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Retention Rates and Pre-Matriculation Variables of First-Time, Full-Time Students
at Three, Small, Private, Liberal Arts Universities in Georgia

A dissertation

presented to

the faculty of the Department of Educational Leadership and Policy Analysis

East Tennessee State University

In partial fulfillment

of the requirements for the degree

Doctor of Education in Education Leadership,

concentration in Higher Education Leadership

by

Bonnie Jean Taylor

August 2021

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Keyword: retention, persistence, pre-matriculation variables, first-time, full-time

ABSTRACT

Retention Rates and Pre-Matriculation Variables of First-Time, Full-Time Students at Three, Small, Private, Liberal Arts Universities in Georgia

by

Bonnie Jean Taylor

The purpose of this non-experimental, correlational, quantitative study was to provide an in-depth understanding of the relationship between pre-matriculation variables on retention of first-year, full-time students from fall-to-fall semesters at three small, private, liberal arts institutions in the Southeast United States. The findings will help to determine the significance of the relationships between retention and pre-matriculation variables on first-year, full-time students who entered each institutions the fall 2017 and fall 2018 semesters.

Archival data at the participating institutions were used to test the significance of the relationships between retention rates and pre-matriculation variables (standardized test scores, high school GPAs, gender, first-generation status, and financial aid status). The sample for this study included approximately 3,612 first-year, full-time students who entered the three participating universities for the fall semesters of 2017 and 2018. Independent samples t-tests or two-way contingency tables using crosstabs were used to evaluate each of the respective research questions. Findings from this study demonstrated student demographic variables, financial aid status (Pell Grant eligibility), gender, and first-generation status had a significant relationship to retention for Institutions 2 and 3; students who were not eligible for financial aid were retained at higher percentage rate than students who were eligible for financial aid; students who were first-generation students were retained at lower percentage rate than students who were continuing-generation students; and female students were retained at a higher percentage rate than male students at Institution 1.

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DEDICATION

To the Savior of my soul who covers me daily and redeems my life with blessed opportunities.

To my ancestors to whom I owe my life and strength - I live out their dreams.

To my Grandmother and my Popa who told me I could do anything..... So I did.

To the woman and man who created, nourished, and loved me and told me to fly.....I did.

To my sisters who pushed me and told me to refocus when life blurred my vision..... I did.

To the supportive and wonderful man who told me I could and to keep going I did.

To the circle who assure me of my worth, my abilities, and my belonging in all spaces..... I did.

To the city that raised me and told me nothing was given and everything was earned... .. I did.

And lastly, to the little girl who calls me the dearest name I will ever know and gives me greater purpose every daymommy did it, little one.

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To my mother, for whom I finish this degree- thank you for ALL of the work you put in to help me finish. I am forever in your debt and love you more than I could ever tell you. To the faculty of the ELPA department- thank you for your continued faith in your students. To the three institutions who permitted the use of data of their first-year students, thank you for participating this study and I hope to provide valuable insight to inform you of retention methods for incoming cohorts of students.

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Chapter 1. Introduction

Higher education has a rapidly changing landscape as it battles a changing student demographic, job market, and economic forecast. To meet the changing demands of the workforce it supplies, colleges and universities are evaluating the needs of their student population (Siedman, 2012). According to Kuh et al. (2007),

a college degree has replaced the high school diploma as a mainstay for economic self-sufficiency and responsible citizenship... earning a bachelor's degree is linked to long term cognitive, social and economic benefits to individuals, benefits that are passed onto future generations, enhancing the quality of life of the families of college-educated persons. (p. 3)

Educational institutions are critical to the opening of opportunities and social mobility in society for citizens (Dadashova et al., 2010).

Currently, higher education focuses on retention, persistence, and attrition as the importance of obtaining a college degree becomes more significant in pursuit of career opportunities (Kahu et al., 2017). If a student departs prior to completing a college degree, there may be several factors that drive the decision to leave the institution. Students leave an institution for many reasons, including a mix of individual and institutional causes (Kahu et al., 2017; Kuh et al., 2007). Examples of these causes include finances, geographic location, academic performance, and institutional fit, all of which influence a student's decision to remain a part of an institutional community (Kahu et al., 2017; Kuh et al. 2007). These factors either contribute to or work against the success of the student as they persist.

Student departure impacts the student and the institution in unique ways. The student misses out on opportunities to learn, contribute to a collective communal

environment, and the tributary benefits of the learning (Siegel, 2011). Researchers at Noel-Levitz (2017) noted the success of a student and the success of an institution are intertwined, however, ownership of the retention of the student lies mostly with the institution and the experience provided to students. The institution is impacted in all areas of campus life, from the academic support services to residence life (Siegel, 2011). If a student is retained at the institution, the student benefits from a community centered on their success in a holistic fashion. McLenney and Waiwaiole (2005) described success for the institution and the individual student as not

something that can be done by an isolated group at the college...or achieved through a single stand-alone initiative. Improving retention rates is a collective responsibility: everyone- faculty, staff and administrators, along with the students themselves- must work together to promote student success. (p. 40)

The entire community of an institution should view student success and retention as a goal and strategically create a path to get there (Rummel & McDonald, 2016).

As a community effort, creating a path to student success is a strategic effort and can be broken down into manageable actions items. Kinzie and Kuh (2016) refer to the fostering of student success in postsecondary institutions using salient and actionable principles that are research-based to create a comprehensive, iterated institutional strategy to combat attrition and student departure. Kuh et al. (2007) identified five keys of student success: (1) student background characteristics, (2) structural characteristics of institutions, (3) interactions with the institution's community, i.e. faculty, staff, and peers, (4) student perceptions of their academic and learning environment, and (5) student attention to their academic experience. Students' background characteristics include pre-college academic

experiences and other demographics. Structural characteristics involve the mission and the size of the institution (Kuh et al., 2007). Interactions with community are substantive in determining institutional fit and the ability to thrive in the community structure. Student perceptions of their environment with respect to their academic experience determine their ability to learn and use resources to excel in challenging courses. The academic experience surpasses the classroom and include co-curricular experiences that tie learning to all activities in which students engage (Kuh et al., 2007). These five variables heavily impact a student's capacity to learn and succeed in the institutional environment.

To understand how these five student success variables are related to the overall success of a student, student success should be defined in the context of student learning. Copeland and Levesque-Bristol (2011) described student success as a complete journey fulfilling the needs of the student beginning with a positive learning environment. A positive learning environment facilitates individual interest in the learning journey, attaining learning outcomes with progress in knowledge transfer, engagement, and meta-cognition. Knowledge transfer is when a "student is able to apply something learned to a setting or context separate from the learning situation" (Copeland & Levesque-Bristol, 2011, p. 487). Engagement refers to the ability of the student to identify with what is being learned while finding the value in the engaged activity (Copeland & Levesque-Bristol, 2011; Levesque-Bristol et al., 2020). Copeland and Levesque-Bristol described meta-cognition as the awareness of our own cognitive processes and the application of this awareness to self-regulating behaviors.

According to Abraham Maslow (1943), student learning occurs when the student's basic needs are met. Influential factors such as external pressures, expectations, and

experiences with faculty will also impact learning. Using the framework of Maslow's Hierarchy of needs, the Integrative Model for Learning and Motivation describes the necessity of environmental factors to ensure learning (Maslow, 1943). The circular, layered model created by Levesque et al. (2006) asserted that various learning experiences that are unique to that student influence an individual student's concept of learning.

Influential factors determine the connection of a student to their learning experience and their desire to persist at the institution. The external layer of the model is comprised of elements that describe the learning environment, namely antecedents or pre-existing items (Copeland & Levesque-Bristol, 2011; Levesque et al., 2006). Prior to the student arriving on campus, there are personal experiences individual to the student and programs provided by the institution that serve as the antecedents within the model. The middle layer consists of programs, courses, and groups provided by the institution (Copeland & Levesque-Bristol, 2011). Considered motivational processes, the middle layer and is evaluated by "the student's perception of the learning climate, the fulfillment of the student's basic psychological needs and the student's degree of self-determination" (Copeland & Levesque-Bristol, 2011, p. 492). This layer is assessed by how the needs of the student are met by institutional resources. The third and innermost layer of the model focuses on the learning processes of the student. This is considered to be outcomes and focuses on the actual learning process of the student. The figure functions from the outermost point, with the innermost point being the desired result and the optimal effect of the previous two stages or layers. Based upon the Integrative Model for Learning and Motivation and Maslow's Hierarchy of Needs, Copeland and Levesque-Bristol (2011) proposed that meeting a student's basic needs leads to a more self-assured and

self- motivated student, resulting in the engagement increasing in activities, meta-cognition having taken place, and knowledge transfer occurring.

Individualized learning is a method for student learning, academic integration, and thus institutional commitment (Copeland & Levesque-Bristol, 2011; Tinto, 1975, 1987, 1993). The integrative model for learning and motivation overall describes the optimal learning environment for a student to be influenced by learning experiences distinctive to that student (Levesque et al., 2006). The model is comprised of the learning environments internal and external to the institution.

Understanding the critical role of institutions of higher education in student success, the evaluation of the needs of students also involves comprehension of the process students experience while transitioning into the higher education environment (Dadashova et al., 2010). The transition experience will determine the success of the student in the institution. There are three major considerations in the transitions of students to institutions of higher education. First, institutions must satisfy the needs of a new generation of students and retain these students within their campus communities. Second, retaining students at an institution depends on the ability to change in a timely manner and respond to feedback provided by current and former students. Third, college and universities are facing a changing societal perception of the value of a college degree and shifting expectations of prospective students (Pascarella & Terenzini, 2005; Siedman, 2012; Tinto, 1987). Institutions that focus on retention often examine certain milestones of students' transition experiences to better understand the factors that lead to or impede continued success.

Full-time, first-time students experiencing this transition into higher education are a niche population within an institution requiring additional resources for successful integration

into the institutional community (Braxton et al., 2004; Pascarella & Terenzini, 2005). Pascarella and Terenzini (1991) identified desocialization and socialization as the combined process of transition into first year students. Kerby (2018) described desocialization as “the abandoning of values, beliefs, and traits (precollege characteristics) students bring to university in response to the college experience” (p. 145). Additionally, Kerby (2015) termed socialization as “the process of adapting to reconstructed values, attitudes beliefs, and perspectives as prescribed by the institutional experience as a whole” (p. 145). When successful in the transition to the first-year experience, students experience desocialization and socialization in tandem and leads to students persisting to their second year of study at the institution. According to Kirby (2015), students who do not successfully complete the socialization stage do not remain at an institution.

For students and their support systems, higher education is a substantial investment and students are consumers in search of a specific product and return on their investment. The return for this investment is preparation for a career. In a 2007 study of Texas high school seniors, Niu and Tienda identified two general approaches prospective students use to evaluate their postsecondary options, developing a college choice set and evaluating institutional characteristics. Students choose specific institutions because of the educational experience provided by the institutional characteristics and outlined by the college choice set. This process and commitment to an institution is considered to be institutional choice (Chapman, 1981). With the knowledge of this study and identification of the general approaches, institutions should offer programs and services that value students and that work to maintain the business-customer relationship when the prospective students becomes a matriculating student (Chapman, 1981; Pascarella & Terenzini, 2005).

As institutions tailor their educational programs and co-curricular experiences to meet the needs of their prospective student, the changing demographics and pre-matriculation variables of first-time, full-time college students add to the complexity of finding a solution to the issue of retention (Chapman, 1981). Institutions face many issues that impact their ability to make necessary changes in their institutional programs. These issues include generation of revenue, decreasing donor pools, increasing competition from distance education programs, and changing legislation impacting federal student aid requirements (Pascarella & Terenzini, 2005).

The changing demographic of the prospective student, student expectations of their collegiate experience, increasing pressure from legislative and accreditation bodies, rising tuition costs, decreasing availability of financial aid, as well as, the mounting personal obligations contribute to the ability of the student to persist (Raju & Schumacker, 2015; Rummel & MacDonald, 2016; Tinto, 1987). According to Elkins et al. (2000), the high attrition rates institutions are facing coupled with the changing demographics of the students enrolling at institutions of higher education have created the need to focus on the retention of students to maintain enrollments, rather than seeking and recruiting new students to replace those who left. According to Voigt and Hundreiser (2008), “while high retention and graduation rates signify a realization by the university or college of its mission, low graduation rates and high attrition rates not only expose institutional problems in meeting the needs and expectations of its students, but also represent symbolic failure in accomplishing institutional purpose” (p. 1).

Statement of the Problem

Retention is a common conversation among higher education administrators, especially where tuition dollars serve as a large source of revenues and determine the financial health of the institution. Most institutions receive federal and state financial resources through grants, student loans, and federal or state-funded programs, however, due to changing requirements and fluidity of available resources as sole sources of revenue for operational expenses to educate and provide resources for their student population (Kaplin & Lee, 2006; Pascarella & Terenzini, 2005; Thelin, 2004). The need of an institution to obtain federal and state funding intersects with the expectation of federal and state governments for institutions to either maintain or increase their retention rates. Institutions at a critical junction to increase their retention rate by addressing the needs of their students may examine their current programs and create a strategic institutional plan to provide programs critical to the success of the student. These programs may include reviewing pre-matriculation variables of the recent cohorts of students to determine how to address barriers to their success. Friedman and Mandel (2009) posited that the experience of student prior to matriculation into an institution of higher education influenced the motivation to academically and socially integrate and thus succeed in college.

Further study of the connection between retention rates of the institutions and pre-matriculation variables may provide additional information upon which institutions can strategize student success plans, thus increasing their retention rates and continued adherence to federal and state guidelines for financial resources (Caruth, 2018; Raju & Schumacker, 2015). The purpose of the present study was to identify attributes of the first-time, first-year students who are retained from fall-to-fall at three, small, private

universities of higher education located in the Southeast U.S. and the relationship between the identified attributes and the retention of first-time, first-year students to the second year of higher education.

Limitations and Delimitations

This study has limitations that should be addressed as areas of the research that are incomplete in their clarification of ideas and partial in their ability to explain occurrences in the findings. This study is limited to three, private institutions of higher education in the Southeastern United States. These three institutions are different in their composition of students (i.e. demographics, pre-matriculation variables, and educational mission of the institution).

The students from each of the participating institutions provided a varied data sample, it can be assumed the results do not reflect a universal sense of the experience of first-time, first-year, full-time students attending small, private institutions. Therefore, the results may not be generalizable to other colleges or universities.

This study was delimited to full-time, first-year students at three specific institutions. The research conducted for this study focused on the first-year student experience as the identified population to determine the attributes impacting persistence to the second year at the institution. The study was also delimited by the data available (i.e. pre-matriculation information collected by the institution) from the participating institutions.

Research Questions

The following research questions guided this study.

Research Question 1: Is there significant difference in standardized test scores (ACT) between first-time, full-time students who were retained (fall semester to fall semester) and

those who were not retained at the three, small, private, 4-year institutions that participated in the study?

Research Question 2: Is there a significant difference in high school GPAs between first-time, full-time students who were retained (fall-to-fall) and those who were not retained at the three, small, private, 4-year institutions that participated in the study?

Research Question 3: Is there a relationship between first generation status and retention (fall-to-fall) of first-time, full-time students at the three, small, private, 4-year institutions that participated in the study?

Research Question 4: Is there a relationship between gender and retention (fall-to-fall) of first-time, full-time students at the one small, private, 4-year co-ed institution who participated in the study?

Research Question 5: Is there a relationship between financial aid status (as measured by Pell Grant eligibility) and retention (fall-to-fall) of first-time, full-time students at the three, small, private, 4-year institutions that participated in the study?

Significance of the Study

The study of the retention of first-year, full-time students at three, small, private, liberal arts institutions will identify attributes specific to students who successfully persist to their second year in these institution type (Tinto, 1987; Wyrick, 2014). Institutional fit, student integration, and institutional actions determine the successful transition of these students, decreasing the rates of student attrition and increasing the rates of fall-to-fall persistence affecting the overall retention rates of the institution.

The attributes identified in the study as having a relationship with retention of first-year, full-time students may have an impact in how the institution determine the distribution of

resources for students and to evaluate the types of resources available to students. In addition, identifying these attributes may assist the institutions in identifying prospective students best suited for the campus.

Definition of Terms

The following terms are defined for inclusion in this research.

Academic integration refers to the integration of student's abilities and the demands of the institution, as well as, the common values held by the campus community students (Seidman, 2012).

Dropout describes the cessation of enrollment of a student in an institution (Bean, 1982).

Fall-to-fall retention rate is the rate of student persistence from one fall academic term to the subsequent fall academic term (FAFSA, 2020).

First-year to second-year persistence depicts the desire, and subsequent, action of a student to stay at an institution from the beginning of their academic year to the second year (Seidman, 2012).

Full-time, first-time students are those who have not previously enrolled in a post-secondary institution (IPEDS, 2020).

Institutional characteristics, which are basic institutional data, include institutional control, size, selectivity, that affect retention, persistence, and degree attainment (Seidman, 2005)

Institutional fit is the sense of belonging of a student to the campus community (Mattern et al., 2010)

Overview of the Study

Three, small, private, liberal arts, institutions in the Southeast region of the United States served as the site for this study. The relationship between the pre-matriculation

variables of first-year, first-time, full-time students and the retention rates of the selected institutions was investigated. This study includes five chapters. Chapter 1 introduced the study, statement of the problem, and the significance of the research conducted within the study. Chapter 2 presents a literature review of the history, development, and current research of first-year, first-time, full-time students and the research related to retention, persistence, and institutional action. Chapter 3 details the methodology, data collection, and data analysis. Chapter 4 details the results of the analyses of the research questions. Chapter 5 contains a review of the results and conclusions that can be drawn as a result of the study and the implications for further research and practice.

Chapter 2. Review of Literature

The purpose of this literature review was to provide a summary of student retention research as it relates to the role of factors involved in student departure from the institution, student development theories, student persistence, and the impact of socialization of students within higher education. Directly related to the topic of student retention, the aforementioned factors provide an overview of the main areas of research directly related to this study. Specific factors identified in previous studies are variables to examine reasons for pursuit of education and reasons for departure. Student development theories addressing the basis for students to attend institutions of higher education are also included.

The interchangeable use of the terms student retention and persistence occur as a method of representing the concept of a student remaining at an institution to persist to graduation (Voigt & Hundrieser, 2008). Hagedorn (2005) provided a differentiation of the terms, noting that retention is an institution-wide measure and persistence is individual effort. Similarly, the Integrated Postsecondary Education Data System (IPEDS, 2020) outlined retention as the percentage rate of persistence of students in their educational programs (IPEDS, 2020). More specifically, IPEDS (2020) categorizes retention as the measurement of the percentage of undergraduate students who remain enrolled from the previous fall to the current fall semester. In contrast, IPEDS does not offer a similar analysis and definition of persistence. According to Voigt and Hundrieser (2008), common themes in the retention literature include academic boredom and uncertainty, transition or adjustment difficulties, limited or unrealistic expectations of college, academic unpreparedness, incompatibility, and irrelevancy.

Voigt and Hundrieser (2008) suggested retention principles as a means to summarize key findings of the retention-based research. Common themes found in the retention principles are: improved educational experience for students replacing the importance of the retention rate of an institution, recognition of attrition as unavoidable and not to be feared but rather accepted as a realistic part of the process, current retention practices are critical foundational principles for current retention research and should not be dismissed, and centering policies around students rather than bureaucracy will produce truly student-centered policies rooted in improvement and student learning (Voigt & Hundrieser, 2008).

Historical Background of Student Retention Studies

Undergraduate retention is the ability for an institution to retain a student from admission, through matriculation to graduation (Demetriou & Schmitz-Sciborski, 2012). Previous studies into student retention examined relationships between “specific demographic and intellectual or academic preparation variables and student retention” (p. 228), while others stressed the effects of factors under the control of the institution (institutional variables) such as institutional size, selectivity or faculty-to-student ratio (Friedman & Mandel, 2009).

The earliest studies of retention, specifically pertaining to undergraduate education, emerge around 1930 as student mortality and centered on the inability of the student to graduate (Berger & Lyon, 2005). A study commissioned by the U.S. Department of Education centered on student mortality, or the failure of students to graduate from institutions of higher education (Berger & Lyon, 2005). Prior to 1960 there was a lack of a systematic approach to examine student retention (Aljohani, 2016; Demetriou & Schmitz-Sciborski, 2012). After 1960, there is a considerable increase in the literature and interest in retention as an area to study, becoming a global concern and systematic and theoretical studies conducted to

determine the effectiveness of current programs, issues prevalent within the campus community, and institutional efforts to positively affect the student experience (Aljohani, 2016; Demetriou & Schmitz-Sciborski, 2012).

Concurrently with the Civil Rights Movement, the War on Poverty, and student unrest on campuses, there was increased enrollment as there was greater access to higher education for a more diverse pool of students. The Higher Education Act of 1965 contributed to the increase in enrollment as it provided financial resources for another group of students to enroll and use campus support services that were created as a condition of the act. As a result of the dramatic increase of enrollment figures, it became imperative to institutions that a system to track persistence and completion of degree programs was needed (Demetriou & Schmitz-Sciborski, 2012).

Tinto's (1975) Student Integration Model introduced the current dialogue on student retention and theorizes the social integration of students into the campus community, serving as the key to institutional commitment and linking student attrition to lack of academic and social integration into the campus community. The core of this theory emphasized students who integrated academically and socially into an institution were more likely to persist to graduation (Friedman & Mandel, 2009). Kerby (2018) pointed out the bond between an individual and a place form the social experience of a student, thus creating a sense of place. This sense of place for the student becomes a catalyst in the decision to persist at the institution.

In the model, Tinto (1975) emphasized the institutional responsibility to provide programs focused on the student as a means to integrate the student in the institutional community and eliminate the need for an affinity group within the institutions. The two ideologies outlined two of the key points to understanding student retention at higher

education institutions: 1) identifying factors influencing successful matriculation and subsequent withdrawal of first-time, first-year, full-time, students from their initial institutional choice and 2) identifying institutional factors affecting the decision of the full-time, first-time, first-year student to remain at the institution (Pascarella & Terenzini, 1980; Tinto, 1975). The approach initiated enrollment management models and combined separate departmental efforts to retain students (Tinto, 1975; 1988). The emergence of enrollment management in the 1980s recognized the need for an institution-wide approach, including key areas such as admissions, financial aid, student affairs, academic affairs, and athletics to strategically plan efforts to retain students (Tinto, 1975; 1988).

The decline of student enrollment and competition for students in the late 1970s prompted institutions to self-reflect, review programmatic offerings and direct efforts to collaborate, creating co-curricular experiences complimenting the academic experience. Enrollment management models facilitate collaboration among a variety of departments to create an institution-wide approach to recruitment, admissions, marketing, and student engagement (Demetriou & Schmitz-Sciborski, 2012).

Astin (1984) continued his research to determine factors impacting the retention of students. Astin's focus on the importance of background characteristics in the success of students at higher education institutions informed institutions of the necessity of understanding the relationship between pre-matriculation variables and student departure. Astin's model of student involvement introduced three elements influencing student departure, student demographics, campus environment and experiences, and student characteristics. Student involvement requires the student to engage in institution-sanctioned activities and to seek out other engagement opportunities on their own. Copeland and Levesque-Bristol (2011) asserted

that an individual will seek out a future opportunity to engage in a specific institution-sponsored activity when they have voluntarily enjoyed the activity.

Demetriou and Schmitz-Sciborski (2012) summarized factors related to retention, describing five specific and often cited variables, academic engagement, academic preparation, social engagement, demographic characteristics, and financing college. Academic engagement is the connection of a student's academic life to their academic experience, which includes positive faculty-student interactions and academic resources provided by the institution. The strength of the connection the student may forge with the academic community of the institution will determine the use of the resources available (Swail, 2004). Swail (2004) noted "... not all students are alike, nor are institutions. Resources play a huge part in the ability of a campus to provide the support services necessary to engage and save students" (p. 6) as Reynolds and Weigand (2010) noted "not all students experience the first year of college in the same way" (p. 10).

Tinto (1987) focused on the addition of quality student support services to mitigate the student transition period to a campus community that may have been unfamiliar and drastically different from their communities of origin. Following the implementation of enrollment management models, Tinto encouraged campuses to meet the needs of students in transition through the focus on collaborative efforts of the departments to create a quality experience for students who needed assistance in transitioning to the campus community. This research was a dedicated push to embrace diversity and encourage multiculturalism on campuses.

Student retention studies in the 1990s focused on marginalized and underrepresented populations of students, such as racial minorities within the population and students from financially disadvantaged backgrounds (Demetriou & Schmitz-Sciborski, 2012). Swail's (2004)

framework for student retention advised there should be strategic collaboration among student facing departure, such as recruitment, academic services, academic affairs, student services, and, most importantly, a student monitoring system.

The monitoring system allowed for the observation and check-in on students who, in accordance with pre-matriculation variables, may be at risk of departure for various reasons. The reasons could include academic performance, integration into the community, interactions with campus community members, mental health, and medical issues. To combat the impact of these factors, institutions were encouraged to create or expand counseling and advising programs for students. Demetriou and Schmitz-Scorbuski (2012) noted in their analysis of the factors impacting retention that Anderson (1997) and Tinto (1999) argued through their individual research that academic advising is imperative to the student experience as it promotes student development. This is critical to the student's first-year experience. The emergence of enrollment management models continued to evolve, spurring the holistic approach to student retention, specifically formal and informal interactions students may experience as new members of the community (Demetriou & Schmitz-Sciborski, 2012).

Formal and informal interactions converge to create the social integration experience of a student. Braxton and McClendon (2001) noted social integration "positively influence subsequent institutional commitment and subsequent institutional commitment positively affects persistence in college" (p. 57). Social integration is impacted through a number of factors, including social communities within the campus community and residential living, attaching the student to the institution and solidifying the need to continue to be a part of the community (Braxton & McClendon, 2001).

Zhang (2012) described the rites of passage as a transitional stage of life into adulthood and part of societal ceremonies celebrating life cycles. Zhang noted the development of identity through The Rites of Passage originally developed in Arnold Van Gennep's (1960) sociological study emphasized three stages of transition: separation, transition, and incorporation. In an examination of the three stages outlined by Van Gennep, Aljohani (2016) noted separation indicated a student leaves or cleaves from the old communities and allowed for the "adoption of the norms and behavior of their new ones" (p. 3). The transition stage referenced the incorporation of the student with the norms of the new community. Incorporation highlighted the integration into the new society. Categories of student retention theoretical models were psychological, sociological, organizational, environmental, and economic (Aljohani, 2016).

Tinto (1988) categorized these variables as having an effect on the experience of the student as environmental variables and sociological theories as attributes of individuals and how they impact their social status and race. The organizational perspective focuses on the "impact of student retention on the organization of the tertiary institution. International perspective examines the longitudinal interactions between individuals, attributes, and academic institutions" (p. 3). Retention emerged as both a term and a concept by the 1970s to describe student persistence included the concept that institutions shared responsibility in influencing students' decisions regarding dropping out (Tinto, 1988).

Tinto's Institutional Departure Model and Student Retention Integrated Model and Pascarella's Student-Faculty Contact Model all reflect an accurate depiction of the student at different points within the retention continuum. According to Tinto (1975), the persistence or departure of a student is a reflection of the individual's success or failure in the navigation towards the student's incorporation into the campus community. The

academic and social systems of college require the integration of a student into both for the student to be successful. The experience, negative or positive, of a student will modify the level of goals and commitments which also impact the student's decision to stay or leave. The external commitment of the students affects the level of commitment to the institution.

Schroeder (2013) reframed the strategy for retention by outlining five areas for improvement of institutional services to students. First, institutions should begin with the end in mind by challenging the goal of higher education through strategic planning. The plan should be transparent and consistently communicated from the top (senior administrative officials) down. Second, there is too much attention to things not considered important to the student. The student's user perspective should be paramount in improving efficiency, a "value-added, student-centered perspective" that used systematic assessment to understand. Third, waste is the unintended consequences of unattended work processes of the institution (p. 41). Schroeder emphasized three specific points within this area of improvement of services, noting that waste is that which adds cost without adding value, a process is simply a method for doing things, and unintended refers to the process having no owner or is not being monitored. Process orientation focuses an institution's effort on learning and improving by taking a holistic view of the organization rather than hierarchical view. Fourth, an organization is a relay team, the better the handoffs, the better the results. Winning is a result of the efficiency and effectiveness of the team with a "unified awareness of and commitment to enhancing process" (p. 41). Fifth, to create the stable future, the institution must challenge its past with regards to retention efforts (Schroeder, 2013).

After students disassociate themselves from their original community and moves to adapt the cultural norms and values of the new community, there is the impact of the new

environment on their behavior. Vianden (2015) emphasized the importance of interpersonal relationships with peers to create meaningful connections in the campus environment. Tinto's (1993) Institutional Departure Theory featured the critical nature of environmental influences on student success.

Retention

Retention of first-year students at institutions in the United States continues to be an important area of study for researchers (Siedman, 2012; Siegel, 2011). Colleges and universities recruit students by promoting the collegiate experiences specific to the institution (Pascarella & Terenzini, 2005). Experiences unique to a campus community and institutions serving as the transformational environment for a student to transition to the next phase of adulthood are attributable to the concept of institutional fit. Tinto (1988) discussed the concept of institutional fit in terms of the offering of an educational experience by the institution and a contract between the two entities. Based upon this premise, the retention of the student who entered into the contract is the responsibility of all on campus who encounter, plan, produce, engage, interact, and involve themselves in the underpinnings of creating an educational experience (Siegel, 2011). Stewart et al. (2015) posited transitional issues for the student must be resolved within the first year or the institution risks losing the student.

The groundwork for student retention is in studies leading to theoretical models predicting the persistence, retention, and attrition of students at higher education institutions. Theoretical studies regarding social structures and their transformations over time. Thus, social theory provided an understanding of organizational structures and efforts to retain employees. Social theorists Emile Durkheim, Karl Marx, and George Herbert Mead focused their studies on

social transformation, which is the alteration of previously ascribed social norms to newly formed assumptions and beliefs, resulting in a paradigm shift for the individual (Kerby, 2018).

Tinto (1987) based his studies of retention on multiple theories, specifically Suicide Theory, the rites of passage in tribal societies, and labor turnover (Aljohani, 2016). One of the earliest theorists, Durkheim (1952) examined suicide theory or the separation of an individual from an environment based upon the inability to fit in with the environment. Durkheim proposed departure of an environment is essentially suicide or a death of something intrinsically, leading to a person severing their ties with that environment (Durkheim, 1952). Suicide, departure, or withdrawal emanates from lack of integration, social and intellectual into the community. Suicidal behavior and student attrition behavior are linked by lack of social and intellectual integration. The link between student attrition and student behavior informed the concept of student departure due to lack of integration into the community, thus lending itself to an examination of retention practices and the critical role of the efforts of the institution to make the student feel as though they belong within the community. Tinto (1993) examined student departure from this perspective, surmising the scope and patterning of student departure in two distinct themes, institutional departure and system departure. Institutional departure refers to persons from individual institutions while system departure refers to departure from the wider system.

Student departure is considered a form of suicide from the environment and considers the act of departing or wearing away from the community as the act of suicide. Continuing with the idea of suicide from the environment. According to Kerby (2018), Marx based his ideologies on social class and the social-psychological elements of alienation. If they feel that a sense of isolation and separation or social alienation from the traditional college experience

this is often the reason for voluntary withdrawal from the community (Pascarella & Terenzini, 1980; Tinto, 2017). If a student is unable to maintain their presence in the community through connection to the community, it may be that the institution has not crafted a community rooted in student development and resources assisting in that development (Kerby, 2018).

Mead (1932) conjectured that social intelligence and emotional maturity are a significant part of development of self and the maturation process. Moreover, Mead wrote that perfect social intelligence was the pinnacle of development of self and making meaning of the world around us. Social intelligence in a community and feeling of acceptance results in a sense of belonging. The sense of belonging becomes a determining factor as to whether the student opts to continue in the community or withdraw to regain a sense of normalcy in an older community. Individuals may gain a sense of place through their social experiences, which include social intelligence, development of self, and feel of acceptance in the greater community (Mead, 1932).

Retention is both a process and an end product, simultaneously, as well as a continuous and ongoing process of efforts of an institution. The identification and prioritization of issues and solutions is the best resolution for increasing retention rates (Siegel, 2011). Defined as the rate that students persist and maintain enrollment at an institution to graduation, retention operates as a moving target and is often cited as a percentage rate that students persist at an institution and in their educational programs (Hagedorn, 2005; Tinto, 1987; Voigt & Hundresier, 2008). In addition, Kerby (2018) provided the following definition of retention as “a longitudinal process incorporating both the academic potential of the student and institutional social systems, thus creating a directional model based on continual variance in social commitments that influence academic performance” (p. 139). From this perspective,

Hagedorn (2005) emphasized improvement, efforts of the institution to maintain or increase their retention rate as subjects for continuous development. Earlier, Tinto (1987) viewed retention as a process in which students persist to attain their degree and institutions retain students at a particular rate. Demetriou and Schmitz-Sciborski (2011) further defined retention as the ability of an institution to retain a student from admission to graduation.

Tinto (1987) noted the limitations of the voluminous research informing traditional theories of student retention with four specific observations. First, in his assessment of the assumptions of the reasons for student departure, Tinto recognized there is an assumption on the reasons why students are retained having a direct line to understand the reasons why students depart. Tinto further summarized this conjecture noting retention and leaving are not mirrored processes and must be examined for their effects on the student separately. This summarization recognized the inherent differences in the understanding on reasons for persistence and departure that need to be distinctly researched as separate concepts. Second, the current research focused on theoretical inferences and conclusions and not on definable actions for institutions. Tinto recognized the need for action items for the institutions to employ as a method to retain students who are at risk for departure from the institution. Third, a great deal of the research focuses on the factors impacting retention that are outside of the scope control of the institution rather than factors the institution has influence and conflicting definitions. Finally, Tinto pointed to conflicting definitions of persistence and the competition between a student completing a degree program or one course at a time. The point raised in the final observation is important due to the concern of stop-out and continuous enrollment as determining factors of a persistence to degree completion.

Tinto (1987) identified four institutional conditions for student retention.

Expectations, support, feedback, and involvement encompass a broad overview of retention as a whole. The expectations of students for themselves and the environment of the institution when they enter into an institution and if they are met determines what the student will do. For example, many students lack the cultural capital to understand how to navigate a complex campus system for resources and support (Tinto, 1987). Cultural capital can shape a student's experience by the impact it has on the student's expectations of their experience at the institution. According to Tinto (1987), clear and consistent expectations about what the student needs to do to be successful fall into three categories, (1) course, (2) program of study, and (3) in the institution. Formal and informal advising programs, tutoring, mentoring, and networks (formal and informal) serve as less tangible ways for students to build a foundation of information.

Support for students in the form of academic, social, and financial support, provide an additional safety net for students to meet institutional expectations. For students who may not be as academically prepared for the rigors of collegiate coursework, remedial courses and individual tutoring services serve as academic reinforcement for continued learning. Tinto (1987) noted "student retention ultimately hinges upon student learning and therefore on the ability of students to succeed in the classroom (p. 62). Academic support services are most needed in the first year (specifically the first weeks and semester) of the student's educational career, serving as a solid foundation of learning habits, optimistically resulting in the student persisting and the institution retaining the student.

Social support in the form of social networks provide stability, predictability, and positive affect. The absence of social integration results in isolation of students, and

subsequently, students feeling as though the institutional does not fit personal need. Social support can take many forms, including mental health resources, mentoring, advising, and participation in student organizations, inclusion in activities, and a social circle (Tinto, 1987). The absence of these items makes the difference between a student persisting or departing the institution.

Tinto (1987) stated that financial support is often the sole issue preventing a student from continuing their education at an institution. Institutions need tuition from students to operate and provide the services for the education provided. However, it is also the responsibility of the institution to provide support in gaps of financial coverage for students. Short term and long term financial support for students presents itself in different ways. Institutions should be prepared to provide funding in the event of a student experiencing a gap in financial resources and the cost of attendance or in the event of loss of financial resources (Tinto 1987).

According to Voigt and Hundreiser (2008), there are four stages of research development in retention literature: 1) retention as the primary factor in enrollment management models implemented in institutions, 2) retention as a tool to lessen student attrition, 3) retention is included organizational factors and mobilizing campus wide efforts, and 4) retention rates result in the intentional increase in concentrated staffing to address students need for compassion. Retention as the primary factor in enrollment management models examined the need for a singular focus in implementing a compiled model to address student attrition (Voigt & Hundrieser, 2008).

Elkins et al. (2000) noted “high attrition rates, coupled with the changing demographics of higher education have led to the need for institutions to focus on the number

of students they retain to maintain enrollments” (p. 251). Thus, the need for managing the institutional enrollment through coordinated efforts. Enrollment management focuses on the comprehensive view of students from acceptance, matriculation, and continued tenure at the institution, with the institution’s retention rate as the measure of success of the particular model chosen by the institution (Voigt & Hundrieser, 2008).

Retention Rates

Fall-to-fall retention rates are a specific metric that addresses retention of students from academic year to academic year. It should focus on the observation of specific reasons why students choose to depart institutions. Voigt and Hundreiser (2008) noted “freshman-to-sophomore retention rates measure the percentage of first-time, full-time students enrolled at the university the following fall semester”. Additionally, Voigt and Hundreiser (2008) affirm that increases in retention rates reflect the current efforts of the institution and the quality of the programs and services.” (p. 1). Most institutions engaging in a systematic and comprehensive retention effort should be able to “expect, over time, a lift in cohort graduation rates between 10 and 20 percent and improvements in annual retention rates of 2 to 5 percent” (Voigt & Hundresier, 2008, p. 1).

Persistence

In contrast to the efforts of the institutions to combat attrition, an examination of student persistence provided an understanding of the needs and goals of the student populations in relation to the current retention efforts of the institution. Tinto (1988) defined persistence as the connection between identified attributes and fall-to-fall retention rates for first-time, full-time, first-year students at a large liberal arts research institution. Tinto suggested that researchers should review prior retention studies, theoretical models of cognitive development, identify the

issues affecting the populations, and suggestions for institutions to impact student attrition.

Kuh et al. (2007) suggested the demographics and academic preparedness of students who initially choose to attend the institution greatly influences student retention. If the demographics and academic preparedness of the student influences their choice to persist at the institution. It is the responsibility of the institution to monitor their program offerings and response to student concerns as a means of remaining committed to student retention.

Student persistence is greatly influenced by their characteristics and their family background. According to Hagedorn (2005), retention is connected to institutional action in the same way that persistence is connected to the student's desire to maintain enrollment at an institution beyond the first year of academic study. Persistence highlights student needs and student goals in the pursuit of postsecondary education. Persistence also highlights the issues that impede a student's ability to continue at an institution (Pascarella & Terenzini, 1980). Pascarella and Terenzini (1980) also noted in their theoretical model that the heaviest attrition could be found at the end of the academic year, if the student experienced the academic year without academic and social integration. Persistence at the institution is a factor of social integration and a "function of the quality of peer-group interactions and the quality of student interactions with faculty" (p. 62).

Student Departure

In a study conducted by Tinto in 1987, it was determined student goals are two admittance characteristics, and describe intentions for their attendance at the institution, as well as, academic progress prior to and at the beginning of their matriculation into higher education. Integration and social fit, while not interchangeable concepts, are similar in the effect on student departure. Integration relies upon the student's ability to form relationships with other

community members, their ability to adapt to institutional culture, and to navigate academic challenges (Tinto, 1993).

Challenging the integration factor is dependence on institutional action for student socialization that conflicted with the adaptation ability of the student. Institutions are responsible for the creation and implementation of support structures to identify needs of students. In addition, institutional culture is a catalyst to the building of relationships with students and assisting in their integration into the community (Tinto, 1993). Friedman and Mandel (2009) emphasized the concept of mattering as an important factor in the decision of a student to remain at the institution. Friedman and Mandel defined mattering as “referring to students’ experiences that others are interested in them and are concerned about them. It may be that students seek college environments where others care about them, and will leave schools where they do not experience such feelings” (p. 241).

Lewin (1936) determined the environment significantly impacted human behavior and was an outcome of the interactions between individual characteristics and environmental conditions. Lewin introduced this concept as the interactionist framework that views behavior as a function of interactions with people.

Student Development Theories

There are families of theories applicable to student development, specifically centering on student cognitive development. Student cognitive development relates student socialization to student persistence and examining the relationship of the two factors a deeper understanding of the attributes of student retention. Student development theories relevant to this literature review are psychosocial theories, cognitive-structural theories and person-environment interactive theories.

Psychosocial theories “examine development as sequential in nature... accomplished through tasks, stages of challenges that must be mastered or overcome before advancement to the subsequent phase of development” (Long, 2012, p. 42). College-aged students would have encountered various stages of psychosocial theories based upon their age and maturity levels prior to enrollment at a higher education institution.

To further understand student retention in the context of cognitive development it is imperative to review student identity development, Chickering and Reisser (1993) re-examined Chickering’s theory of student development published in 1969. Chickering’s Theory of Identity Development explored the changes in personality and critical thinking skills of individuals within the age range of 18-25 years. It was determined that this particular group attempted to develop a sense of autonomy and independence while learning maturity and decision-making skills. Included in this stage of progression is the development of conflict resolution, crisis management, behavioral control and problem-solving skills. In the re-examination of the seven vectors, adult students were added to the development continuum and updated language and concepts of the theory to reflect the change in student demographics as well as society (Chickering & Reisser, 1993, p. 117). Unchanged in the theory are seven vectors in a continuum through which a process of maturation occurs: Development of competence, Management of emotions, Development of autonomy, Development of identity, Development of interpersonal relationships, Development of purpose, and Development of integrity (Chickering & Reisser, 1993, p. 117).

The seven vectors provide a foundational context to understand the cognitive development of college students. Development of competence examined the individual’s learned skills to access career opportunities, that can be linked to the knowledge and skills

acquired during higher education. Management of emotions is based upon the individual's ability to control their reactions to people and events in an appropriate and societally accepted manner. Development of autonomy is the process to independent adulthood (Chickering & Reisser, 1993, p. 117). Development of identity occurs when the individual becomes secure their own person as an adult. Development of purpose evaluates the time in which an individual makes choices regarding their future. Development of integrity is the values and beliefs of the individual. These vectors establish the ability of a student to transition to adulthood and are secured through experiences in the higher educational setting. If a student persists to graduation and the institution is to retain the student, the sixth vector regarding purpose should be at the center of retention efforts at the institution (Chickering & Reisser, 1993, p. 117).

During the development of purpose, a student may realize that leaving the particular institution will delay their degree attainment or eliminate the possibility all together. Chickering and Reisser (1993) emphasized that the institution must realize its effort to assist the student must be on an individual basis and consideration of the student's goals will create a relationship with the institution and retain the student as a member of the community. Being present in the community, participating in organizations, creating relationships with faculty and staff, and being a productive member of the institutional community creates worth for the student and an understanding that their attendance at the institution is not only of benefit to themselves but to the institutions providing these opportunities (Chickering & Reisser, 1993, p. 117).

Long (2012) stated that cultural norms and identity development greatly influence a student's ability to continue and to persist at an institution. Understanding the student cognitive development philosophy creates a framework for student retention efforts and gives an institution familiarity and awareness of the student experience. The literature regarding cultural

norms and identity development provide a foundation for a solid understanding of the influence on students' college experiences and what impacts their decisions to stay at the institution or to withdraw (Long, 2012). These norms that are shaped by the students' family norms greatly influencing the formation of relationships and guide their ability to integrate into the institutional community. Cognitive structural theories described how students may interpret, and as a result, make meaning of their individual experiences (Long, 2012).

Cultural theory explains the perspective of an individual with respect to their ethnic and social background (Newman & Newman, 2009). As a part of their cognitive development, students relate family norms, values, beliefs, and rites of passage to their current situation to make sense of the transition to a new community. The setting, norms, values, beliefs and traditions create a family belief system that is passed on to the student to create a cognitive belief system.

Students compare their family norms to the institutional norms, causing conflict for the student when there are conflicts in the ability to process how the two relate in the context of the institutional culture. This creates psychological dissonance for the student and often transforms into homesickness for what is familiar and easier to process (Tinto, 1993). Newman and Newman (2009) found that an individual may break away from their cultural beliefs as they progress in development if they leave the family structure (i.e. pursue postsecondary education). However, this is overlapped with the likelihood of the individual retaining many of the family cultural norms with some adaptation necessitated through personal development. This adaptation is similar, if not identical to the process that students must undergo as they navigate through higher education (Newman & Newman, 2009).

Phinney's (1990) model of Ethnic Identity Development, while similar to the Newman

and Newman (2009) Cultural Theory, differentiates itself by describing a three-stage process. It is explained in Phinney's model, the process requires a student to define him or herself in a dual context of the family norms and new belief system of the institution they currently attend. This process requires an adapted way of thinking to persist to graduate but more importantly to continue at the institution (Phinney, 1990).

Student Goals and Needs

Astin (1997) presented findings regarding institutions and retention that focused on currently enrolled students. Instead of focusing on those who are enrolled in upperclass levels and spending financial resources on those who will stay due to credit obligation and involvement, Tinto (1987) suggested retention is greatly influenced by the students whose choice to attend an institution depended upon the rank of the institution in the student's listing. Tinto (1987) recognized in his research regarding institutional commitment and educational choice that institutions must provide accepted students with the experience stated within their educational mission for students to be retained. Prospective students must not be considered a monolith population and their varying needs must be considered by the institution to retain varying demographics of student). Institutional choice for prospective students depends on the ability of the institution to fulfill the obligation to care for the interests and well-being of the student (Tinto, 1987).

Institutional choice, institutional fit, and institutional commitment converge to create an experience for the student to feel as though a campus community is one in which they are socially integrated and academically oriented. Students must feel connected and attached to the institution through institutional efforts specifically created to address the needs of students. Retention and persistence of students selected to attend these institutions depend upon the

ability of institutions to meet their needs and the ability of students to remain at their institutions of choice (Tinto, 1987).

Student Socialization

Van Maanen and Schein (1979) presented six dimensions of socialization relevant to student integration into the institutional community. The six dimensions were organized in paired states of being to describe student adaptation to the institution. The first dimension, collective socialization and individual socialization describes an organizational climate in which newcomers must adapt either as a group or as an individual. The second dimension, formal socialization and informal socialization provides rationale for institutions whose process of bringing in newcomers is very arranged versus those whose process is less structured. This informal socialization allows individuals to find their own place within the organization. The third dimension, sequential socialization and random socialization, exhibits the ordered and non-ordered process of socialization. The fourth dimension, fixed socialization and variable socialization, must occur during a defined time frame and is determined by each individual. The fifth dimension, serial socialization in where the institutions will either work with the newcomers or leave them to integrate on their own. The sixth dimension, investiture socialization and divestiture desocialization, describes the process of allowing individuals to either incorporate their own experiences into the organizational culture or requiring individuals to give up personal beliefs for the best interest of the organization. These dimensions can be combined in various stages as a natural progression through socialization. If the culture of an institution can identify these dimensions in their own integration practices, it can aid in the improvement of retention through the acceptance of components of socialization that will best serve the student population (Van Maanan & Schein, 1979, p. 14).

Chapter 3. Research Method

This study focused on factors associated with retention of first-year, full-time students at three, small, private institutions of higher education. In this chapter, the research design, population, data collection methods, and data analyses are identified and described. Using a non-experimental, quantitative study, it will be determined if there is a relationship between the retention of first-year, full-time students and pre-matriculation factors. The use of a non-experimental correlational study allows for the researcher to determine the nature of the statistical relationships as a measurement of two or more variables, describe the strength and direction of the relationship, and assess the relationship between them without controlling minor variables. The determination of the causal nature of the relationship allows the researcher to predict the scores on other variables based upon the statistical relationship of one variable (MacMillan & Schumacher 2006).

Research Questions

This study was designed to examine the following research questions:

Research Question 1: Is there significant difference in standardized test scores (ACT) between first-time, full-time students who were retained (fall semester to fall semester) and those who were not retained at the three small, private, 4-year institutions that participated in the study?

H₀₁: There was not a significant difference in standardized test scores (ACT) between students who were retained (fall semester to fall semester) and those who were not retained at Institution 1.

H₀₂: There was not a significant difference in standardized test scores (ACT) between students

who were retained (fall semester to fall semester) and those who were not retained at Institution 2.

H₀₁₃: There was not a significant difference in standardized test scores (ACT) between students who were retained (fall semester to fall semester) and those who were not retained at Institution 3.

Research Question 2: Is there a significant difference in high school GPAs between first-time, full-time students who were retained (fall-to-fall) and those who were not retained at the three small, private, 4-year institutions that participated in the study?

H₀₂₁: There was no significant difference in high school GPAs between first-time, full-time students who were retained and those who were not retained at Institution 1.

H₀₂₂: There was no significant difference in high school GPAs between first-time, full-time students who were retained and those who were not retained at Institution 2.

H₀₂₃: There was no significant difference in high school GPAs between first-time, full-time students who were retained and those who were not retained at Institution 3.

Research Question 3: Is there a relationship between first generation status and retention (fall-to-fall) of first-time, full-time students at the three small, private, 4-year institutions that participated in the study?

H₀₃₁: There was no significant relationship between first-generation status and fall-to-fall retention for first-time, full-time students at Institution 1.

H₀₃₂: There was no significant relationship between first-generation status and fall-to-fall retention for first-time, full-time students at Institution 2.

H₀₃₃: There was no significant relationship between first-generation status and fall-to-fall retention for first-time, full-time students at Institution 3.

Research Question 4: Is there a relationship between gender and retention (fall-to-fall) of first-time, full-time students at the one small, private, 4-year co-ed institution that participated in the study?

H₀4: There was no significant relationship between gender and retention for first-time, full-time students at Institution 3.

Research Question 5: Is there a relationship between financial aid status (as measured by Pell Grant eligibility) and retention (fall to fall) of first-time, full-time students at the three small, private, 4-year institutions that participated in the study?

H₀5₁: There was no significant relationship between financial aid status and retention (fall-to-fall) for first-time, full-time students at Institution 1.

H₀5₂: There was no significant relationship between financial aid status and retention (fall-to-fall) for first-time, full-time students at Institution 2.

H₀5₃: There was no significant relationship between financial aid status and retention (fall-to-fall) for first-time, full-time students at Institution 3.

Population

I obtained approval to collect data from three, small, private, liberal arts institutions in the Southeast United States. Each of the institutions were 4-year private institutions serving undergraduate populations and awarding bachelor degrees to its graduates.

Institution 1 serves a single-gender population with an enrollment of approximately 1000 students. This institution offers bachelor degrees, post-bachelor's certifications and limited master's degree programs (IPEDS, 2020). Institutions 2 and 3 primarily serve populations of African American students as historically black colleges and universities (HBCUs). The HBCU designation describes institutions founded prior to the Civil Rights Act of 1964 for African-

American students by the creation of the Higher Education Act of 1965 and allocates funding for these particular institutions (Stefon, 2019). Institution 2 serves a single gender population with a niche designation with an enrollment of approximately 2,100 students. This institution offers bachelor degrees and post-bachelors certifications. Institution 3 serves a co-educational population as an HBCU institution with an enrollment of approximately 4,000 students. This institution offers bachelor degree, post-bachelor certifications, master's degree, post-master's certifications, and limited doctoral degrees.

Each of these institutions offer niche educational curriculums for their students and offer a small student-to-instructor ratio, resulting in a more intentional ability to form relationships between faculty, staff members, and students. Each institution operated in a hands-on method, providing as much individual attention to their students as possible. Each campus provided two academic years of data for their first-year population.

Research Design

The factors identified as student demographics, institutional characteristics, and pre-matriculation variables may impact a student's decision to remain at an institution as well as determine the institution's ability to retain students. Student demographics are first generation student status, and gender. Institutional characteristics, such as institutional size, and institutional selectivity also impact retention of a first-year, full-time student at an institution.

Pre-matriculation variables (high school GPA and standardized test score) and post-matriculation variables (financial aid status) have shown to have a relationship to retention (Seidman, 2012).

Instrumentation

To determine the relationship between first-time, full-time student retention rates and pre-matriculation variables, two data analyses methods were conducted for results using archival

data from three, small, private, liberal arts institutions. The archival data obtained from the participating institutions consists of a large scale of information from their first-time, full-time student population. The data included pre-matriculation variables such as standardized test score, high school grade point average, first-generation status and gender (at one co-educational institution). Pre-matriculation variables were used to determine relationships to the retention of a student from fall semester to fall semester. The data were housed in an enrollment management database at each institution housing historical data for each admitted class of students to the institution.

Data Collection

The data regarding pre-matriculation variables and student demographics for this study were housed in each campus's enrollment management database. Each database housed longitudinal data in a secured data server for the institution. The data reflect pre-matriculation and post-matriculation variables as well as demographic information for the students. The data regarding institutional factors were requested from the institutional research departments for each institution. The information provided reflected current efforts and records provided by the institution.

The researcher acquired data for academic years 2017-2018 and 2018-2019 for first year classes at each institution, in addition to collecting general data for the institutions regarding the variables collected from each institution institutional factors and programs available for students to use as support resources. The use of the database to gather the necessary data allow for a reduction in the bias from gathering information directly from the subjects (Good & Hardin, 2003).

In addition, information was gathered from the Integrated Postsecondary Education Data System (IPEDS), National Center Education Statistics (NCES), and individual institution information. IPEDS is housed in the NCES website and serves as the primary federal entity for collecting and analyzing data related to education in the U.S. and fulfills a Congressional mandate to collect, collate, analyze, and report complete statistics on the condition of American education; to conduct and publish reports; and to review and report on education activities internationally (NCES, 2020). After receiving East Tennessee State University IRB permission and permission from the three participating universities, the researcher requested data from each institution for the 2017-2018 and 2018-2019 academic years.

Data Analysis

Data from each institution were compiled into separate Microsoft Excel files and then imported into IBM-SPSS version 25.0 data file. Five research questions and the corresponding null hypotheses were developed to test the statistical probability of determining a significant difference between specific pre-matriculation variables and retention of first-year, full-time students. IBM-SPSS was used for each of the statistical analyses in this study. The alpha or significance level used for each research question in this study was .05 to maintain consistency among the variables tested.

Research Questions 1 and 2 were analyzed using independent samples t-tests as a means to determine the significance of the relationship between standardized test scores, high school GPA and retention from fall semester to fall semester of first-year, full-time students. Research Questions 3-5 were analyzed using a series of two-way contingency table with crosstabs to determine the significance of the relationship between first generation status and gender for the one single gender institution, and financial aid status within Research Question 5 and retention

from fall semester to fall semester of first-year, full-time students.

Chapter 4. Findings

The purpose of this study was to examine the relationship of pre-matriculation variables to the fall-to-fall retention of first-year, full-time students at three small, private, liberal arts institutions in the Southeast United States. A non-experimental, correlational, quantitative study was conducted to provide an in-depth understanding of the relationship between pre-matriculation variables and retention of first-year, full-time students from fall-to-fall semesters. The analysis of data associated with each research question and an overview of the relationship between the retention of first-year, full-time students and pre-matriculation factors, followed by the analysis of five research questions are presented in this chapter (MacMillan & Schumacher, 2006).

My goal was to determine the significance of the relationships between retention and pre-matriculation variables for first-year, full-time students who entered each institution the fall of 2017 and 2018. The data for this study were housed in enrollment management databases within each of the three institutions. The population at Institution 1 was 251 students in the fall 2017 and 322 students in the fall 2018 for first-year, full-time students. The population at Institution 2 was 595 students in the fall 2017 and 609 students in the fall 2018 for first-year, full-time students. The population at Institution 3 was 914 students in the Fall 2017 and 921 students in the Fall 2018 for first-year, full-time students. Attributes of gender (for Institution 3), financial aid eligibility (measured by Pell Grant eligibility), high school GPA, ACT score, and first-generation status were used as test variables. Chi-square test and independent samples t-test were used to determine if there was an association between each variable and fall-to-fall retention rates.

Research Question 1

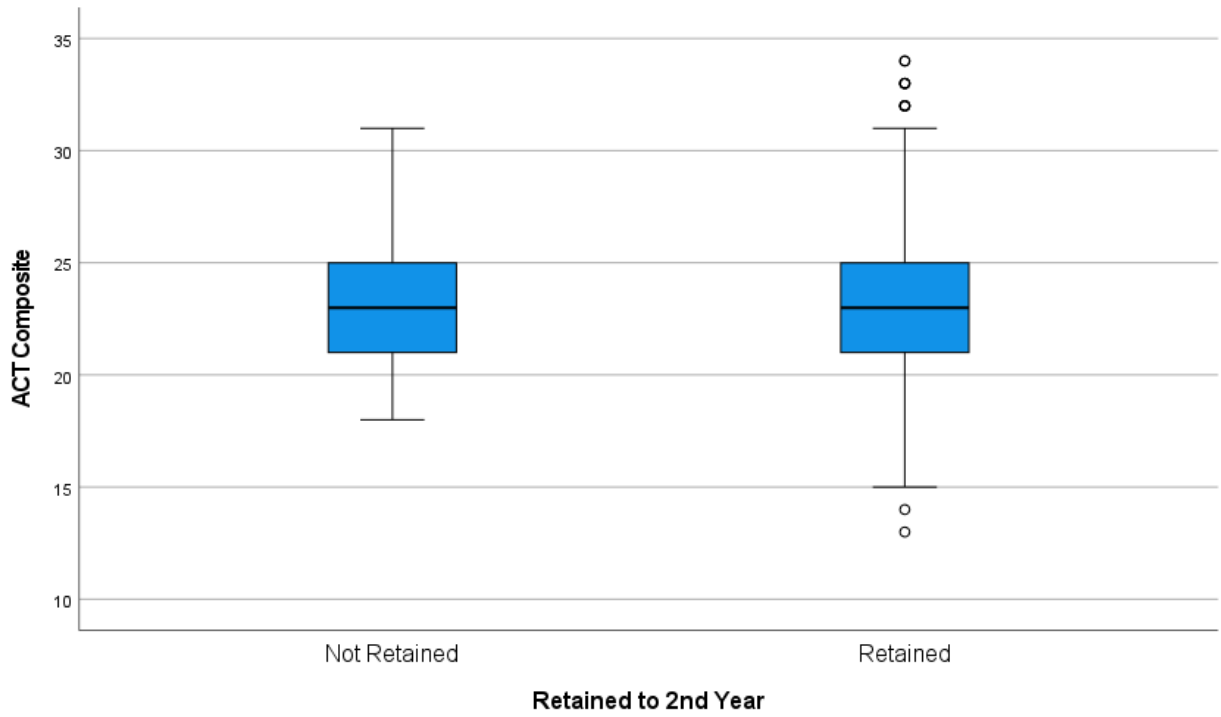
Is there significant difference in standardized test scores (ACT) between first-time, full-time students who were retained (fall semester to fall semester) and those who were not retained at the three small, private, 4-year institutions that participated in the study?

H₀₁: There was not a significant difference in standardized test scores (ACT) between students who were retained (fall semester to fall semester) and those who were not retained at Institution 1.

An independent samples t-test was conducted to evaluate whether the mean standardized test score impacted the significance of the relationship between standardized test scores and retention from fall-to-fall semester of first-year, full-time students. The standardized test score was the test variable and the grouping variable was whether students were retained or not retained. The test was not statistically significant $t(242) = .79, p = .430$. Therefore, H₀₁ was retained. There was no clear delineation of standardized test scores from fall-to-fall semester between students who were retained ($M = 26.35, SD = 3.76$) and students who were not retained ($M = 26.88, SD = 4.35$). The 95% confidence interval for the difference in means was $-.79$ to 1.85 . The standardized effect size of $.13$, as measured by Cohen's d , was small. Students who were retained had relatively similar scores to students who were not retained, therefore, the standardized test score (ACT Composite score) was not a significant factor in determining retention for Institution 1. Figure 1 shows the distributions for the two groups.

Figure 1

Distribution of Standardized Test Scores for Students Retained- Institution 1



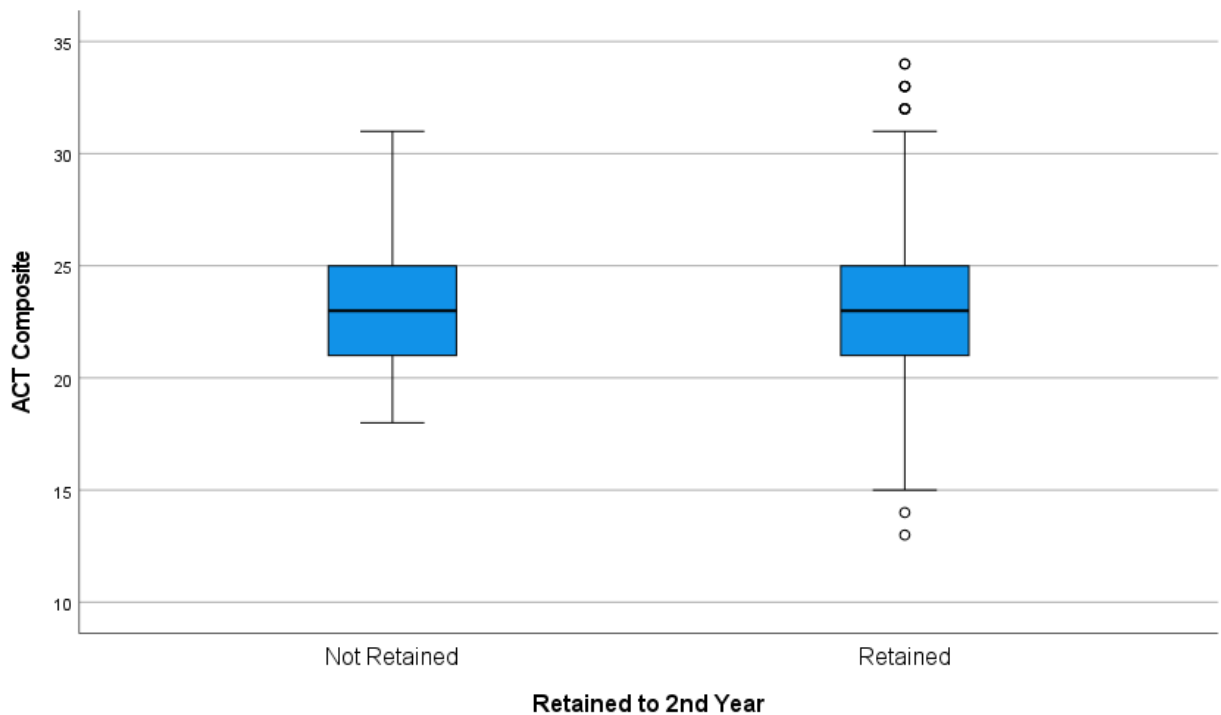
H₀₁₂: There was not a significant difference in standardized test scores (ACT) between students who were retained (fall semester to fall semester) and those who were not retained at Institution 2.

An independent samples t-test was conducted to evaluate whether the mean standardized test score impacted the significance of the relationship between standardized test scores and retention from fall-to-fall semester of first-year, full-time students. The standardized test score was the test variable and the grouping variable was whether students were retained or not retained. The test was not statistically significant $t(613) = .18, p = .189$. Therefore, H₀₁₂ was retained. There was no clear delineation of standardized test scores from fall-to-fall semester between students who were retained ($M = 23.36, SD = 3.32$) and students who were not retained ($M = 23.44, SD = 2.81$). The 95% confidence interval for the difference in means was $-.79$ to $.95$.

The standardized effect size of .02, as measured by Cohen's *d*, was small. Students who were retained had relatively similar scores to students who were not retained, therefore, standardized test scores (ACT Composite scores) was not a significant factor in determining retention for Institution 2. Figure 2 shows the distributions for the two groups.

Figure 2

Distribution of Scores for Students Retained - Institution 2



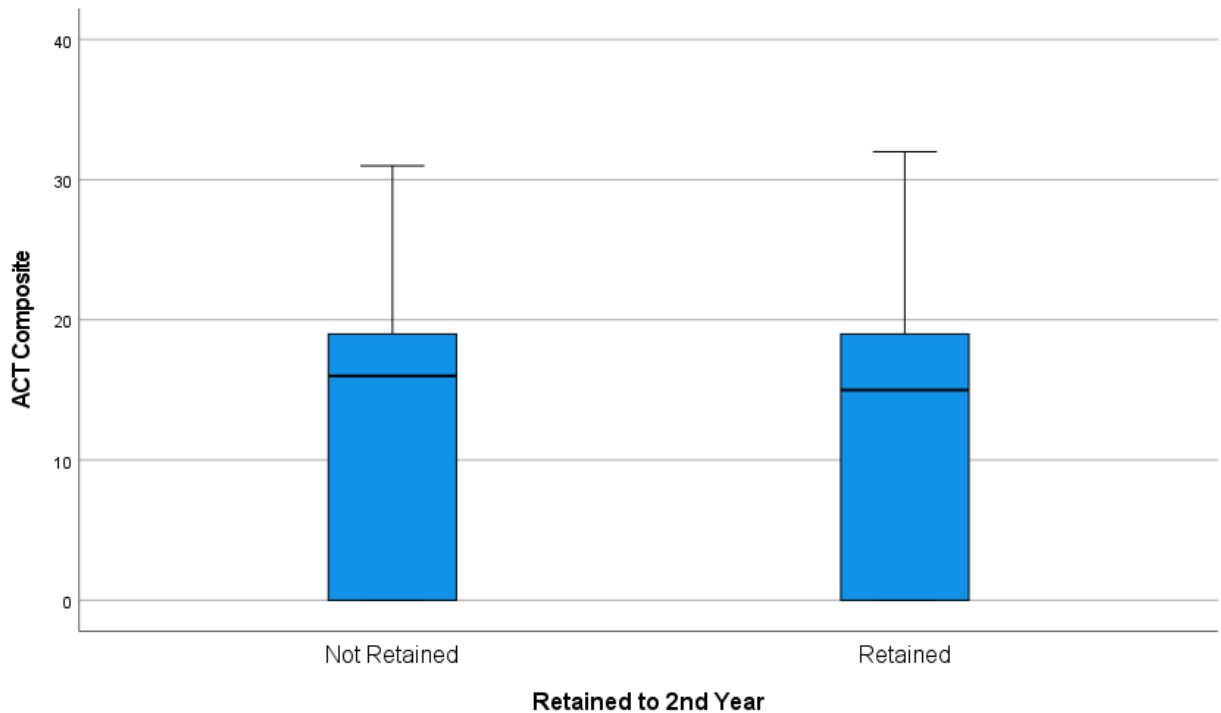
H₀₁₃: There was not a significant difference in standardized test scores (ACT) between students who were retained (fall semester to fall semester) and those who were not retained at Institution 3.

An independent samples t-test was conducted to evaluate whether the mean standardized test score impacted the significance of the relationship between standardized test scores and retention from fall-to-fall semester of first-year, full-time students. The standardized test score

was the test variable and the grouping variable was whether students were retained or not retained. The test was not statistically significant $t(1833) = .37, p = .709$. Therefore, H_013 was retained. There was no clear delineation of standardized test scores from fall-to-fall semester between students who were retained ($M = 10.30, SD = 10.28$) and students who were not retained ($M = 10.49, SD = 9.83$). The 95% confidence interval for the difference in means was $-.83$ to 1.23 . The standardized effect size $.02$, as measured by Cohen's d , was small. Students who were retained had relatively similar scores to students who were not retained, therefore, ACT Composite scores was not a significant factor in determining retention for Institution 2. Figure 3 shows the distributions for the two groups.

Figure 3

Distribution of Standardized Test Scores for Students Retained- Institution 3



Research Question 2

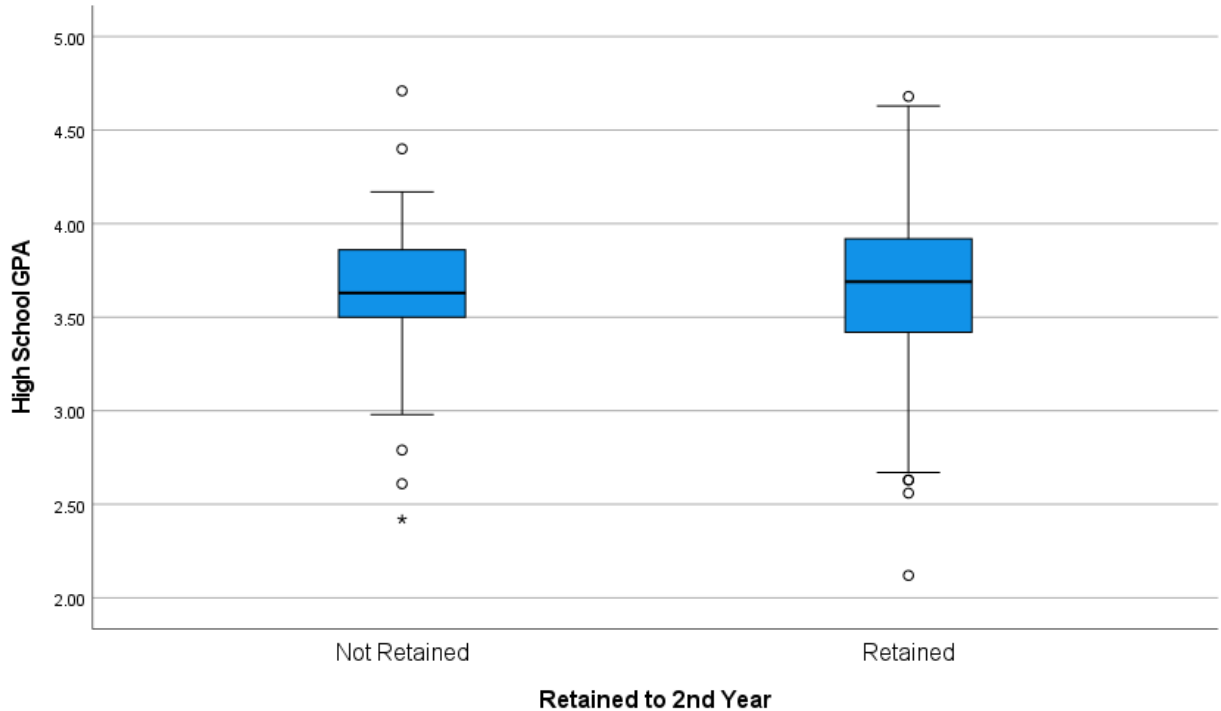
Is there a significant difference in high school GPAs between first-time, full-time students who were retained (fall-to-fall) and those who were not retained at the three small, private, 4-year institutions that participated in the study?

H₀₂₁: There was no significant difference in high school GPAs between first-time, full-time students who were retained and those who were not retained at Institution 1.

An independent samples t-test was conducted to determine the significance of the relationship between high school grade point averages and retention from fall-to-fall semester of first-year, full-time students. The high school grade point average was the test variable and the grouping variable was whether students were retained or not retained. The test was not statistically significant $t(575) = -2.17, p = .721$. Therefore, H₀₂₁ was retained. Students with a higher high school grade point average were retained from fall-to-fall semester ($M = 3.61, SD = .41$) at the same rate as students who were not retained ($M = 3.51, SD = .39$). The 95% confidence interval for the difference in means was $-.18$ to $.01$. There was no significant difference in the high school grade point averages of students who were retained and those who were not retained. The standardized effect size of $.24$, measured by Cohen's d , was small. Students who were not retained had similar high school GPAs to those who were not retained, therefore, high school GPA did not have a significant impact on fall-to-fall retention. Figure 4 shows the distributions for the two groups.

Figure 4

Distribution of High School GPAs for Students Retained- Institution 1



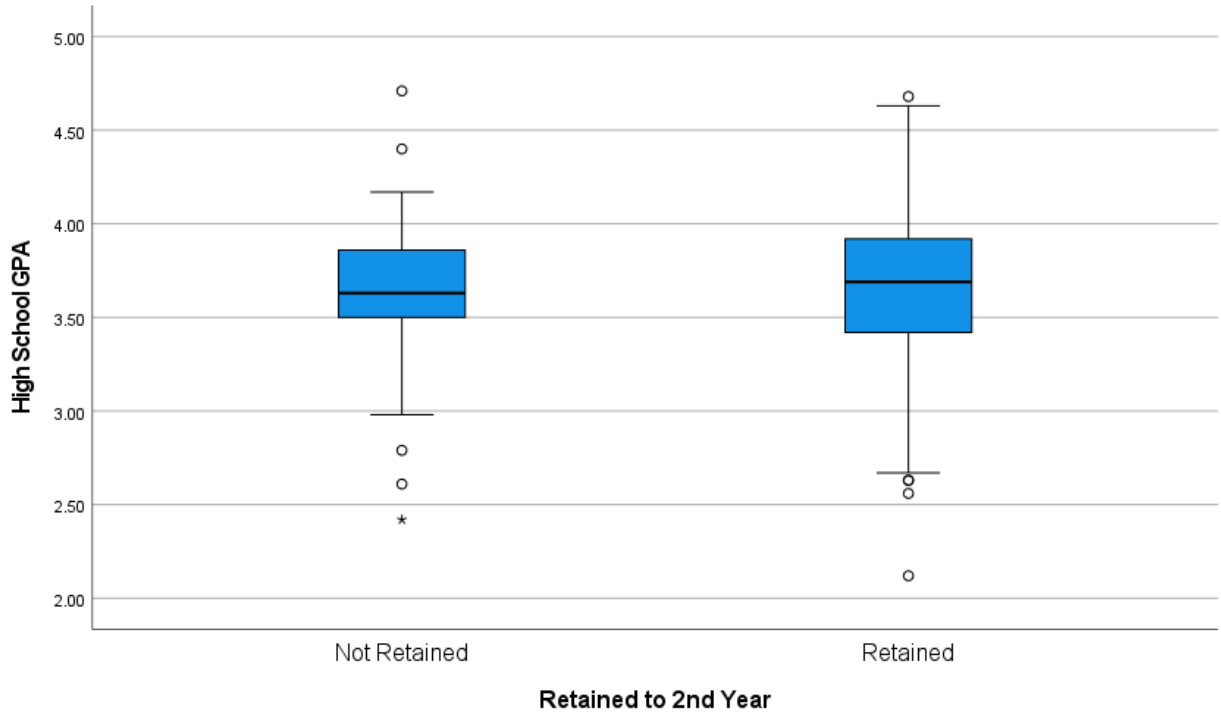
H₀₂: There was no significant difference in high school GPAs between first-time, full-time students who were retained and those who were not retained at Institution 2.

An independent samples t-test was conducted to evaluate whether the mean high school grade point average impacted the significance of the relationship between high school grade point averages and retention from fall-to-fall semester of first-year, full-time students. The high school grade point average was the test variable and the grouping variable was whether students were retained or not retained. The test was not statistically significant $t(1147) = -1.12, p = .06$. Therefore, H₀₂ was retained. There was no significant difference in high school GPAs between students who were retained ($M = 3.67, SD = .36$) and students who were not retained ($M = 3.63, SD = .34$). The 95% confidence interval for the difference in means was -.10 to .03. The

standardized effect size of .11 as measured by Cohen's *d* was small. High school GPAs were not found to be significant in retention from fall-to-fall semester at Institution 2. Figure 5 shows the distributions for the two groups.

Figure 5

Distribution of High School GPAs for Students Retained and Not Retained- Institution 2



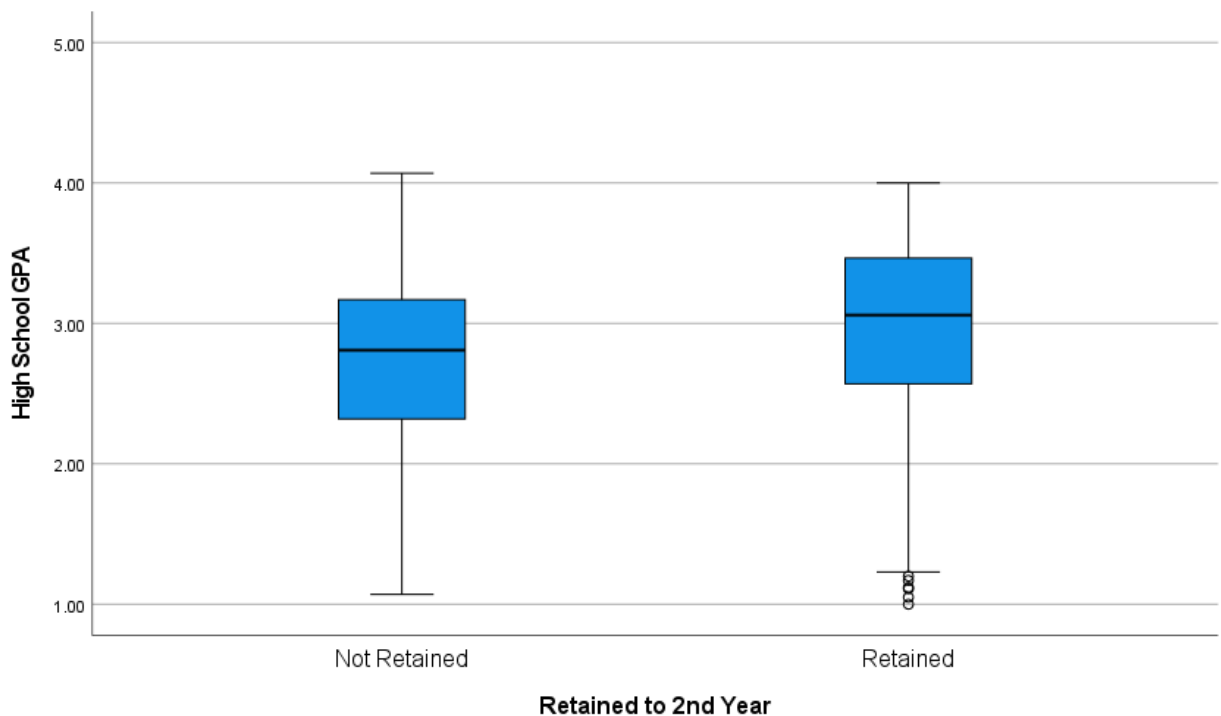
H₀₂₃: There was no significant difference in high school GPAs between first-time, full-time students who were retained and those who were not retained at Institution 3.

An independent samples t-test was conducted to determine if there was a significant difference in high school GPAs between first-time, full-time to evaluate whether there was a significant relationship between mean high school grade point averages and retention from fall-to-fall semester of first-year, full-time students that were retained or not retained. The test was not statistically significant $t(1833) = -8.11, p = .258$. Therefore, H₀₂₃ was retained. Students

with higher grade point averages and students with lower grade point averages were retained at the same rate from fall-to-fall semester between students who were retained ($M = 2.98, SD = .63$) and students who were not retained ($M = 2.72, SD = .60$). The 95% confidence interval for the difference in means was $-.32$ to $.20$. The standardized effect size of $.42$, as measured by Cohen's d , was small. Students who were not retained had similar high school GPAs to those who were not retained, therefore, high school GPA did not have a significant impact on fall-to-fall retention. Students who were not retained had similar high school GPAs to those who were not retained, therefore, high school GPA did not have a significant impact on fall-to-fall retention. Figure 5 shows the distributions for the two groups.

Figure 6

Distribution of High School GPAs for Students Retained or Not Retained- Institution 3



Research Question 3

Is there a relationship between first generation status and retention (fall-to-fall) of first-time, full-time students at the three small, private, 4-year institutions that participated in the study?

H₀₃₁: There was no significant relationship between first-generation status and fall-to-fall retention for first-time, full-time students at Institution 1.

A two-way contingency table analysis using crosstabs was conducted to evaluate whether there was a relationship between students' status as a first-generation college student and their fall-to-fall retention. The two variables were first-generation status (yes or no) and fall-to-fall retention (yes or no). Students' first-generation status and retention were found to be not significantly related, Pearson $\chi^2(1, N = 575) = .03, p = .870$, Cramer's $V = .01$. Therefore, the null hypothesis was retained. First-generation status was not found to have a significant relationship to retention of students from fall-to-fall. Table 1 and Figure 7 indicates the percentage and count of students returning fall-to-fall by first-generation status.

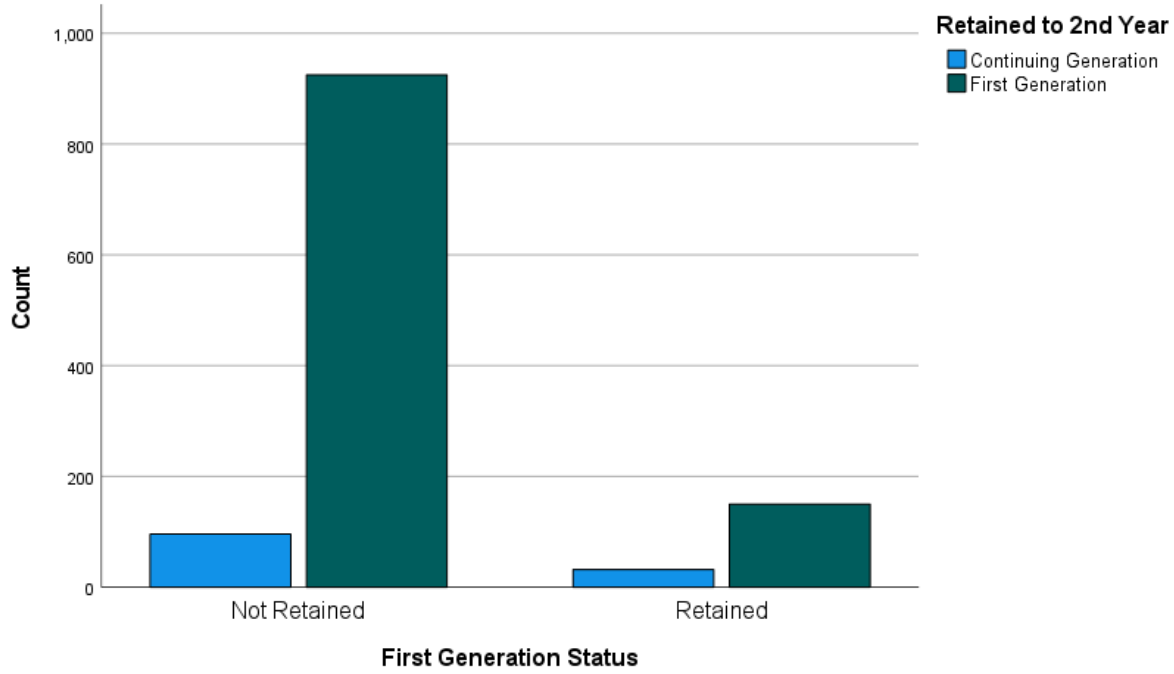
Table 1

Percentages of Students Retained by First Generation Status- Institution 1

Retained	First Generation	Continuing Generation	Overall
Yes	65.0%	64.2%	64.3%
No	35.0%	35.8%	35.7%

Figure 7

Number of Students Retained and Not Retained by First Generation Status- Institution 1



H₀₃₂: There was no significant relationship between first-generation status and fall-to-fall retention for first-time, full-time students at Institution 2.

A two-way contingency table analysis using crosstabs was conducted to evaluate whether there was a relationship between students' status as a first-generation college student and their fall-to-fall retention. The two variables were first-generation status (yes or no) and fall-to-fall retention (yes or no). Students' first-generation status and retention were found to be significantly related, Pearson $\chi^2(2, N = 1203) = 10.87, p < .001$, Cramer's $V = .10$. Therefore, the null hypothesis was rejected. First-generation status was found to be significantly related to student retention at Institution 2 with continuing generation students being retained at a higher rate. Table 2 and Figure 8 indicates the percentage and count of students returning fall-to-fall by first-generation status.

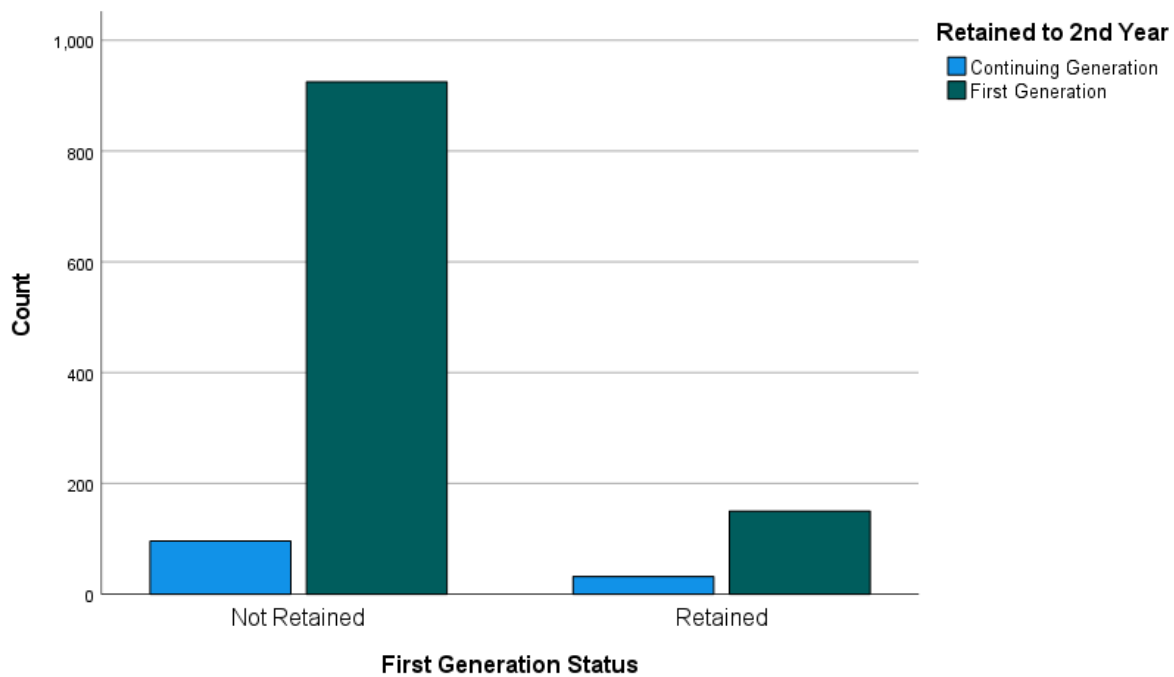
Table 2

Percentages of Students Retained and Not Retained by First Generation Status- Institution 2

Retained	First Generation	Continuing Generation	Overall
Yes	83.3%	90.6%	89.4%
No	16.7%	9.4%	10.6%

Figure 8

Number of Students Retained and Not Retained by First Generation Status- Institution 2



H₀₃: There was no significant relationship between first-generation status and fall-to-fall retention for first-time, full-time students at Institution 3.

A two-way contingency table analysis using crosstabs was conducted to evaluate whether there was a relationship between students' status as a first-generation college student and their

fall-to-fall retention. The two variables were first-generation status (yes or no) and fall-to-fall retention (yes or no). Students' first-generation status and retention were found to be significantly related, Pearson $\chi^2(1, N = 1835) = 5.09, p = .024$, Cramer's $V = .05$. Therefore, the null hypothesis was rejected. Students were retained at similar rates regardless of generational status. Table 3 and Figure 9 indicate the percentage and count of students returning fall-to-fall by first-generation status.

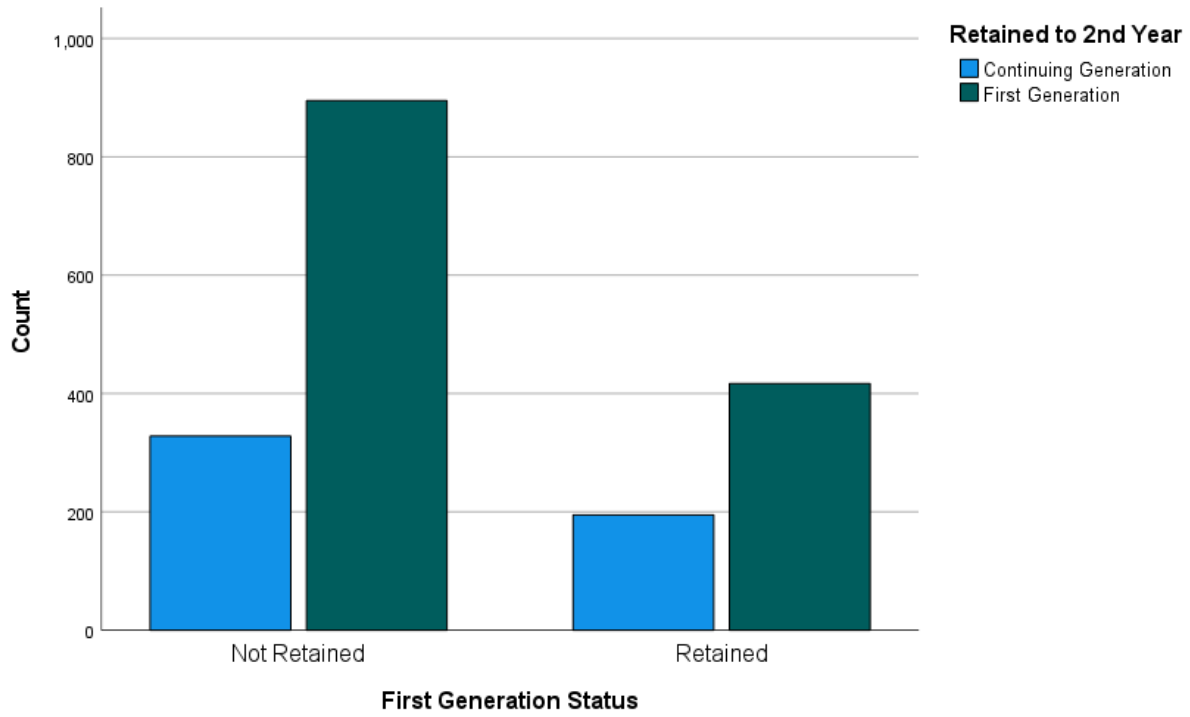
Table 3

Percentages of Students Retained and Not Retained by First Generation Status- Institution 3

Retained	First Generation	Continuing Generation	Overall
Yes	68.1%	73.2%	71.5%
No	31.9%	26.8%	28.5%

Figure 9

Number of Students Retained and Not Retained by First Generation Status- Institution 3



Research Question 4:

Is there a relationship between gender and retention (fall-to-fall) of first-time, full-time students at the one small, private, 4-year co-ed institution that participated in the study?

H₀4: There was no significant relationship between gender and retention for first-time, full-time students at institution 3.

A two-way contingency table analysis using crosstabs was conducted to evaluate whether there was a significant relationship between students' gender and their fall-to-fall retention. The two variables were gender (male or female) and fall-to-fall retention (yes or no). Students' gender and retention were found to be significantly related, Pearson $\chi^2(1, N = 1835) = 3.87, p = .049$, Cramer's $V = .05$. Therefore, the null hypothesis was rejected. Female students were found to be

retained at a significantly higher rate than males. Table 4 and Figure 10 indicates the percentage and count of students returning fall-to-fall by gender.

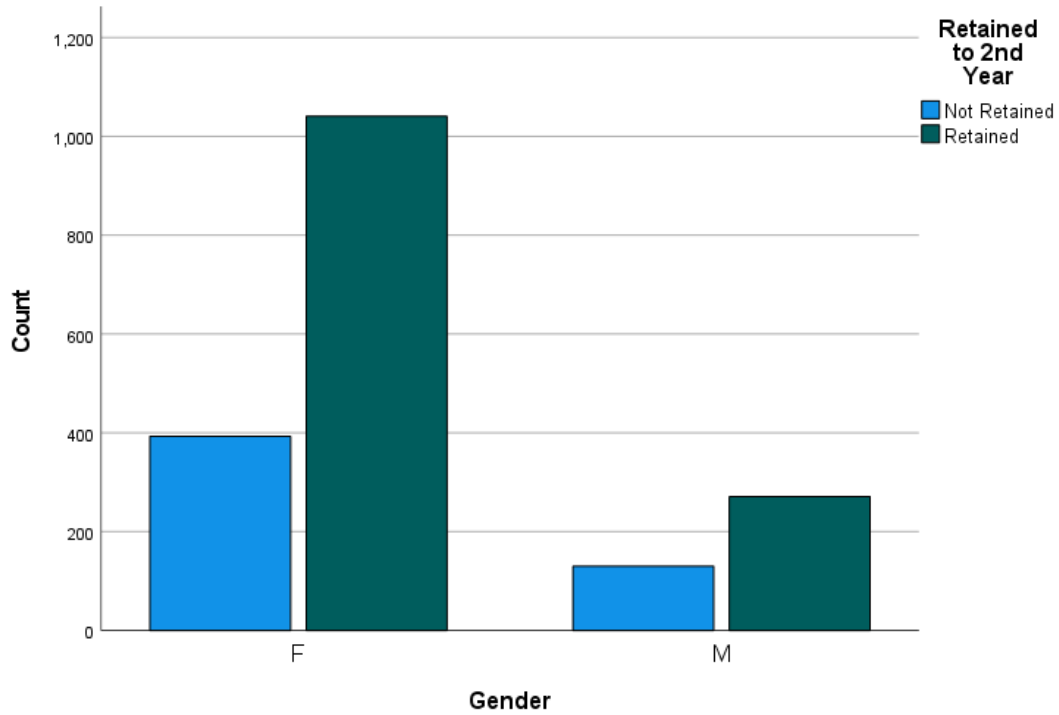
Table 4

Percentage of Students Retained and Not Retained by Gender- Institution 3

Retained	Male	Female	Overall
Yes	67.6%	72.6%	71.5%
No	32.4%	27.4%	28.5%

Figure 10

Number of Students Retained and Not Retained by Gender- Institution 3



Research Question 5:

Is there a relationship between financial aid status (as measured by Pell Grant eligibility) and retention (fall-to-fall) of first-time, full-time students at the three small, private, 4-year institutions that participated in the study?

H₀₅₁: There was no significant relationship between financial aid status (Pell Grant eligibility) and retention (fall-to-fall) for first-time, full-time students at Institution 1.

A two-way contingency table analysis using crosstabs was conducted to evaluate whether there was a relationship between students’ financial aid status (Pell Grant eligibility) and their fall-to-fall retention. The two variables were financial aid status (yes or no) and fall-to-fall retention (yes or no). Students’ financial aid status (Pell Grant eligibility) and retention were found to be not significantly related, Pearson $\chi^2(1, N = 575) < .01, p = .975$, Cramer’s $V < .01$. Therefore, the null hypothesis was retained. Students who were not retained had similar financial aid status to those who were not retained, therefore, financial aid status did not have a significant relationship on fall-to-fall retention at Institution 1. Table 5 and Figure 11 indicates the count and percentage of students returning fall-to-fall by financial aid status.

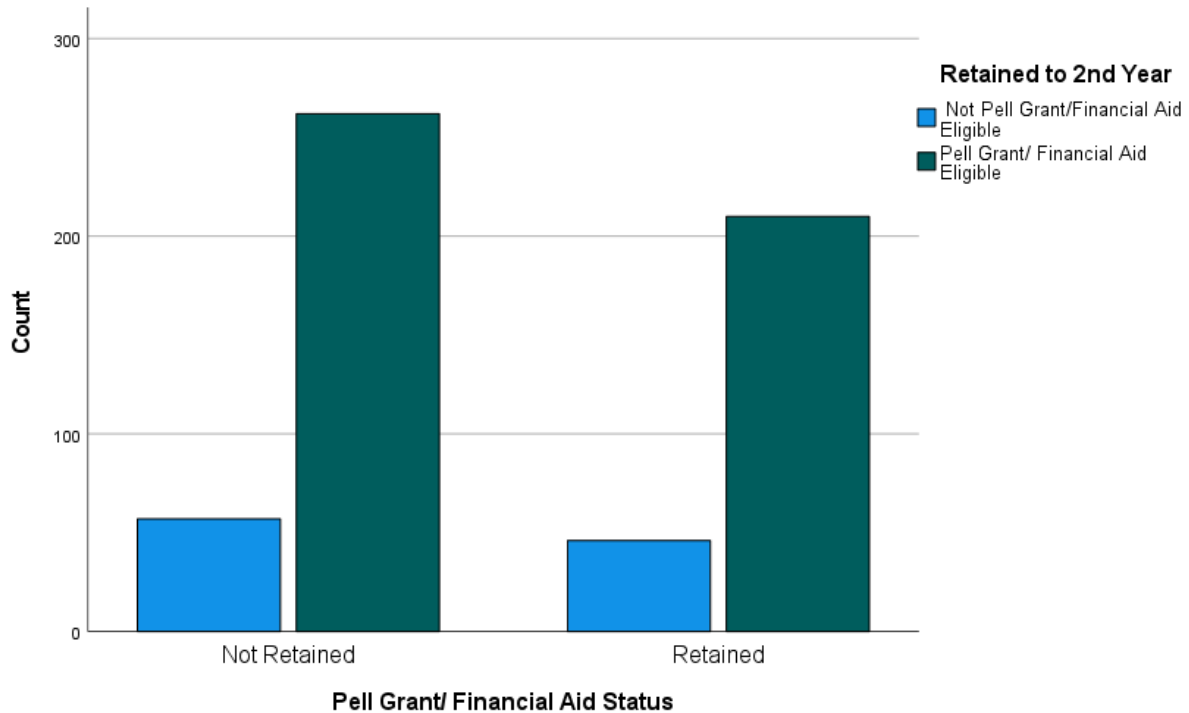
Table 5

Number of Students Retained and Not Retained by Pell Grant/ Financial Aid Eligibility- Institution 1

Retained	Pell Grant Eligible	Not Pell Grant Eligible	Overall
Yes	82.0%	82.1%	82.1%
No	18.0%	17.9%	17.9%

Figure 11

Percentage of Students Retained and Not Retained by Financial Aid Status (Pell Grant Eligibility)- Institution 1



H₀₅: There was no significant relationship between financial aid status (Pell Grant eligibility) and retention (fall-to-fall) for first-time, full-time students at Institution 2.

A two-way contingency table analysis using crosstabs was conducted to evaluate whether there was a significant relationship between students' financial aid status (Pell Grant eligibility) and their fall-to-fall retention. The two variables were financial aid status (yes or no) and fall-to-fall retention (yes or no). Students' financial aid status (Pell Grant eligibility) and retention were found to be significantly related, Pearson $\chi^2(1, N = 1204) = 21.71, p < .001$, Cramer's $V = .13$. Therefore, the null hypothesis was rejected. Students not eligible for financial aid were significantly more likely to return fall-to-fall. Students who were not retained had differing financial aid status to those who were retained; therefore, financial aid status was found to have a

significant relationship to fall-to-fall retention at Institution 2. Table 6 and Figure 12 indicates the percentage and count of students returning fall-to-fall by financial aid status (Pell Grant eligibility).

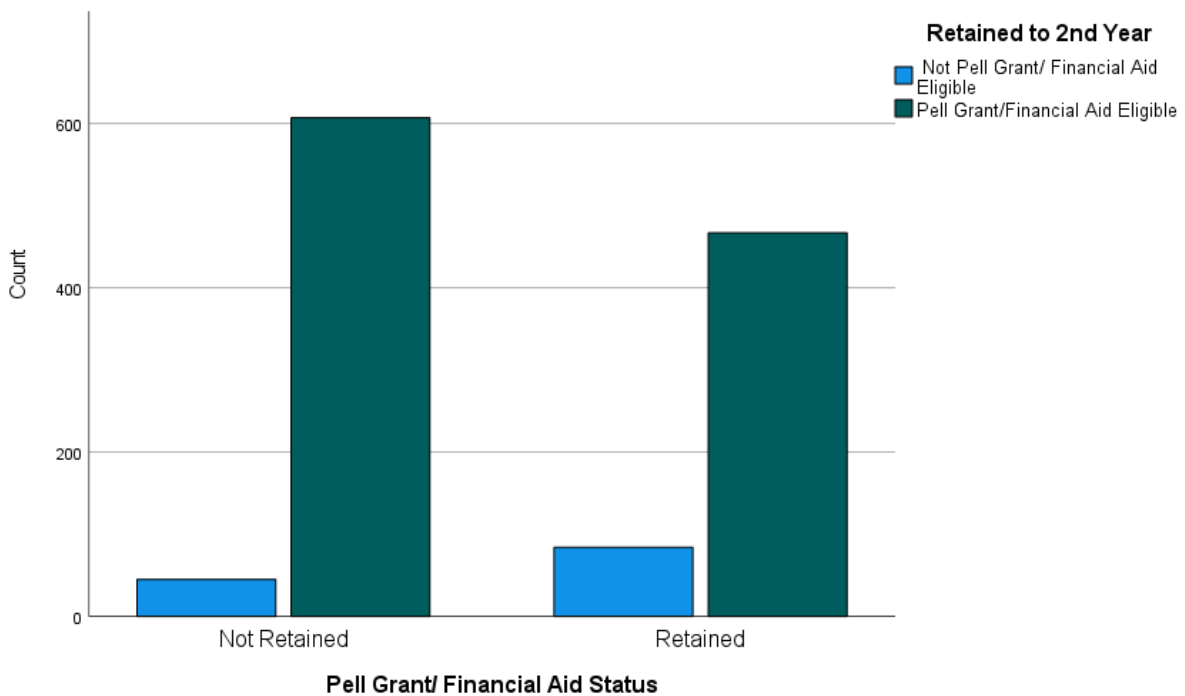
Table 6

Percentage of Students Retained and Not Retained by Financial Aid Status- Institution 2

Retained	Pell Grant Eligible	Not Pell Grant Eligible	Overall
Yes	84.8%	93.1%	89.3%
No	15.2%	6.9%	10.7%

Figure 12

Number of Students Retained and Not Retained by Financial Aid Status (Pell Grant eligibility)- Institution 2



H₀₅: There was no significant relationship between financial aid status (Pell Grant eligibility) and retention (fall-to-fall) for first-time, full-time students at Institution 3.

A two-way contingency table analysis using crosstabs was conducted to evaluate whether there was a relationship between students' financial aid status (Pell Grant eligibility) and their fall-to-fall retention. The two variables were financial aid status (yes or no) and fall-to-fall retention (yes or no). Students' financial aid status and retention were found to be significantly related, Pearson $\chi^2(1, N = 1835) = 22.51, p < .001$, Cramer's $V = .11$. Therefore, the null hypothesis was rejected. Financial aid status was found to have a significant relationship with retention of students. Students who were not eligible for financial aid were retained at higher percentages than students who were eligible for financial aid at Institution 3. Table 7 and Figure 12 indicates the count and percentage of students returning fall-to-fall by financial aid status.

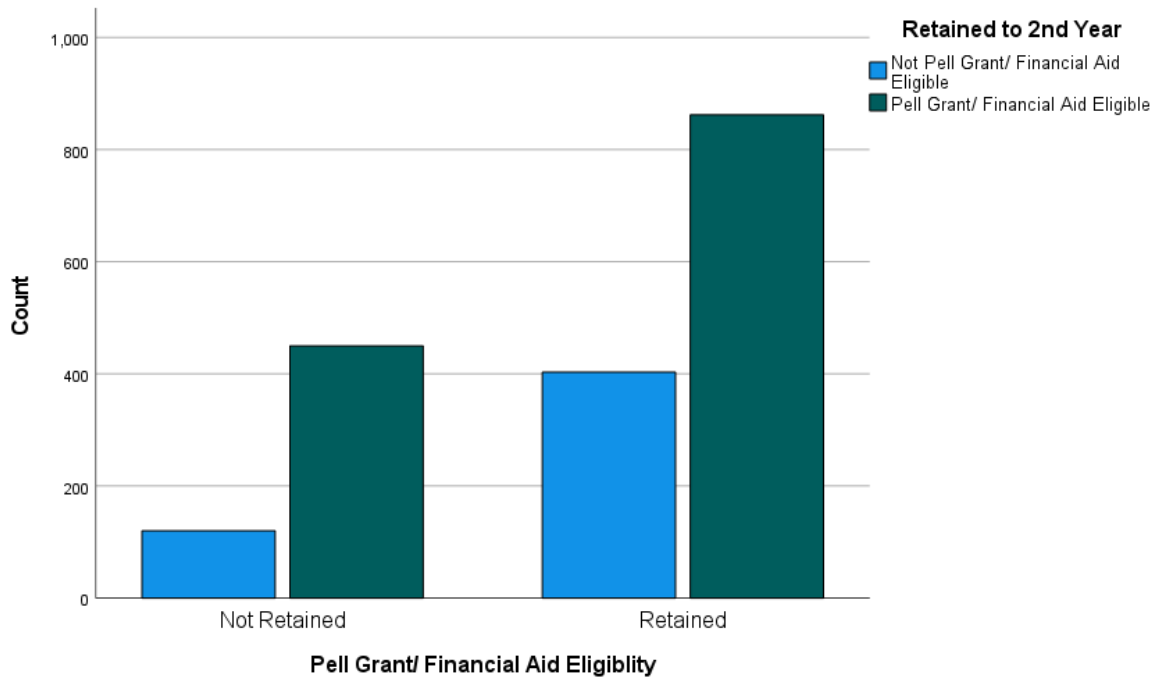
Table 7

Percentage of Students Retained and Not Retained by Financial Aid Status (Pell Grant eligibility)- Institution 3

Retained	Pell Grant Eligible	Not Pell Grant Eligible	Overall
Yes	68.1%	78.9%	71.5%
No	31.9%	21.1%	28.5%

Figure 13

Number of Students Retained and Not Retained by Financial Aid Status- Institution 3



Chapter Summary

Independent sample *t*-tests were used for Research Questions 1 and 2 to determine the significance of the relationship between standardized test scores (ACT) and high school GPAs of students who were retained and who were not retained. A two-way contingency table with crosstabs were used to measure the significance of the relationship between first-generation status and financial aid for two institutions and, additionally, gender for the only co-educational institution. The following data were analyzed: standardized test scores (ACT composite scores), high school GPA, first-generation status, gender, financial aid (Pell Grant eligibility) status. First-year, full-time students matriculating during the fall 2017 and 2018 semesters at three small, private, liberal arts education institutions were used, and the data were de-identified and provided to me by the institutions.

Chapter 5. Discussion, Conclusions, and Recommendations

The purpose of this non-experimental, correlational, quantitative study was to identify attributes of the first-time, first-year students who are retained from fall-to-fall at three, small, private institutions of higher education located in the Southeast U.S. and the impact of the identified attributes on the persistence of first-time, first-year students to the second year of their educational careers. I analyzed quantitative data from the enrollment databases of the three participating institutions of higher education. The pre-matriculation variables of standardized test scores (ACT composite scores), high school GPAs, first generation student status, gender (for the one co-educational institution), and financial aid (Pell Grant eligibility) status were drawn from student demographic data. The Fall 2017 and Fall 2018 entering cohorts of students for each institution were included as the sample for my study. For the analyses of retention rates for each institution, retention to the subsequent fall was used as a category by which each variable was tested. Findings from this study may contribute to the body of knowledge regarding retention and institutional efforts to assist students to persist at the institution.

Discussion

Standardized test scores, high school GPAs, and fall-to-fall retention rates were analyzed in Research Questions 1 and 2. First-generation student status, gender (only for Institution 3), and financial aid status were analyzed in Research Questions 3, 4, and 5.

In Research Question 1, I addressed the significance of the relationship of ACT composite scores and retention to the following fall semester for each cohort of students at the participating institutions. ACT composite scores were found to not be significantly different for Institution 1 ($p = .430$), Institution 2 ($p = .189$), and Institution 3 ($p = .709$) for retention of

students from first to second year. For Research Question 2, I addressed the significance of the relationship of high school GPAs and retention to the following fall semester for each cohort of students at the participating institutions. High school GPAs were found to not be significantly different for Institution 1 ($p = .870$), Institution 2 ($p = .06$), and Institution 3 ($p = .258$) for retention of students from first to second year. Although I did not find a significant relationship, Pascarella and Terenzini (2005) and Seidman (2012) emphasized the influence of high school GPAs and standardized test scores on the retention of students at institutions. This was not demonstrated in my study, as students continuing enrollment at these particular institutions were not significantly related to their high school GPAs or their ACT composite scores.

Research Question 3 addressed the significance of the relationship of first-generation student status and fall-to-fall retention for the 2017 and 2018 entering cohorts of students. The two-way contingency table analysis using crosstabs showed there was no significant relationship between first-generation status and retention at Institution 1 ($p = .870$) and a significant relationship between first-generation status and retention at Institutions 2 and 3. First-generation status had no significant relationship with retention of students at Institution 1 with 65% of first-generation students and 64.2% of continuing-generation students continuing to the following fall semester for each cohort of students. It was determined there was a significant relationship between first-generation status and fall-to-fall retention for students at Institution 2 ($p < .001$) and Institution 3 ($p < .024$). At Institution 2, 83.3% of first-generation status students were retained and 16.7% of first-generation students were not retained compared to 90.6% of continuing-generation students who were retained and 9.4% of continuing-generation students who were not retained. At Institution 3, 68.1% of first-generation students were retained compared to 73.2% of continuing-generation students. 31.9% of first-generation students were

not retained compared to 26.8% of continuing-generation students. First-generation students were retained at a lower percentage than students who were continuing-generation students at Institutions 2 and 3. Seidman (2012) and Astin (1984) emphasized the importance of the influence of pre-matriculation variables such as first-generation status on a student's decision to remain at an institution.

Research Question 4 addressed the impact of gender as a pre-matriculation variable on the retention of students from fall-to-fall for Institution 4, a co-educational university. It was determined there was a significant relationship between gender and retention at Institution 4 ($p < .049$). Male-identified students were retained at 67.6% compared to 72.6% for female-identified students. Female-identified students were found to be retained at a higher percentage than male students. Seidman (2012) and Astin (1984) noted in their research that student demographics, such as gender, impact student departure and that finding is supported by the significant findings in Research Question 4.

Research Question 5 addressed financial aid status (Pell Grant eligibility) as a variable impacting retention of students from fall-to-fall. Financial aid was determined to not be significant related to retention for Institution 1 ($p = .975$). Over 82.0% of students who were Pell Grant eligible compared to 82.1% of students who were not Pell Eligible were retained. Regarding Institution 2 ($p < .001$) and Institution 3 ($p < .001$), students' financial aid status (Pell Grant eligibility) was found to be significantly related to fall-to-fall retention. Approximately 84.8% of students who were Pell Grant eligible compared to 93.1% of students who were not Pell Grant eligible were retained at Institution 2. In addition, 15.2% of students who were Pell Grant eligible compared to 6.9% of students who were not Pell Grant eligible were retained at Institution 3. Pell Grant eligibility had a significant relationship to retention and a student's

ability to continue their education at Institutions 2 and 3. Financial aid provides the cost of attendance for a percentage of the student population and lack thereof tends to be prohibitive for students who do not have financial means or additional financial support for their educational costs. Tinto (1987) noted in his research of student departure that financial aid status is often a sole issue preventing a student from continuing an education.

Pre-matriculation variables are shown to have varying degrees of impact on student retention for each of the institutions. Standardized test score (ACT composite) and high school GPAs were determined to have no statistically significant relationship with retention for the three institutions. First-generation and financial aid status were determined to have a significant relationship with retention for Institution 2 and Institution 3, while not having a statistically significant relationship at Institution 1. Gender was found to have a significant relationship with retention for Institution 3. Each variable that was concluded to have no significant relationship with retention (ACT composite and high school GPAs) for all institutions was academically-based versus variables concluded to have significance on retention (first-generation status, financial aid status, and gender) were based upon student demographics.

Conclusions

The purpose of this non-experimental, correlational, quantitative study was to identify attributes of first-year, full-time students who are retained from fall-to-fall at three institutions of higher education located in the Southeast U.S. and the relationship of the identified attributes have to the persistence of first-time, first-year students to the second year of higher education.

I attempted to control for differences by limiting the pre-matriculation variables to 5 variables and limiting the number of cohorts considered for the study to 2 entering cohorts of first-year, full-time students. Limiting the variables considered for the study allowed me to

conduct analyses to evaluate the relationship of the variables on student departure and compare to the success of the three institutions to retain their students.

The major findings from this study include the following statistically significant results regarding pre-matriculation variables and their relationship to retention:

1. Student demographic variables Financial Aid status (Pell Grant eligibility), gender, and first-generation status had a significant relationship to retention for Institutions 2 and 3,
2. Students who were not eligible for financial aid were retained at higher percentage rate than students who were eligible for financial aid,
3. Students who were first-generation students were retained at lower percentage rate than students who were continuing-generation students, and
4. Self- identified female students were retained at a higher percentage rate those students who were self-identified as males at Institution 1.

Student demographic variables were found to be a statistically significant variable in retention of students and exemplify the need for institutions to either amplify existing or create targeted resources to assist students and retain those students to graduation. Students often are not aware of specific resources, especially those in the first year to maintain their student status at the institution and if institutions are able to identify students in need, proactive efforts may combat reactionary student withdrawals and departures from the institution.

Student eligibility for financial aid demonstrates the need for resources for students to successfully continue their educational careers. Students who find themselves at a deficit for financial resources prior to their matriculation into post-secondary education often continue to struggle further during their first year.

Students who do not have continued concern for their financial status have the ability to focus on their academic success and their co-curricular experience and engagement, which Astin (1984) and Tinto (1975) deem necessary to retain students at the institution.

Students who were identified as first-generation student status tend to be retained at a lower percentage than those who are continued generation status. First-generation students often struggle to navigate the institution, find resources to assist in their continued success (academic and co-curricular), and find a social community of acceptance with the greater campus community. My study showed the necessity of providing individual assistance to first-generation students at institutions 2 and 3.

The statistically significant relationship between retention and gender at Institution 3 exemplifies a national trend of female-identified students being retained at higher rates than male-identified students. It is important to note there is a higher percentage of female-identified students in the student population of the institution, which would naturally result in a larger retention of female students than males, however, they are retained at a higher percentage and rate overall, even in a comparable perspective of students retained within gender identity. Institution 1 did not have statistically significant relationships between pre-matriculation variables and student retention rate. This reflects that the retention rate of the institution is not significantly related to these pre-matriculation variables. The institution provides a student experience that is indicative of intentionally directed resources for first-generation students, financially challenged students and remedial education to enrich students with lower composite scores and high school GPAs. As a traditional, 4-year institution, the campus community provides many opportunities for student engagement, involvement, and development in a manner that is inclusionary of all identities to create a sense of belonging among all students. The single-

gender demographic of the institution creates community among the students in a way that differs from a co-educational institution.

Data analysis for Institution 2 yielded statistically significant relationships for two of the four variables tested, first-generation student status and Financial Aid (Pell Grant) eligibility. It should also be noted that the retention rate for the institution was drastically higher than Institutions 1 and 3. This institution uses a strategic and targeted admissions process to recruit and select students who fit well with the academic model and co-curricular experience offered by the Institution. I would also note the institution serves a specific community that is an intersection of race and gender-identity.

Recommendations for Practice

The findings from my study demonstrate there are significantly higher rates of retention for students who are continuing-generation, female-identified, and not Pell Grant eligible when compared to students who are first-generation, male-identified, and Pell Grant eligible at these three institutions. Private, selective, and academically rigorous institutions with higher academic admission standards and higher tuition rates may be less likely to admit students with lower academic profiles (high school GPA and ACT Composite), decreasing the impact of these two variables on the success of students at the institution. According to Siedman (2012), institutional selectivity directly impacts retention of first-year, full-time students and lessens the effect academic capability of the student as a pre-matriculation variable.

The findings from my study reveal the admissions practices of the institutions limit the influence of academic capability as a significant factor impacting retention. As previously mentioned in Chapter 2, there is a national focus at higher education institutions to increase retention rates and increase student institutional commitment through institutional efforts and

attention to the reasons for departure. Focusing on current students minimizes the continued expense to recruit new students to the institution. The findings from this and other similar studies demonstrate retention of current students benefits the student and campus community in their understanding of the factors impacting their students' decisions to remain at the institution.

The current national focus in research on retention and reasons for student departure show a continued need to examine the efforts of the institution in providing resources for the students to focus on their academic and social engagement and involvement at the institution. Astin (1984) and Tinto (1987) identified student involvement as the engagement of students in the institutional community, activities, and resources to ensure a smooth transition into their collegiate experience and persist at the institution. The findings from this study indicate resources needed for students centered around their first-generation status and navigating the institution as well as the institution providing financial resources to ensure cost of attendance is resolved and does not serve as a deterrent for students to continue their educational career at the institution.

As a result of my findings, the following recommendations for practice are made:

1. I recommend these institutions interview students who choose to depart the institutions to provide information regarding their departures and incorporate the themes of needs or items absent from the current student experience into the institutional experience for future students.
2. I also recommend institutions interview students who persist to the 2nd year and continue to graduate to evaluate the institutional efforts that support the students to continue their educational experience and to discover areas of improvement

directly from those who have experienced the current student engagement model at the institution.

Recommendations for Further Research

There is a need to expand the current body of knowledge and the literature as it currently focuses on student engagement, involvement, and preventing departure. Previous research identifies gaps in the exploration of the effects of retention rate studies at individual institutions. One of these gaps is the study of retention rates at single gender institutions and HBCUs. Single gender institutions should investigate factors that are specific to the withdrawal of students and reasons for departures before these institutions are able to address student retention. HBCUs, while operating for many years, have not been a central focus of academic research due to the under-represented groups attending the institution. More attention is being paid to the monumental efforts to educate a population once segregated by mainstream educational systems and the plight of these institutions to remain relevant, funded, and effective. It is strategic for HBCUs to provide a culturally relevant and empowering experience for students who choose these institutions as their educational foundation before entering continuing to their life's purpose. Additional recommendations for further research include:

1. A comparison of retention at these three institutions to those within other regions of the country. The Southeast United States is home to a variety of educational institutions, including large research-intensive and agriculturally-based institutions and well-funded and lesser known private and religiously-affiliated institutions. These institutions simulate the societal beliefs and values of the region and it would be of great interest to determine if regional values and societal norms impact the operations of institutions and their ability to attract and retain students.

2. In addition, a qualitative study of students' experience to determine if the needs of the students are met in accordance to the experience the student hopes to gain should be explored to further educate higher education professionals regarding the current needs of students,
3. An investigation into the differences of programs and resources offered by HBCU institutions versus PWIs would provide a cross section of the needs of these two populations and if the needs intersect to find a common program to address the needs of the students.

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