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A Quantitative Exploration of Higher Education, Nontraditional Student Retention Demographics and Success Predictors at a Midwest Private University

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by

Megan Zacheis

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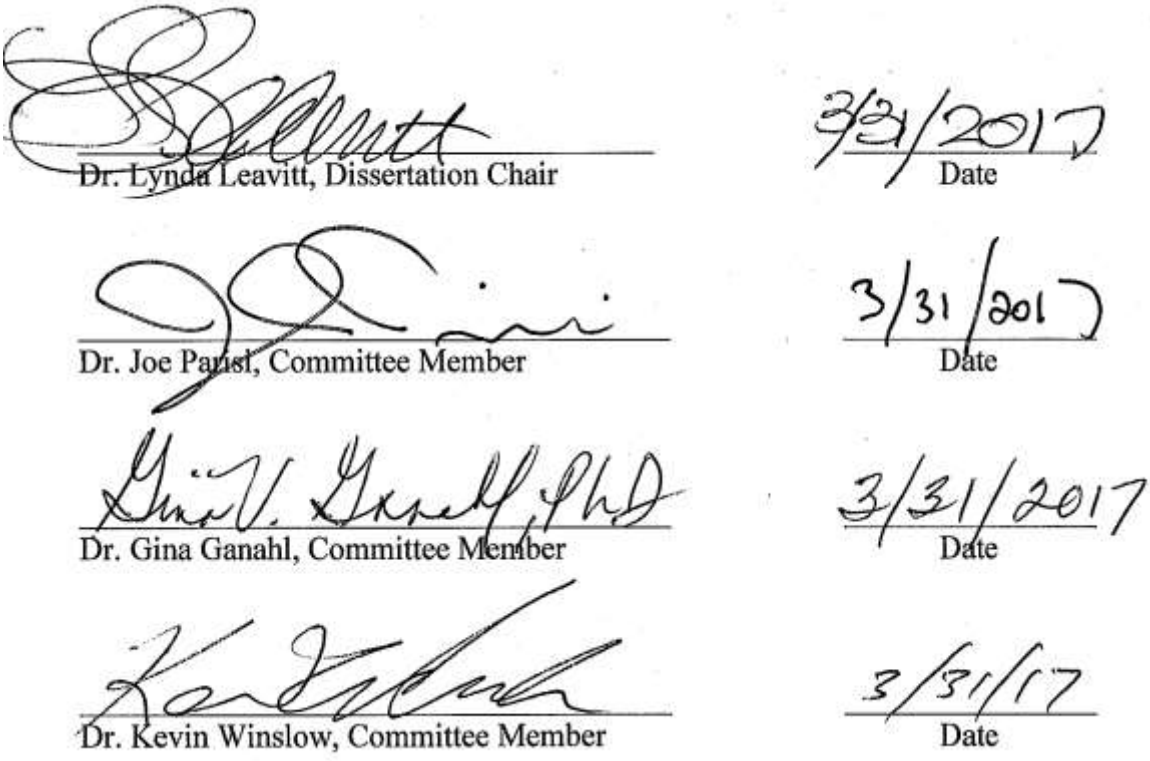

Declaration of Originality

I do hereby declare and attest to the fact that this is an original study based solely upon my own scholarly work here at Lindenwood University and that I have not submitted it for any other college or university course or degree here or elsewhere.

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Abstract

Persistence and retention has been widely researched through various cornerstone experts, including Tinto (2012), Kuh, Kinzie, Schuh, and Whitt (2010), Braxton, Hirschy, and McClendon (2014), Astin (1993) and Habley, Bloom, and Robbins (2012). The researcher utilized several concepts from retention and persistence experts seeking institutional specific patterns related to student demographics and characteristics. The study sought recommendations for higher educational administrators validated by data driven analytics utilizing theories and concepts from experts in retention and persistence. The researcher sought patterns and trends for completers with the intention to recommend a targeted marketing plan driven by institution-specific data to attract and retain students to degree persistence.

The data were divided into two sets: graduate and undergraduate. The researcher utilized a *z*-test for difference in proportions to analyze characteristics with two variables and a PPMCC analysis and Chi Square test for homogeneity when more than two variables for differences of specific characteristics were present among completers and non-completers. The researcher color-coded the data to create a visual of completers and non-completers. Of all variables analyzed in this study, only type of program (Graduate Business students) had a significant difference between completers and non-completers. The researcher then selected Graduate Business students for further analysis by cross tabbing with the remaining variables studied for graduate students, to determine if a difference existed between the variables. In comparing the graduate business student completers with the variable of zip code, there was a moderate evidence of a difference between proportions of completes living in the County of location of Midwest University

and living outside the County. Overall, the study revealed variables did not contribute to a significant difference in completion during the studied timeframe except for type of program for Graduate Business students and revealed a moderate difference in graduate type of program and zip code.

Accurate data was crucial for higher education administrators to provide quality decision making. Higher education administrators must use true institution-specific data when making decisions. Although the results were not what the researcher expected, additional recommendations were made to the researched institution in regards to data collection and the importance of data accuracy when making decisions at the administrative level.

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Chapter One: Introduction

Background

This study sought institution-specific patterns and trends related to student completion of degree programs offered at Midwestern University (pseudonym), with the intent to recommend a marketing plan for the researched university, focused on students who persisted to degree within a specified time. The market in higher education was highly competitive, as several delivery formats offered students a variety of programs designed to fit specific needs. The researcher worked in admissions at the time of this study, recruiting nontraditional students for the accelerated degree program and wanted to better understand variables related to students' persistence to graduation. The accelerated format at the researched institution was approaching its 40th anniversary and was highly successful in recruiting and attracting nontraditional students.

Student demographics chosen by the researcher were analyzed to determine a potential difference or relationship between nontraditional student retention demographics and success predictors. The researcher sought possible patterns related to completion of and persistence within an accelerated program format. By analyzing specific nontraditional student data, the researcher wanted to create a targeted marketing plan for students with specific characteristics, similar to those who were already successful in the accelerated program.

Although retention and persistence were researched extensively, the researcher was unable to find previous studies applicable to institution-specific patterns. In the researcher's experience, among higher education administrators, decisions were frequently based on data. The researcher sought patterns pertaining to completion of

degree through analytics, to recommend a targeted marketing plan, based on specific characteristics and demographics noted in the then-current research as potential success predictors.

Professional Development

At the time of this study, the researcher was working in the higher education environment as a Site Director in Evening and Graduate Admissions. On a daily basis, the researcher spoke with prospective and then-current students seeking additional education through an accelerated format. The Accelerated Degree Program at Midwestern University allowed students to continue learning while employed, through coursework in offered in a cluster format requiring attendance of class one night a week. Clusters consisted of nine credit hours offered through three related courses at three credit hours each (Midwest University Catalog, 2015). In the researcher's experience gained through discussing the program with prospective students, each student had various reasons to return to school and each student entered the program with degree attainment as the end goal. The researcher wanted to better understand retention related to recruitment and the enrollment management process as a whole by conducting an institution-specific analysis for the nontraditional format, to gain additional knowledge and skills pertaining to the researcher's career. At the time of this writing, Midwest University was actively creating and implementing a Student Success Center, which provided additional support for nontraditional students in the accelerated program to aid in retention efforts.

The researcher wanted to better understand retention specifically related to recruitment strategies. Enrollment management expended a significant amount of

resources to recruitment, and the researcher hoped to provide administrators with an institution-specific targeted marketing plan to recruit students to the accelerated program. In addition, the researcher had an active role on the Student Success Center committee and wanted to further study student retention, as related to recruitment efforts.

Purpose of the Dissertation

This study analyzed student data generated within a Midwest private, four-year university and sought patterns specifically related to student completion and persistence, specifically among students who attended a nontraditional higher education setting. The researched analyzed several sets of undergraduate and graduate nontraditional student characteristics through use of a *z*-test for difference in proportion and the statistical Chi Square test for homogeneity to determine if specific patterns existed among completers and non-completers of their current degree programs. The researcher intended to analyze secondary data in the original study design to determine a possible relationship between the completers/non-completers and specific characteristics, such as : initial status, start term, zip code, type of program, gender, generation, transfer credit, birth year, college graduation year, year of high school graduation, veteran status, and Pell eligibility. Additionally, the researcher sought potential differences between undergraduate and graduate nontraditional students.

Specific variables were chosen by the researcher to analyze possible patterns and trends. Variable characteristics (see Table 1) were chosen by the researcher to study independently determining a possible relationship between characteristics and then sorted into tables and examined for patterns and trends.

Table 1

Variable Characteristics Chosen by Researcher

Undergraduate	Graduate
Start Term	Start Term
Zip code	Zip code
Program	Program
Initial Status	Initial Status
Gender	Gender
High School Graduation Year	High School Graduation Year
Birth Year	Birth Year
Veteran Status	Veteran Status
Transfer Credit	Transfer Credit
Pell Eligible	College Graduation Year

Rationale

This study built upon Tinto's 1993 work on student retention and applied the research to nontraditional student program completers and non-completers. While the researcher found previous studies on retention analyzing when students departed the system of higher education (Braxton et al., 2014; Renn & Reason, 2013; Tinto, 2012), there was little research on institutional departure and emergent patterns on student retention pertaining to the institution (Tinto, 1993) among specific demographics and site-specific characteristics. This study researched retention patterns and applied Tinto's previous work to nontraditional students.

According to a landmark study completed by Tinto (1993), "only knowledge of the experiences of individuals within specific institutional settings will tell us of the unique characteristics of individual departure from institutions" (p. 28). As Tinto (2012) noted, "The institution must begin by focusing on its own behavior and establishing

conditions within its walls that promote those outcomes" (p. 6). Most research on student retention pertained to students leaving the system of higher education (Tinto, 1993). "Patterns of entry are necessarily related, in time, to eventual patterns of departure" (Tinto, 1993, p. 5). Braxton et al. (2014) noted, "The pattern of findings that result from such analytical cascading will contribute to the explanatory power of the theory of student departure" (p. 187) and allowed institutions to comprehend trends in student retention. Habley, Bloom, and Robbins (2012) noted, "The current measure of institutional success are the percentage of students who enroll, the percentage that stay, and the percentage who subsequently earn a certificate of a degree" (p. 343).

The cornerstone research on student retention found little research on nontraditional student retention as then-current literature reflected traditional student retention (Braxton et al., 2014; Habley, Bloom, & Robbins, 2012; Tinto, 1993, 2012). Upon implementation of a student retention initiative, institutional patterns needed to be analyzed to determine what trends contributed to the dropout rate (Tinto, 1993). The researcher believed nontraditional students needed a greater support system in place upon entering higher education that established education as a priority amongst other demands in life (career, family, outside obligations). The information from this study may permit the Midwestern University (pseudonym) to identify patterns pertaining to nontraditional students, which may allow the institution to further understand specific contributing factors to retention and persistence. An analysis was provided to the specific institution regarding the institutional retention patterns and recommendations were made regarding resources and support to increase student persistence. This study may provide the Midwestern University with data that could be used in the possible development and

implementation of specific intervention plans for non-completer, nontraditional students and add to the then-current body of knowledge for nontraditional student retention. This study addresses one way to utilize Tinto's work to proactively identify nontraditional students and could serve as a possible model to other institutions of higher education.

Research Site

Midwest University was a private, Midwest four-year institution accredited by the Higher Learning Commission and originated as a Women's College in the early 1800's; the researched institution has a rich history (Midwest University, 2016). Midwest University offered a variety of educational program formats including day (traditional), evening (nontraditional), or online formats and allowed students to determine which program format best fit specific needs (Midwest University, 2016).

In 2015, Midwest University enrolled 2,416 full-time undergraduate men and 3,139 full time undergraduate women; 354 men and 550 women total part-time undergraduate students. That same year, the researched institution enrolled 444 full-time men and 718 full-time women; 482 men and 1,254 women part-time graduate students. The freshman-to-sophomore retention rate, from Fall 2014 to Fall 2015, was 73%. The total enrollment of all students in Fall 2015 was 9,357. Men accounted for 43% of all undergraduate students, while women accounted for 57% (Midwest University, 2016).

Research Context

Traditional students typically decided to attend the Midwest University immediately upon graduation from high school. Students enrolled in the online format were able to pursue an education through a distance format or at a time convenient for the student (Midwest University, 2016). Nontraditional students typically returned to

continue education after pursuing other interests and career options. Midwest University offered nontraditional students an accelerated degree option, which allowed the students to work while pursuing educational goals and offered the program format at several locations throughout the Midwest region (Midwest University Catalog, 2015). An evening format offered programs, which allowed nontraditional students to work while completing the program, attending classes one night a week. In the researcher's experience, nontraditional accelerated students were given the flexibility to conveniently choose a location close to work or home, which made traveling to and from class easier and allowed them to keep up with the demands of continuing education, careers, and family life.

The researcher analyzed secondary data, throughout a specified timeframe, to determine possible patterns and differences in student characteristics that led to completion or non-completion of the degree program. Non-completion in the study analysis did not mean the student never completed the degree, but the degree was completed outside the timeframe determined by the researcher, based upon the typically expected completion time in the university catalog. The researcher scrubbed and coded the data set with the font color red for non-completers and green for completers, for a visible representation among the undergraduate and graduate data sets. The researcher defined the variables for each characteristic to more easily code the data (see Table 2).

The researcher added a column to the data set for degree conferrals, also referred to as a completer and indicated by confirm date. The number one was added for conferrals within the researched timeframe and coded green. The number two was added

for students who did not confer within the timeframe and were referred to as non-completers. All non-completers were coded with the font color red.

Table 2

Variable Characteristics Definitions

Variable	Definition
Start Term	Fall, Winter, Spring, Summer Quarters
Zip code	Inside or Outside of the County
Program	Business or Non-business
Initial Status	Code assigned by researched institution during matriculation to determine college level
Gender	Male or Female
High School Graduation Year	Date of High School Degree Conferral
Birth Year/Generation	Baby Boomers, Gen X, or Gen Y, based on birth year
Veteran Status	If a student has veteran status
Transfer Credit	Credit being transferred into the researched institution
Pell Eligible	If a student was applied for Pell grant and was eligible to receive
College Graduation Year	Date of bachelor degree conferral

The researcher completed the analysis using a Pearson Product Moment Correlation Coefficient (PPMCC) analysis, a *z*-test for difference in two proportions, and the Chi Square test for homogeneity to determine a difference or relationship between the characteristics and completers/non-completers. The researcher initially conducted *z*-tests for difference in proportion for the following: zip code, program, gender, and Pell grant eligibility and then applied the Chi Square test for homogeneity for start term, and generation, which represented the birth year. The test for homogeneity was analyzed

through a Chi Square contingency table. Since the birth year data could not be analyzed, the researcher, in consultation with her chair and committee members, divided the data into generations: Baby Boomers, Gen X, and Gen Y. The researcher was unable to analyze data in the categories of veteran status and transfer credit, due to an inaccurate data set and not enough data on file.

Definition of Terms

Academic integration: "The feelings students express about being a part of the academic life of the institution" (Sandler, 2002, p. 8).

Academic preparedness: For the purpose of this study, the degree of educational readiness of the student attending the researched university, determined by admittance to the university.

Academic self-efficacy: "Self-evaluation of one's ability and/or changes for success in the academic environment" (Habley et al., 2012, p. 142).

Academic support: "Form of developmental education courses, tutoring, study groups, and academic support groups such as supplemental instruction as an important condition for their continuation in the university" (Tinto & Pusser, 2006, p. 7).

CAMS: A "Higher education - (ERP) solution that automates the entire student lifecycle, integrating admissions, registration, student billing, financial aid, and student services into a single system" (Three Rivers Systems, 2015, para. 1).

Cluster: **"**A faculty member and approximately 12 to 14 students who meet for four hours weekly during an evening or weekend. Each student is enrolled in three related subject areas" (Midwest University Catalog, 2015, p. 12).

Completer: For the purpose of this study, the student who graduated within the timeframe studied (See Table 7 and Table 8).

Docuware: "A state of the art document management system software for professional Enterprise Content Management. By tapping into the valuable information contained in documents, precisely where and when you need it, you can streamline your business practices" (Docuware, 2015, para. 1). The researched institution imported and stored student documents in this system.

Engagement: "To gain over: win and attach" (Habley et al., 2012, p. 13).

Expected Family Contribution: "The federal government's measure of a family's financial strength used to determine the types and amounts of financial aid" (U.S. Department of Higher Education, 2015, para. 3).

Extension site: For the purpose of this study, a location in the surrounding region where the researched institution administered on-ground classes for nontraditional students. The extension sites offered accelerated degree programs that allowed nontraditional students to conveniently attend class close to work or home.

Financial aid: "Any funds provided to students and their families to help pay for the cost of college. A college education is an investment in the future, and various forms of financial aid are available to help pay for it" (U.S. Department of Higher Education, 2015, para. 1).

Free Application for Federal Student Aid: "College financial aid offices make individual awards to students using a formula that takes into account the cost of attendance at the institution and the student's expected family contribution based on income and assets" (Brock, 2010, p. 122).

Federal Pell Grant: "Unlike a loan, does not have to be repaid. Federal Pell Grants can only be awarded to undergraduate students who have not earned a bachelor's or a professional degree" (Federal Student Aid, 2015, para. 1).

Full-time: For the purpose of this study, 12-week terms with 13 cluster meetings per term. The student enrolls in one cluster per term, earning nine credit hours, in most degree programs (Midwest University Catalog, 2015, p. 10).

Graduation rate: "The percentage of a school's first time, first-year undergraduate students who complete their program within 150% of the published time for the program" (Federal Student Aid, 2015, para. 80).

Grant: "Financial aid, often based on financial need, that does not need to be repaid (unless, for example, you withdraw from school and owe a refund)" (Federal Student Aid, 2015, para. 81).

Institutional commitment: A "student's confidence of and satisfaction with their institutional choice; the extent that students feel committed to the college they are currently enrolled in; their overall attachment to college" (Habley et al., 2012, p. 141).

Integration: "Combination and coordination of separate and diverse elements or units into a more complete or harmonious whole" (Habley et al., 2012, p. 13).

Involvement: "To draw in as a participant" (Habley et al., 2012, p. 13).

Mentor: "Process involving two or more individuals working together to develop the abilities of one individual" (Byrant-Shanklin & Brumage, 2011, p. 44).

Non-completer: For the purpose of this study, a student who did not continuously enroll, lacked a conferral date, and did not persist to graduation within the time frame studied.

Nontraditional student:

> A population of adult students who often have family and work responsibilities as well as other life circumstances that can interfere with successful completion of educational objectives. Other variables used to characterize nontraditional students are associated with their background (race and gender), residence (not on campus), and level of employment (especially working fulltime). (National Center for Education Statistics, 2015, para. 1)

Orientation: For the purpose of this study, an opportunity for students to learn about the researched institution and hear specific policies and procedures. Specifically provided the student with important concepts designed to help the student succeed and occurred before the start of the first class.

Persistence: For the purpose of this study, continuous enrollment.

Program format: "The program was created to provide an accelerated program of study that enables students to make progress toward an undergraduate or graduate degree without relinquishing career and family obligations" (Midwest University Catalog, 2015, p. 7).

> Classes are held on a quarterly basis. Many older adults who might not pursue higher education in a traditional setting find the [program's] educational philosophy and flexible program an ideal learning environment in which to earn a degree or to pursue studies appropriate to personal learning goals. (Midwest University Catalog, 2015, p. 7).

"The evening format has maintained a deep commitment to meeting the intellectual and professional needs of adult learners with employment experience" (Midwest University Catalog, 2015, p. 7).

Quarter: For the purpose of this study, a quarter is the term name for the researched accelerated program and consists of 13 classes in 12 weeks. There are four quarters in the year (Winter, Spring, Summer, Fall).

Retention:

Best indicator that an institution is meeting its goal of student satisfaction and success. It is a measure of how much student growth and learning takes place, how valued and respected students feel on campus, and how effectively the campus delivers what students expect, need, and want. (Levitz, Noel, & Richter, 1999, pp. 31-32).

Returning student: For the purpose of this study, a student enrolled in the next consecutive term.

Social integration: For the purpose of this study, social integration refers to the engagement of the university and the student, and how much the student participates and experiences the college setting.

Social Involvement: "Extent that students feel connected to the college environment; the quality of the students' relationships with peers, faculty, and others in college; the extent that students are involved in campus activities" (Habley et al., 2012, p. 142).

Stopout: "Temporarily withdraw from the system" (Tinto, 1993, p. 8).

Student Success Center: For the purpose of this study, a place for nontraditional students at the researched institution to enroll and provide support services (tutoring,

mentoring, career development, guidance, and assistance) to help the student persist to graduation.

Success*:* "Measured by persistence and degree attainment" (Brock, 2010, p. 109).

Success predictors: For the purpose of this study, analyzed nontraditional student characteristics or demographics leading to persistence, specifically initial status, start term, zip code, type of program, gender, generation, transfer credit, birth year, college graduation year, year of high school graduation, veteran status, and Pell eligibility.

Support*:* "A condition that promotes success" (Tinto & Pusser, 2006, p. 7).

Transfer credit*:* "There is no limit on the number of credit hours that may be transferred to [Midwest University]. All credit hours accepted in transfer must be from regionally accredited colleges and universities, except in rare cases" (Midwest University Catalog, 2015, p. 17)

Transfer student:

> A transfer student must take a minimum of 36 hours in residence in order to receive a [researched institution] degree. A transfer student must complete a minimum of 50 percent of his or her major at [researched institution], but a department or school may require a higher minimum number of hours to be taken at [researched institution] in the major, minor, or concentration, or emphasis area to earn a degree. (Midwest University Catalog, 2015, p. 18)

Hypotheses

The researcher investigated the following hypotheses:

Hypothesis 1: There is a relationship between new student undergraduate characteristics: start term, zip code, type of program, initial status, gender, year of high school graduation, transfer credit, birth year, veteran status, Pell eligibility, and completers/non-completers.

Hypothesis 2: There is a relationship between new student graduate characteristics: start term, zip code, type of program, initial status, gender, year of high school graduation, college graduation year, transfer credit, birth year, veteran status, and completers/non-completers.

Hypothesis 3: There is a difference between undergraduate completers/non-completers when considering start term, zip code, type of program, initial status, gender, year of high school graduation, transfer credit, birth year, Pell grant eligibility, and veteran status.

Hypothesis 4: There is a difference between graduate completers/non-completers when considering start term, zip code, type of program, initial status, gender, year of high school graduation, college graduation year, transfer credit, birth year, and veteran status.

Limitations

This study had several limitations. The enterprise resource planning (ERP) system used by Midwest University had several modules in which data were stored and collected from the admissions module. Some data fields requested by the researcher came from the academic module. The ERP system used may have contributed to data entry error, either through student input upon a student's application to the Midwest University, or by employee user-entry error when utilizing the system. An example would be an inaccurate date of birth, as other fields did not match the remaining information. For instance, a

student could have entered the current year as date of birth, rather than the actual birth year, or did not complete a question on the application, leaving the field to default to 1900. In the process of data management for this research, fields other than those given as examples were also reviewed within the identifier's data, to determine accuracy.

The ERP system student data at Midwest University may have been inaccurately entered by employees mistakenly changing information or entering inconsistently. The ERP system utilized by the researched institution built fields requested by departments, and therefore, resulted in a duplication of data among different sections, as access was limited. An example was degree conferrals. As the researched institution had several program formats (day, evening, accelerated), data fields were created to distinguish program types, and therefore, may not have matched the remaining data.

Midwest University's ERP system did not take time shots of information as a backup, and the data may have been written over if a student reapplied to the institution. The information collected from the student during the application process wrote over any previous information stored, as time shots were not utilized or backed up by the researched institution at the time of this study, causing mismatched data fields of information when the student reapplied. The ERP system also duplicated identifiers if an additional advisor was added to the student's file. If a student reapplied to the researched institution, due to either a degree conferral, new program, or drop out after time allotted for each program, the identifier duplicated the transcripts received, showing duplicate information for the entire identifier field. The researcher checked accuracy on the fields and determined if there was a match. The researcher removed all identifiers with inaccurate data fields.

The researcher scrubbed and removed data deemed inaccurate, inconsistent, or data that did not match throughout. As the study was quantitative in nature, there was a possibility that the researcher removed additional data that should have not been removed. The accuracy of the data entry was also a limitation.

A limitation, found in the analysis of the undergraduate data set, included a large number of undergraduate students with transfer credit. There was a possibility undergraduate students may have transferred credit in, stopped at some point in the degree, and still finished in the time frame established by the researcher.

Referring to non-completers did not mean the students did not complete a degree. A student could have transferred, dropped out completely, dropped out and returned, or stopped out and was unable to complete the degree within the same period as defined in the study. For the purpose of this study, the researcher defined a specific timeframe for completion, determined by the length of time a new student, without transfer credit, completed the degree. The timeframe included 16 quarters for undergraduate students (from the start term) and 6 quarters for graduate students (from the start term). A graduate student may have needed an additional quarter if the student had a non-business undergraduate major and sought a business degree, as determined by the Program Director of the degree choice.

Summary

The researcher believed data was an essential resource for higher education administrators making decisions and that data input and accuracy provided the most truthful analysis of an institution. Data analyzed for an institution-specific purpose allowed higher education administrators to make informed decisions. The researcher

assumed institutions had a responsibility to all stakeholders to collect accurate data for decision-making purposes and that higher education administrators made decisions using data provided to the institution.

Chapter Two discusses the then-current body of literature on retention, as well as cornerstone expert research through the works of Braxton et al. (2014), Levine and Dean (2012), Renn and Reason (2013), and Tinto (2012). The reader will become informed on then-current research regarding student life cycles, retention patterns, involvement and engagement, and academic and social support, as well as information regarding student demographics. Chapter Three outlines the methods applied when conducting the study and further discusses the procedures the researcher utilized. Chapter Four provides relationships and differences of variables in completers and non-completers, as analyzed through PPMCC analysis, *z*-tests for difference in proportion, and Chi Square tests for homogeneity for each hypotheses. Chapter Five includes interpretations and further recommendations to Midwest University supported by data analysis of the study.

Chapter Two: The Literature Review

Introduction

Levine and Dean (2012) believed, "This generation of college students is no better and no worse than other generations but, like every generation before, they are different and will live in a world demanding a different set of skills and knowledge to thrive" (pp. 163-164). According to Renn and Reason (2013), "Administrators outside student affairs, as well as policymakers in the public sector and others, are concerned about improving student learning and degree attainment" (p. ix).

> Given the increasing number of adult learners enrolling in higher education, especially with the increases in returning student veterans, higher education must find ways to address the needs of this population and decrease the risk that they will leave college. (Renn & Reason, 2013, p. 14).

Higher education administrators focused on improving the student experience through retention efforts. Levitz and Noel (2000) stated, "Colleges and universities that learn to successfully manage retention are in the position to succeed today and excel tomorrow" (p. 2). While, Renn and Reason (2013) acknowledged, "Student retention arguably has been the primary goal for higher education institutions for several decades" (p. 173).

Institutions aimed to improve, focused on retention and efforts to assist students. "Higher education is provider driven in belief and practice" (Levine & Dean, 2012, p. 167). According to Blumenstyk (2015), data supplied by admissions at the point of matriculation captured "data on applicants from the day they first inquire and use it, juxtaposed with other demographic and geographic information to better predict which

applicants will ultimately enroll" (p. 134). "Understanding the institution's role in facilitating student success and communicating clearly with the prospective and matriculated students are foundational elements in the environment" (Renn & Reason, 2013, p. 231-232). Transfer students who earned credit at several institutions complicated data collection as institutions found it tough to determine what was attributed to which institution (Renn & Reason, 2013). Experts on retention, Levitz and Noel (2000) believed, "The main thing we have learned is that institutions must deliberately establish a plan to increase student retention" (p. 2). "Educators recognize that persistence is a necessary element for degree attainment" (Renn & Reason, 2013, p. 197); while Blumenstyk (2015) noted institutions used data "to focus more recruiting efforts towards such applicants" (p. 134). Levine and Dean (2012) believed, "we will not see higher education enrollments drop because college is now essential for obtaining most well-paying jobs, although enrollments today are artificially inflated due to the recession and there is likely to be an adjustment as the economy improves" (p. 167).

Levine and Dean (2012) noted institutions should "view every generation of college students as unique and to focus on the characteristics that distinguish them from their peers of the past" (p. xi). Tinto (1993) supported, "Diversity of patterns of college entry is also apparent among students of different gender, race, ability, and social class" (p. 11). Similarly, Levine and Dean (2012) noted, "Undergraduates tended to think of themselves in terms of the characteristics that made them unique-race, gender, ethnicity, sexual orientation, geography, and religion rather than the commonalities they shared" (p. 96). "Students arrive on campus today more than in the past from different income strata, geographies, social classes, family experiences, educational backgrounds, and interests"

(Levine & Dean, 2012, p. 113), while Blumenstyk (2015) noticed trends "have also been uneven across income levels, racial and ethnic lines, and sexes" (p. 12). "Colleges must change because of increasing competition but even more so because their students need a different brand of education" (Levine & Dean, 2012, p. 168). According to Blumenstyk (2015), "The movement is also beginning to push institutions to focus more on matters like improving student retention and student learning" (p. 153) as well as "the cost containment and the attention to shifting population patterns is prompting more than a few colleges to think smarter about how they spend their administrative dollars and where they go to recruit students" (p. 153).

Phases of Student Life Cycle

The institutional mission and vision determined the organization's outlook on retention. Tinto (1993) described institutions as defining an individual path for retention with a focus on what was important to the institution. According to Bejou and Bejou (2012), "Some university administrators blame the academic side for the student retention program, when in fact it is the service side of the university that failed to deliver the necessary and basic services to students" (p. 250). These same authors noted "the CRM (Customer Relationship Management) model in higher education will also result in four stages: (a) recruitment, (b) enrollment management, (c) retention and persistence, and (d) graduation" (Bejou & Bejou, 2012, p. 253).

Retention efforts for institutions began in the recruitment phase of enrollment. According to Habley, Bloom, & Robbins (2012), enrollment goals were implemented and established each year, and the responsibility of enrollment management was to recruit new students while providing successful retention initiatives. Blumenstyk (2015) defined

enrollment management as “the broad term for the array of marketing and finance consultants and companies that strategize behind the scenes at many colleges to help them get the size and profile of the class they want and make their revenue goals” (p. 26). “An EM [enrollment management] perspective integrates everything from how the institution defines and develops its distinct identity and brand to how the student experience in and out of the classroom reflects that brand promise” (Kalsbeek, 2013, p. 51). Habley et al. (2012) stated, “Retention is a cumulative process beginning at the point of first enrollment and continuing until students achieve their educational goals” (p. 92). While, Renn and Reason (2013) argued, “When an institution admits a student, it makes a commitment to that student’s success” (p. 231).

Students decided to continue education past high school (Renn & Reason, 2013). According to Tinto (1993), “The beginning sequence of events leading to student departure can be traced to students’ first formal contact with the institution, namely their recruitment and admission” (p. 154). The competitive market of higher education persuaded admissions offices to promote better student experiences from the start of the admissions process (Renn & Reason, 2013). Wright, Palmer, Eidson, & Griswold (2011) stated admission executives should evaluate additional elements, “such as fluctuations in the economy, changes in demand for individuals with certain types of degrees, and the increased number of on-line degrees, and corporate university options” (p. 194). Levitz and Noel (2000) felt, “When administrators, faculty and staff fully appreciate the need to retain students, it will show in their attitude toward students” (p. 2). Well-informed staff and faculty were critical components of the decision-making process for students interactive with interacting with institutions (Renn & Reason, 2013). Wright et al. (2011)

noted, “Admissions officials will then need to assess how to best promote their programs to selected target markets based on these contingencies as well as the information needs of prospective students” (p. 194). Habley et al. (2012) noted, “Recruitment includes data-driven metrics and markers that indicate success or lack therefor” (p. 91). Every student entered college with a unique set of characteristics substantial to one’s success (Habley et al., 2012).

Institutions identified prospective students in the recruitment phase and recruited students who were more likely to be successful and persist to graduation (Tinto, 2012). The recruitment phase targeted students in the admissions process (Bejou & Bejou, 2012) and required accurate information during the admissions process (Renn & Reason, 2013). According to Wright et al. (2011), “Colleges and universities spend large amounts of money on promotional efforts to attract students” (p. 190), and the authors further stated, “colleges and universities increasingly are developing and funding programs specifically aimed at student retention” (p. 190). According to Levitz and Noel (2000) “Retention and recruitment . . . are so inextricably linked, in fact, that retention success is now being seen as a prerequisite to effective recruiting” (p. 2). Wright et al. (2011) noted, “Individuals involved in higher education marketing must therefore be aware of the different segments which exist, and target segments with an appropriate marketing mix” (p. 190). Renn and Reason (2013) stated, “Individual student characteristics and socioeconomic stats, and the quality of the student’s college preparation, play a role in determining the availability of information, the quality of sources of information, and the list of potential institution” (p. 36).

Student expectations for the institution arose from the impressions held of the institution to which students applied. Students ranked individual factors when deciding which institution to attend (Renn & Reason, 2013). The enrollment management phase began once students integrated into the institution through orientation and enrollment in class (Bejou & Bejou, 2012). Students who were provided resources grasped success and set attainable education goals. In the retention and persistence phase, successful institutions provided students with mentors and advisement. Subsequently in the graduation phase, a student graduated and then became a member of the alumni group (Bejou & Bejou, 2012). Levitz and Noel (2000) found, "The extent to which current students leave campus feeling satisfied and excited about what they have experienced on campus helps determine the ease with which the institution is able to recruit in those areas" (p.2).

Most students found retention issues occurred in the first year (Tinto, 1993) even though institutions monitored retention during the first year of attendance. Tinto (2012) reported attrition was at its highest during the first year of college and then decreased after that year. Most students left the institution within the first year of attending, because the institution lacked a focus on ways to keep the student engaged during that time to prevent stop-out (Tinto, 1993). Most institutions analyzed the first-year data for retention purposes and looked for the greatest number of stop outs (Tinto, 2012).

New student orientation integrated the student academically and socially to set the student up for success in the upcoming year (Braxton et al., 2014). Admissions policies also contributed to first-year student retention. According to Tinto (1993), "The most selective institutions lose only 8.0 percent of their beginning full-time students before the

start of the second year whereas open-enrollment institutions lost 45.5 percent of their full-time students" (p. 16). Students who required remedial coursework were more likely to be underprepared for academic challenges (Brock, 2010) and "high-income students were nearly three times more likely to complete a four-year degree than were low-income students" (Tinto, 2012, p. 4).

Several reported factors contributed to student departure. According to Harder, Czyzewski, & Sherwood (2015) "Retention decreases because students often give up and leave school because it becomes too difficult to finish a degree in a reasonable time and at an affordable cost" (p. 342). Belloc, Maruotti, and Petrella (2010) stated, "The problem involving retention of students is not due to a single factor that can be taken in isolation" (p. 128). Student "adjustment, difficulty, incongruence, isolation, finances, learning and external obligations or commitments come to influence differing forms of student departure from campus" (Tinto, 1993, p. 112).

Students waited to attend college years after high school graduation (Tinto, 1993), specifically adult students who faced additional demands such as work, family, and education. Data showed more students were working and attending college (Tinto, 1993). Habley et al. (2012) noted students were "managing educational and career goals and juggling competing task demands associated with college success" (p. 137). Tinto (1993) believed adult students lacked readiness and created difficulties for those that had been out of the classroom for some time.

Habley et al. (2012) noted, "Historical data on academic performance (grades and test scores), are readily available and can be used in much the same way as demographic data" (p. 118). Institutions studied academic data to allow administrators to grasp a better

understanding of student retention related to academic preparedness (Habley et al., 2012). Adult students struggled with demands outside of the classroom, which were known to interfere with persistence since adult students refrained from seeking assistance when issues arose (Tinto, 1993). Institutions that implemented new student orientation were more successful integrating adult students.

Students decided to stop attending class, due to a lack of support needed to make education a priority. According to Tinto (1993), "Decisions to withdraw are more of a function of what occurs after entry than what precedes it" (p. 5). Institutions prioritized retention efforts by providing additional support services to help retain students.

Retention became a priority by making students aware of support services when students started college, not after an issue arose. According to Habley et al. (2012), "campus based retention efforts must focus on programs that support learning, motivation, and career development. Those programs are assessment/course placement, academic advising, learning support, and first-year transition" (Habley et al., 2012, p. 18). Retention efforts focused on providing services to students during new-student orientation.

According to Tinto (1993), institutions lacked accurate data, which made departure difficult to understand. Institutions had difficulty determining the point of student dropout, as a student may have chosen to go back to school at a later time (Habley et al., 2012). "Nearly 77 percent of all first-time entrants begin their college careers at the start of the fall semester. Another 20 percent will enter after that point, many at the beginning of the following semester" (Tinto, 1993, p. 8). Many institutions were unable to track departure, similar to entry (Tinto, 1993), while some found it

difficult to determine when stop out occurred, as students started at various semesters in the academic year.

Retention Patterns

According to Wright et al. (2011), "Colleges and universities must acquire and retain students to be successful" (p. 190). According to Tinto (2012) "A student's decisions to stay or leave, to transfer to another institution, or to leave higher education altogether are shaped by a variety of forces, not all of which are amenable to institutional action" (pp. 118-119). Renn and Reason (2013) argued, "A complete understanding of college student enrollment patterns must take into account full-time and part-time enrollment, as well as concurrent enrollment in multiple institutions (double dipping), serial transferring between institutions (swirling), and interrupted enrollment patterns (stopping out)" (pp. 45-46).

To better comprehend retention, institutions analyzed retention patterns to better understand retention cycles. "Researchers and policymakers often use the terms *retention* and *persistence* interchangeably when discussing patterns of student enrollment, dropping out, and graduation" (Renn & Reason, 2013, p. 175) and caused confusion as the terms differed from one another. According to Blumenstyk (2015), "Data analytics and predictive technologies are also crucial to burgeoning developments in personalized educational offerings that experts hope will someday become more pervasive and lead to improvements in student learning and lower costs" (p. 135). Renn and Reason (2013) alleged "that enrollment patterns differ by race and ethnicity; socioeconomic status, and first-generation status, and that the different enrollment patterns relate to differential outcomes" (p. 46). "Patterns of entry are necessarily related, in time, to eventual patterns

of departure" (Tinto, 1993, p. 5). Renn and Reason (2013) noted, "Stopouts can also be counted longitudinally, by tracking current students' enrollment patterns for a number of years" (p. 53). Levine and Dean (2012) believed "it is important to ask how colleges and universities will be required to change" (p. 168) when addressing retention concerns. "Reenrolling in higher education after interrupting initial enrollment distinguished stopouts from dropouts; the presumption is that dropouts do not return to higher education following their initial departure" (Renn & Reason, 2013, p. 53). Analyzed data allowed institutions to comprehend trends in student retention and provided administrators needed institution-specific enrollment data to determine patterns.

Tinto (1993) reported, "Institutional rates of departure are necessarily a reflection of the particular attributes and circumstances of an institution" (p. 22). "The institution must begin by focusing on its own behavior and establishing conditions within its walls that promote those outcomes" (Tinto, 2012, p. 6). Braxton et al. (2014) noted, "If students feel that rules and regulations pertinent to them are fairly administered, then they come to perceive that their institution treats students in an equitable way" (p. 103). Institutions that collected longitudinal data were able to establish patterns of student departure. Braxton et al. (2014) described, "The pattern of findings that result from such analytical cascading will contribute to the explanatory power of the theory of student departure" (p. 187).

Analyzed student departure data allowed institutions to address retention concerns (Tinto, 1993). According to Belloc et al. (2010) "University students' drop-out is a crucial issue for the universities' efficiency evaluation and funding" (p. 127). Belloc et al. (2010) noted "university financing issues as well as the employment implications of

university drop-out have made the understanding of withdrawing decisions a central concern for higher education policies and institutions' organization" (p. 127).

Student Retention

"Although access to higher education has increased substantially over the past forty years, student success in college-as measured by persistence and degree attainment-has not improved at all" (Brock, 2010, p. 109). Higher education enrollment increased considerably in the last few decades (Selingo, 2015) with "an estimated 400,000 students drop out every year" (p. 8). Dropouts resulted in "financial difficulties, emotional stress, and administrative challenges" (Schiavone & Gentry, 2014, p. 31).

Students who did not continuously stay enrolled had a tougher time persisting to degree (Tinto, 2012). "Student retention is also shaped, directly and indirectly, by social forces internal and external to the campus, especially those that influence students' sense of belonging and membership in the social communities of the institution" (Tinto, 2012, p. 27). Selingo (2015) stated, "Only about half of students actually earn a degree" (p. 8) due to "more students [who] are working more hours and cannot take full-time course loads; part-time enrollment is increasing owing to an aging student body; and it is becoming increasingly difficult for students to find the courses they need to graduate" (Levine & Dean, 2012, p. 42).

Levitz, Noel, and Richter (1999) found retention data indicated institutions fulfilled the needs of students and described retention "[as] a measure of how much student growth and learning takes place, how valued and respected students feel on campus, and how effectively the campus delivers what students expect, need, and want" (pp. 31-32). Levitz and Noel (2000) believed institutions should perform timely needs

analysis on students. Institutions that placed importance on the first year student experience increased graduation rates with resources (Levitz et al., 1999).

Adult students faced challenges while juggling priorities when attending college (Kuh, Schuh, & Whitt, 1991). According to Pascarella and Terenzini (2005), a college student's involvement was the result of different encounters while attending the institution and "characteristics of colleges and universities and the nature of student's experiences while enrolled influence educational attainment" (p. 374). Kuh et al., (2010) noted, "Persistence and education attainment rates, as well as the quality of student learning, must improve if postsecondary education is to meet the needs of our nation and our world" (p. 7). In 2005, Pascarella and Terenzini stated, "Education services [plays] an indirect role by mediating the influence of an individual's background resources (such as family socioeconomic status) on subsequent occupational status and income" (p. 373). Dedication of a student to the institution also proved to be an important part of a student's persistence (Braxton et al., 2014). Different characteristics of students effected persistence (Pascarella & Terenzini, 2005).

The institution students attended was also described as a factor of retention. Size, public or private, and curriculum were characteristics associated with institutional type (Renn & Reason, 2013). According to Pascarella and Terenzini (2005), "When looking at institutional retention and graduation rates or student persistence and degree completion rates, private institutions appear to have an advantage over public institutions that is consistent across studies" (p. 437). Retention efforts differed between public and private institutions. "Private institutions operate outside direct government control and have boards that are not public entities" (Renn & Reason, 2013, p. 86). Pascarella and

Terenzini (2005) found, “Attending a private (versus a public) college or a smaller college promotes educational attainment, each factor having a positive effect independent of the other” (p. 374). According to Blumenstyk (2015), “Private colleges, which enroll fewer than one in five undergraduates, cost more” (p. 54). In addition, Selingo (2015) noted, “Public institutions are more likely to use focused interventions, such as degree planning and professional advising, while private colleges focus on curricular developments, such as first year programs and freshmen seminars” (p. 6). “Public colleges, for instance, focus heavily on getting students to graduation, and private colleges focus more on integrating their efforts with the curriculum” (Selingo, 2015, p. 28).

Retention attributed to the type of institution attended. Larger universities discouraged students from joining activities, as students were less likely to become actively engaged in student activities (Kuh, Kinzie, Schuh, & Whitt 2010). “The smaller institutions have features, some intentionally developed, to create small sub-communities that promote a sense of manageability and satisfaction” (Kuh et al., 1991, p. 117). Furthermore, Pascarella and Terenzini (2005) stated, “The size of the institution appears to be inversely related to student persistence and degree completion” (p. 437). Larger institutions were less personable and more structured (Kuh et al., 1991). “The accessibility of the campus . . . determines whether the physical plant encourages or discourages student initiative and learning” (Kuh et al., 1991, p. 117). Pascarella and Terenzini (2005) noted, “The effect of size, however, appears to be indirect, with attendance at a smaller college promoting involvement with faculty members and peers, which, in turn, promotes persistence, degree completion, and graduate school enrollment”

(p. 374). Engagement influenced student retention in terms of campus size (Pascarella & Terenzini, 2005). Institutions needed to find ways to overcome size and make students' comfortable, since size played a part in the friendliness of the campus as well, as the layout of the campus (Kuh et al., 1991).

Students' perseverance depended on what individuals encountered while enrolled (Kuh et al., 2010). "What students *do* during college counts more for what they learn and where they will persist in college than who they are or even where they go to college" (Kuh et al., 2010, p. 8). Astin (1993) believed students were constantly changing and adapting. According to Kuh et al. (2010), two factors contributed to student success: "time and effort students put into their studies and other activities that lead to the experiences and outcomes that constitute student success" (p. 9). The second factor included "ways the institution allocated resources and organizes learning opportunities and services to induce students to participate in and benefit from such activities" (Kuh et al., 2010, p. 9). Student persistence attributed to several factors regarding retention.

Mission

Wyatt (2011) noted, "Factors such as the university's mission, values, and views about student learning as well as its commitment to student success is critical to both retention and engagement of college students" (p. 17). Furthermore, Kuh et al. (2010) stated, "Student success starts with an institutional mission that espouses the importance of talent development and then enacts this vision" (p. 266). Ostrom, Bitner, and Burkhard (2011) believed, "Starting with a clear perspective of where the organization is and where it is going is a critical first step" (p. 51). According to Kuh, Schuh, and Whitt (1991), "Mission and philosophy provide a rationale for the institution's educational

program, policies, and practices" (p. 41). "The mission is stable in that it provides a constancy of purpose and direction" (Kuh et al., 2010, p. 26). According to Braxton et al. (2014), "The more a student perceives that the institution exhibits institutional integrity, the greater the student's level of social integration" (p. 88). Characteristic of successful institutions were active missions. Kuh et al. (2010) stated, "Faculty members, administrators, staff, students, and others use it to explain their behavior and to talk about what the institution is, the direction it is heading, and how their work contributes to its goals" (p. 27).

Braxton et al. (2014) noted, "Institutional integrity wields a positive influence on both academic and intellectual development and subsequent institutional commitment" (p. 209). Higher education mission statements served to "guide thought and action on a daily basis" (Kuh et al., 2010, p. 60) and included "quality teaching, support (in all forms) for students, commitment to multiculturalism, and social responsibility" (Kuh et al., 1991, p. 42). "Students observe actions involving fairness in the administration of rules and requirements in making decisions regarding matters of importance to students" (Braxton et al., 2014, p. 175).

Some authors believed in a dynamic mission. "The mission is elastic because it can be modified to accommodate changing external circumstances, curricular innovation, and students' needs and educational objectives" (Kuh et al., 2010, p. 26). Institutions needed "inquisitiveness and a commitment to continuous, lifelong learning, an attitude that students quickly pick up and adopt as their own" (Kuh et al., 2010, p. 28). "Large public universities usually have broad, expansive mission statements . . . [while] many smaller colleges, especially denominational colleges and special purpose institutions such

as single-sex colleges and engineering and technology institutions-have espoused missions that specifically delineate their educational priorities" (Kuh et al., 2010, p. 26). Braxton, Hirschy, and McClendon (2004) believed, "The mission of the college or university should function as a foundation for decision making and administrative action" (p. 72).

Kuh et al. (2010) explained, "Over time, and consciously or not, a college develops a philosophy that guides thought and action as it pursues its educational mission" (p. 27). Additionally, "Institutional philosophies serve as a compass, keeping the situation on track as it makes decisions about resources, curriculum, and educational opportunities" (Kuh et al., 2010, 27). "The organizational culture of commuter and residential colleges and universities plays an important, albeit indirect, role in influencing student persistence" (Braxton et al., 2014, p. 209). Kuh et al. (2010) believed, "A focused mission, institutional will, money, talent, and more are necessary but yet insufficient to foster student success. Sooner or later studies of high-performing entities conclude that distinctive features of the organization's culture are key to its effectiveness" (p. 273). According to Braxton et al. (2014), "Institutional integrity also reflects the culture of a college or university given that institutional integrity pertains to the actions, decisions, and communications of organizational members" (p. 88). "Culture represents in part tacit assumptions and beliefs that influence the substance, policies, programs, and practices as well as how they are implemented" (Kuh, et al., 2010, p. 273). Levine and Dean (2012) found "embracing commonality and celebrating differences, to build bridges between diverse groups on campus in and out of the classroom, to demonstrate their commitment to support and provide comfort zones for diverse groups,

and to educate students regarding the commonalities" (p. 173). In addition. Kuh et al. (2010) found "student success is advanced when culture values talent development, academic achievement, and respect for human differences" (p. 273).

Many institutions analyzed student success and retention through data (Selingo, 2015). "If resource allocation strategies that improve retention and graduation can be identified, then potentially powerful information will be available to institutional decision-makers to use in the process of resource allocation" (Gansemer-Topf & Schuh 2006, p. 615). Levine and Dean (2012) felt definitions should be established by leadership and "colleges can turn their definitions into comprehensive plans for action, ranging across admissions, financial aid, academic offerings, co-curricular programs, facilities, staffing, services, and the rest" (p. 173). Strategies should determine budgets and forecasting (Levine & Dean, 2012) for data utilization by the administration to forecast student performance decisions (Selingo, 2015). Levitz et al. (1999) noted, "Reducing the dropout rate is not recognized as one of the most effective ways to add full-time equivalents, thereby broadening an institution's revenue base" (p. 48).

Public Policy

Braxton et al. (2014) believed, "State leaders and policymakers place a key role in fostering student success" (p. 11). "As legislatures move to hold institutions of higher education accountable for student success, legislators and policymakers tend to focus on retention-to-graduation as the main definition of success" (Renn & Reason, 2013, p. 176). Braxton et al. (2014) stated, "College completion is a key goal for many policymakers" (p. 11) since "Public and private colleges are run by the governing boards that have fiduciary responsibility for them" (Blumenstyk, 2015, p. 99). Ostrom et al. (2011) noted,

"States manage their own university and community college systems without significant oversight from the federal government" (p. 45). In response, Braxton et al. (2014) remarked, "It is not clear to many what specific actions should be taken or how to coordinate those actions with institutional leaders" (p. 11).

"Decisions about curriculum and funding in the K-12 system affect academic preparation, which in turn enables or limits students' access to institutions with selective admissions" (Renn & Reason, 2013, p. 40). Ostrom et al. (2011) mentioned K-12 "legislation at the state level is likely to have the most immediate impact on the higher education sector" (p. 45). "Research on college decision making can lead to new public policy initiatives that might enable federal and state governments to provide college education in a more cost-effective manner" (Hossler, Schmit, & Vesper, 1999, p. 4). Renn and Reason (2013) believed, "Public policies pertaining to college access tend to be directed at alleviating disparities related to students' SES or socio-demographic background characteristics" (pp. 40-41), since many at the state level were unaware of campus-level initiatives (Braxton et al., 2014). "As policymakers look for ways to improve quality, reduce cost, and increase completion rates in higher education, we believe service blueprinting could be an important policy tool" (Ostrom, Bitner, & Burkhard, 2011, p. 45). "The current system could be redesigned to ensure that student success is seen as a joint responsibility among faculty, administrators, and state-level policymakers" (Braxton, et al., 2014, p. 12) and included limitations for policymakers: "the state's economy and budget, political culture and public opinion within the state, and the given set of institutions that are available to enroll students" (p. 12). Pascarella and Terenzini (2005) believed if financial barriers were removed "everything else will take

care of itself and any social or moral imperative to provide equal access to the benefits of college will have been satisfied" (p. 644).

Involvement and Engagement

Tinto (2012) described the most important aspect of retention as involvement. According to Wyatt (2011), "Increased student engagement, particularly for nontraditional students, continues to be a challenge for college leaders, faculty, and administration" (p. 11). Administrators that understood engagement strategies were more likely to provide a positive student experience (Renn & Reason, 2013). Harper and Quaye (2015) stated, "Student engagement is simply characterized as participation in education effective practices, both inside and outside the classroom, which leads to a range of measurable outcomes" (p. 2). "Continuing a trend begun in the 1970s, undergraduates want to be less engaged in college and university governance than their predecessors" (Levine & Dean, 2012, pp. 117-118). While Levitz et al. (1999) suggested institutions should collaborate with students to improve persistence.

The then-current literature described engagement as a critical component to students' success. "Those who are actively engaged in educationally purposeful activities, both inside and outside the classroom, are more likely to persist to graduation" (Harper & Quaye, 2015, p. 3). Tinto found institutions needed to commit to student enhancement through socialization and educational opportunities (1993). Larger institutions had more opportunities for students to become involved, as these schools had more students enrolled (Kuh et al., 1991). Levine and Dean (2012) found, "A majority of students attending college part-time or working twenty-one hours a week or more are not involved in campus activities or events either, with the exception of using the library (p. 54).

Student involvement depended on many factors. Kuh et al. (1991) noted, “At some institutions, opportunities for involvement are fostered by the size and nature of the place” (p. 121). “Effective programs see active involvement of students in the life of the classroom to be a key element” (Tinto, 1993, p. 148). “The more a student perceives that the institution is committed to the welfare of its students, the greater the student’s level of social integration” (Braxton et al., 2014, p. 164) and highest rate of involvement in the classroom (Tinto, 1993). “Student learning best occurs in settings that involve students in the daily life and provide social and intellectual support for their individual efforts” (Tinto, 1993, p. 147). Students learn more when they participated in additional activities (Pascarella & Terenzini, 2005); specifically, Tinto perceived students involved in programs were more connected and built strong relationships with others (1993).

Everything provided at institutions swayed retention (Levitz et al., 1999). Pascarella and Terenzini (2005) mentioned, “The more the student is psychologically engaged in activities and tasks that reinforce and extend the formal academic experience, the more he or she will learn” (p.119). Social involvement also promoted persistence, particularly “involvement in academically oriented social organizations and clubs” (Tinto, 2012, p. 65). “A high quality out-of-class experience is active participation in activities and events that are not part of the curriculum but nevertheless complement the institution’s educational purposes” (Kuh et al., 1991, p. 7). Institutions who devoted resources and support to students and developed meaningful experiences, resulted in students more involved and engaged (Kuh et al., 1991).

Learning outcomes and involvement had different relationships unique to the institution (Tinto, 2012). Kuh et al. (1991) stated, “The out-of-class experience is often

taken for granted or lightly regarding as a positive educational force" (p. 6). Students with part time jobs at the university were more likely to persist to degree (Astin, 1993). since the institution "reflects in part the institutional setting in which involvement occurs, not the least of which is the cultural context that gives meaning to student interactions with people on campus" (Tinto, 2012, p. 66). Student learning developed through interactions added personal growth to academic learning experiences (Kuh et al., 1991). Students needed to be challenged by engaging them in valuable pursuits in the classroom, with student-based meaningful experiences (Tinto, 2012).

The experiences of students resulted in a precursor to persistence. Students did not receive academic credit towards degrees for development, but did experience student development (Kuh et al., 1991). "Neither credits nor grades accurately represent all of what students learn during college" (Kuh et al, 1991, p. 7). Additionally, "Some of the skills related to success and quality of life after college are developed by working with different types of people, an experience that is not usually acquired through often passive, non-interactive classroom learning situations" (Kuh et al, 1991, p. 13). Astin (1993) noted students engaged in full time careers had negative student outcomes. "Decisions to stay or leave are shaped, in part, by the meaning students attach to their involvement, the sense that their involvement is valued and the community with which they interact is supportive of their presence on campus" (Tinto, 2012, p. 66). Kuh et al. (1991) described, "Patterns of student involvement in learning experiences in and out of class – are as diverse as American higher education" (p. 16). Students showed a different sense of belonging with different groups (Tinto, 2012).

Involvement with Faculty

Involvement with faculty had a positive relationship with growth and development, behavior, and careers for students (Astin, 1993). "Many interventions offered early in a college student's career are money to connect the student to peers and institutional agents, including faculty members and student affairs professionals, to expand social and academic support networks" (Renn & Reason, 2013, p. 65). Levine and Dean (2012) found, "Current undergraduate students have stronger and richer relationships with faculty members than the students previously surveyed" (p. 43) due to those institutions who implemented socialization earlier to provide students with better support (Renn & Reason, 2013). Kuh et al. (2010) described, "Almost any form of student-faculty interaction is positively related to indicators of student success" (p. 303). Pascarella and Terenzini (2005) agreed, "Students' perceptions of faculty members' availability and interest in them may be enough to promote persistence" (p. 417). A 2009 study found today's students were "more likely to have professors whom they can turn to for advice on personal matters (61 percent), who take a personal interest in their academic progress (76 percent), and who have had an influence on their academic careers" (Levine & Dean, 2012, p. 43). Students who met with faculty had a more positive college environment (Kuh et al., 1991).

Student to Student Involvement

Astin (1993) also noticed a positive relationship with student-to-student interactions. "The multicultural divide is less deep; the gap between diverse groups is less wide" (Levine & Dean, 2012, p. 97). Pascarella and Terenzini (2005) found peers were an essential part of what learning took place in the classroom. "Attitudes about

race, racial discrimination, conditions on campus, and relationships between races have converged and grown more position among undergraduates" (Levine & Dean, 2012, p. 101). Kuh et al. (1991) found students were inspired by peers in different ways from faculty, specifically within institutions with peer groups and where additional opportunities for students to socialize with each other occurred (Tinto, 2012).

Support programs "offer support and communication during the critical first year of college; emphasize social aspects of learning along with cognitive outcomes; and provide a personal means of contacting the institution" (Renn & Reason, 2013, p. 73). Students interacted amongst peers over events, campus policies, and individual concerns (Pascarella & Terenzini, 2005) with "guided team projects in and out of class have proved an excellent way of building [interaction]" (Levine & Dean, 2012, p. 173). Kuh et al. (1991) reported, "Students often mentioned relationships with other students as the high points of their undergraduate experience" (p. 192). "Mentoring programs, ethnic studies programs, student clubs and centers, and state and federally funded programs like Student Support Services (SSS) all provide students with a supportive community of peers" (Tinto, 2012, p. 49). The first year of college needed student-to-student involvement (Tinto, 2012).

Self-Efficacy/Social Cognitive Theory

According to Harder et al. (2015), "self-efficacy is an important element of student success either directly or indirectly or in a mediating role" (p. 342). Tinto (2012) described how self-efficacy related to student success and how a student's level of determination played a part in some students' success. "Some individuals succeed by sheer willpower, skill, and perseverance, even when conditions would appear to militate

against success" (Tinto, 2012, p. 8). According to Hensen (2014), "Strong beliefs in their abilities create the expectation that they can accomplish their goals; therefore, they will exert more effort toward them" (p. 4). Taking an opposite perspective, Tinto (2012) argued, "There is only so much an institution can do-and some would argue who should do-to promote student success if individuals are themselves not inclined to invest in those activities that lead to success" (p. 8). Furthermore, "Social cognitive theory argues that individuals' interpretation of their performance alters their sense of self-efficacy and, in turn, their future performance" (Tinto, 2012, p. 27).

According to Harder et al. (2015) "Based on social cognitive career theory, researchers have also linked efficacy to the level of persistence in majors and at the university" (p. 342). Students persisted when goals were set and a plan was in place to achieve those goals (O'Neill & Thomson, 2013), since goal setting allowed students to develop confidence and move forward with education. Ultimately, "Social interaction with peers, parents, and other adults is especially influential in cognitive development" (Schuh, Jones, & Harper, 2011, p. 176).

O'Neill and Thomson (2013) believed, "An increase in effort is also often necessary for academic persistence, but attempting to invoke great effort by increasing the value of the goal or task may be counterproductive" (p. 164). Tinto (2012) supported, "No actions will ensure the success of students who are themselves unwilling to expend the effort needed to succeed in college" (p. 120). Additionally, "When value (at least extrinsic) is increased without an increase in self-efficacy, anxiety will result and potentially interfere with the learning process" (O'Neill & Thomson, 2013, p. 164).

Adult students selected to return to school lacked self-efficacy (O'Neill & Thomson, 2013). Computer skills were a factor in persistence amongst nontraditional students. Nontraditional students needed additional support and lacked confidence when working with computers. Tinto (2012) argued, "They [institutions] should carry out detailed analyses of student progression that distinguish between pattern of progression of their who complete their study and those who do not" (p. 121). "If low self-efficacy negatively impacts persistence, then low computer efficacy among college students may cause them to avoid higher level technical courses or abandon college before earning a degree or accomplishing other educational goals" (Henson, 2014, p. 4). An important concept adult students' grasped was building self-confidence related to academic self-efficacy (O'Neill & Thomson, 2013).

Expectations

Students' expectations contributed to student persistence or departure. "Policies, programs, curricula, and facilities are within the purview of institutional actors who bear responsibility for creating environments that support student success" (Renn & Reason, 2013, p. 231). "When those expectations are met and exceeded, students are satisfied and likely to remain committed to their college choice" (Kalsbeek, 2013, p. 49). Tinto (2012) stated, "High expectations are a condition for student success" (p. 12). According to Kuh et al. (2010), "Student success becomes an institutional priority when leaders make it so" (p. 270). Renn and Reason (2013) acknowledged, "Educational professionals' (for example, teachers, counselors, and school administrators) expectations of students have been shown to be a major influence on students' academic achievement and their process of deciding to pursue postsecondary education" (p. 35). "Student retention and

graduation is shaped by the availability of clear and consistent expectations about what is required to be successful in college" (Tinto, 2012, p. 10).

Groundwork laid by higher education professionals made it capable to set high expectations regarding student's success (Renn & Reason, 2013). "Students are more likely to succeed in settings that establish clear and high expectation for their success, provide academic and social support, frequently assess and provide feedback about their performance, and actively involve them with others on campus" (Tinto, 2012, p. 8). "When faculty members expect students to perform at high levels and support their efforts to meet their high standards, students generally strive to rise to the occasion" (Kuh et al., 2010, p. 178). Tinto (2012) stated, institutions "help students establish expectations for themselves and provide them with clear roadmaps on what is required for success in their programs of study" (p. 15).

"Educational excellence would include academic excellence and rigor as traditionally viewed, but also would stress the development of the whole person and the lives of all people on campus" (Kuh et al., 2010, p. 60). "Educational outcomes and the benefits they create are at the foundation of what institutions of higher education offer, are fundamentally what students seek, and are the desired outcomes of the various publics that fund and support higher education" (Kalsbeek, 2013, p. 50). Kuh et al. (2010) described successful institutions as those who "developed approaches to foster student success that complement their specific context and address students' needs" (p. 28). According to Tinto (2012) "The information that faculty members provide in their syllabi, course materials, and conversations with students during the course gives students an idea of what is expected of them academically (e.g. what is required to attain

different grades)" (p. 12). Braxton et al. (2014) stated, "The more the student agrees that these institutional policies and practices exist at their college or university, the more they believe in the institutional integrity of their commuter or university" (p. 197). "Knowing the roadmap to success-the rules, regulations, and requirements for degree completion-is central to students' ability to successfully navigate the path to timely degree completion" (Tinto, 2012, p. 10). Kuh et al. (2010) noted, "Some of the important lessons Wasbash [college] men learn are not from books or classroom discussions, but from being held accountable and taking responsibility for their actions" (p. 54). Lack of institutional knowledge lengthened time needed to graduate (Tinto, 2012). "No one rises to low expectations; student success is enhanced when expectations for effort are high and clearly enunciated" (Tinto, 2012, p. 22).

Mentors

Mentors' ability to increase student engagement assisted in retention efforts. Institutions used mentors as a way to strengthen student relationships with faculty and peers (Kiyama, Luca, Raucci, & Crump-Owens, 2014). "Mentoring is a relationship in which a person of greater rank or expertise teaches, guides, and develops a novice in an organization or profession (Alleman, Cochran, Doverspike, & Newman, 1984, p. 329). Levine and Dean (2012) noted students "want successful relationships" (p. 149). Mentors encouraged, assisted, and supported students as they persisted to degree (Eason, Mazerolle, & Goodman, 2014). Mentors oversaw the progress of students (Tinto, 1993) and according to Boyle, Kwon, Ross, and Simpson (2010) mentors helped students "deal with a range of feelings: dealing with a poor result, concern over tutor comments, worry about the next assignment, and confidence booster" (p. 118).

Social Support

Institutions existed as educational organizations and social populations (Kuh et al., 1991), which led to social integration through student involvement (Tinto, 2012). The use of technology allowed students to stay connected with peers, faculty, and friends throughout the entire day (Levine & Dean, 2012). Social engagements drove how students continued with education, specifically friends, family, and others (Braxton et al., 2014).

Social life allowed students to find a deeper connection with the institution. "Student social life is invading the classroom but it is retreating from the campus" (Levine & Dean, 2012, p. 53). Braxton et al. (2014) noted, "The commitments of both work and attending college may negatively affect the families of commuter students" (p. 129). "Social media also allows each student to enlarge the pack to what amounts to a virtual tribe, consisting of friends, family, neighbors, acquaintances, and any other significant people in an undergraduate's life" (Levine & Dean, 2012, p. 53), while further study found two-thirds of the students studied saw "family support as an important element in why they thought they would succeed" (p. 153). Astin (1993) explained commuters were less likely to persist, as "commuting is also negatively related to attainment of the bachelor's degree, enrollment in graduate or professional school, and self-reported growth in leadership abilities and interpersonal skills" (p. 391). Commuting back and forth to school caused additional stress on students (Astin, 1993).

Support Services

The first year experience was crucial to student retention (Tinto, 2012), and if students were directed to available resources, success often followed. Services provided

to students through support programs were costly, but valuable to first-generation students (Kuh et al., 2010). Institutions provided resources for students but too much support appeared to the student as hand holding (Selingo, 2015). Levitz et al. (1999) stated, "A primary goal for an institution should be to move students from low or no levels of commitment (intellectual, emotional, social) to the point where they become independent learners" (p. 40), while Levine and Dean (2012) noted, students need "critical thinking, the ability to ask hard questions, the capacity to formulate and solve problems, and the balances judgment necessary to make decisions and choices" (p. 164). Furthermore, Kuh et al. (1991) stated, "structure is provided to help students become autonomous and self-directed" (p.139). Levine and Dean (2012) believed, "Students need the ability to think out of the box, to find innovative solutions to a looming problems in a shifting environment, and to develop new rules to guide the future" (p. 165).

Academic Support

Academic support programs allowed students to have additional assistance to persist to degree. Pascarella and Terenzini (2005) found, "Research consistently indicates that such comprehensive programs have a significant and positive effect on student persistence" (p. 405). These services included "summer bridge programs, freshman or first-year seminars, learning and tutoring centers, basic-skills or developmental-education courses, accelerated courses, study-skill courses, supplemented instruction, [and] academic-assistance learning communities" (Tinto, 2012, p. 31). Levine and Dean (2012) believed students should learn through "guided internship and services experiences linking academic and field-based education as well as classes that

employ problem-solving pedagogies, capstone courses, and senior projects" (p. 178). Pascarella and Terenzini (2005) noted institutions "offer at-risk (and often all) students a broad array of services and programs intended to promote academic adjustment, persistence, and degree completion" (p. 405).

Summer bridge programs allowed students to gain an academic and social advantage by starting earlier (Tinto, 2012). "Summer "bridge" programs are an early form of intervention intended to promote acclimatization and academic success and persistence among at-risk students" (Pascarella & Terenzini, 2005, p. 404). Summer bridge programs linked students to additional resources that aided in retention for the first year (Tinto, 2012).

Experts on retention, Levitz et al. (1999) believed first-to-second-year retention was the most critical time for institutions to pay attention to the attrition rate -since orientation or first-year seminars provided students with resources to promote success (Tinto, 2012). Kuh et al. (1991) noted, "Specially designed orientation programs are offered to student groups often ignored by many institutions of higher education" (p. 246). Tinto (2012) acknowledged, "Some seminars may combine orientation and academic skills with a range of academic and social activities designed to build involvement in the life of the campus" (p. 33). "Extended orientation seminars, for example, with their emphasis on introducing students to resources on campus, were designed to increase a sense of community and connection with the institution (Renn & Reason, 2013, p. 71). Universities laid the foundation for the program by assigning orientation to new students (Kuh et al., 1991), and provided student's the institution's policies and obligations (Tinto, 2012). Levine and Dean (2012) placed importance on

career services and believed career services should be integrated into orientation and was an important service for students. Kuh et al. (1991) noted, "Identification of relevant institutional factors and conditions demanded open minds about the policies, practices, and other institutional properties that promote student learning and personal development" (p. 18). Orientation allowed students to successfully integrate into the institution socially and academically (Braxton et al., 2014). "If an orientation program adequately prepares students for success in the academic environment of their college or university, then we might expect students to experience academic and intellectual development as a result" (Braxton et al., 2014, p. 190). The connections made at orientation delivered beneficial information for students as who navigated through the first year (Tinto, 2012).

Learning communities offered additional educational support. "Because many students enter college academically underprepared, a number of institutions have adapted learning communities to the needs of basic-skill students" (Tinto, 2012, p. 38). Levine and Dean (2012) explained, "Creating diverse student problem-solving groups is a powerful pedagogical tool for building bridges and also critically important for a job market that increasingly demands it" (p. 174). Combined skills allowed students to acquire more information (Tinto, 2012) and "student participation in a learning community tend[ed] to influence their perceptions of their own academic and intellectual development in a positive way" (Brazton et al., 2014 p. 191). "Academically underprepared students in learning communities were significantly more engaged in a variety of activities including classroom work and activities involving their faculty and classmates in and outside of class, than were similar students on their campuses" (Tinto,

2012, p. 39). Students who participated in learning communities were more likely to return to the institution the following school year (Tinto, 2012). "Educational communities which are themselves striving toward educational excellence will in turn engender a similar striving among students" (Tinto, 1993, p. 210). Learning communities' fostered success and commitment to education and allowed students to increase knowledge and commitment to the institution (Tinto, 1993).

Academic Advising

Institutions used academic advising in connection with retention. Tinto (2012) reported academic advising received in the first year increased student retention. Academic advising was designed to form a relationship between a student and faculty member provide guidance on degree paths while strengthening the student's connection to the institution. Academic advising became an intricate part of higher education specifically for students who needed additional support and guidance upon entering (Habley et al., 2012). Academic advisement was shown to help students be successful at the institution (Braxton et al., 2014) and those given clear expectations through academic advisement were more likely to persist to graduation (Tinto, 2012).

Stop out was attributed to students beginning college without clear expectations. Braxton et al. (2014) thought academic advising fostered student development through communication and integration. In addition, Habley et al. (2012) reported not having a clear definition of academic advising allowed students and faculty to create their own relationship tailoring the process to the needs of the student. According to the National Academic Advising Association, "Developmental academic advising recognizes the importance of interactions between the student and the campus environment, it focuses

on the whole person, and it works with the student at that person's own life stage of development" (King, 2005, para. 2). Similarly, Tinto (2012) reported, students who had not received academic advice were more susceptible to stopping out due to a lack of motivation and guidance.

Academic Preparedness

Pascarella and Terenzini (2005) found in a study on retention, "Students who attend college full-time, for example, may have substantially different levels of academic ability, secondary school preparation, and academic motivation than those with less or no exposure" (p. 75) and further explained institutions were confused by achievement because of "differences in the motivations, academic aptitudes, secondary school experiences, and aspirations of the students they enroll" (p. 75). Institutions offered remedial classes to prepare students for the rigor of the coursework. Tinto (2012) noted, "Other colleges have sought to address students' slow progress through development education by accelerating instruction for students whose skills are stronger than other academically underprepared students" (p. 45). Levine and Dean (2012) expressed, "Students need to master the skills by which they can remain current in their fields" (p. 176).

Kuh et al. (2010) suggested, "Faculty members and administrators at many institutions equate academic challenge with rigor" (p. 177). Levine and Dean (2012) stated, "The enriched major should study the roots and values of a student's concentration including its history, ethical foundation, standards, limits and limitations, points of agreement and disagreement, and how differences are resolved or accommodated" (p. 177). According to Kuh et al. (2010), "Also important to a high quality undergraduate

experience is the nature of the work and whether the amount and nature of the work stretches students to previously unrealized levels of effort, understanding, and accomplishment" (p. 178).

Skills were an important part of continuing education. Levine and Dean (2012) stated students "are weak in basic skills in developing information economy that will demand the highest levels of skills and knowledge in history" (p. 163). Pascarella and Terenzini (2005) believed, "Compared with those with less education, the more educated probably have greater access to information" (p. 150). Belloc et al. (2010) noted "that one factor affects university drop-out more than others, namely the educational background, while academic performance is substantially irrelevant" (p. 128). Pascarella and Terenzini (2005) found "between-college effects on the acquisition of subject matter knowledge and academic skills are generally inconsistent and quite small in magnitude" (p. 146). Belloc et al. (2010) stated, "The academic research on university drop-out generally argues against the common belief that students withdraw because of academic failure" (p. 129). Pascarella and Terenzini (2005) wrote, "The more educated also appear to be able to extract more accurate knowledge when exposure to the critical sources of information is equal" (p. 150). Additionally these authors found "there is consistent evidence to suggest that the acquisition of subject matter knowledge and academic skills is enhanced by institutional environments that emphasize scholarship and learning" (Pascarella & Terenzini, 2005, p. 146). Initial communication with students included academic expectations and resources students could utilize when needed (Kuh et al., 2010).

Belloc et al. (2010) indicated “adult students have strong motivations to conclude the degree course once they have enrolled” (pp.136-137) and found “the higher the number of years between the secondary education diploma and the enrollment in the university, the lower the dropping-out probability” (p. 136). One study found, “Graduates of community colleges score significantly higher than incoming freshmen on a measure of general intellectual and analytical skill development even in the presence of controls for age, verbal ability, and mathematical ability” (Pascarella & Terenzini, 2005, p. 164).

Early Warning Systems

Early warning systems alerted institutions of potential retention concerns. Tinto (1993) stated, “Signs of academic problems or behaviors that suggest possible withdrawal (e.g., repeated absences, failure to complete homework) are then used to flag students for immediate attention” (p. 224). Kuh et al. (2010) noted, “Early warning systems and no-so-invisible- safety nets are in place to “catch” students who are teetering on the edge” (p. 286). “When driven by faculty feedback data, they can be the basis of a therapeutic approach to student needs which views identification of “high risk” as an opportunity to help students” (Tinto, 1993, p. 225).

Institutions utilized data to monitor and track student performance. “Students who fare poorly in prerequisites are sometimes encouraged to consider other majors” (Blumenstyk, 2015, p. 134), while some institutions developed models to identify such students. Purdue University designed a color-coded system to track students’ academic progress allowing faculty to intervene; likewise Austin Peay State University created its own system, which provided warnings for at-risk students based on transcripts

(Blumenstyk, 2015). There was concern over early warning systems as "one must be careful not to assume that past events are prefect predictors of future behaviors" (Tinto, 1993, pp. 224-225). Tinto (1993) believed students should not be stereotyped through the early warning stages.

Career Development

Career development strengthened persistence to degree. Although career ambitions played a large part in adult learning motivation, continuing education had multiple areas of focus (O'Neill & Thomson, 2013). "Current undergraduate students want career skills and knowledge from college" (Levine & Dean, 2012, p. 38). Students initially enrolled to gain the knowledge and skills for a career. O'Neill and Thomson (2013) noted, "Career exploration and planning is a valuable tool, since adult learners are often unfamiliar with new career opportunities" (p. 166). Levine and Dean (2012) suggested, "Students need to learn the skills that are required by today's workplaces and that are already being employed by many faculty members in their own work" (p. 178).

Institutions guided students through career planning "by developing special skills and competencies needed in various career fields, by certification or the awarding of credits and degrees required to enter particular professions, and through guidance and counseling to help students crystallize career plans" (Astin, 1993, p. 245). "Current undergraduates want good jobs and are willing to forego their careers of choice to get them" (Levine & Dean, 2012, p. 148). Students career plans were closely connected to their major (Astin, 1993). Levine and Dean (2012) found "slightly more than three in five students have chosen professional fields of study versus slightly less than two in five have selected the traditional arts and sciences subjects" (p. 38). Students looked for

majors aligned to a career field. Levine and Dean (2012) suggested students look for internships as ways to increase on the job knowledge.

Career Path

A student's career also factored in student retention. Harder et al. (2015) noted, "The career path chosen by undergraduates can be likened to a set of problems on which a student focuses" (p. 344). Tinto (2012) stated, "To the degree that career choice and choice of major are connected, effective career counseling helps to steer students toward majors in which they are likely to find value and remain enrolled" (p. 19). Family members influenced career paths (Gibbons & Woodside, 2011). Harder et al. (2015) stated, "We consider career path self-efficacy to be a student's belief that he or she will be successful in their major and post-graduation career" (p. 342). Harder et al. (2015) noted, "Self-efficacy in one's chosen career path is an important element in success and the likelihood that students will persist and graduate" (p. 342). A study by Gibbons and Woodside (2011) found fathers were an intricate part of students' career paths and education.

Financial Support

Financial aid served as a factor of student persistence. Blumenstyk (2015) reported, "Student debt is at an all-time high of $1.2 trillion" (p. 1). Braxton et al. (2014) stated, "The extent of students' concern for financing their college education reflects their degree of satisfaction with the costs of attending a particular college or university" (p. 138). Students used various ways to pay for the costs of colleges. Financial aid was either need-based or merit (Blumenstyk, 2015). Braxton et al. (2014) noted, "Financial

support in the form of grants, loans, and work study may lead to support for college attendance from significant others" (p. 130).

"State support for the public-college sector, which educates seven of ten students, has yet to (and may never) return to the generous levels of the early 2000s" (Blumenstyk, 2015, p. 1). Institutions directed resources to students who were most likely to drop due to financial and resource constraints (Levitz et al., 1999). College was paid for through a variety of means, including "institutional aid, state, and federal financing in the form of grants, scholarships, loans, and work-study as well as through family support, personal savings, and non-school-related work" (Pascarella & Terenzini, 2005, p. 407). Kezar, Walpole, and Perna (2015) noted, "Low-income students also tend to be more dependent on financial aid to pay college costs than are high-income students" (p. 239). "Undergraduate students borrow [loans] for four (or more) years and sometimes from sources that are not part of the federal student-loan system (Blumenstyk, 2015, p. 61), while grants and scholarships helped to ease the cost burden for students and increase persistence to degree (Pascarella & Terenzini, 2005). First-time low-income students who received grants were able to benefit and decreased the chances of dropping out (Pascarella & Terenzini, 2005). "The financial model underlying many private colleges is becoming more and more fragile" (Blumenstyk, 2015, p. 1). Tinto (1993) noted "short-term fluctuations in finances can and do cause a number of students to withdraw from college" (p. 179). Tinto (1993) believed financial concerns led to some students to drop out temporarily and stated, "Persistence is more reflective of the character of their social and intellectual experiences on campus than it is of their financial resources" (p. 180). Braxton et al. (2014) noted, "Students with less concern about their ability to

finance their college education may expend the necessary psychological energy to become psychologically engaged" (p. 97).

Financial Aid

Financial aid significantly altered student's decision to attend an institution. "State governments play an important role in American higher education through the direct subsidy of public institutions" (Chen & St. John, 2011, p. 630). "Financial support, in the form of scholarships, grants or work study opportunities, influences whether students chose to enroll" (Holley & Harris, 2010, p. 19). Renn and Reason (2013) stated, "Following admission to an institution, students may receive merit-based or need based aid-or a combination of merit-based and need based aid" (p. 39).

"Students from different backgrounds may respond to financial aid in different ways" (Chen & St. John, 2011, p. 633). Renn and Reason (2013) acknowledged, "Some students will be admitted and be able to matriculate with little concern about financial need; others students must make decisions after carefully considering the cost of different institutions, various financial aid packages, and their ability to pay" (p.40). "Providing financial support plays an important aspect in student recruitment" (Holley & Harris, 2010, p. 19). Prospective students believed the Free Application for Federal Student Aid created an obstacle for entry (Institute for College Access & Success, 2007). "In 2007-2008, approximately 42% of community college students who were eligible to receive Pell grant funding did not file the Free Application for Federal Student Aid (FAFSA)" (McKinney & Novak, 2013, p. 63). "Applications that are filled out incorrectly result in delays that cause students to lose possible grants and scholarships" (Institute for College Access and Success, 2007, p. 3). "Most states shifted responsibility for higher education

away from taxpayers toward students' families, allowing tuition to rise without increasing investment in need-based grants" (Chen & St. John, 2011, p. 631). "The need for financial assistance, given the stress placed on students and their families by the economy, plays an important role in the recruitment and enrollment of desired student populations" (Holley & Harris, 2010, p. 20).

"State funds for higher education were mostly allocated to public institutions to maintain low tuition for students and promote equal access" (Chen & St. John, 2011, p. 630). "As the economic recession continues to threaten state funding, federal support and financial aid allocations, colleges and universities increasingly rely on student enrollment and tuition as a revenue source" (Holley & Harris, 2010, p. 17). "Changes in a state's need-based and non-need based aid and the tuition level of a state's public institutions often affect disadvantaged students most" (Chen & St. John, 2011, p. 634). "By making aid more accessible, a simpler FAFSA would enable more students to enroll in college, attend full time, work limited hours so they can study more, and finish their degrees" (Institute for College Access and Success, 2007, p. 3). "During times of economic recession, and as students are asked to pay more for a college education, these issues are significant ones for applicants as well as enrollment officers" (Holley & Harris, 2010, p. 17). A study by Chen and St. John (2011) found "high-SES students persisted at a substantially higher rate than students from low-SES groups" (p. 641). "Students with high achievement in high school and subsidies during college have greater odds of continuing to complete an advanced degree within ten years after high school" (Chen & St. John, 2011, p. 632).

Blumenstyk (2015) reported, “Cost structures-and prices- of colleges have grown much faster than the public’s ability to pay for them” (p. 6). Blumenstyk (2015) believed, “For all the discussion in the past few years about improving college-completion rates, graduation-rate trends, too, offer little comfort” (p. 8) regarding the high cost of tuition. Tinto (2012) reported “only 7.5% of students who are eligible for Pell grants-that is, students who come from low-income backgrounds and are also the first in their generation to attend college-obtain a bachelor’s degree within six years from their initial institutions” (p. 3). According to Blumenstyk (2015), “More than half of all students, or 52 percent, are Pell Grant eligible” (p. 27). Blumenstyk (2015) believed the amount of aid students receive was not sufficient.

Institutions offered multiple types of aid for different demographics. “Even with the expansion of the Pell Grant program, state financial aid programs, outside scholarships, and the grants offered by colleges, the financial and academic-preparedness barriers look large for many students from low-income families” (Blumenstyk, 2015, p. 23). Many institutions had based retention initiatives focused on low-income students (Tinto, 2012). “Most students do not have to pay those full sticker prices [tuition], thanks to government financial aid and scholarships from colleges base on students’ financial need and other criteria” (Blumenstyk, 2015, p. 7). Levine and Dean (2012) noted, “Two-thirds of them [college students] will graduate with large student loan debts, one in eleven will be unemployed (p. 152). According to Blumenstyk (2015), “Even the average debt carried by graduates or public and nonprofit four-year colleges can present a formidable financial challenge for borrowers in the current economy (p. 63).

Decision Making

Students made careful decisions when choosing a college to attend. Lei and Chuang (2010) believed "college selection decision should closely match person, academic, and career goals of graduate students" (para. 20). Hossler, Schmit, and Vesper (1999) noted, "Given the importance of the college decision, it is surprising that students and parents are not offered more assistance in making it" (p. 4). Wright et al. (2011) explained students' decisions on where to attend college resulted from a choice of either a convenience or shopping good. According to Blumenstyk (2015), "a college education is seen less as a process and more as a product" (p. 4). "Students and their parents are responding to institutions of higher education the same way they would to other businesses that they felt had not served them well" (Levine & Dean, 2012, p. 92). Consumerism generated concerns for administration as it created additional items for colleges to address (Levine & Dean, 2012). Colleges needed to focus student experience as well as academic experience.

Levine and Dean (2012) noted, "Deans reported that parents and students behaved increasingly like consumers and treated colleges as they would businesses" (p. 91). Wright et al. (2011) explained a student's "convenience good might include individuals who are place-bound and have one or very few local alternatives, can only afford to attend a particular institution, such as a community college, or individuals who are already loyal to a particular institution" (p. 192). Wright et al. (2011) further clarified shopping goods were "items that individuals are willing to devote considerable time and energy in engaging in activities such as information acquisition regarding alternatives and

in making comparisons among those alternatives prior to making purchase decisions" (p. 192).

Students considered several factors when deciding. Lei and Chuang (2010) noted, "With the rising costs of higher education, information regarding financial aid and the net price of attending a particular graduate school be directed at students and their family members" (para. 10) while Levine and Dean (2012) explained "this generation ask questions, wants to be told what to told rather than trying to figure out the answers themselves". Lei and Chuang (2010) stated, "The graduate college selection involves identifying the most critical academic and non-academic factors, and weighing their importance against the large quantity of choices available" (para. 1) and further identified, "Academics are subdivided into institutional, departmental/program, and faculty factors, while non-academics are subdivided into personal reasons and influence of other people" (para. 1).

Knowledge was a critical component of the decision making process. Hossler et al. (1999) observed "many high school graduates do not in fact continue their education after high school" (p. 1) therefore high school guidance counselors should have provided more guidance to students during the decision-making periods but lacked the knowledge themselves. Harder et al. (2015) stated, "It makes sense to help students explore and advise them about choosing wisely in a way that reduces the number of switches that cost them additional time and money" (p. 342). Lei and Chuang (2010) noted "the availability of evening and weekend classes with flexible program requirements (multiple tracks) encourage part-time study when talking with potential and prospective part-time students" (para. 24) with this in mind, "Students should visit the libraries and computer

laboratories, check the conditions of buildings, and visit student support service offices such as register, career planning, and academic advising" (para. 25).

Students considered long-term value of attendance as well as immediate results when deciding to enter college. Hossler et al. (1999) stated, "College graduates are less likely to be unemployed for long periods, and they are less likely to miss work for prolonged periods because of health problems" (p. 3). Levine and Dean (2012) found that many students take the economy into consideration as a factor on whether to attend college. Hossler et al. (1999) found "benefits include workforce planning and enhanced economic competitiveness, government revenues, and social and economic equality" (p. 4). Hossler et al. (1999) noted, "Not only do individuals who earn college degrees earn more money and have more career mobility, but also private businesses and industries hire more college graduates and sell more goods to them" (p. 4).

Demographics

A mixture of demographics diversified institutions. Students Renn and Reason (2013) believed, "Student demographic characteristics remain important to understanding student persistence" (pp. 189-190). Levine and Dean explained, "Current undergraduate students are more diverse demographically than their predecessors" (p. xii). Administrators were not able to control student demographics (Renn & Reason, 2013). Levine and Dean (2012) stated diversity "will vary from campus to campus depending on demographics" (p. 172). "Many attending college today are not full-time students" (Blumenstyk, 2015, p.12).

Graduate Students

Graduate students found additional challenges when looking to further education. Funding, age, and stress were concerns of persistence for graduate students, due to the complexity of the makeup of the graduate student (Gardner & Barker, 2015). "Many higher education professionals may believe retention issues are less prevalent among graduate and professional students" (Gardner & Barker, 2015, p. 342). "Graduate students with different demographic characteristics needed to think about which ones mattered most to them and to tailor their investigations accordingly. Such demographics characteristics include age, gender, ethnicity, citizenship, socioeconomic status, marital status, and enrollment status" (Lei & Chuang, 2010, para. 3). "Whether speaking of age, gender, race, nationality, ability, religious affiliation, socioeconomic stats, or enrollment status, graduate and professional students represent a wide array of diversity" (Gardner & Barker, 2015, p. 340). Lei and Chuang (2010) stated, "Background variables continue to affect the decision to enroll in graduate school" (para. 9). "Many professional master's degrees are found in areas such as education, business, engineering, fine arts, social work, or other professional areas" (Gardner & Barker, 2015, p. 340). Levine and Dean (2012) found, "Three of five students are planning to pursue graduate studies" (p.42) and as a result graduate master's program typically "lasts one or two years of full time enrollment" (Gardner & Barker, 2015, p. 340). Graduate students remained focused on a program of study and rarely deviated from the choice of degree (Gardner & Barker, 2015).

Gender

Several studies found gender was a factor of retention. Differences resulted in men and women's decisions to persist to degree attainment.

> Selectivity of the undergraduate institution has a strong, direct effect on the selection of graduate institution for men, indicating that the initial choice of undergraduate institution is an important factor for men in terms of subsequent graduate choice and attendance. (Lei and Chuang, 2010, para. 7).

Lei and Chuang (2010) further noted, "Academic factors carry considerably more weight for men than for women in terms of graduate choice and attendance" (Lei and Chuang, 2010, para. 7). Dolinsky (2010) stated, "Male students placed significantly more importance on social life and athletic programs than did their female counterparts (p. 765), while men were shown to have a higher risk of departure than women (Habley et al., 2012). As more women matriculated, more female students attended college and were more likely to persist to degree (Tinto, 1993). According to Tinto (1993), "Private nonsectarian four-year colleges and prestigious Catholic women's colleges tend to have the lowest rates of departure. As a group, their mean rate of departure was only 13 percent" (p. 22).

Markle (2015) found, "Academic classification, university satisfaction, confidence in graduating, work-school conflict, and school-family conflict were significant predictors of considering withdrawing for women" (pp. 274-275), and through further observation cited, "Although there was no significant difference in persistence between men and women, there were differences in the factors influencing persistence" (p. 276). Hagedorn (2015) believed childcare was a factor of persistence for women.

"Among women, those who attended part-time were more likely to persist" (Markle, 2015, p. 280). Patton-Davis, Harris, Ranero-Ramirez, Villacampa, and Lui (2015) argued, "The female advantage, numerically speaking, means that as more women earn degrees at rates higher that the men within their respective groups, we can anticipate changes in the labor market and in family structures that may favor all women" (p. 37). Women were also more likely to persist to graduate degrees (Gardner & Barker, 2015). "Time men spend performing the student role is viewed as an investment in the family" (Markle, 2015, p. 281), while "time women spend performing the student role is more likely to be viewed as an investment in personal achievement" (p. 281).

Socioeconomic Status

Income was a major factor in retention when persisting to degree. According to Renn and Reason (2013), "Students consider the cost of different institutions and eliminate institutions they deem too expensive" (p. 37). Students needed to know degree attainment was possible, as affordability was a retention factor. "Socioeconomic stats influences the type, price, and quality of higher education institutions students deem realistic" (p. 42). Pascarella and Terenzini (2005) noted, "Significant gaps exist in the academic development and college going rates between students from families of low socioeconomic status and their more affluent peers" (p. 643). Socioeconomic status was related to the amount of education received by parents (Renn & Reason, 2013). Kezar et al. (2015) believed higher education administrators needed to address the concerns of those students with lower socioeconomic status stating "Given the very real time constraints facing low-income students, higher education professionals must rethink how students can and should be engaged in college" (p. 237). Renn and Reason (2013)

reported, “Academically talented students from lower-income families are less likely to attend college and equally talented peers from higher-income families (pp. 12-13). According to Blumenstyk (2015), “The prospect of paying for college-now so vital to economic and social well-being-leaves many middle-class families confused, anxious, and daunted, and those from poor households even more discouraged” (p. 7). Renn and Reason (2013) noted, “Family SES [socioeconomic status] influences the opportunities a student will have to learn about the benefits and possibilities of obtaining a college education” (p. 33).

Student characteristics attributed to persistence. According to Kezar et al. (2015) “Differences in patterns and characteristics of enrollment by family income imply the variations in time available for engagement” (p.237), which factored into persistence. “Students from the lowest income levels did not report working the most; in fact, students from middle income levels were most likely to work and to work more hours than other income levels” (Renn and Reason, 2013 p. 13). Braxton et al. (2014) noted, “Although ability to pay stands as an antecedent of social integration, it also functions as a student entry characteristic” (p. 85). Renn and Reason (2013) acknowledged, “Institutions and state financial aid affects students’ choice of postsecondary institution” (p. 39) and for this reason Blumenstyk (2015) stated, “Disadvantaged families often do not get timely advice on what high-school classes they must take to qualify for admission to a four-year college, what standardized tests the need to sign up for, or how to fill out the [FAFSA]” (p. 23). According to Braxton et al. (2014) “Studies of college student departure using an economic perspective concentrate on the costs of attending a particular college or university and an individual’s ability to pay” (p. 72).

Belloc et al. (2010) found, “Being the lowest income class the benchmark, having a medium economic status does not have any significant effect, while those students in the highest income class are more likely to drop-out” (p. 136). Blumenstyk (2015) noted, “As the baby boomers and their children flooded colleges, please from the sectors of society with the lowest income have made gains in college attainment, but not nearly at the same rate as those from the high-income sector” (pp.21-22). “Between 1970 and 2012, the proportion of students graduating from high school from the quarter of the population with the lowest income increased from about 62 percent to 72 percent” (Blumenstyk, 2015, p. 22). Socioeconomic levels and continuous enrollment for this class were factors, which contributed to persistence to degree (Kezar, Walpole, & Perna, (2015).

First Generation Students

First generation students required additional support and knowledge to continue education at the post-secondary level. Tinto (2012) explained first-generation students “typically lack the sorts of shared knowledge, or culture capital, that more affluent students and those from college-educated families commonly possess about the nature of the college experiences and what it takes to succeed” (p.11). According to Woosley and Shepler (2011), “First-generation students have lower retention and graduation rates” (p. 700). Orientations helped first-generation students’ expectations and first-generation students found mentoring helpful who often needed social support (Tinto, 2012). Woosley and Shepler (2011) stated, “Understanding their integration experiences may be important to understanding the experience of all first-generation students” (p. 710), and pointed out “students’ perceptions of the campus environment were especially important

in explaining first-generation students' ability to adjust to university life in a variety of ways (e.g., socially, academically, homesickness-related distress, and institutional satisfaction)" (p. 711).

Institutions determine several unique characteristics with working with first generation students. Higher education administrators struggled to determine the number of first generation students due to "difficulty in defining what it means to be a first-generation student" (Renn & Reason, 2013, p. 16). Inkelas, Daver, Vogt, & Leonard (2007) defined first generation student as "for whom both parents or guardians have a high school education or less and did not begin postsecondary degree" (p. 404). Gibbons and Woodside (2011) stated, "1st generation college students have lower retention rates than their peers and confront barriers hindering college success" (p. 21). "Parents' education had an even greater impact on the actualization of students' college planning" (Hossler et al., 1999, pp. 104-105), and "the higher the level of parental education, the greater the likelihood of their child going to college" (Hossler et al., 1999, p. 105). Renn and Reason (2013) stated, "Higher education researchers generally understand that enrollment patterns for first-generation students and the experiences they have once enrolled in higher education are different from those of non-first-generation students" (p. 17). "Once they arrive, further differences can be observed as well (Gibbons & Woodside, 2011, p. 22). First-generation students needed social support, found mentoring helpful, and orientation helped set expectations (Tinto, 2012).

Nontraditional Student

Adult students returned to institutions to continue education. According to Renn and Reason (2013), "There is little agreement within higher education research about

how to define ‘adult students’” (p. 14); this created a state of confusion among higher education administrators regarding nontraditional students (Hagedorn, 2015). “Adult learners are often included in discussion of other “nontraditional students,” including students who are financially independent, are parents themselves, or are married” (Renn & Reason, 2013, p. 14) while Henson (2014) described “nontraditional college students are typically classified as those over the age of 24 who enroll in college for the first time several years after completing secondary education” (p. 3). Markle (2015) believed, “The population of nontraditional students is projected to increase significantly” (p.267) and that adult student “are more likely to enroll, be successful, and persist if there is an accelerated program” (Hagedorn, 2015, p. 317). Renn and Reason (2013) noted, “From a student perspective, the mobility associated with the increase in nontraditional enrollment patterns can be seen to expand choice, increase institutional completion, and provide avenues to achievement for nontraditional college students” (p. 55).

Renn and Reason (2013) believed, “The assumption that students graduate from high school, enroll the next fall in a bachelor’s-degree-granting high education institution, and graduate from that same institution about four years later is anachronistic” (p. 45). Blumenstyk (2015) reported “more than a third of college students are aged twenty-five years and older, and that population of students is growing at a faster rate than the number of younger students” (p. 13). According to Wyatt (2011), “Nontraditional students are the fastest growing segment of higher education enrollments in American and are very diverse” (p. 10). Hagedorn (2015) believed nontraditional students were more likely to attend community colleges when returning to education. Blumenstyk (2015) noted the trend of nontraditional students “is projected to continue, in

part because colleges face a decline in high-school graduates over the next few years (the result of a broader demographic shift) and, as a result will focus more on recruiting older students" (p.13).

Nontraditional student enrollment patterns were difficult to track due to complexity of the student. Stopouts, transfers, work balance, and family needs were complex dynamics of nontraditional students. Wyatt (2011) acknowledged [with surges] "in nontraditional student enrollment comes an increasing percentage of working nontraditional college students with a multitude of commitments that serve to create barriers to educational success that traditional student learners do not have in a traditional college setting" (p. 10). Renn and Reason (2013) stated, "The lower percentage of students who engage in these emerging enrollment patterns do not relieve higher education faculty and administrators of the responsibility to attend to these students' needs" (p. 56). Hagedorn (2015) believed retention for nontraditional students was not like younger age students as many returned multiple times for degree attainment while Wyatt (2011) stated, "It is imperative that institutional leaders become more effective in integrating and engaging the population of nontraditional students into the collegiate environment" (p. 17).

Wyatt (2011) further noted, "While prior knowledge and work experience define this population of students, age is the defining criteria for classifying students as either traditional or nontraditional" (p. 13). "One third of American undergraduate students enrolled in 2011 were considered nontraditional students as defined by the single criterion of age being 25 years and older" and also notably found "nontraditional students have significantly lower graduation rates than traditional students" (Markle, 2015, p.

267). "To improve academic persistence among nontraditional students, college faculty and administrators must understand the student's contextual situations regarding work and family roles" (Henson, 2014, p. 3), while Wyatt (2011) in a like manner stated, "Institutions are beginning to increase their focus on nontraditional students to effectively serve this increasing segment of college students" (p. 11).

"The number of nontraditional students returning to college campuses has resulted in a need for colleges and universities to look at the various factors and attributes of this population of students and what institutions need to do" (Wyatt, 2011, p. 10). Administrators needed to develop procedures specifically for nontraditional students and Hagedorn (2015) noted, "If enrollment procedures do not include adult-friendly practices, older students will not feel welcome and will not likely enroll" (p. 316). "College leaders must examine the effects of stress and help adult students as they transition back to college" (Henson, 2014, p. 3). Hagedorn (2015) explained, "Many adults will turn to the telephone when they are interested in applying for admission and will appreciate a "real person" who can answer questions" (p. 317). "An advisor for nontraditional students would be in a position to act as a liaison between students and administrators to facilitate problem-solving (Goncalves & Trunk, 2014, p. 169). "Successful interactions with staff and faculty most often result in a successful transition to college life for the nontraditional student" (Wyatt, 2011, p. 17). Nontraditional students needed greater support with financial aid counseling as the process was confusing for adult students (Hagedorn, 2015). "It is important that the teaching staff help the non-traditional students understand the value of proactive behavior in their university life, through specific tutorial initiatives" (Gilardi & Guglielmetti, 2011, p. 50). Difficulties for

nontraditional students "continue to be exaggerated when students are unable to garner a sense of belonging or connection" (Wyatt, 2011, p. 11). "Nontraditional students are particularly vulnerable to the collegiate environment as it relates to their interaction with peers, classrooms, and the campus environment" (Wyatt, 2011, p. 17). "With the additional stress introduced by each characteristic, students who exhibit higher degrees of nontraditional attributes may be less likely to persist through college graduation that traditional or minimally nontraditional students" (Henson, 2014, p. 3). Characteristics of nontraditional students included, "If they are employed, do not rely on others for financial support, have dependent children, and have been out of high school for several years" (Henson, 2014, p. 3). Nontraditional students were "employed and often have a family and sometimes children" (Gilardi & Guglielmetti, 2011, p. 36) with additional responsibilities as a parent while attending college (Henson, 2014).

Nontraditional students were different from traditional. "Nontraditional students come with many special attributes not yet realized by their traditional student counterparts" (Wyatt, 2011, p. 13). "Adult students, because of their personal and professional life experiences, are able to connect theory and practice, and can autonomously identify the professional implications and applications of theoretical knowledge in their own professional context" (Gilardi & Guglielmetti, 2011, p. 48). Wyatt (2011) acknowledged, "Prior knowledge and life experiences is not only a crucial part of the contributions that nontraditional students bring to the classroom but paramount to the nontraditional student's successful engagement in the college environment" (p. 14). Brock (2010) noted "all of the characteristics used to define nontraditional status-delayed

entry into college from high school, working full-time, single parenthood, and so on-are considered “risk factors” because they negatively correlated with persistence” (p. 115).

Institutions needed to recognize nontraditional students as unique. “It is critical for leaders of higher education institutions to understand the special characteristics of these students to increase their opportunities for success” (Henson, 2014, p. 1). “It is imperative that college personnel, particularly student affairs professionals, understand that nontraditional students are always in transition” (Wyatt, 2011, p. 14). A study by Goncalves and Trunk (2014) found “there is much more that could be done to cultivate on-campus services and activities, which would lead to increased engagement and participation for the nontraditional student body and improve retention rates at the same time” (p. 168). “Obtaining financial aid should be a more efficient process for the nontraditional student, who has little spare time between school, family, and employment to have to seek out multiple ways of financing their education” (Goncalves & Trunk, 2014, p. 169). Markle (2015) found nontraditional students “felt disadvantaged compared to traditional students and believed accommodations should be made” (p. 279). Wyatt (2011) noted, “Nontraditional students mandate that institutions develop effective educational strategies that include creativity, the ability to be flexible, and the willingness to adopt a new paradigm that will adapt to this diverse student population” (p. 14). Markle (2015) stated, “Nontraditional students perceive that attending college is more difficult for them compared to traditional students” (p. 279).

Nontraditional students with social support contributed to the institution. “The fundamental variables in sustaining the continuation of studies are a greater use of learning support services and higher levels of perceived social integration, i.e. perceiving

faculty and other students as social support to learning" (Gilardi & Guglielmetti, 2011, p. 48). "Non-traditional students have a way of seeing themselves and understanding the world that derives from their own cultures and traditions" (Hermida, 2010, p. 23). "In order to successfully engage the mature, nontraditional student, it is imperative that educators develop a complete understanding of the epistemology of the nontraditional student and their ways of learning" (Wyatt, 2011, p. 14). Administrators needed to consider "lectures, learning support services (i.e. library, evening lectures, pod study, interaction with the lecturers outside the classroom (i.e. office hours, tuition), cultural activities organized by the faculty or the university" (Gilardi & Guglielmetti, 2011, p. 36). Goncalves and Trunk (2014) noted, "Having an advisor (s) aware that the needs of nontraditional students differ from traditional students may alleviate scheduling difficulties and be more personalized to specific needs" (p. 169). Adult students found difficulty "not in developing their own social identity in the new learning community, but in striking a balance between their academic and external commitments that enables them to reach a level of engagement sufficient to achieve academic success" (Gilardi & Guglielmetti, 2011, p. 36).

Traditional and nontraditional students exhibited important differences. Wyatt (2011) stated, "Adult learners spend much more time on academics and subject matter and are highly focused, serious, and more motivated than the traditional college student" (p. 13). "Traditional and nontraditional students approach higher education differently. Traditional students enter college immediately after completing high school" (Henson, 2014, p. 2). "Institutions in the United States and Canada have been adopting a series of initiatives to deal with the perceived problem of teaching underprepared non-traditional

students" (Hermida, 2010, p. 21). Gilardi and Guglielmetti (2011) thought administration needed to "investigate the differences between the engagement of traditional students and that of non-traditional students in a non-residential context" (p. 37).

Henson (2014) discussed, "Many adults are returning to college to obtain skills to begin second careers or to expand existing employment opportunities" (p. 1). "Unemployment, career changes, and divorce are the most common reasons for returning to college" (Henson, 2014, p. 2) and further declared, "students who lack adequate skills, particularly older, nontraditional students, may become anxious or intimidated before they even enter the classroom" (p. 2). "Non-traditional students in a non-residential university put more energy into informal contact outside formal teaching situations than traditional students do; this behavior is associated with continuation" (Gilardi & Guglielmetti, 2011, p. 47).

Nontraditional students acquired skillsets relevant to their career (Henson, 2014). "Although they may have become quite proficient with specific job responsibilities, they are unable to generalize those skills toward competently and comfortably preforming other computer-related tasks" and for this reason, "nontraditional students often lack the most basic computer skills" (Henson, 2014, p. 4). "In an inclusive teaching classroom, non-traditional students strive as their ways of understanding the world are a central part of the course" (Hermida, 2010, p. 24). "This process most often includes providing continual encouragement of adult learners to continue the process of lifelong learning" (Wyatt, 2011, p. 14).

Lei and Chuang (2010) noted, "Regardless of academic discipline, older students are more likely to be employed and pursuing their graduate degrees part-time, and thus

more influenced by factors that allow them to study part-time" (para. 14). A study on nontraditional students performed by Markle (2015) found, "Age had a double-edged impact on this sense of difference: These women did not want their age to affect how other students treated them, but they did want it to affect how professors treated them" (p. 281). A study by Wyatt (2011) found "that what nontraditional students valued most from campus leaders, faculty, staff, and other students was to be treated like an adult" (p. 17).

Military Student

Military students were unique in many ways. "The term military student refers to a student who is either a member of the active duty, reserve, National Guard, or retired military population, or a spouse or primary dependent of one of these students" (Brown & Gross, 2011, p. 46). "Veterans are an increasing student population in higher education" (Rumann & Bondi, 2015, p. 323) while "the Post-9/11 GI Bill and the Yellow Ribbon Campus Campaign . . . provide powerful incentives for veterans returning from service to enroll in higher education" (Blumenstyk, 2015, p, 15). Under the Yellow Ribbon Campus Campaign, institutions waived "up to half of the cost of attending that is not covered by the Post-9/11 GI Bill Benefits" (Blumenstyk, 2015, p. 15). "About 4 percent of all undergraduates are military veterans, largely due to the Post-9/11 GI Bill, which has provided educational benefits to more than one million current and former members of the military services since summer 2009" (Blumenstyk, 2015, p. 15).

Military enrollment continued to thrive. "One of the fastest-growing subpopulations of nontraditional college students is military veterans who enroll in institutions of higher education following their returns from deployment" (Schiavone &

Gentry, 2014, p. 29). "Veterans' enrollment in higher education today is believed to be the highest, by proportion, since the years after World War II, when the original GI Bill brought more than two million veterans to college campuses" (Blumenstyk, 2015, p. 15). Renn and Reason (2013) believed enrollment tracking for veterans was not consistent as military students often faced deployments during their educational endeavors. "Many returning student veterans, therefore, are likely to be reentering college after a sudden disruption, hoping to begin approximately where they left off prior to deployment" (p.15).

Military students often felt secluded in the higher education setting. "Their service in the military-often in a combat environment-can make them feel isolated and uncertain in the academic setting" (Nichols-Casebolt, 2012, p. 26) on the condition that "veteran-students inherently have to cope with the same challenges faced by nontraditionally-aged students (Schiavone & Gentry, 2014, p. 33). Veteran students sought other veterans for support in the academic setting (Rumann & Bondi, 2015). "Failure to understand the needs of these students is likely to result in an unsuccessful experience for both the student and the institution of higher education" (Brown & Gross, 2011, p. 45). With this in mind, Schiavone and Gentry (2014) believed "veterans struggle with navigating the bureaucracy of the Veterans Administration, gaining access to services provided by campus veterans' service offices, and reentering civilian life" (p. 31). "Wounds of war that are experienced by some of these students, including post-traumatic stress disorder (PTSD), traumatic brain injury (TBI), and physical injuries, can make the adjustment even more difficult" (Nichols-Casebolt, 2012, p. 26).

"Broadened program access resulting from the expansion of distance learning and expanded veteran's benefits has attracted many institutions into the business of serving military students (Brown & Gross, 2011, p. 45). "In August 2009, the Post 9/11 Veterans Educational Assistance Act, known colloquially as the Post 9/11 GI Bill, went into effect, dramatically increasing veterans' benefits" (Schiavone & Gentry, 2014, p. 29). "Post 9/11, Chapter 33 GI Bill funding is enticing more institutions to look at the veteran and military population as a critical recruitment population" (Brown & Gross, 2011, p. 45).

A study by Schiavone and Gentry (2014) found "military service itself acted as the *trigger* that prompted their choice to attend college" (p.33). Military students were "unique in that they come with financial benefits and generally have a profile of transferable credit earned while on active duty and from their military education and experience" (Brown & Gross, 2011, p. 45). "Viewing the military student population as just another student group to be targeted does not develop a context for understanding the military student, the driving forces supporting military education or the benefits associated with these students' academic success" (Brown & Gross, 2011, p. 45). "It is important for higher education professionals who serve veteran-students to also emphasize integration with the broader academic and social community present on campus" (Schiavone & Gentry, 2014, p. 31). "Participation in proactive support included the highest level of campus leadership members and administration and a variety of campus department members (Moon & Schma, 2011, p. 56). "Some institutions have even created veteran-specific learning communities by adopting a curriculum model know as Supportive Education for the Returning Veterans (SERV)" (Schiavone & Gentry, 2014, p. 32). "Frequent deployments and duty assignments that take the students

away from educational resources, including Internet access, often result in interruptions of the student's academic progress" (Brown & Gross, 2011, p. 46). "An increasing number of veterans and military students are seeking to complete degrees online and through enrollment at campuses across the nation" (Brown & Gross, 2011, p. 45) and important to realize "access to supplemental instructional materials, the inability to respond in a timely manner, and difficulties with group work due to access issues all create instructional challenges" (p. 46). "Veteran-students are adult learners who often have priorities such as families and full-time jobs that take precedence over extracurricular organizations" (Schiavone & Gentry, 2014, p. 36).

Many institutions struggled to provide guidance for veteran students adjusting to the college setting. "The fastest-growing approach to helping veterans build close relationships among themselves in order to support their transition from the military to the campus is the creation of student veteran's organizations" (Schiavone & Gentry, 2014, p. 32). "The tendency to set course standards and expectations around the traditional residential student further handicaps the nontraditional learner" (Brown & Gross, 2011, p. 46). "Disabled veteran-students will have a presence on college campuses to an extent for which campus personnel may not currently be prepared" (Schiavone & Gentry, 2014, p. 31). Veteran students often had difficulty accessing the GI Bill (Nichols-Casebolt, 2012), due to lack of support.

"The term "military friendly" is increasingly being used to describe institutions that embrace practices that recognize the unique needs and characteristics of these students" (Brown & Gross, 2011, p. 46) and were "serious, motivated, goal-oriented students" (p. 48). A study by Schiavone and Gentry (2014) found veterans had high

levels of self-efficacy. According to Brown and Gross (2011) military students "tend to focus on achieving career goals. Their success as students is influenced by their military background: they have worked within a disciplined job environment, established a proven work ethic, and developed tested leadership skills" (p. 48).

Summary

The literature review provides an overview of retention and support services institutions found successful regarding retention tactics. Retention expert, Tinto (1993; 2012), discussed identifying patterns to better understand retention. While there was extensive information on retention as a whole, many experts in retention suggested institution-specific data to better comprehend the institution's retention. Institutions set expectations through mission statements and vision. The literature extensively discussed student engagement through social and academic integration. Students involved in multiple ways with the institution had a greater support system in place. Student demographics including gender, socioeconomics, first generation and nontraditional students contributed to retention in different ways.

Chapter Three outlines the process the researcher completed conducting the analysis and outlines steps taken to clean the data and discuss unforeseen issues, because of the state of the data. Chapter Four summarizes the results of the analysis through use of PPMCC analysis, *z*-tests for difference in proportion, and Chi Square test for homogeneity. In Chapter Five, the reader will find recommendations and the researcher discusses data significance.

Chapter Three: Methodology

This quantitative exploration study analyzed nontraditional student retention demographics and potential success predictors. The purpose of the study was to analyze possible patterns and trends for nontraditional students described as completers who attended an accelerated degree program.

The researcher examined data through statistical analysis using a PPMCC, *z*-test for difference in proportion, and Chi Square test for homogeneity, which provided an insight on possible patterns or trends associated with the variables. The nontraditional accelerated degree format provided a wide variety of student demographics, as the program operated at several locations throughout the mid-west region. The researcher sought to find patterns or trends among specific characteristics of nontraditional student completers and non-completers, as the unique program format enrolled students throughout the mid-west region (see Table 3).

Table 3

Midwest Regions

Regions
North County
Westport
South County
Wildwood
O'Fallon
Wentzville
St. Charles

The researcher sought to determine whether completers shared similar demographic variables, and if so, to provide administrators with a targeted marketing plan.

Null Hypotheses

Null Hypothesis 1: There is no relationship between new student undergraduate characteristics: start term, zip code, type of program, initial status, gender, year of high school graduation, transfer credit, birth year, veteran status, Pell eligibility, and completers/non-completers.

Null Hypothesis 2: There is no relationship between new student graduate characteristics: start term, zip code, type of program, initial status, gender, year of high school graduation, college graduation year, transfer credit, birth year, veteran status, and completers/non-completers.

Null Hypothesis 3: There is no difference between undergraduate completers/non-completers when considering start term, zip code, type of program, initial status, gender, year of high school graduation, transfer credit, birth year, Pell grant eligibility, and veteran status.

Null Hypothesis 4: There is no difference between graduate completers/non-completers when considering start term, zip code, type of program, initial status, gender, year of high school graduation, college graduation year, transfer credit, birth year, and veteran status.

Research Design

The researcher analyzed nontraditional student characteristic data seeking possible trends/patterns of completers/ non-completers among undergraduate and graduate students. Institution-specific variables of undergraduate and graduate completers (see Table 1) were analyzed and utilized to provide administrators with a potential targeted, marketing plan, based on specific student characteristics. There was little

research available at the time of this study regarding institution-specific student retention in higher education, specifically for nontraditional students. The researcher hoped to provide Midwest University with specific retention data to address areas of enrollment opportunity.

For this study, the researcher analyzed data trends and patterns of completer and non-completer, nontraditional students and studied demographic and specific characteristics at a Midwest private four-year university. The researcher then selected specific variables, found significant, to further analyze trends within the data. Each variable was studied independently to determine if a relationship or difference existed between the characteristics of student completers or non-completers among undergraduates and graduates (see Figure 1).

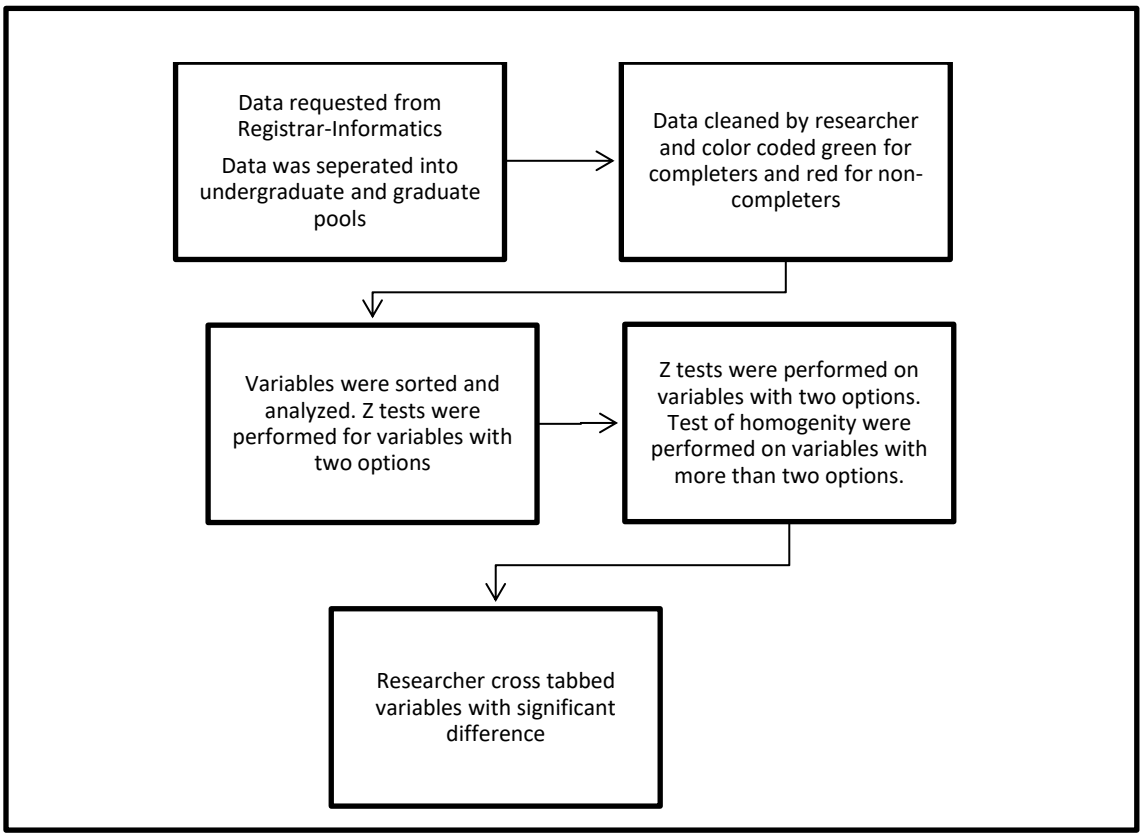

Figure 1. Procedures to complete data analysis

Data Collection

This study accessed the CAMS database available at Midwest University in which all student data was stored. Prospective students provided data as they applied to the institution and employees also input data. Students entered the information when the application for admission matriculated into CAMS at the researched institution. The researcher sought permission from the Provost of the researched institution to utilize the de-identified data from the student database. All data were scrubbed of identifiers (name, student ID, social security number, and address) by the Registrar of Informatics to provide anonymity, when requested from CAMS Support. The Registrar of Informatics imported the data into an Excel spreadsheet and assigned a specific code. The data were password encrypted and only the researcher, Registrar for Informatics, and CAMS Manager had access to the de-identified database. The data was stored on a password-protected document that the Registrar of Informatics and researcher accessed.

The researcher cleaned the data set by looking individually at each identifier and cross checking the remaining categories in each field. The researcher had difficulty cleaning the large data set, as several sections and fields were inaccurate. Several identifiers were listed on the data set multiple times, as a result of transfer transcripts listed for each student, students reapplying, or if the student changed advisors. The researcher had to cross check each identifier to determine if all information pertaining to the specific identifier was accurate and delete inconsistent identifiers as not deemed accurate. After the data were clean, the researcher determined several variable characteristics could not be analyzed, due to lack of accurate data, and were eliminated (See Table 4).

Table 4

Variable Characteristics Eliminated From Analysis

Variable Characteristic Eliminated
Initial Status
Transfer Credit
Veteran Status

Procedure

The researcher scrubbed the data for accuracy and eliminated inaccurate or mismatching data, specifically duplicated files, readmitted students, Master of Fine Arts students, branch-institution conferrals, special status students, online students, and blank data fields. The highest degree earned field was kept for data analysis if a student earned multiple degrees.

After the removal of specified fields, the researcher met with the Director of Processing at the researched institution to gain clarification regarding data duplication and error. During the meeting, the researcher learned some fields were pulled from a different module of CAMS and should not have been included in the original data retrieval (see Tables 5 & 6). The errors found in the undergraduate data fields were similar to that of the graduate data fields. The researcher found some undergraduate information in the graduate data and vice versa.

Table 5

Inaccurate Data Field Included in Undergraduate Data Set

Undergraduate Data Set		
Data Field Removed	Module Created For	Rationale
First Time Grad	Admissions	Included in undergraduate data
Continuing UG	Academics	This is not a new student
Special Status	Admissions	Student is not degree seeking

Table 6

Inaccurate Data Field Included in Graduate Data Set

Graduate Data Set		
Data Field Removed	Module Created For	Rationale
First Time Freshman	Admissions	Included in graduate data
Continuing Grad	Academics	This is not a new student
Special Status	Admissions	Student is not degree seeking

All academic majors were entered by the student when matriculating. The Enrollment Status was entered by the researched institution. The level category included by the Registrar of Informatics on the data set was not a part of the study, but was needed in order to pull information requested by the researcher. By including the level on the data set, the Registrar of Informatics knew if the student was an undergraduate or graduate student.

Variables

The first step of the study was to select the categories from the CAMS database. The undergraduate variables, or characteristics, selected for analysis included: start term,

zip code, type of program, initial status, gender, high school graduation year, transfer credit, birth year, veteran status, and Pell eligibility. The variables, or characteristics, selected for graduate students included: start term, zip code, type of program, initial status, gender, high school graduation year, birth year, veteran status, transfer credit, and college graduation year (see Table 1).

As the study progressed, initial status and veteran status were removed as variables in analysis for null hypotheses 1 and 2, and start term removed in analysis for null hypothesis 3, due to incomplete data sets throughout the population data set. The number of hours of transfer credit was difficult to categorize, due to a wide range of transferred credit and the many varied sources of transfer; therefore, transfer credit was not used as a variable in the study. For null hypotheses 3 and 4, birth year remained a variable throughout the study; however, it was re-categorized by representing the birth year with the appropriate Generation category.

Data Cycles

The researcher collected and analyzed four cycles of persistence data: 6 quarters of data for graduate students and 16 quarters of data for undergraduate students (see Tables 7 & 8). The cycle lengths were described by the researcher as the period of time for students to graduate before stop-out occurred. Variables were analyzed from student data from The School of Accelerated Degree Programs. The researcher analyzed nontraditional graduate student data first and then analyzed undergraduate student data for possible patterns/trends among completers and non-completers. The undergraduate data cycle was determined by the researcher, in order to gather the most recent conferral data available at the time of the study.

Table 7

Undergraduate Data Cycle

Expected Entrance Term	Expected Term Degree Conferred
Spring Quarter 2011	Winter Quarter 2015
Summer Quarter 2011	Spring Quarter 2015
Fall Quarter 2011	Summer Quarter 2015
Winter Quarter 2011	Fall Quarter 2014

Table 8

Graduate Data Cycle

Expected Entrance Term	Expected Term Degree Conferred
Fall Quarter 2013	Winter Quarter 2015
Winter Quarter 2014	Spring Quarter 2015
Spring Quarter 2013	Summer Quarter 2015
Summer Quarter 2013	Fall Quarter 2014

The graduate data set cycle was determined by the researcher to gather the most recent conferral data at the time of the study. As the graduate cycle was shorter in year length, the expected entrance term was more recent that the undergraduate expected entrance term.

Cross Tab

Once the variables were chosen, the researcher conducted a PPMCC analysis for null hypotheses 1 and 2, and a *z*-test for difference in proportion and a Chi Square test for homogeneity per hypothesis to determine a difference, testing null hypothesis 3 and null hypothesis 4. From the list of variables found to be statistically different between completers and non-completers, the researcher cross-tabbed for possible patterns within the data. The results of the study showed institution-specific retention data of

completers and non-completers for a nontraditional accelerated program. The researcher analyzed data for student characteristic patterns persistent students (completers) had in common. The results, possible trends, and patterns found within this data were shared with the researched institution.

Category Definitions

The start term was defined as winter, spring, summer, or fall. The researcher sought a relationship by analyzing start term data with a Chi Square test for homogeneity. The researcher sorted zip codes into two categories: inside the County of location for Midwest University or outside the County and then analyzed using a *z*-test for difference in proportions. The type of program was sorted into two programs: business, which included business, health management, and human resources, and non-business, which included information technology, undecided, mortuary management, hospital services management, criminal justice, and communication degrees, as chosen by the researcher and analyzed using a *z*-test for difference in proportions.

The researcher deleted initial status from the data set, since CAMS rewrote information in this category if a student reapplied for another degree or stopped out and returned. Gender data were sorted into male or female and analyzed using a *z*-test for difference in proportions. The data needed for year of high school graduation was not required on the application; and therefore, the researcher eliminated the data from the set, as only some students answered the question on the application. College graduation year was not required on the application and therefore not analyzed.

The researcher determined transfer credit could not be determined accurately as the information may have been entered at the start of the degree or upon earning credits

and transferring credit in while enrolled at Midwest University. Birth year was categorized into three generations: Baby Boomers, individuals born between 1946 and 1964; Gen X, individuals born between 1965 and 1976; and Gen Y, individuals born between 1977 and 1995; and analyzed using the Chi Square test for homogeneity. From this point, the researcher referred to Birth Year as Generation. The researched institution tracked veteran status data by whether a person used the veteran benefits at the time of the degree; and therefore, the status may have been inaccurate, as the student may not have been the veteran. The researched institution failed to determine if the user was a veteran during the years studied. The researcher analyzed the Pell grant eligibility variable by application of a *z*-test for difference in proportions, by whether the person qualified for Pell. The Pell data did not indicate whether the student utilized the Pell grant, if received.

To provide a visual data set, the researcher coded completers/non-completers within graduate data and undergraduate data sets and added a column to the data set for conferrals (which indicated a degree-completer). The researcher designated green as a visual code for completers and the number one represented students with conferred degrees in the researched timeframe. Red indicated non-completers. Completers were the dependent variable.

The researcher completed the analysis using a *z*-test for difference in two proportions and Chi Square test for homogeneity to determine if there was a difference between the characteristics and completers/non-completers. The researcher first applied the *z*-tests for difference in proportion for the following: zip code, program, gender, and Pell grant eligibility. The researcher then applied the Chi Square test for homogeneity for

the following: start term, and generation. The Chi Square test for homogeneity was analyzed through use of a Chi Square contingency table. The researcher coded the variable of generation by sorting the data into three generations, according to birth year.

Table 9

Researcher Outlined Statistical Tests on Variables

Variable	Status	Statistical Test	
		Test for homogeneity	*z*-test
Start Term	Analyzed	x	
Zip code	Analyzed		x
Program	Analyzed		x
Initial Status	Eliminated	NA	NA
Gender	Analyzed		x
High School Graduation Year	Analyzed	NA	NA
Transfer Credit	Eliminated	NA	NA
Generation	Analyzed	x	
Veteran Status	Eliminated	NA	NA
Pell Eligible	Analyzed		x
College Graduation Year	Analyzed	NA	NA

The researcher was not able to analyze the following categories due to not being able to collect accurate data: veteran status, and transfer credit. Due to inaccurate data within Midwest University, no relationship among the original set of characteristics could be tested and some variables were eliminated from the original list, as discussed.

Summary

This study originally pursued the potential differences and relationships among specific variables among undergraduate and graduate nontraditional student

completers/non-completers. The researcher analyzed null hypotheses 1 and 2 with a PPMCC analysis and null hypotheses 3 and 4 using a *z*-test for difference in proportions or a Chi Square test for homogeneity to determine a difference. A *z*-test for difference in proportions analyzed variables that consisted of two characteristics, while the Chi Square test for homogeneity analyzed variables with more than two characteristics. The data were sorted into categories defined by the researcher upon reviewing the categorical data, as they were not interval and easily analyzed. The researcher then cross-tabbed the variables with significant difference to further analyze variables. In Chapter Four, the reader reports results of the PPMCC analyses, *z*-tests for difference in proportion, and Chi Square tests for homogeneity providing analysis of the hypotheses. Chapter Five discusses significance of accurate data.

Chapter Four: Results

Overview

The analyses provided in this chapter sought possible patterns and trends among undergraduate and graduate completers and non-completers at Midwestern University (pseudonym), to provide information for the creation of a target-marketing plan. The researcher utilized a *z*-test and Chi Square test for homogeneity to determine a difference and a Pearson Product Moment Correlation Coefficient to answer whether a relationship could be determined through characteristics of completers and non-completers. Chapter Four outlined the hypotheses, statistical tests utilized, results, and conclusion of the study. The Null Hypotheses addressed were:

Null Hypothesis 1: There is no relationship between new student undergraduate characteristics: start term, zip code, type of program, initial status, gender, year of high school graduation, transfer credit, generation, veteran status, Pell eligibility, and completers/non-completers.

Null Hypothesis 2: There is no relationship between new student graduate characteristics: start term, zip code, type of program, initial status, gender, year of high school graduation, college graduation year, transfer credit, generation, veteran status, and completers/non-completers.

Null Hypothesis 3: There is no difference between undergraduate completers/non-completers when considering start term, zip code, type of program, initial status, gender, year of high school graduation, transfer credit, generation, Pell grant eligibility, and veteran status.

Null Hypothesis 4: There is no difference between graduate completers/non-completers when considering start term, zip code, type of program, initial status, gender, year of high school graduation, college graduation year, transfer credit, generation, and veteran status.

As discussed in Chapter Three, initial status, and veteran status were removed as variables in analysis for null hypotheses 1 and 2, and start term removed in analysis for null hypothesis 3, due to incomplete data sets throughout the population data set. The number of hours of transfer credit was very difficult to categorize, due to a wide range of transferred credit and the many varied sources of transfer; therefore, transfer credit was not used as a variable in the study. For null hypotheses 3 and 4, birth year remained a variable throughout the study; however, it was re-categorized by representing the birth year with the appropriate Generation category.

Variables Selected

The researcher selected variables, based on her professional opinion, to seek patterns within the data. The variables selected were start term, zip code, type of program, initial status, gender, year of high school graduation, college graduation year, transfer credit, birth year, veteran status, and Pell grant eligibility for completers/non-completers (see Table 2). In the researcher's professional opinion, the variable characteristics represented a diverse student population of nontraditional students in the accelerated program at Midwestern University. As most nontraditional students were returning to education after entering the workforce, the researcher believed these variables provided a wide variety of student characteristics to consider in relation to completion of the college program.

Data Collection Process

The researcher received permission from the University Provost at the researched institution to utilize de-identified data from the CAMS database and requested the data set from the Registrar-Informatics. The data was scrubbed of all data identifiers and assigned a specific code for each student by the Registrar-Informatics. The data was password encrypted and only the Registrar-Informatics and researcher had access. The data set required extensive scrubbing, as several fields were inaccurate, mismatched, blank, or written over by the system. The researcher cleaned the large data set and deleted inaccurate fields or identifiers with mismatched fields. Once the data was considered clean, the researcher added a column to the data set labeled 'Conferrals' and color coded data for students that completed the degree within the researched time frame green, to provide a better visual representation. Non-completers were color coded red. The color coding process allowed the researcher to visually see the completers/non-completers when analyzing the data. After receiving and scrubbing the data, the researcher noticed the data was categorical and not interval and therefore consulted with her committee to determine the proper approach to analysis. The researcher initially sought to gather transcripts for each identifier; however, after much discussion with the committee and Director of Processing, it was decided there was not a confidential process to match de-identified transcripts with the de-identified data set, in order to analyze a relationship within the large data set.

Statistical Tests

Completion, generation, gender, generation, Pell eligibility, start term, type of program, year of high school graduation, and zip code, were characteristics analyzed for

undergraduate students. Completion, generation, college graduation year, gender, generation, start term, type of program, and zip code were characteristics analyzed for graduate students. A *z*-test for difference in proportion was used to analyze for a potential difference for the following undergraduate characteristics: zip code, type of program, gender, and Pell grant eligible for completers/non-completers. Graduate characteristics examined for difference were zip code, type of program, gender, and completers/non-completers. A Chi Square test for homogeneity analyzed for a difference in proportion for the following undergraduate characteristics; start term, generation and completers/non-completers and graduate characteristics; start term, generation and completers/non-completers. The *z*-test for difference in proportion analyzed variables containing two populations (an example was the business sample versus the non-business sample). The Chi Square test for homogeneity analyzed variables containing three or more populations (example: start term varied between summer, winter, fall, or spring). The following characteristics did not have enough data to support analysis, contained rewritten fields, or were inaccurate, and therefore, were not analyzed: transfer credit, and veteran status. For analysis of the undergraduate sample, the researcher looked at generations to represent the varied categories among the samples: Baby Boomers, individuals born between 1946 and 1964; Gen X, individuals born between 1965 and 1976; and Gen Y, individuals born between 1977 and 1995.

Upon analysis, the researcher sought to provide deeper analysis through cross tab of the graduate business student data with the remaining sample of graduate data, for a potential difference. The researcher utilized a *z*-test for difference in proportion to analyze graduate business student completers with regard to the following characteristics:

gender and zip code; and a Chi Square test for homogeneity was applied to analyze graduate business student completers with regard to the following characteristics: start term and generation. The researcher selected graduate business student data to cross tab with all remaining graduate variables, further seeking patterns or trends among program completers and program non-completers.

Results

Null Hypothesis 1: There is no relationship between new student undergraduate characteristics: zip code, type of program, gender, year of high school graduation, generation, Pell eligibility, and completers/non-completers.

For the undergraduate sample, with respect to the potential relationship between the characteristic of completion and the other variables listed for comparison, an *r*-critical value of .195 with $\alpha = .05$ was applied to data results. Among the compared characteristics of zip code (n = 593, *r* = .071), type of program (n = 593, *r* = .025), gender (n = 593, *r* = .012), year of high school graduation (n = 190, *r* = .207), generation (n = 593, *r* = .040), and Pell grant eligibility (n = 593, *r* = .017), only the year of high school graduation indicated a significant, very weak relationship with the characteristic of completion. The null hypothesis was not rejected for the characteristics of zip code, type of program, gender, generation, and Pell eligibility, and was rejected for the very weak characteristic of high school graduation year, with regard to completion. Therefore, the Null Hypothesis 1 was not rejected overall, and a relationship between the variables studied was not supported by the data.

Null Hypothesis 2: There is no relationship between new student graduate characteristics: zip code, type of program, gender, year of high school graduation, college graduation year, generation, and completers/non-completers.

For the graduate sample, with respect to the potential relationship between the characteristic of completion and the other variables listed for comparison, an *r*-critical value of .195 with $\alpha = .05$ was applied to data results. Among the compared characteristics of zip code (n = 280, *r* = .058), type of program (n = 280, *r* = .136), gender (n = 280, *r* = .192), year of high school graduation (n = 72, *r* = .027), and generation (n = 280, *r* = .039), none indicated a significant relationship with the characteristic of completion. The null hypothesis was not rejected for the characteristics of zip code, type of program, gender, year of high school graduation, and generation. Therefore, the Null Hypothesis 2 was not rejected overall, and a relationship between the variables studied was not supported by the data.

For the graduate sample enrolled in the Business program, with respect to the potential relationship between the characteristic of completion and the other variables listed for comparison, an *r*-critical value of .195 with $\alpha = .05$ was applied to data results. Among the compared characteristics of zip code (n = 160, *r* = .107), gender (n = 160, *r* = .014), year of high school graduation (n = 75, *r* = .084), college graduation confirm date (n = 160, *r* = .032), and generation (n = 160, *r* = .088), none indicated a significant relationship with the characteristic of completion. The null hypothesis was not rejected for the characteristics of zip code, type of program, gender, year of high school graduation, college graduation confirm date, and generation, with regard to completion. Therefore, with regard to graduate Business majors, the Null Hypothesis 2 was not

rejected overall, and a relationship between the variables studied was not supported by the data.

For the graduate sample enrolled in the Other programs, excluding Business and with respect to the potential relationship between the characteristic of completion and the other variables listed for comparison, an *r*-critical value of .195 with $\alpha = .05$ was applied to data results. Among the compared characteristics of zip code (n = 90, *r* = .046), gender (n = 90, *r* = .067), year of high school graduation (n = 75, *r* = .042), college graduation confirm date (n = 90, *r* = .088), and generation (n = 90, *r* = .039), none indicated a significant relationship with the characteristic of completion. The null hypothesis was not rejected for the characteristics of zip code, gender, year of high school graduation, college graduation confirm date, and generation, with regard to completion. Therefore, with regard to graduates enrolled in Other majors, the Null Hypothesis 2 was not rejected overall, and a relationship between the variables studied was not supported by the data.

Null Hypothesis 3*:* There is no difference between undergraduate completers/non-completers when considering start term, zip code, type of program, gender, generation, and Pell-grant eligibility.

NH3a: There is no difference in undergraduate completer/non-completer start terms. The researcher applied the Chi Square test for homogeneity of proportions to test this sub-hypothesis and revealed no difference in the rate of completion among completers/non-completers among the start terms, $\chi^2(3, n = 614) = 1.81$, $p = .612$. The start terms examined included fall, winter, summer, and spring. The null hypothesis was not rejected.

NH3b: There is no difference in undergraduate completer/non-completer zip code. In comparing the undergraduate students' zip codes, the z-test for difference in proportions revealed the rate of completion of the students inside the County of residence for Midwestern University (n = 157, 53.5%) was not significantly different from that of the students outside the County (n = 439, 44.9%); $z = 1.853$, $p = .064$. The null hypothesis was not rejected.

NH3c: There is no difference in undergraduate completer/non-completer type of program. The researcher applied the *z*-test for difference in proportions to test this sub hypothesis and revealed the rate of completion among types of programs (n = 400, 47.0%) was not significantly different from that of the non-business students enrolled at Midwestern University (n = 214, 43.9%); $z = .734$, $p = .463$. The null hypothesis was not rejected.

NH3d: In comparing the genders of the undergraduate students, the *z*-test for difference in proportions revealed the rate of completion of the female graduate students (n = 404, 46.5%) was not significantly different from that of the male students (n = 209, 45.0%); $z = 0.353$, $p = .724$. The null sub-hypothesis checking for difference in genders was not rejected.

NH3e: In exploring the generations of the undergraduate students, the Chi Square test for homogeneity of proportions revealed no difference in the rate of completion among the three different generations, Baby Boomers, Gen X, and Gen Y, $\chi^2(2, n = 613) = 1.66$, $p = .558$. The null sub-hypothesis checking for difference in generations was not rejected.

NH3f: In comparing the Pell grant-eligible undergraduate students with the non-Pell grant-eligible undergraduate students, the *z*-test for difference in proportions revealed the rate of completion of the Pell grant-eligible students (n = 307, 44.6 %) was not significantly different from that of the non-Pell grant -eligible students (n = 307, 47.2%); $z = -0.646$, $p = .518$. The null sub-hypothesis checking for difference in Pell-grant-eligibility was not rejected.

Null Hypothesis 4*:* There is no difference between graduate completers/non-completers when considering start term, zip code, type of program, gender, and generation.

NH4a: There is no difference in graduate completer/non-completer start terms. The researcher applied the Chi Square test for homogeneity of proportions to test this sub-hypothesis and revealed no difference in the rate of completion among completers/non-completers among the start terms, $\chi^2(3, n = 280) = 0.67$, $p = .880$. The start terms included fall, summer, winter, and spring. The null hypothesis was not rejected.

NH4b: There is no difference in graduate completer/non-completer zip code. In comparing the graduate students' zip code, the z-test for difference in proportions revealed the rate of completion of the students inside the County of residence for Midwestern University (n = 77, 64.9%) was not significantly different from that of the students outside the County (n = 200, 71.0%); $z = -0.986$, $p = .324$. The null hypothesis was not rejected.

NH4c: There is a difference in completer/non-completer type of program for graduate students. The researcher applied the *z*-test for difference in proportions to test

this sub hypothesis and revealed the rate of completion among types of programs (n = 181, 64.6%) was significantly different from that of the non-business students (n = 99, 77.8%); $z = -2.29$, $p = .022$. The null hypothesis was rejected and data supported the alternative that there was a difference in percentage of completion when comparing business majors to the category containing the other majors.

NH4d: In comparing the genders of the graduate students, the *z*-test for difference in proportions revealed the rate of completion of the female graduate students (n = 170, 70.0%) was not significantly different from that of the male students (n = 110, 68.2%); $z = 0.319$, $p = .750$. The null hypothesis seeking a difference between the genders of graduate students was not rejected.

NH4e: In exploring the generation of the graduate students, the Chi Square test for homogeneity of proportions revealed no difference in the rate of completion among the three different generations, Baby Boomers, Gen X, and Gen Y, $\chi^2(2, n = 280) = 0.18$, $p = .912$. The null hypothesis seeking a difference among the generations of graduate students was not rejected.

Cross Tabbing Results

Upon the analysis of the hypotheses, the researcher sought to analyze specific characteristic variables with a significant difference for a more in-depth analysis of the characteristic graduate type of program (business students), as the graduate category of business major compared to the category of other majors was the only characteristic variable determined to have a significant difference.

In comparing the graduate type of program (business student completers) with the characteristic variable of gender, the *z*-test for difference in proportions revealed the rate

of completion of the graduate female business students (n = 111, 65.8%) was not significantly different from that of the graduate male business students (n = 70, 62.9%); z = .397, p = .691. The null hypothesis was not rejected for comparison of gender.

In comparing the graduate type of program (business student completers) with the zip code variable, the z-test for difference in proportions revealed the rate of completion of the graduate business students who lived inside the County of residence of Midwestern University (n =52, 53.8%) was not significantly different from that of the graduate business students who lived outside the County (n = 128, 68.8%); z = -1.906, p = .0567. The null hypothesis was not rejected for comparison of zip codes.

There was moderate observable evidence of a difference for graduate type of program (business student completers) with the zip code because the results of p were between .05 and .1.

In exploring start term into the programs for the graduate business students, the Chi Square test for homogeneity of proportions revealed no difference in the rate of completion among the four different start terms, spring, summer, winter, and fall, $\chi^2(3, n = 181) = 1.313$, p = .7261. The null hypothesis was not rejected for comparison of start term.

In exploring the generation of the graduate Business students, the test for homogeneity of proportions revealed that there was no difference in the rate of completion among the three different generations, Baby Boomers, Gen X, and Gen Y, $\chi^2(2, n = 181) = 0.243$, p = .8857. The null hypothesis was not rejected for comparison of generation.

Summary

This study sought to analyze patterns and trends of completers of both undergraduate and graduate programs of study at Midwestern University. The results were consistent in rejecting the null hypotheses and were not in line with research of then-current literature regarding retention for traditional students. As this study examined a nontraditional program, the relevance of this study added to the then-current body of literature on retention. Chapter Five provides a discussion of the researcher's responses to the analysis. The chapter also discusses how critical accurate data is for higher education institutions and the importance of timely decision making when utilizing data.

Chapter Five: Discussion and Reflection

Introduction

This study sought institution-specific patterns and trends related to student completion of the intended degree program following attendance at Midwestern University (pseudonym). The researcher wanted to recommend a targeted marketing plan for Midwest University, based on specific data on trends and patterns related to student completion. Specific characteristics were chosen by the researcher to provide an institution-specific plan.

Hypotheses

The researcher investigated the following hypotheses:

Hypothesis 1: There is a relationship between new student undergraduate characteristics: start term, zip code, type of program, initial status, gender, year of high school graduation, transfer credit, generation, veteran status, Pell eligibility and completers/non-completers.

Hypothesis 2: There is a relationship between new student graduate characteristics: start term, zip code, type of program, initial status, gender, year of high school graduation, college graduation year, transfer credit, generation, veteran status, and completers/non-completers.

Hypothesis 3: There is a difference between undergraduate completers/non-completers when considering start term, zip code, type of program, initial status, gender, year of high school graduation, transfer credit, generation, Pell grant eligibility, and veteran status.

Hypothesis 4: There is a difference between graduate completers/non-completers when considering start term, zip code, type of program, initial status, gender, year of high school graduation, college graduation year, transfer credit, generation, and veteran status.

Target Marketing Plan

The researcher sought to develop a targeted marketing plan through analysis of trends and relationships of completers at the institution for which the plan would be provided. Although the study did not produce the results the researcher hoped to find, there were several important recommendations that could be made as a result of the study. Of the variables considered, only two found a difference or relationship pertaining to completers; graduate business completers compared to non-business majors, and graduate business completers inside the County of location for Midwest University compared to those outside the County, through moderate evidence of a difference.

In comparing the graduate student type of program (business students) with the graduate non-business students, the *z*-test for difference in proportions revealed the rate of completion of the business students (n = 181, 64.6%) was significantly different from that of the non-business students (n = 99, 77.8%; $z = -2.29$, $p = .022$). The researcher recommends further study and analysis to determine why the rate of completion was different.

In the researcher's opinion, this result should be studied independently to determine if graduate business students utilized corporate tuition from individual companies. Midwest University had several corporate partnerships and heavily recruited graduate students from those partnerships. Corporate partners often capped the amount

of tuition reimbursement an employee was eligible to receive over the year, and the lifetime amount was determined by company policy.

Site Directors, working in Admissions at Midwest University, created corporate partnerships by establishing relationships with Human Resource Directors. Site Directors met with Human Resource Directors on a regular basis and established a personalized approach to the recruiting process, while discussing the needs of the organization. This process addressed areas of opportunity and identified how education assisted in key development areas for the organization. The unique approach taken by Midwest University provided insight on professional development opportunities and allowed the researched institution to determine additional grant eligibility through discussion of employee income, tuition reimbursement policies, and number of employees in the organization. The accelerated program recruited working adults and allowed students to gain knowledge in work-related challenges, as the professors and adjuncts had real-life work experience in the subject matters taught. The researcher recommends a future study to analyze corporate partnerships in relationship to tuition reimbursement amount, the number of students that utilize tuition reimbursement, and the grant structure for the corporate partnership.

The researcher recommends a future study analyzing tuition reimbursement among corporate partnerships and an employee's decision to stop out or persist to degree without reimbursement. Study analysis could further measure a student's willingness to stay enrolled and the relationship corporate tuition reimbursement has on continuous enrollment. For example, several corporate partnerships offered up to a certain dollar amount per year for continuing education. In the researcher's professional opinion, this

could have persuaded the rate of completion for graduate business students. The researcher recommends further analysis to determine a possible relationship between the amount of tuition reimbursement employees receive, the student stop out rate, and timely degree completion.

In comparing the graduate Business student completers with the zip code, the *z*-test for difference in proportions revealed the rate of completion of the graduate business students inside the County of location for Midwest University (n =52, 53.8%) was not significantly different from that of the graduate business students outside the County (n = 128, 68.8%); z =-1.906, p = .0567. Although no significant difference existed in the graduate business student completers with a zip code inside the County of location for Midwest University and that of outside the County, there was moderate observable evidence of a difference, as the results of p were between .05 and .1. The researcher recommends a future study to explore the students' choice of location in relationship to work or home and completion. The accelerated program provided students the option to choose a location close to work or home; however, Midwest University did not track whether the student attended close to the employer or close to home. The researcher's belief was the majority of the students chose to attend close to home to cut down on the home commute time after class.

The researcher recommends a future study on course availability and offerings at locations throughout the Midwest region. The accelerated program did not offer all courses or programs at each location throughout the region. Campuses varied in size, the number of classrooms, and professor availability for each location. In the researcher's opinion, course availability may have resulted in a difference with regard to completion.

The researcher recommends a future study, analyzing course scheduling in relationship to completion for the different locations across the region of location for Midwest University.

Universal Program

The researcher hoped to find completer patterns and trends to provide Midwest University with a targeted marketing plan for students with specific variables or characteristics. As most variables analyzed did not have a difference or relationship to completion, the researcher could not provide a targeted marketing plan as desired, and therefore, believed the program studied was universal and fit the needs of a diverse population of nontraditional students. Other than graduate business students, the remaining variables studied did not show a difference to completion. The program did not show a difference in several variables because the program did not limit or target one specific type of student, yet had a diverse set of characteristics and demographics. The unique program studied focused on continuing education for the working adult and made education possible for those looking to continue. Additionally, the program marketed a flexible and convenient approach to earning a degree for nontraditional students with a lifestyle and needs of working adults. The researched institution offered classes at convenient locations throughout the Midwest region and students attended class one night a week, leaving time for work and family commitments, and in turn allowed the student to persist to degree completion.

Retention Efforts

Several retention campaigns existed for students in the nontraditional accelerated program. The Student Success Center offered nontraditional accelerated degree students

additional support and provided a personalized approach to persistence. This retention campaign offered accelerated students additional support, through assistance with academic goals, advisement, and course selection. The researcher recommends a future study on the services most commonly sought by nontraditional students. This information would provide Midwest University with professional development opportunities and talking points, to better serve the students in the accelerated degree program. The researcher further recommends additional studies analyzing the retention efforts through the Student Success Center and timely degree completion.

The stop-out policy for the accelerated degree program allowed students to sit out for one year from the quarter last attended. The researcher recommends this policy be revisited, as nontraditional students needed additional support. The length of time the researched institution allowed for stop-out for the accelerated program discouraged the student from timely degree completion. The researcher does not believe this was in the best interest of the student, as unintended consequences resulting from this policy became student retention concerns. Programs and catalogs may change at the start of the new academic year, and this policy does not encourage the student to persist to degree in a timely manner.

Data Significance

Data, as described by Blumenstyk (2015) and Tinto (1993), is critical, crucial, and vital for making decisions. Midwest University utilized a decentralized approach for collecting data, and as a result of decentralizing the data collection and process, no common shared vocabulary among departments existed pertaining to data. As the researched institution continued to grow, adjustments were made to the CAMS database

for department-specific purposes. Each department created additional reports and data fields to meet the demands of the growing institution and contributed to the difficulty the researcher experienced when cleaning the data for analysis.

The researcher requested a large quantitative data set and found the data difficult, due to numerous inconsistencies of the vocabulary used across departments and varying data terminology. The data set required an unanticipated amount of clean-up time. The researcher experienced difficulty scrubbing the data as several identifiers were duplicated in the data set, as a result of mismatched fields, data entry on the student' part, or institution's part, and information pulling differently from different modules within CAMS (departmental use).

In the researcher's opinion, all higher education institutions have a responsibility to all stakeholders to provide accurate detailed data for decision making. These stakeholders include current and prospective students, parents, alumni, administration, faculty, staff, and board members. The cost of decision making not driven by accurate data is potentially far greater than the cost to obtain the accurate information. Data drives reporting and is crucial for decision making across departments and/or schools. The researcher recommends the researched institution take a centralized approach regarding data collection and analysis.

The centralized approach would require a quarterly check for accuracy and valid information to allow administration confidence in data reporting and decision making, as the information would be derived from a validated source consistent across the institution. Reporting needs to be consistent with a shared vocabulary across the

institution and with a centralized data center large enough to support the consistent, suitable efforts needed for reporting information.

In the researchers' experience administrators need to rely on the centralized data center to provide information in a timely manner, thus making the centralized data center "the" warehouse for all information collected and stored, so data provided would be reliable, consistent, and instrumental for decision making. At the time of the conclusion of this study, Midwest University was addressing this concern with the implementation of an institutional research department. The researcher supports this effort and recommends capital resources be invested in this department as an asset and investment into the future of the researched institution.

Decisions need to be data-driven to reflect a precise and truthful snapshot of what is happening at the institutions, and at the same time produce data analytics for higher education administrators. Internal systems should not allow inaccurate data input to remain inaccurate and the technology should alert the person entering the error. In this technological age, at the time of this writing, systems have the ability to default inaccurate information and require accurate information input. There should not be concerns regarding data entry (either through student application or institutional error) when inputting information into the Enrollment Revenue Management System (ERMS) system; a student should not have a date of birth in the current year, or provide a graduation date before the year of birth. At the conclusion of this study, the researched institution implemented a new data driven ERMS, which addressed several concerns found in this study.

An additional recommendation includes continuous efforts for data-driven systems and procedures at Midwest University. As higher education continues to evolve and prepare for the class of 2025, technological advancements will aid and support efforts within the researched institution in recruitment efforts, using institution-specific data driven analytics. Leadership, technology, and the institutional mission will continue to drive the efforts to prepare the institution for growth and aid in data collection endeavors. Although the original purpose of this study was to analyze student characteristics of completers to determine a targeted marketing plan, the end result changed. Due to the discovery of inaccurate data used in data collection, the unanticipated analysis and results of this study reflected the importance of data input and collection, as crucial components of the mission and vision of the researched institution, to allow administration to make vital decisions with supporting evidence.

Professional Journey

As the researcher approached the completion of this research study on nontraditional student retention and persistence, colleagues frequently asked the researcher's thoughts regarding persistence to terminal degree completion. The researcher reflected on this thought several times throughout the study and time as a doctoral student. This study provided the researcher with an opportunity to strengthen her skillset through a deeper understanding and knowledge of the path to become a higher education administrator. The researcher persevered through several triumphs during the completion of the study and faced many challenges then-current administrators encountered on a daily basis. The journey was one filled with adversity, which forced the researcher to overcome to persist to the goal of study and degree completion.

Any doctoral student could discuss the variety of challenges endured during the journey to degree completion. The time and effort put forth were just the tip of the iceberg for most students. While this study sought patterns of degree completion and persistence, the researcher's journey reflected just that. Initially, the researcher sought acceptance into the doctoral program, as a way to strengthen her skillset to become a higher education administrator. The adversity experienced better prepared the researcher to take on future administration challenges. Several colleagues that took this path offered the researcher advice, but nothing could have better equipped her to become an administrator more than her journey in this study.

The data challenges faced by the researcher were situations faced by administrators on a daily basis. The issues experienced with the data were not one specific department's issue, but instead a concern to the entire institution. In order to persist to degree completion, the researcher had to overcome difficulties, just as an administrator would. The researcher's ability to gain confidence in her professional ability allowed her to persist to degree and study completion. Often students must dig deep within and look inside to find the inner voice. The researcher found herself looking internally, to handle the multiple challenges this study presented. This journey developed the researcher's mental toughness and confidence needed to work in higher education administration. Successful administrators exuded confidence and established a strong sense of self-awareness and belief in abilities, strengthened through difficult challenges presented. There was more to this study than attending class and completing coursework to better prepare for future administrative roles. This study required dedication, mental

strength, determination, and willingness to accept difficult challenges for persistence to degree completion.

The researcher encountered challenges throughout and found that mindset channeled persistence throughout the trials faced. How people chose to react to situations and difficult times set apart the leaders from administrators. As this study evolved, the researcher believed mindset to be one of the most crucial pieces of the persistence puzzle. Persistence was being knocked down and continuing to get back up. Higher education administration required a mental toughness and determination, as characteristics of successful leadership.

In the researcher's experience, critical-thinking skills, the ability to step out of one's comfort zone, having a vision, and knowing the path were important aspects of persistence. Persistence required expanding education and knowledge, while learning to become comfortable being uncomfortable. The researcher learned from setbacks and became better prepared to handle future challenges. In the researcher's opinion, confidence, support sought and received, and vision were key elements of persistence to degree completion and recommends future studies on internal aspects in relation to degree completion.

Conclusion

For this study, the research of Tinto (1993), Renn and Reason (2013), and Braxton et. al (2014) was not in line with the analysis, as the majority of student demographics studied did not provide a relationship or difference in completion. Tinto (1993), Blumenstyk (2015), and Braxton et. al (2014) did not align with this study, as there was not a difference in completion for Pell grant eligible students and gender as a

factor of persistence (Tinto, 1993; Renn & Reason, 2013). Lei and Chuang (2010) discussed several demographics factored into retention for graduate students; however, this could not be determined in this study, as only one graduate variable (Graduate Business) resulted in a difference. The research of then-current literature was in line regarding how difficult it can be to track nontraditional students' entry (Hagedorn, 2015; Renn & Reason, 2013; Wyatt, 2010).

Although the researcher was not able to provide an institution-specific marketing plan, this study was able to provide Midwest University with solid, accurate data regarding the accelerated program. The researcher was not able to find a relationship or difference in many of the variables studied. Through analysis of the variables studied, only the Graduate Business students were found a difference in completion, when compared to the other majors. The researcher recommends further analysis to provide a deeper understanding of the Graduate Business students, seeking a possible relationship in regards to tuition reimbursement.

Although the researcher was not able to recommend a targeted marketing plan, the researcher did confirm the importance of accurate data utilized for decision making in higher education. Data is a vital part of higher education and administrators need to make decisions with precise information. Higher education institutions should be making data-driven decisions with accurate data, routinely checked for accuracy. Data input is a crucial component of the decision making process, as decisions should be made with accurate data. A common, shared knowledge regarding data would allow all stakeholders to understand data specifics pertaining to each department.

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Vitae

Megan Zacheis graduated from Southeast Missouri State University with a Bachelor of Science in Sport Management and minor in Business Administration. During Megan's undergraduate experience, she was a Division I soccer player, served as a Student Athlete Mentor, volunteered with the Special Needs Soccer Association, and helped coordinate a Sport Management Scholarship Walk/Run. She was on the Dean's List as well as the Ohio Valley Conference Commissioner's Honor Roll each year.

Megan earned her Master of Science Administration in Management from Lindenwood University in 2013. In 2014, she decided to pursue her doctorate while employed as a Site Director in Evening and Graduate Admissions. During her doctoral experience, Megan interned on the Design Team for the Student Success Center (a center designed to assist students with academic goals and persistence). Megan currently works as an Account Manager for Extended Education.