ACPT, 1920PARENT_HIGHEST_ED_LVL, 1920OTHER_TOT_ACPT

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions (Constant)	1920GRANTS_TOT_ACPT	1920FAMILY INCOME	1920SCHOLARS_TOT_ACPT	1920LOANS_TOT_ACPT	1920PARENT_HIGHEST_ED_LVL	1920OTHER_TOT_ACPT
1	1	1.837	1.000	.08	.08					
	2	.163	3.352	.92	.92					
2	1	2.236	1.000	.03	.03	.05				
	2	.679	1.815	.00	.11	.41				
	3	.085	5.123	.97	.85	.54				
3	1	2.561	1.000	.02	.02	.03	.05			
	2	.688	1.930	.01	.12	.12	.41			
	3	.668	1.958	.00	.01	.32	.51			
	4	.083	5.553	.97	.84	.52	.03			
4	1	2.959	1.000	.01	.02	.03	.03	.04		
	2	.789	1.937	.00	.05	.12	.25	.26		
	3	.687	2.076	.01	.10	.05	.61	.00		
	4	.485	2.471	.01	.00	.36	.08	.67		
	5	.081	6.057	.97	.83	.44	.03	.03		
5	1	3.865	1.000	.00	.01	.01	.02	.02	.00	
	2	.791	2.211	.00	.05	.13	.19	.28	.00	
	3	.705	2.341	.00	.06	.04	.72	.00	.00	
	4	.497	2.788	.00	.01	.32	.06	.68	.00	
	5	.123	5.609	.04	.74	.50	.02	.02	.09	
	6	.019	14.388	.96	.13	.00	.00	.00	.90	
6	1	3.885	1.000	.00	.01	.01	.02	.02	.00	.00

2	.992	1.979	.00	.00	.00	.00	.02	.00	.95
3	.789	2.219	.00	.06	.13	.18	.26	.00	.01
4	.705	2.348	.00	.06	.03	.73	.00	.00	.00
5	.489	2.818	.00	.00	.32	.05	.68	.00	.03
6	.122	5.640	.04	.74	.49	.02	.02	.09	.01
7	.019	14.436	.96	.13	.00	.00	.00	.90	.00

a. Dependent Variable: 1920COMPLETED

Casewise Diagnostics[a]

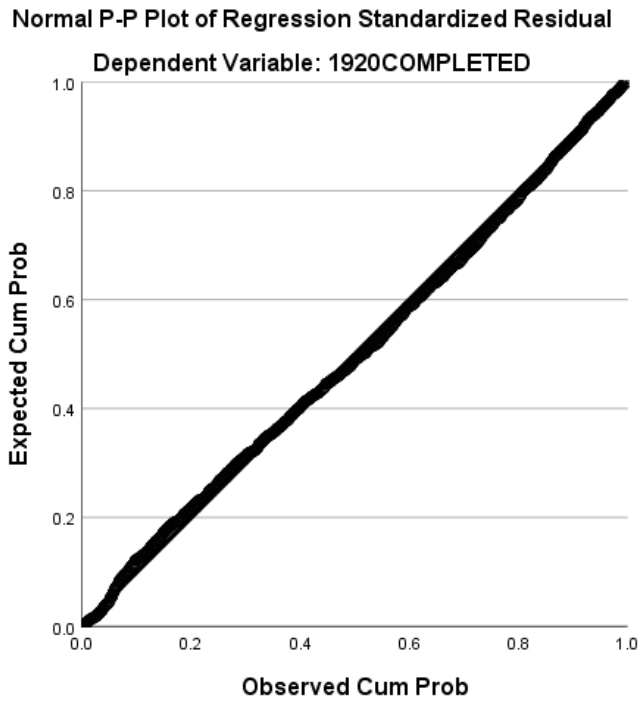
Case Number	Std. Residual	1920COMPLETED	Predicted Value	Residual
47	-3.170	0	25.57	-25.574
157	3.136	42	16.70	25.302
541	3.172	36	10.41	25.589
711	-4.235	15	49.16	-34.165
1025	3.143	57	31.64	25.360
1276	-3.058	0	24.67	-24.674
1725	3.562	43	14.26	28.741
2532	3.287	44	17.48	26.519
2646	4.452	30	-5.92	35.915
2736	-3.855	18	49.10	-31.101
2818	3.130	42	16.75	25.254
3242	3.621	46	16.79	29.210

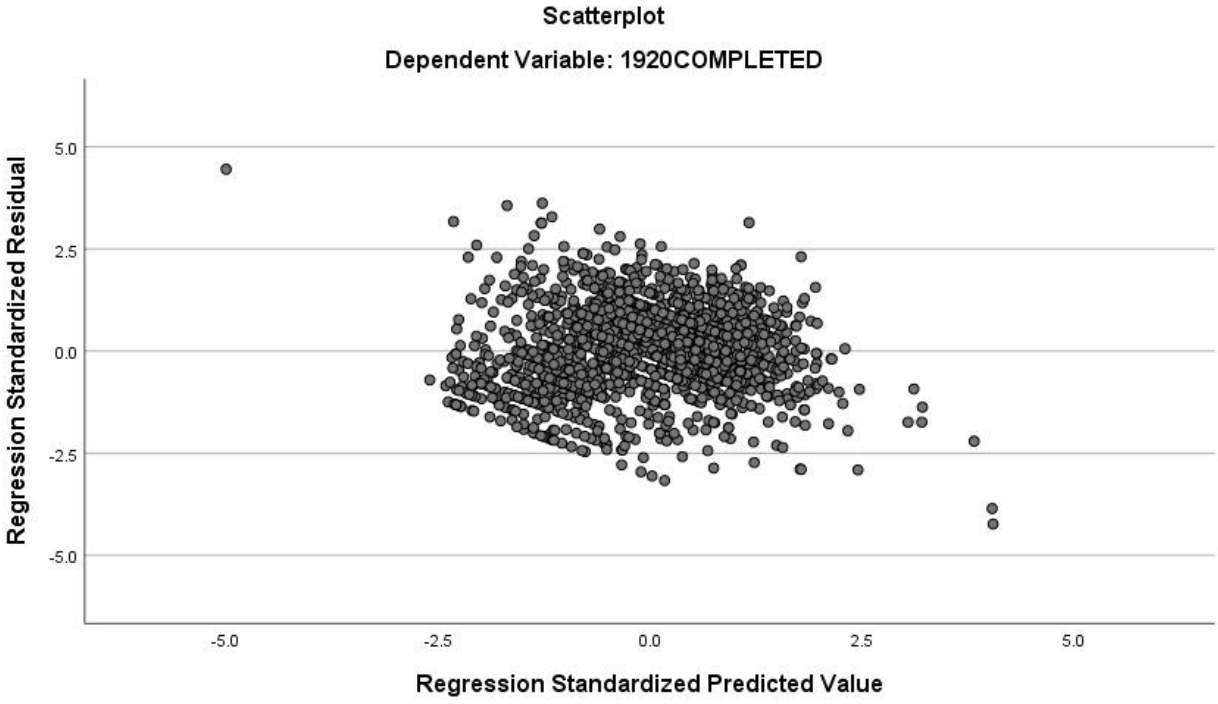
a. Dependent Variable: 1920COMPLETED

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-5.92	49.16	24.52	6.089	1802
Residual	-34.165	35.915	.000	8.054	1802
Std. Predicted Value	-4.998	4.048	.000	1.000	1802
Std. Residual	-4.235	4.452	.000	.998	1802

a. Dependent Variable: 1920COMPLETED


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: 1920COMPLETED
Expected Cum Prob
Observed Cum Prob
0.0
0.2
0.4
0.6
0.8
1.0


Scatterplot
Dependent Variable: 1920COMPLETED
Regression Standardized Residual
Regression Standardized Predicted Value
5.0
2.5
0.0
-2.5
-5.0

BIOGRAPHICAL SKETCH

Griselda C. Castilla is the second of five children born to Barbarita Cabrera Diaz. She was born in Rio Bravo, Mexico, in 1973 and graduated from Edinburg High School in Edinburg, Texas, in 1992. Griselda attended The University of Texas-Pan American and graduated with a Bachelor of Business Administration – Accounting in 1996. She earned a Master of Business Administration from The University of Texas-Pan American in 2000 and a Doctorate in Education (Ed.D.) in May 2022 from The University of Texas Rio Grande Valley. Griselda's personal mailing address is 326 Sapphire Edinburg, Texas 78539.

Griselda has over 25 years of higher education experience. She began her professional career in 1997 as an entry-level accountant at The University of Texas–Pan American and has held various financial and enrollment management positions, including Assistant Director for Scholarships, Associate Director of Financial Aid, Director of Scholarships and State Programs, Director of Undergraduate Recruitment, and Director of Recruitment and Scholarships. Griselda is currently an Associate Vice President for Strategic Enrollment at The University of Texas Rio Grande Valley. She oversees the Student Service Centers, Office of the University Registrar, Scholarships & Enrollment Communications, and Military and Veterans Success Center.

Griselda has served in various capacities on university committees, including staff/leadership search committees, SACSCOC accreditation, and Strategic Planning. Griselda has also served as a member and presenter in professional regional, state, and national organizations, including TASFAA, TACRAO, TACAC, ACCRAO, and College Board.