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**THE INFLUENCE OF ENROLLMENT MANAGEMENT
TRANSITION STRATEGIES ON COLLEGE STUDENT SUCCESS**

by

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A Dissertation Submitted to the Faculty of
Old Dominion University in Partial Fulfillment of the
Requirements for the Degree of

DOCTOR OF PHILOSOPHY

HIGHER EDUCATION

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May 2012

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Abstract

THE INFLUENCE OF ENROLLMENT MANAGEMENT TRANSITION STRATEGIES ON COLLEGE STUDENT SUCCESS

**Lisa Duncan Raines
Old Dominion University, 2012
Director: Dr. Dennis Gregory**

Enrollment management practices clearly influence college student success.

Retention and graduation rates are critical measures for institutions of higher education, particularly measures involving increased first-year retention rates, four-year graduation rates, and six-year graduation rates. Improving student success is paramount concern for college and university leaders. This concern has yielded a body of literature addressing the role of enrollment management in higher education as well as the development of various college student success programs. Specifically within the overarching concept of enrollment management are transition strategies which influence college student success.

The purpose of this study was to understand the influence of enrollment management transition strategies on college student success at large, public U.S. higher education institutions as categorized by the Carnegie Classification of Institutions of Higher Education (2010). Minimal research exists regarding the use of enrollment management transition strategies on the first-year retention rate and the four- and six-year graduation rates. Therefore, this study was intended to further higher education's understanding of these strategies.

Data for this quantitative study were derived from an online survey which was disseminated to chief enrollment officers at large, public U.S. higher education institutions as categorized by the Carnegie Classification of Institutions of Higher

Education (2010). The number of respondents was 87, which was a 45% response rate. An analysis of variance, Pearson's Product Moment Coefficient, Dependent *t*-test for Paired Samples, and descriptive statistics were used for statistical analysis. All data were self-reported by the chief enrollment officer or their designee at these surveyed higher education institutions.

While the findings did not clearly indicate statistically significant findings regarding the relationship of enrollment management transition strategies on college student success, the data garnered from the study was indicative of a relationship between the enrollment management transition strategy employed and the change in the first-year retention rate and the four-year graduation rate at these institutions surveyed. Further, the study indicated that additional research with students and faculty should be conducted so as to capture the full breadth of the influence of enrollment management transition strategies on college student success.

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Chapter One

Introduction

Background of the problem.

Enrollment management overview.

Since enrollment management practices influence retention, it is important to delineate college student retention as the collective result of both individual and institutional characteristics (Walters, 2003). These enrollment management strategies include student college choice, transitioning to college, attrition and retention, and student outcomes (Hossler & Bean, 1990). Enrollment management is a broad organizational concept that includes strategic planning supported by institutional data as well as institutional practices that address recruiting, transition to college, and student attrition and retention challenges (Hossler, 1991; Walters, 2003). Walters further indicated that effective transitioning, as a component of enrollment management, is an integral strategy for retaining students.

Dolence (1996) expanded the concept of enrollment management with his work on strategic enrollment management in higher education. Specifically, Dolence described strategic enrollment management as an extensive institutional tactic focused on achieving and maintaining optimal recruitment, retention, and graduation rates as defined within the institution's framework. Further, Dolence commented that any factor, strategy, or practice influencing a student's decision to persist can be considered a component of strategic enrollment management.

Front-loading retention and intervention strategies can be advantageous for higher education institutions, particularly for transitioning students to college and attendance

and engagement during the first year (Dolence, 1993). Successful retention efforts require clear communication of enrollment management best practices, concepts, core strategies, and structures that can be applied and adapted by the college or university (Bontrager, 2004b). Transition strategies can provide adjustment interventions to enhance student success by preparing students for the institution's expectations (Kuh, Kinzie, Schuh, Whitt, & Associates, 2005). Huddleston (2000) posited that the value of a student's college experience is based primarily on the excellence of the institution's transition programs as well as its enrollment and student services.

College student retention.

The pervasiveness of student attrition is an increasingly difficult challenge confronting contemporary higher education in the United States (Kelly, Kendrick, Newgent, & Lucas, 2007). In its 2001 study, American College Testing (ACT) reported that approximately 25 percent of students enrolled in four-year colleges or universities leave without graduating. More recently, ACT reported that the percentage of first year U.S. college students who return to their college for the second year of study continues to decline (2009). Specifically, ACT reported that 34 percent of college freshmen returned to the same college for the second year in 2007-2008. ACT reported this as the lowest percentage of persisting freshmen since 1989. "Colleges and universities are being held accountable for retention and graduation rates even though more about what contributes to college student persistence needs to be investigated" (Titus, 2004, p. 674). For more than 30 years, researchers have focused on factors that influence student persistence and degree attainment. However, issues related to student persistence and retention continue to be prevalent in higher education (Yale, 2010).

Yale (2010) reported that more than 18 million undergraduate students attended institutions of higher education during the 2010-2011 academic year (Yale, 2010). This represents an increase of nearly three million since 2000-2001 (Husser & Bailey, 2008). Approximately 50% of these students will not complete a degree (Yale, 2010). Typically, four-year colleges and universities lose approximately 29 percent of their freshmen prior to the sophomore year (American College Testing, 2008). According to the Education Commission of the States (2004), over 30% of undergraduate students at U.S. colleges and universities do not complete their undergraduate education within six years, even in top-performing states (National Center for Public Policy and Higher Education, 2006). Regardless of specific student or institutional characteristics, higher education administrators are pressured to develop techniques to enhance student success and persistence-to-degree rates (Yale, 2010).

Over the last 40 years, the national rate of student departure from public colleges and universities has remained constant at about 45 percent (American College Testing, 2005). According to Tinto (1993), nearly 75% of student departures from college are voluntary rather than institutional dismissals or expulsions. For example, at colleges and universities with enrollments of 5,000 to 17,999, only 62.7 percent of undergraduates continue to their third year (Consortium of Student Retention Data Exchange, 2008). Data such as these emphasize the effect and scope of student persistence in contemporary higher education. Specifically, retention interventions are important because a large number of students do not return to their home institutions, and these rates of departure adversely impact the stability of institutional budgets, recruiting, enrollment, reputation, and public perception (Braxton, Hirschy, & McClendon, 2004; Wild & Ebbers, 2002).

A college or university's retention rate is a measure commonly used as an indication of institutional effectiveness (Wyman, 1997). Additionally, an institution's retention rate and graduation rate are key components when measuring and analyzing institutional effectiveness on a continuing basis (Whiteley, Porter, & Fenske, 1992). When used properly, an institution's retention rate and/or graduation rate can aid institutional leaders and decision-makers in effecting change and implementing improvements such as reduced enrollment volatility, decreased recruitment related costs, and increased student academic performance.

While retention programs, research, services, and studies are plentiful in higher education literature, research on student retention in higher education reflects a fairly narrow focus and has been generally associated with different types of predictive modeling (Codjoe & Helms, 2005; Cokley, Bernard, Cunningham, & Motoike, 2001; Glynn, Sauer, & Miller, 2003; Waggoner & Goldman, 2005). The intent of this research was to contribute to the existing body of knowledge associated with the influence of specific enrollment management techniques on college student persistence in large, public four-year colleges and universities. Specifically, this study sought to contribute to the body of literature by examining chief enrollment officers' perceptions of the effect of transition and integration strategies (Bontrager, 2004b) on college student success. Starting students on the right path toward graduation begins with anticipating and meeting their transition and integration needs when they first enter the institution (Codjoe & Helms, 2005). These transition and integration strategies positively influence college student persistence in undergraduate students (Levitz, Noel, & Richter, 1999).

Accountability and assessment.

Effective enrollment managers, who understand that maintaining current enrollment is a priority, realize that increasing student persistence must be a concern for all campus constituencies (Head, Blake, & Hughes, 2009). Retention and persistence are important accountability and economic factors for higher education administrators (Hoover, 2006; Levitz, Noel, & Richter, 1999; Vander Schee, 2009). For most colleges and universities, students are the basic source of financial support through tuition, fees, and government subsidies paid to the institution (Jamelske, 2009).

Higher education in the United States faces serious concerns about the effectiveness and efficiency of its colleges and universities (Pascarella & Terenzini, 1998). In a period of limited and declining resources, there is increased pressure for postsecondary educational institutions to yield demonstrable results of efficiency and for greater assessment and accountability (Ewell, 1991; Vander Schee, 2009). State and federal mandates and accreditation standards mandating accountability and measures of institutional effectiveness as well as allocation of resources are often related to learning outcomes, graduation rates, and student persistence (Vorhees & Zhou, 2000). In a period of high need for increased student persistence, there is a continuing focus on institutional accountability measures, considerable budget reductions, declining state and government support – particularly for those college and university administrators charged with enrollment management (Smith, 2000).

Budget, finance, and economics.

The longer a student persists at a college or university, the higher the institution's cost of losing that student (Codjoe & Helms, 2005). A low retention rate typically

indicates that an institution is continuously working to replace students who depart (Vander Schee, 2009), thereby increasing the institution's per unit cost. Retaining a student after enrollment is much more effective than replacing a student through recruitment strategies -- particularly in an environment where competition for potential applicants is highly competitive (Delworth, Hanson, & Associates, 1991). Declining retention rates are second only to diminishing appropriations as the reason for higher education's financial challenges (Penn, 1999).

Over the years, some higher education institutions have not been as successful largely because administrators were not mindful of the impact of revenue streams and enrollment on financial solvency (Penn, 1999). Because of the confluence of fiscal, political, accountability, and accreditation issues, student persistence is of particular interest to higher education administrators and to the nation as it strives to develop a labor pool and educated citizenry to sustain the future (Braxton, Hirschy, & McClendon, 2004). In addition to the financial effect of improved retention rates, increased student satisfaction is essential for institutional reputation, name recognition, and distinction with higher education ranking and guide-book publications such as *U.S. News & World Report's America's Best Colleges* and the *Princeton Review* (Hossler, 2009; Levitz, Noel, & Richter, 1999). Students and parents are becoming progressively more reliant on these widely publicized regional and national higher education rankings when selecting colleges and universities (Jamelske, 2009). Consequently, higher retention rates enhance regional and national ranking, thus becoming extremely important to the financial future of the institution (Porter & Swing, 2006).

College student departure remains an increasingly exasperating problem for college and university leaders who tackle the challenge of managing enrollments with declining budgets (Braxton & McClendon, 2002; Wild & Ebbers, 2002). Given that students cannot graduate if they are not retained, student retention efforts have become among the most highly analyzed outcomes in modern higher education (Jamelske, 2009). Considering the state of the economy in 2010, it becomes even more important for colleges and universities to direct energies toward increasing student persistence and progress toward degree (Yale, 2010).

Enrollment management approaches.

For the past 75 years, research related to student retention in higher education has been the primary focus for several distinguished researchers including Astin, Bayer, Tinto, and Vaughan (Braxton, 2000). While the body of peer-reviewed research associated with retention in higher education is large and includes myriad variables related to undergraduate student retention, those factors which can be used to predict a student's departure from a college or university remain a complex issue (Braxton, Sullivan, & Johnson, 1997; Pickering, Calliotte, & McAuliffe, 1992). As a concept and a process, enrollment management remains a relatively new approach in higher education (Huddleston, 2000). While a student-focused approach to college student retention is common at American colleges and universities, many of the tactical enrollment management approaches for improved student retention remain unidentified (Kalsbeek, 2006). Although considerable progress has been made in the past two decades, existing theories are found to be in need of revision (Braxton, Hirschy, & McClendon, 2004).

To assist institutions in meeting their recruitment and retention goals, a number of research studies have been conducted (Bean, 1982; Pascarella, 1980; Coffey & Summers, 2000) that report on and evaluate various program models. Specifically, predictive models of enrollment have been introduced in several studies over the last decade (DesJardins, 2002; Reason, 2003; Thomas, Dawes, & Reznik, 2001). To better understand the complex phenomenon of student departure, higher education administrators have much to learn about colleges and universities as organizations, the college experience of first- and second-year students, and enrollment management techniques employed in support of student retention efforts. In addition, campus leaders must also strive to better understand the student interpretations and reactions to retention efforts (Kelly, Kendrick, Newgent, & Lucas, 2007).

Collaborative enrollment management.

Numerous studies focused on the impact of enrollment management systems on institutions of higher education (DesJardins, 2002; Penn, 1999; Thomas, Dawes, & Reznik, 2001). Higher education leaders have begun to recognize that students are more likely to persist and experience academic success if the various parts of the institution work together using enrollment management techniques as a method of collaborative decision making (Bontrager, 2004a). Many institutions of higher education have incorporated enrollment management strategies into their recruitment and retention programs so as to optimize student enrollments (Levitz, Noel, & Richter, 1999). Colleges and universities with a workable enrollment management strategy for retaining students have reported success in meeting stated institutional goals (Penn, 1999).

In order to survive and fulfill their institutional missions, colleges and universities must successfully retain students (Waggoner & Goldman, 2005). Though collaborative efforts in enrollment management are essential in today's changing environment in higher education, transforming educational institutions so as to increase their collaborative enrollment management practices has proven to be a difficult task (Callahan, 2008; Sawyer, 2007). When institutional services and programs are interrelated, collaborative, and cooperative, then a college or university can be more responsive to students and their educational needs (Smith, 2001).

Enrollment management approaches provide important tools for assisting colleges and universities in attaining their stated goals and remaining financially viable (Penn, 1999). With the increased challenges of managing enrollments, institutional successes and failures hinge on establishing a firm basis of structures, strategies, and concepts for retaining students (Bontrager, 2004b). Because of the growing attention on institutional effectiveness, accountability, maintaining accreditation, and fiscal responsibility, the expectations associated with increasing student persistence to graduation will continue to grow for chief enrollment officers.

Enrollment management must be viewed as an institution-wide effort with a focus on admissions, enrollment, and retention (Vander Schee, 2009). Specifically, Hossler (1984) identified several specific areas for which chief enrollment officers should be directly responsible: recruitment, financial aid, advising, academic and enrollment assistance programs, orientation programs, retention programs, and student services. Recognizing that retention and enrollment management are collaborative institutional efforts, effective transitioning and integration strategies will be essential components of

enrollment management for retaining and graduating students (Walters, 2003). This study focused primarily on one aspect of enrollment management – the effective enrollment and transitioning of new students to the college or university and those enrollment management activities directly associated with orientation programs, enrollment assistance programs, and student retention programs.

Purpose of the study.

The purpose of this study was to determine the direction of the relationship of various enrollment management transition strategies on college student success at large, public U.S. higher education institutions as categorized by the Carnegie Classification of Institutions of Higher Education (2010). For the purpose of this study, student success measures were identified by first-year (freshman to sophomore) retention rates and four- and six-year graduation rates. Furthermore, the purpose of this study was to identify the relationship between the enrollment management transition strategies employed and the institution's success at achieving retention and graduation rate goals at the undergraduate level. Additionally, this study sought to establish the direction of the relationship between the amount of time the transition strategy was in place and the institution's height of success in achieving established retention and graduation goals at the undergraduate level.

The study was designed to obtain the types of enrollment management transition strategies utilized with new freshmen at large, public U.S. colleges and universities. By examining the degree to which various transition strategies contribute to, impede, or have no influence on the persistence and graduation of students, as determined by first-year retention and four-year and six-year graduation rates, the institutional transition strategies

which supported student success were identified. Furthermore, by comparing the amount of time transition strategies were in place to the institution's attainment of student success goals, the researcher inferred that the transition strategies positively or negatively influenced the institution in its realization of stated goals.

Minimal research had been conducted to investigate the relationship of specific enrollment management strategies on college student retention and persistence to graduation at large, public, predominantly undergraduate colleges and universities (Vander Shee, 2007). Moreover, the bulk of the retention literature was based on a collection of quantitative studies designed to identify predictive variables for college student success (Cokley, Bernard, Cunningham, & Motoike, 2001; Glynn, Sauer, & Miller, 2003; Waggoner & Goldman, 2005). As indicated earlier, in an environment of diminishing financial resources, increased government regulation, and numerous economic and political challenges, student persistence to graduation is critical to the longevity and success of American colleges and universities (Summers, 2003).

This study investigated which of the seven college enrollment management transitioning techniques were most directly related to increased student persistence at large public colleges and universities in the United States. In addition, this study sought to identify the direction of the relationship between the utilization of specific enrollment management techniques and college student persistence. Third, this research sought to examine the relationship between the perceived importance of enrollment management strategies and student retention. Finally, this study focused on the utilization of these seven transitioning components of enrollment management as an avenue for improving college student retention and degree completion.

This study focused broadly on enrollment management transitioning practices which influenced college student persistence. The study more narrowly focused on how the institution's enrollment management transition strategies influenced college student persistence. It is important to emphasize that enrollment management approaches are not an immediate solution to retention and degree progress challenges; in actuality, enrollment management strategies typically consist of a series of intentional processes and programs that are deployed, assessed, and adjusted over a period of time, moving colleges and universities incrementally toward improved retention and graduation rates (Bontrager, 2004b).

As higher education administrators struggle to create objective measures of student success, improving both student retention and graduation rates has become increasingly important (Johnson, 2006; Kalsbeek & Hossler, 2010). A plethora of research studies demonstrated that higher education institutions have experienced minimal success in making significant measurable improvements in college student retention, persistence, degree completion, and progress toward degree (Codjoe & Helms, 2005; Kerkvliet & Nowell, 2005). Many college and university leaders have not directed either adequate time or resources toward intervention strategies to improve these desired retention related outcomes. Conversely, some campus administrators have devoted considerable resources to the development and implementation of intervention plans which have failed to deliver the desired retention outcome (Kalsbeek & Hossler, 2010). In either case, higher education leaders must be patient and allow enough time to determine whether the employed strategies will accomplish their desired outcomes.

Nature of the problem.

Student persistence to graduation has been an ongoing problem for a number of years (Hunter, Tobolowsky, Gardner, & Associates, 2010). In today's culture of declining revenues, reduced financial support from the state and/or federal governments, and higher enrollment standards, college and university administrators must exert extra efforts to retain those students for whom they have worked so diligently to recruit. Research indicated that the transition programs employed by an institution play an important role in the institution's persistence and graduation rates.

To date, minimal research has been done to investigate the relationship of enrollment management transition strategies on college student retention and graduation rates (Vander Shee, 2009). Higher education administrators are faced with difficult decisions regarding planning, funding, and implementing enrollment management transition programs with minimal concrete information available regarding the relationship of specific enrollment management transition strategies on retention and graduation rates. The key problem that this study addressed was that higher education administrators have little analytical information on which to base enrollment management transition strategies to improve freshman to sophomore retention rates and four- and six-year graduation rates at large, public U.S. colleges and universities.

Research questions.

Designing the research questions was a critical piece of this quantitative research process. Research questions tailored the research objective and the purpose to specific questions which the researcher sought to address (Creswell, 2005; Johnson & Christensen, 2004). In this study, the researcher used quantitative research questions to

mold and focus the study (Creswell, 2009). Moreover, quantitative research questions inquired about the relationships among variables, which was information sought by the researcher (Creswell, 2007).

Johnson and Christensen (2004) described non-experimental design as a study without random assignment of the subjects and manipulation of treatment. A non-experimental, quantitative design allowed the researcher to document collected data with specific measurements as well as providing for analyses using a number of statistical tools (Creswell, 2007). Non-experimental research is used to depict a phenomenon or to document the uniqueness of a phenomenon where there is no manipulation of variables (Johnson, 2001).

In broad terms, this study intended to examine whether there was a relationship between enrollment management transition strategies employed at large public colleges and universities in the United States and undergraduate college student persistence and graduation rates. The following principle research question guided the study: What is the influence of enrollment management transition strategies on undergraduate student success in large, public U.S. colleges and universities? Further, the study sought to determine whether expected benefits were maintained, realized, or lost with the prolonged employment of these transition strategies. The researcher sought to determine whether benefits or detriments, as reported by the institution's chief enrollment officers, occurred as a result of the implementation of these enrollment management transition strategies. The following specific research questions were addressed in this study:

1. Which of the available enrollment management transition strategies have the most positive effect on freshman college student retention?

2. What is the impact of a higher education institution's enrollment assistance strategies (registration assistance and/or calibrated scheduling) on first-year persistence?
3. What is the impact of a higher education institution's enrollment management transition strategies on the four-year graduation rate?
4. What is the relationship between the first-year retention rate reported by the surveyed institutions at the time of the study and the length of time that specific enrollment management transition strategies have been employed at surveyed colleges and universities?
5. What is the relationship between the four- and six-year graduation rates of institutions surveyed and the length of time that specific enrollment management transition strategies have been employed at surveyed colleges and universities at the time of study?

Significance of the study.

Only recently have the leaders of public colleges and universities come to realize that their financial stability, reputation, and perceived quality are influenced by the students they enroll and graduate (Humphrey, 2006). Relatively little research has been conducted to assess the overall effectiveness of enrollment management strategies in supporting institutional goals for college student retention (Smith, 2001). Since retention is important to higher education, specifically in the areas of its economics, finances, and accountability, additional research regarding the influence of enrollment management approaches on college student retention is needed (Huddleston, 2000; Humphrey, 2006).

Although higher education administrators increasingly employ enrollment management approaches to recruit and retain students, they continue to be challenged with identifying areas on which to most effectively focus institutional resources (Smith, 2001). Hossler (2000) posited that enrollment management strategies in higher education directly influence student college choice, transitioning to college, attrition and retention as well as other general student outcomes. The desired impact of college student retention strategies is to create higher levels of student satisfaction thus leading to persistence to graduation. Higher levels of student satisfaction combined with improved graduation rates lead to increased levels of prestige, thus resulting in increased resource flow to the institution (Waggoner & Goldman, 2005). Students who persist to graduation typically identify with the institution and are more likely to become active alumni and post-graduation donors (Bontrager, 2004a). The importance of retention and graduation rates to higher education administrators and public policymakers combined with the apprehension associated with graduation rates, persistence, rankings, and tuition revenue provide strong incentives for colleges and universities to dedicate increased institutional efforts toward enhancing student success (Kalsbeek & Hossler, 2010).

Because higher education leaders are concerned that insufficient measures have been taken to sufficiently advance retention rates, new directions regarding the use of enrollment management approaches are sought (Rajasekhara & Hirsch, 2000). This study intended to contribute to the developing literature on college student retention and enrollment management. Specifically, this study provided information on how individual enrollment management strategies impacted college student retention and graduation rates. Given that the colleges and universities surveyed in the study were classified by

the Carnegie Foundation for the Advancement of Teaching (2010) as large, public, and predominantly undergraduate institutions, it is reasonable to expect that similar institutions may be interested in adopting their practices (Humphrey, 2006). In addition, this study identified selected enrollment management techniques, referred to as transition and integration strategies, which positively influenced college student persistence and graduation rates (Bontrager, 2004b).

This study contributed to the broader body of literature regarding enrollment management and student retention in higher education and should be of value to chief enrollment officers responsible for planning, organizing, staffing, funding, developing, implementing, assessing, and maintaining enrollment management strategies. It also provided useful data for the development and implementation of institutional performance indicator systems targeted at determining institutional effectiveness, particularly those measures which relate to persistence to graduation. Finally, these data may be used to ascertain the most effective enrollment management strategies for improving college student persistence rates and graduation rates at large, public, principally undergraduate colleges and universities in the United States.

Institutions of higher education can do considerably more to reduce the rate of dropout among their students; nevertheless, future research will be needed to determine the net cost and benefit of such efforts (Tinto, 1982). The intent of this study was also to assist chief enrollment officers with developing appropriate intervention programs and allocating resources for the implementation and maintenance of transition and integration initiatives. Equipped with these data, college and university administrators could develop and/or employ enrollment management strategies, specifically those associated with

transition and integration initiatives, to reduce the chance of student departure. Further, higher education administrators can effectively design, develop, and implement cost-effective enrollment management initiatives to improve student learning and persistence to graduation (Yale, 2010).

Prior studies have been insufficient in assessing the value of many college and university efforts intended to improve graduation rates and inform campus decision-making (Kalsbeek & Hossler, 2010). Further, institutional leaders have focused inadequate attention on how to best organize and deploy campus efforts at accomplishing these outcomes (Hood, 1999; Kerkvliet & Nowell, 2005). Finally, campus administrators have not committed ample resources toward making the necessary changes to achieve the desired retention related goals (Kalsbeek & Hossler, 2010). Consequently, a more comprehensive study focusing on the use of specific enrollment management practices to retain full-time, degree-seeking students from freshman to sophomore year was needed; further, an examination of the perceived importance of the efficacy of these enrollment management practices for chief enrollment officers was also warranted.

Limitations of the study.

The following were identified as limitations for this research study:

1. The non-experimental research design employed in the study did not accommodate for the random assignment of cases to groups for manipulation of independent variables (McMillan & Schumacher, 2006).
2. The survey instrument which was utilized to collect data for this study may have been limited by the responses of the participants and the responses could have

been subject to contamination since the responses were self-reported (Johnson & Christiansen, 2004).

3. Those data that were related to the length of time that the enrollment management strategy was in existence were collected through a single survey instrument.
4. The inability to identify one individual at each institution with the primary role of chief enrollment officer at each institution was also a limitation.
5. The willingness of each participant to respond and the level of importance each participant assigned to the survey was also a limitation.
6. Chief enrollment officers at institutions with lower first-year persistence rates and graduation rates may have been hesitant to respond honestly.
7. The specificity of prescribed enrollment management strategy employed at each institution may have also been a limitation.
8. It was not possible to account for every chief enrollment officer's (or designee's) interpretation of the specific enrollment management approaches.
9. Determining the quality of the targeted enrollment management approaches at each survey institution was difficult if not impossible.

Delimitations of the study.

The delimitations associated with this research study were as follows:

1. The study was restricted to the perceptions of chief enrollment officers at specific large, four-year, public colleges and universities in the United States.
2. The study focused exclusively on the perceptions of the chief enrollment officers and did not address the perceptions of faculty, students, and staff.

3. The results were not generalizable to private, tribal, proprietary, and/or community colleges as well as other public colleges and universities with differing Carnegie classifications since the participants were all chief enrollment officers at large public higher education institutions,
4. In some cases, the college or university surveyed may have employed targeted enrollment management practices that were more comprehensive than other institutions.
5. Because this research study did not include a random sample of all possible colleges and universities in the United States with this particular Carnegie classification, generalizations outside of the sample population were questionable.

Operational definitions.

Readers unfamiliar with higher education terminology may require some definitions of terms to aid in their understanding of this research proposal. For the purposes of this study, the following terms were utilized in this study and are operationally defined as indicated below:

Attrition: Students who leave a given university or higher education prior to graduation (Hagedorn, 2005).

Chief Enrollment Officer: An individual who efficiently and effectively incorporates often unrelated functions to manipulate enrollment (Black, 2001). The chief enrollment officer has oversight of at least two of the following functions: admissions, registration, financial aid, records, retention, orientation, advising, academic support, career services, cooperative education, alumni relations, marketing, institutional research, and/or bursar (LoBasso, 2006). Unless the postsecondary institution specifically lists an

individual with the title of chief enrollment officer, for the purpose of this study and after examining a variety of definitions as proposed in the literature, the institution's registrar will serve as chief enrollment officer.

Cohort: A group of individuals with a statistical factor in common such as gender (Husser & Bailey, 2008 and National Center for Education Statistics, 2009).

College: A post-secondary institution offering a general or liberal arts education which typically leads to an associate's, bachelor's, master's, doctoral, or professional degree (Husser & Bailey, 2008).

Degree-granting Institution: Post-secondary schools which are eligible for Title IV federal aid programs and which grant an associate's degree or higher (Husser & Bailey, 2008).

Dropout: A student who leaves the college or university prior to graduating (Glynn & Miller, 2003).

Enrollment: The number of students matriculated in a given unit, at a specified time, and typically in the fall of a year (Husser & Bailey, 2008).

Enrollment Assistance Strategies: For the purpose of this study, enrollment assistance and registration assistance will be used interchangeably and will be defined as strategies and/or techniques incorporating advising, orientations, placement into courses, and calibrating students' eligibility for enrolling in a particular course or courses (Stellefson, Eddy, Chaney, & Chaney, 2008).

Enrollment Management: A comprehensive process that is designed to help a college or university to achieve and maintain the optimum recruitment, retention, and graduation rates of students (Dolence, 1993).

Enrollment Management Student Success Strategies Questionnaire

(EMSSSQ): A researcher-designed self-administered survey instrument consisting of 73 items targeted at collecting data so as to determine the influence of enrollment management transition strategies on college student success.

Enrollment Management Transition Strategies: For the purpose of this study and after a review of higher education literature, first year enrollment management strategies were defined as freshman orientation programs, academic success approaches which include enrollment or registration assistance programs, learning communities, calibrated placement or course scheduling, First-Year Experience courses, and advising models.

Freshman: An enrolled student with less than 30 earned credits toward an academic degree (Glynn & Miller, 2003).

Graduation Rate: The percentage of full-time, first time, degree-seeking enrolled students who graduate after 150% of the normal time for degree completion, defined as six years for four-year colleges and universities (Hagedorn, 2005).

Institutional Retention: The measure of the proportion of students remaining enrolled at the same higher education institution from year to year (Hagedorn, 2005).

Non-persister: A student who leaves college without completing his or her degree and does not return to that college (Hagedorn, 2005).

Persistence: Actions taken by the student to continue within the college or university; a student's ability to achieve the degree (Swail, 2006).

Persister: A student who enrolls in a college or university and remains enrolled until the degree has been completed (Hagedorn, 2005).

Registration Assistance Strategies: For the purpose of this study, registration assistance and enrollment assistance were used interchangeably and were defined as strategies and/or techniques incorporating advising, orientations, placement into courses, and calibrating students' eligibility for enrolling in a particular course or courses (Stellefson, Eddy, Chaney, & Chaney, 2008).

Retention: An institutional measure defined as the ability of a particular higher education institution to successfully graduate students who initially enroll at that college or university (Seidman, 2005); the actions and responsibilities of the higher education institution to maintain student enrollment from year to year (Johnson, 2001).

Sophomore: An enrolled student who has completed at least 30 credits and less than 60 credits toward an academic degree (Glynn & Miller, 2003).

Stopout: A student who, after dropping out of the college or university, re-enrolls at that same college or university (Glynn & Miller, 2003).

Student Success: A college student who progresses satisfactorily through a program of study resulting in progression to the next level and/or graduation (Padilla & Brown, 2009).

Student Profile: Pre-college student attributes such as academic readiness, employment obligations, family commitments, goals, and socioeconomic status (Walters & McKay, 2005).

Summary of Methodology

Research design.

The paradigm for this study was a quantitative research design. This approach was appropriate because quantitative research serves to measure and validate

relationships between samples and populations through the use of numerical analysis. The relationships and phenomena between variables were studied as they existed, and no experimental interventions on the variables were employed. This study presented an initial exploratory investigation which set the stage for future studies. Any statistically significant relationships in this study were considered as suggestive of trends rather than as clear evidence from which explicit and definite conclusions were drawn (Gall, Gall, & Borg, 2003).

Gall et al. (2003) provided the following guidance regarding quantitative research design:

Quantitative research is inquiry that is grounded in the assumption that features of the social environment constitute an objective reality that is relatively constant across time and settings. The dominant methodology is to describe and explain features of this reality by collecting numerical data on observable behaviors of samples and by subjecting these data to statistical analysis (p. 634).

According to Creswell (2002), a quantitative method is suitable when the research problem involves studying trends or explaining relationships among variables. This methodology uses statistical methods to aid researchers in making inferences about a population. This non-experimental, descriptive, quantitative research methodology explored relationships through the use of numeric data. The choice of this research approach molded the manner in which the research was conducted. A non-experimental, quantitative research design was employed in this study to identify enrollment management transition strategies which impacted college student retention. Finally,

quantitative research helped to identify a correlation between an independent and dependent variable in a sample population.

Based on Creswell's guidance (2005), a number of steps were utilized when conducting this study: identification of the problem or issue; review of literature; establishment of research questions; collection, analysis, and interpretation of data, and presentation of findings. In particular, the methods utilized in this study relied on the collection of data through the use of a survey instrument (McMillan & Schumacher, 2006). Further, the research conducted in this study was also considered correlational. Finally, this study explored the relationship between transition and integration strategies and college student retention and graduation rates.

Participants and sampling.

Typically, when employing a survey-based research design, an identified population is studied by drawing a sample chosen from the greater population to discover the relative incidence, distribution, and interrelations of psychological and/or sociological variables utilizing a survey or questionnaire (Kerlinger, 1986). The results of the sample should then be generalizable to the population from which it was drawn (McMillan & Schumacher, 2006). In this study, a descriptive survey methodology was employed utilizing a researcher-designed instrument.

In this study, the population to be surveyed was purposefully selected to consist of large, four-year, public, primarily undergraduate colleges and universities in the United States, as classified by the Carnegie Foundation for the Advancement of Teaching (2010). While predominantly undergraduate, these institutions also offered graduate degree programs. The population consisted of chief enrollment officers at each

institution. The total population consisted of 195 institutions. All 195 colleges and universities were invited to participate in this study.

Measures, apparatus, or materials.

The desired instrument attempted to identify the enrollment management transition strategies which were currently in use by large, four-year, public, predominantly undergraduate colleges and universities in the United States. In addition to the identification of current enrollment management transition strategies, the instrument also needed to elicit the perceptions of chief enrollment officers regarding the level of importance placed on the effectiveness of these strategies. This researcher developed enrollment management instrument sought to determine the influence of specific enrollment management transition strategies employed by large, public colleges and universities in the United States. Items on the survey instrument addressed enrollment management transition and integration strategies employed by the sample institutions as well as retention and graduation rates at the time of survey.

The researcher secured the appropriate permissions and approval prior to moving forward with the administration of the survey instrument. Anonymity of the participants was guaranteed through the use of secure filing and non-personally identifiable coding for each institution surveyed. Data were reported in aggregate form to further protect the anonymity of respondents. Student retention was measured using five metrics: percent of students persisting from freshman to sophomore year, referred to as the first-year retention rate; graduation rates after four and six years; and freshman to sophomore persistence rates, referred to as the first-year retention rate, for freshmen who participate in first-year student orientation programs (Bontrager, 2004a).

Predicted findings.

The researcher predicted that the results of this study would demonstrate that colleges and universities that employed enrollment management transition and integration techniques associated with enrollment management would exhibit a higher freshman to sophomore (first-year) retention rate. This study was further expected to show that higher education institutions that practiced certain enrollment management transition strategies would demonstrate a higher six-year graduation rate. In particular, the results were expected to demonstrate a relationship between the length of time an institution has employed specific enrollment management transition strategies and an increase of student persistence to graduation. In general, it was predicted that the results of this study would suggest that there was a positive correlation between the employment of enrollment management initiatives and persistence across all undergraduate levels.

Summary

College student transition and integration difficulties are problems associated with student retention; the college experience is new, and the institutional environment can appear daunting at times to the new student (Black, 2001). Because retaining students has become such a prevalent component of an institution's success, enrollment management practices have become necessary. The results of this study may have important repercussions for higher education administrators who are concerned with minimizing the waste of resources related to the loss of students through attrition at their particular institution(s). Administrators and retention consultants have suggested that student satisfaction is vital for improved retention and graduation rates (C. Schroeder, personal communication, December 1, 2004). Specifically, a notable part of student

attrition could be prevented through carefully and thoughtfully planned institutional enrollment management related intervention programs (Pascarella & Terenzini, 1980). By attempting to identify those enrollment management transition strategies which positively influenced retention and graduation rates, this study benefits higher education administrators of large, public, predominantly undergraduate colleges and universities in understanding the enrollment strategies and techniques necessary for increasing student persistence to graduation.

Since typical institutional graduation rates have remained constant at 50 percent for more than 40 years, federal and state agencies and college and university officials have embraced the concept of utilizing enrollment management transition strategies to improve student persistence (Yale, 2010). While inadequate research exists to allow policymakers to construct the best possible policy for increasing student persistence to graduation, colleges and universities will ultimately calculate various measures to examine the relationship of enrollment management related strategies to improve persistence to graduation at their institution (Hagedorn, 2005). Optimally, an institution's enrollment is comprehensively developed and is based on a strategic enrollment plan focused on admitting, enrolling, retaining and graduating targeted student segments. Within this broad milieu, a chief enrollment officer's efforts are intended to shape and influence explicit transition strategies so as to enroll, retain, and graduate students in support of an institution's growth, reputation, financial viability, and sustainability (Huddleston, 2000).

The following chapter reviewed the literature relevant to enrollment management and created a structure for the study by focusing on existing findings in the literature that

were germane to this study's purpose and stated research questions. This literary framework demonstrated the value of examining enrollment management practices as a measure for student retention and graduation rates. The synthesis of relevant literature highlighted the gaps in research and provided a foundation for the study.

Chapter Two

Review of Literature

This review of literature served as a mechanism for supporting this research study. This chapter described the background information on various student retention theories and models, relevant information about enrollment management and its influence on college student success, and a review of related literature. Various definitions of enrollment management along with the perceived effectiveness of enrollment management transition strategies were also presented. This was followed by the presentation of several aspects of enrollment management and the perceived influence on college student success.

Student success in college is important to higher education for a variety of reasons. This review of higher education literature provided the support and foundation for the study by reviewing the scope and significance of college student success, particularly retention and graduation, and the influence of various enrollment management transition strategies on college student success. This analysis of literature began with various theoretical models which explained and attempted to predict college student success, influences on college student success, and the common variables associated with student retention.

This examination of literature encompassed the history of enrollment management, various organizational structures, and enrollment management transition strategies employed in an effort to improve student success in higher education. Specifically, this examination summarized research literature which focused on transition programs and enrollment assistance strategies and their impact on college student

success. Finally, this review discussed the influence of enrollment management transition strategies on college student success.

Introduction.

“Student retention has become a challenging problem for the academic community; therefore, effective measures for student retention must be implemented in order to increase the retention of qualified students at institutions of higher learning” (Lau, 2003, p. 1). Higher education administrators deal with mounting concerns regarding declining academic achievement and improving student success (Hopkins, 2008). Identifying strategies for increasing college student success is among the top current issues facing college and university leaders (Braxton & McClendon, 2002). There is a growing perception that higher education is a requirement for success in the globalized marketplace (Salinitri, 2005). Increasingly, higher education institutions are faced with responding to changing student learning needs, expectations, and demographics (National Association of Student Personnel Administrators & American College Personnel Association, 2004).

Efforts focused on student success must encompass all campus constituencies and reassess the needs for promoting student learning. With declining resources, collaboration between divisions and departments is a key approach for higher education leaders to achieve goals (Kezar & Lester, 2009). Collaborative intervention programs must be focused on all aspects of student life and create new paths for student success. This transformative view provided a cohesive institutional approach for implementing strategies to surpass the traditional notions about student success and to better prepare students to be intentional learners.

The traditional institutional perspective on student success is tied to financial stability and the sustainability of academic programs (Hopkins, 2008). The public policymakers' perspective focuses more on accountability, which relies on retention and graduation rates as a common measure; in particular, the federal government perceives graduation rates as a measure of institutional effectiveness. From the student's perspective, a positive college experience results in persistence to graduation, which is a gateway for beginning a career and/or entering the workforce (Fike & Fike, 2008).

College student retention is an element of student success and is an extensively studied area of contemporary higher education as well as a central indicator of retention (Berger & Lyon, 2005; Tinto, 2006). Student retention is a primary focus of colleges and universities in the United States. The majority of higher education literature available confirmed that retention efforts are indeed necessary in American higher education.

Higher education practitioners have been charged with the daunting task of identifying students who can be successful at their institution (Hopkins, 2008). Literature associated with student persistence and retention suggested that contact with a significant individual at a college or university can be a critical factor in that student's decision to remain at the institution (Chickering & Gamson, 1987; Glennen, Farren, & Vowell, 1996). Although practitioners are typically responsible for interceding with students who are struggling, successful interventions ultimately involve the greater campus community. In essence, it becomes the responsibility of the entire institution to recognize, observe, develop, and implement intervention programs for those students who may be unsuccessful (Glynn & Miller, 2003).

Researchers and theorists have developed a body of work describing the various models, structures, and strategies of enrollment management (Penn, 1999). Essentially, enrollment management is considered to be an organizational idea and methodical set of activities with the primary function of exerting influence on student enrollments, thus contributing to overall student success (Hossler, Bean, & Associates, 1990). Keller (1991) summarized the value of enrollment management on college student success: “The radical underlying commitment of enrollment management is its unswerving focus on the longitudinal care and comprehensive education of students” (p. 3). The need for higher education practitioners to manage college enrollment from the prospect/recruitment stage through graduation and beyond has become increasingly apparent (Penn, 1999). Enrollment management is a critical aspect for colleges and universities as they strive to attain desired student success outcomes and remain financially viable.

Student success.

Among the many and varied outcomes on college and university campuses today, the most well-known is student success, which begins with recruitment and carries through to post-graduation (Bontrager, 2004b). Attaining enrollment objectives depends on an institution’s capacity for efficiently promoting student success (Bontrager, 2004a). Specifically, the institution’s skill at developing and implementing programs, relationship building, transition, persistence, and assisting students in achieving their goals will determine whether the college or university is able to recruit and retain students so as to attain the best possible student body, thus resulting in student success. Increased attention from the federal government and higher education policy-makers regarding low

student retention and graduation rates has prompted greater discussion about student success in college (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2007).

Success for college freshmen is often defined in terms of making the transition to the college student role (Tinto, 1993). Sociology-based theories identify numerous factors, both inside and outside of college, that may influence the transition process including students' initial commitments and goals; college experiences in general; academic performance; extracurricular activities; interactions with various groups including faculty, students, staff, and peer groups; relationships with communities outside of the college or university setting; and students' personal attributes (Weidman, 1989). While these theories effectively capture the various factors which influence students' transition to college, these theories are also deficient in addressing how students perceive, experience, and ultimately manage these various influences (Clark, 2005).

Humphrey (2008) described student success in the following manner: "The success of a college student is a complex mix of academic, co-curricular, and personal development factors that combine to produce well-rounded students whom we all want to count among our incoming and graduating students" (p. 2). Higher education institutions must utilize their strategic enrollment management plans to sort through the complex process of identifying students who are prepared to improve the learning milieu for themselves as well as their peers.

Overview of college student retention.

Although the United States enjoys one of the highest rates of college entrance in the world, the U.S. is no longer the leader in the percentage of students who earn a college degree (Organization for Economic Cooperation and Development, 2008). In

2005, the proportion of four-year college graduates compared to college entrants in the United States was 56 percent (National Center for Education Statistics, 2008). According to American College Testing (2003), nationwide, 25.9% of freshmen did not remain at their four-year university after their first year of enrollment. The largest proportion of institutional student departure occurs in the first year and prior to the second year (Ishler & Upcraft, 2005). In a study conducted by Karp and Logue (2003), first time college students dropped from 79 percent in fall 1991 to 70.6 percent in fall 1998. In 2007, the average freshman to sophomore retention rate was 68.7% (Jamelske, 2009). Moreover, at highly selective institutions, the attrition rate is eight percent and as high as 35 percent at less selective higher education institutions.

According to the Consortium of Student Retention Data Exchange (2008), the national average for sophomore to junior retention was 70 percent while the national average for freshman to sophomore retention was 80 percent. Specifically, for an institution with enrollment of 5,000 to 17,999, 62.7 percent of undergraduates continued to their third year. Further, given that students cannot graduate if they are not retained from the onset, college student retention has become one of the most analyzed and sought outcomes in contemporary U.S. higher education. These data indicated that more knowledge and research are needed.

Braxton (2000) presented college student departure as a long-standing problem in higher education. Factors contributing to the emergence and growth of college student departure can be traced to the 1940s when federal legislation, combined with expanded federal financial aid programs mandated by the Higher Education Act of 1965, led to considerable growth in higher education in the 1960s and to increased enrollees and

higher attrition rates of commuter and African American students in the mid-1970s and early 1980s (Astin, 1974; Lang & Ford, 1988). Since the 1960s, numerous theoretical models of persistence or retention have been developed and tested (Attinasi, 1989). In the late 1970s and early 1980s, research on college student retention and persistence drastically grew. Since then, considerable research has been dedicated to assessing characteristics of college students (Bean, 1985; Pascarella & Terenzini, 2005; Tinto, 1987). Theoretical models and studies developed by Astin (1997), Bean (1980), Pascarella and Terenzini (1991), Spady (1971), and Tinto (1987) proposed conceptualizations of college student departure.

During the past 30 years, researchers have conducted a number of national studies focusing on the retention problem in higher education (Astin, 1974; Chickering, 1974; Tinto, 1987). The major reasons behind these investigations include the desire to accurately identify students who are likely to experience problems in college and the search for a powerful and valid method of predicting student departure (Sherman, Giles, & Williams-Green, 1994). These researchers and others initiated a national inquiry into factors which assisted or deterred a student's ability to succeed (Walters & McKay, 2005). This body of literature emphasized the importance of college student persistence, retention, and student satisfaction in higher education.

Student persistence, retention, satisfaction, and graduation.

Freshman retention is a complex issue facing contemporary higher education leaders. The first-year retention process actually begins as students are recruited to the college or university through the admissions process. Research indicated that student interaction and transition to college are strong indicators of student persistence (Corwin

& Cintron, 2011). Tinto (1993) posited that the intentional departure of many college students may be prevented through institutional interventions that focus on college student persistence.

Established theories and hypotheses which have historically been associated with student success included involvement, engagement, and progress and provided a body of knowledge to inform an understanding of the challenges associated with contemporary higher education in the United States. Such constructs have long histories in research and have been effective in guiding the practices of colleges and universities (Wolf-Wendel, Ward, & Kinzie, 2009). Even though these theories, concepts, and terms have proven successful, it is important that higher education administrators evaluate how terms and definitions are used so as to better understand current concerns about student success.

Measurement and analysis of progression and graduation rates are well-established indices of student success (Robertson, Canary, Orr, Herberg, & Rutledge, 2010). Further, if persistence, degree progress, and graduation rates are critical outcomes, then colleges and universities must fully understand the measurement and accurate interpretation of results. This literature review found the use of terms such as degree progress, attrition, persistence, retention, and degree completion to be overlapping and often synonymous with one another. Because these terms are frequently used interchangeably, there is a need for clarification and definition (Hagedorn, 2005). Swail (2006) defined retention as a student's enrollment passing from one period of time to another, as in semester-to-semester; he also described persistence as a student's ability to achieve the degree. Padilla and Brown (2009) defined college student success as follows: "... when he or she is progressing satisfactorily through a program of study, and the

student and others expect that the student will complete the program of study, resulting in either promotion to the next level or graduation” (p. 4). It is in the best interest of both higher education institutions and students if college students persist to graduation (Stupnisky, Renaud, Perry, Ruthig, Haynes, & Clifton, 2007).

A review of literature indicated that a strong connection between organizational culture and student persistence exists. A major influence on a student’s commitment and connection to college is interaction with faculty (Yale, 2010b). Tinto (1987) noted that “institutions with low rates of student retention are those in which students generally report low rates of student-faculty contact. Conversely, institutions with high rates of retention are most frequently those which are marked by relatively high rates of such interactions” (p. 66). Specifically, a college or university’s culture and environment, including relationships with faculty and peers, can severely impact a student’s level of satisfaction, connection, and ability to succeed (Astin, 1997). Faculty members tend to become mentors and role models for continuous learning (Kezar & Kinzie, 2006). Students are more prone to continue if they feel welcomed, informed, and constantly involved with faculty and staff (Bean, 1983).

Elliot (2002) contributed to the body of literature by commenting on student satisfaction. Students’ repeated experiences with the education process tend to continually shape and influence their satisfaction with their educational institution. Universities tend to establish their commitment to student satisfaction through mission statements, goals, objectives, marketing strategies, and promotional themes. Elliott’s research indicated that one of the key determinants of student satisfaction is students’ sense of belonging. The results of Elliott’s study suggested that university staff should

demonstrate a sincere concern for students through caring and helpful attitudes and policies.

The literature associated with higher education, student persistence, and retention was substantial. Upon closer examination, five patterns, themes, and categories emerged. First, a considerable number of works of literature addressed predictors of student attrition. A second major category of literature related to theoretical models specifically related to student persistence of first-year college students. These included works by Tinto (1987), Bean (1985), Astin (1997), and Pascarella and Terenzini (2005). Literature associated with the importance of college student retention to contemporary higher education formed a third primary category. Sophomore to junior retention comprised the fourth major category. Finally, future implications for higher education and recommendations for further research formed the fifth major category of literature.

According to Bontrager (2004b), “a student’s decision to remain engaged with the institution will depend on the institution’s ability to nurture and build upon its relationships with students, by providing meaningful communications and experiences throughout the student’s educational career and beyond” (p. 10). The practice of retaining students has been described as a filter with large numbers of students narrowing through stages resulting in smaller numbers of students who are enrolled, retained, and graduated. Retaining students requires careful planning, effective deployment of the plan, and technical skill on the part of the chief enrollment officer.

History of college student retention.

While educational researchers have studied college student retention for several decades, the majority of these studies have focused on student characteristics or the

impact of the external environment on the student. Minimal research existed that focused on the role of the college or university environment on student persistence to graduation. While higher education administrators have employed numerous programs and initiatives targeted at improving retention, such as orientation programs, learning communities, and first year seminars, college student retention rates remain disappointingly low (Barefoot, 2004).

Since the 1970s, U.S. colleges and universities have considered student retention to be a critical issue (Hicks, 2005; Strommer, 1993). In 2002, the American College Testing Program (2002) discovered that students who entered private and public colleges and universities dropped out at the rate of 26 percent for private institutions and 25 percent for public institutions in the first year. Salinitri (2005) posited that even though more students are entering college, only 42 percent earn a degree within five years.

A review of higher education literature indicated that most students, including those who tout high standardized test scores and high school grade point averages, enter college unprepared for the expected level of work to achieve success in college (Braunstein & McGrath, 1997; Nagda, Gregerman, Jonides, von Hippel, & Lerner, 1998). Many entering college students require additional assistance in the form of tutors, advising, enrollment assistance, and/or transition programs to adjust to their new environment. Students begin college with a set of needs which the higher education institute must address in order for their students to persist and succeed (Strommer, 1993). Astin (1993) and Tinto (1993) reported that students who experience difficulty in identifying with and connecting to the academic and social aspects and subcultures within

a college or university often perform poorly academically which may result in eventual withdrawal from the institution.

For almost 175 years, institutions of higher education have expressed concern about the retention of first-year students (Levine, 1991; Hicks, 2005). An abundance of higher education research and conversations which focus on the first two years of college exist for two basic reasons. The first year of college tends to mold student persistence, and the greatest proportion of student attrition occurs in the first two years (Hicks, 2005).

During the freshman year, many colleges and universities lose at least 25 percent of their freshman class (Martin & Hanrahan, 2004). The body of literature concerning student persistence and departure focused primarily on freshman retention issues and indicated that students typically depart between the first- and second-year of college (Davidson & Muse, 1994). Empirical studies that examined variables related to between-year retention specific to the first- to second-year transition are of particular interest to higher education researchers and policymakers. In addition, when considering retention between the first- and second- year of college, the findings of Davidson and Muse showed that student achievement, as measured by first-semester GPA, was a valuable variable in retention analysis and projections.

While it is critical for the health of colleges and universities that efforts be made to retain freshmen beyond their first year of enrollment, it is equally critical that efforts be made to retain other classes of students. As indicated earlier, extensive searches have revealed that minimal empirical research was available which addressed retaining second- and third-year students. Research, such as that conducted by the Consortium of Student Retention Data Exchange (2008), indicated that the national average for second-

to third-year retention is approximately 70 percent. Because of the substantial cost of recruiting and admitting students, it is important that researchers also consider the impact of student departure after the second year of college and beyond.

An extensive search of literature on retention of upper-level students yielded minimal refereed works. Over 100 searches using a variety of databases resulted in fewer than 10 refereed articles related to retention or persistence of upper-level students. However, an expanded search of the literature yielded several non-refereed works in the form of *Monograph* publications through the University of South Carolina's National Resource Center for the First-Year Experience and Students in Transition. Research reported in these *Monographs* proved to be insightful when studying predictors of upper-level persistence (Tobolowsky & Cox, 2007).

Boivin, Fountain, and Baylis (2000), Gardner, Pattengale, and Schreiner (2000), and Sanchez-Leguelinel (2008) contributed to the works of retention literature. Although past research and intervention efforts have been largely aimed at freshmen, it is clear that there are other susceptible groups of students with mounting levels of discontent and attrition (Boivin et al., 2000; Gardner et al., 2000). One cannot study college student success without considering persistence of upper level students. Increasingly, higher education researchers have become interested in the distinctive needs of sophomores and upper-level students (Sanchez-Leguelinel, 2008).

The needs of sophomores and upper-level students differ appreciably from other class levels. Specifically, these upper-level students may struggle with issues of academic, social, financial, and motivational challenges (Boivin et al., 2000). Distinctive in their learning styles, upper-level students are also unique in their involvement in coursework, classroom conduct, relationships with faculty, interactions with peers, and

participation in social events (Sanchez-Leguinel, 2008). Specifically, the 'sophomore slump' often goes unrecognized at many institutions (Nealy, 2005). Higher education administrators often incorrectly assume that those who survive from the freshman year proceed to graduate. Since the focus is often primarily on freshmen, sophomores and juniors are frequently ignored.

Although Tinto, Bean, and Astin engineered early retention research theories, the magnitude of college student retention on higher education led to a sudden increase in retention research in the ensuing years. In his study of college student retention, Gardner (2000) focused on second-year undergraduates. Sophomores are most likely to state that confirming their major selection or decision on an appropriate career was their biggest personal problem. Second-year students are less likely than others to be actively engaged with their own learning or to view faculty members as actively engaged in their academic and personal development. Sophomores spend less time than freshmen or upperclassmen engaged in academic activities and more time engaged in social activities.

Graunke and Woosley (2005) surveyed rising juniors to determine how their experiences and attitudes impacted their academic success and persistence. According to their research, the commitment of rising juniors to their academic major and their satisfaction with faculty interactions were significant predictors of GPA. Graunke and Woosley confirmed that rising juniors have uniquely differing needs from freshmen. Juillerat (2000) found that these students were increasingly dissatisfied with their college experience and reported significantly lower levels of satisfaction than all other student classes. These challenges often led to the student's disengagement or departure from academic life (Pattengale & Schreiner, 2000).

Lemons and Richmond (1987) employed a developmental perspective in understanding the concept of the 'sophomore slump.' They identified four primary areas of college student development which are fundamental for understanding and navigating the sophomore year: achieving competence, developing autonomy, establishing identity, and developing purpose. Sanchez-Leguinel (2008) summarized four major challenges which sophomores face: greater expectation of independent; self-concept and self-esteem struggles; need for purpose and direction; and achieving high levels of proficiency. The combination of these developmental issues signified a period of crisis for many sophomores and contributed to the complex experiences connected with the second year of college. As stated previously, colleges and universities tend to provide fewer services and intervention programs for upper-level students. The majority of higher education institutions commit available resources to programming and engaging the freshman class in an effort to retain those students.

Persistence and retention models.

Higher education literature contains numerous opinions, hypotheses, assumptions, and theories about college student retention and persistence to graduation (Park, Bowman, Care, Edwards, & Perry, 2008). The bulk of these theorists agree on the following: college student persistence is positive; it is an indicator of an institution's ability to satisfy student needs; and retention rates have usefulness to postsecondary education. Researching and understanding these various theories and models has allowed higher education administrators to design, develop, implement, and assess intervention programs targeted at satisfying student needs, thus positively improving college student persistence to graduation (Rovai, 2003).

Factors associated with predictive modeling.

The literature concerning student persistence and retention in higher education supported two key points. First, higher education administrators must update their understanding of the variables which predict undergraduate student retention. As student bodies continue to become more diverse and an increasing number of students from underrepresented groups enroll in college, demographic variables will change (Reason, 2003). New empirical studies should examine these variables and their impact on college student retention. Second, the literature identified several student variables associated with retention that warrant further study. These specific variables included gender, socioeconomic status, first-year college GPA, second-year college GPA, standardized test scores, high school GPA, race, and ethnicity. The increasing diversity of today's student bodies combined with the need to increase college student retention emphasized the importance of re-evaluating higher education's understanding of student variables that predict retention (Reason, 2003).

In an effort to improve the financial health of colleges and universities, improved retention rates become increasingly important as higher education administrators seek to identify additional effective student pre-college predictors of persistence to utilize in an increasingly competitive admission environment (Gifford, Briceno-Perriott, & Mianzo, 2006). As early as 1981, Gardner commented on the value of student persistence to higher education: "Higher education must make changes if it is to survive in anything resembling its present form. The student has become a precious commodity. Institutions must now concern themselves with retaining students so that, if nothing else, budgets can be preserved" (p. 79). The identification of new and additional predictors of student

persistence will allow college administrators to utilize predictive data, as well as the traditional pre-college predictors already in use. Traditional admission criteria, including but not limited to high school performance, standardized test scores, and etcetera, will provide baseline data that can be enriched by other predictors. Student retention is fostered when at-risk students are identified early and intervention strategies are employed to improve the persistence of undergraduate students (Nettles, Wagener, Millett, & Killenbeck, 1999).

The demographics and enrollment patterns of undergraduate students continue to change (Wesemann, 2005). Researchers have focused considerable attention on attempts to predict undergraduate student persistence and retention on three categories of variables: cognitive, non-cognitive, and student demographics (Pickering, 1992). The research of Peltier, Laden, and Matranga (1999) cited many student background variables which influenced the likelihood that a student would persist in college. According to their analysis, variables such as race, gender, high school GPA, college GPA, ethnicity, socioeconomic status, combined with the interaction between these variables, were strongly related to college student persistence. The literature indicated that there was predictive power in each of these variables (Roueche & Archer, 1979). However, this research assumed a broader view of these factors and reclassified them as college and pre-college factors as that would be more helpful in making admissions decisions.

Cognitive factors relate to intelligence, knowledge, and the academic ability a student brings with him or her to the college environment. These factors may be measured by such variables as secondary school grades, class standing, and standardized test scores. These cognitive factors have likely received the most attention and shown the

greatest promise in predicting student academic success (Pickering et al., 1992).

Cognitive factors are important because they directly relate to a student's ability to comprehend and complete the academic portion of their college experience. Demitroff (1974) indicated that the academic aspects of student college enrollment were the most reliable predictors of student attrition and proposed that demographic and non-cognitive variables do not drastically improve predictions of student attrition. Similarly, Carney and Geis (1981) reported that standardized test scores and reading ability compared more with a student's first semester GPA. Further research, primarily restricted to studies related to first-year retention, bolstered the positive relationship between cognitive factors and academic performance (Richardson & Attinasi, 1982).

Demographic factors including, but not limited to, age, gender, financial need, socioeconomic status, race, ethnicity, and parents' highest level of education assumed an important part in the exploration for college persistence and retention predictors and tended to provide the greatest potential for indirectly measuring college student success (Pickering et al., 1992). For example, family income is not a direct factor in student attrition, and the age of the student has typically not been found to be predictive of student attrition (Astin, 1974). The weight of the parental level of education on student persistence is unclear. Some researchers have reported that high levels of parental education positively impacted student persistence (Astin, 1974). However, other researchers have found no indication that higher levels of parental education increased student persistence (Rossman & Kirk, 1970).

Astin (1973) reported that certain ethnic groups exhibited higher attrition rates than other groups of students. Further, other research has found retention rates and

grades of other ethnic groups to be lower than those of Caucasian students (Astin, 1982). Nationally, demographic characteristics of student bodies have induced higher education administrators to consider how they can more effectively serve their students (Tinto, 1982). Their hope is to retain a greater number of students to degree completion.

A study of freshmen focusing on non-cognitive factors of academic performance and retention contributed to the research on predictors of student attrition. In this study, the addition of non-cognitive and demographic variables improved predictions based exclusively on cognitive factors (Pickering et al., 1992). Cognitive and non-cognitive predictors combined were more effective for predicting academic success. Non-cognitive predictors used alone were better predictors than cognitive or demographic predictors used alone. This study supported the success of non-cognitive predictors to identify students in need of assistance.

According to Tinto (1987), "Researchers generally agree that what happens following entry is, in most cases, more important to the process of student departure than what occurs prior to entry" (p. 65). Baily, Bauman, and Latta (1998) indicated that the most important factors associated with student persistence are the student's overall experience at the college or university, advising, the faculty, and the campus community. Over time, researchers have identified four variables to be significant in accounting for the bulk of variance in college student retention (Astin, 1997; Peltier et al., 1999). These four variables included standardized test scores, high school GPA, gender of the student, and race of the student. To determine whether the relationships of these variables have changed over time, a re-examination of the effect of these variables on the retention of contemporary college students is essential for continued understanding of retention.

The works of Sireci, Zanetti, and Berger (2003) and Gifford and associates (2006) focused on the impact of student persistence on college and university admissions. While the traditional admission evaluative criteria are important, administrators involved with college admission decisions desire as much information as possible when making decisions so as to retain the maximum number of students (Sireci et al., 2003). Accordingly, higher education administrators seek approaches for identifying effective predictors of student persistence which can be used as part of the admission process. The identification of the predictors of persistence can be used to compare individual students to others in order to identify the chances of their persistence in college (Gifford et al., 2006).

Theoretical models.

So as to better understand college student retention, college and university administrators frequently turn to higher education literature and the various proposed retention models. Over the past three decades, a number of theoretical models have surfaced to explain higher education student attrition and retention. Researchers such as Astin (1974), Bean (1985), Pascarella, and Terenzini (1980), and Tinto (1987) have contributed to the body of literature associated with undergraduate student retention. These models have examined student variables, institutional variables, and themes to help clarify the concept of student-institution fit (Monroe, 2006).

During the 1970s, the majority of theoretical frameworks dominating higher education retention research were developed. Astin's (1974) theory of involvement contended that student success and retention were related to their level of involvement with a college or university. Astin's theory of involvement argued that student

connection with the institution required an investment of student energy in academic relationships and other campus-related activities. Further, Astin's theory generalized that peer groups have a pervasive effect on an individual student's success with particular emphasis on affective, behavioral, cognitive, and psychological development. In addition, Astin discovered two characteristics of faculty members which substantially impacted students. He found that the extent to which faculty are research-oriented and the extent to which faculty are student-oriented strongly impacted student retention and success with the former negatively affecting students and the latter positively affecting students.

Expounding on Astin's (1974) theory of involvement, Vincent Tinto (1987) developed the student departure theory, which is likely the most commonly referenced theory of student retention. In his longitudinal model of student departure, Tinto credited a student's decision to persist to pre-college attributes, the student's goals and commitments, academic and social experiences associated with the institution, and academic and social integration. With this model of student departure, Tinto differentiated between individual and institutional factors. In summary, Tinto's student departure theory indicated that an institution's structure and the level of the student's social and intellectual integration influenced students in their decision-making.

While several theories explain the college student persistence process, two primary theoretical models of retention have provided a more thorough structure regarding college student departure. These two primary structures are Tinto's Model of Student Integration (Tinto, 1993) and Bean's Model of Student Attrition (Bean, 1985). Higher education institutions often utilize the findings of a comparison of Tinto's (1975;

1993) model and Bean's (1990) model as a starting point for further investigation of student retention (Cabrera, Nora, & Castaneda, 1993). Both models have inspired a steady stream of college student retention research which has validated the models over time.

Tinto's (1993) research indicated that the issue of undergraduate student retention has been widely studied over the past few decades. Factors, such as previous academic preparation, socioeconomic status, race, ethnicity, gender, financial need, student engagement, social integration, and academic integration have been identified as impacting student persistence (Pascarella & Terenzini, 1980; Pascarella, Edison, Hagedorn, & Terenzini, 1996). Tinto's Model of Student Integration has induced considerable research spanning several decades (Cabrera, Castaneda, Nora, & Hengstler, 1992; Pascarella, Terenzini, & Wolfle, 1986) and served as the leading theoretical model for investigating college student retention in higher education. Tinto's model suggested that "other things being equal, the higher the degree of integration of the individual into the college systems, the greater will be his commitment to the specific institution and to the goal of college completion" (p. 96). If students are unable to assimilate effectively into the academic and social communities at their institution, their institutional commitment is diminished, resulting in an increased probability of leaving.

In its most basic form, Tinto's research incorporated elements of psychological and organizational theoretical models (Seidman, 2005). His research contended that a student's characteristics upon entrance to college combined with the student's initial commitment to the higher education institution and commitment to graduation influenced decisions regarding student departure. Tinto's (1993) theory further implied that early

and continued institutional commitment impacted student academic and social integration into the university, which are both important factors associated with college student retention. This model stressed the effects of two interrelated variables – the student profile and student interactions with the higher education institution (Walters & McKay, 2005).

Based considerably on Spady's (1971) research, Tinto (1987) designed a model of student departure that clarified the process that prompts students to leave higher education institutions prior to graduation. Tinto's model posited that there is a match between a student's motivation and academic ability and the university's academic and social characteristics which form two underlying commitments: the student's commitment to his or her educational objective and his or her commitment to remain enrolled at the institution. Pascarella and Terenzini (1980) supported the predictive soundness of this model regarding pre-college variables.

Tinto (1987) elaborated on his model by suggesting that retention is directly related to a student's ability and actions to become involved in his or her higher education institution. There is a need for a match between the institution and the student's commitment to complete (Seidman, 2005). A positive match leads to higher student integration into the academic and social aspects of university life and likely extends the probability of persistence. Alternately, students with a poor match to their higher education institution are likely to depart or transfer.

After working with his model for 12 years, Tinto (1987) posited that many students who depart from college do not view themselves as failures. These departing students in actuality viewed their time attending their college or university as a positive

process of self-discovery which resulted in maturation. In summary, Tinto suggested that a student's departure from a college or university can be attributed to the student's lack of academic or social integration into the higher education institution (Walters & McKay, 2005). In support of Tinto's claim, the research of Pascarella and Terenzini (1991) indicated that consistently positive dealings with other college or university members beyond the classroom were a principal predictor of college student retention. Further, Tinto (1987) indicated that the patterns essential to the college persistence process may vary by the institutional setting, the type of institution, and the composition of the student body.

The Student Attrition Model has proven valid in explaining student persistence at traditional colleges and universities (Cabrera et al., 1993). This model served as an alternative to Tinto's (1987) Student Integration Model in explaining college student persistence. Bean's (1980) theory associated with student attrition is largely based on the Price/Mueller model of employee turnover behavior. Bean argued that student attrition is comparable to turnover in the workplace and stressed the importance of behavioral intentions as predictors of persistence (Cabrera et al., 1993). This model indicated that beliefs shape attitudes, and attitudes influence behavioral intents. Bean's (1980) research indicated that organizational variables, personal variables, and environmental variables shape the attitudes and intentions of those who depart.

Bean (1990) also commented on the necessity of student integration and immersion into the college environment: "Retention rates are related to the interaction between the students attending the college and the characteristics of the college" (p. 171). Bean emphasized that students' beliefs are actually the predictors of undergraduate

student persistence (Seidman, 2005). Likewise, students' beliefs are impacted by the relations between students and various elements of the institution. Bean (1990) agreed with Tinto's (1987) view that students who depart may have actually achieved their goals during their limited college enrollment. Neither the student nor the college should be considered a failure in those situations. Bean argued that students should not be labeled as dropout unless they depart from college prior to achieving their goals. Bean (1985) posited that the central value of a student persistence theory or model is the determination of relevant factors. Findings supported Bean's suggestion that environmental issues must be considered when explaining the student college persistence process.

Kamens (1971, 1974) provided insight into the sociological perspective of student attrition in higher education. Through the use of multi-institutional data, Kamens (1984) effectively demonstrated how certain higher education institutions place graduates in prestigious social and occupational positions, strengthening their connection with their institution and thus reducing student attrition rates. Further, Kamens communicated his perspective on how highly influential and respected colleges and universities are able to use their elevated status in the field of higher education for a strong influence on student persistence. Frequently, the more prestigious an institution, the more committed students are to completing their education at that institution.

Since the late 1960s, Alexander Astin (1977, 1985) has studied student retention using large national databases collected from numerous colleges and universities. Based on his analyses of these data, Astin concluded that the key to student retention is involvement. In essence, Astin posited that the greater the student involvement in their academic ventures and in their college life, the greater the likelihood the student will be

retained. Much like Tinto (1987), Astin (1985) proposed that the greater the psychological and/or physical effort on the part of the student, the greater the chances that the student will be retained. Because Astin's model was simplistic in nature, it was easier to use and served as the basis for numerous retention intervention programs in higher education (Seidman, 2005).

Although progress has been reported regarding the identification of student characteristics as predictors of departure prior to graduation, there are considerable limits to the accurate prediction of retention and student success (Fleck, 2000). Fleck reported serious limitations in higher education research regarding student success and retention. Additional research in the areas of student persistence, success, retention, and progress to graduation are needed.

Influences on college student success.

At a time when higher education has critical needs, the national attention and pressure for postsecondary educational institutions to increase retention and graduation rates have grown exponentially (Burns, 2010). Although the use of student graduation rates as an institutional performance gauge is contentious, higher education administrators concurred that colleges and universities can improve their support of students as they progress to degree attainment. Higher education literature has examined a number of institutional and individual influences on college student success.

Student influences and factors such as first-generation college, high school preparation for college, socioeconomic status, and full-time uninterrupted attendance are crucial when considering student success (Burns, 2010). Institutional influences such as budget, demographics, funding, institutional size, performance standards, and existing

student success and enrollment management transition strategies are equally important when considering college student success. Higher education research indicated that the characteristics of students who are most likely to persist to graduation include students who exhibit strong high school preparation tendencies, enter college immediately following high school graduation, originate from families with higher than average incomes, have parents who are college graduates, and attend college uninterrupted as a full-time student. Finally, socioeconomic status, levels of social capital, and academic preparedness are student characteristics emanating from their environment and social influences.

Socioeconomics.

Several researchers indicated that low-income students are likely to be most challenging regarding educational attainment (Bailey & Morest, 2006; Burns, 2010; Conley 2005). In addition to the challenges associated with academics, the increased cost of higher education is progressively becoming more of a concern for students from low-income families. In their study of 600 young adults who had at least some college experience, Johnson, Rochkind, Ott, and DuPoint (n.d.) found that nearly six out of ten students who did not complete their degrees reported fully financing their education rather than relying on their families for financial assistance. In their study focusing on socioeconomics as a factor in student success, Bailey, Jenkins and Leinbach (2005) found that students in the lowest socioeconomic status quartile were less likely to earn a degree. Because of financial constraints, students from low-income families frequently attend colleges or universities that do not have available resources to properly prepare and transition students for college (Wimberly & Noeth, 2005).

Another approach to student success was related to undergraduate student personality characteristics and their impact on academic performance. Kim and Conrad (2006) posited that the five major personality traits associated with student success included openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism. Of these personality mannerisms, conscientiousness was found to be most closely associated with student success. Conscientiousness was discovered to be the most effective predictor of college GPA, course performance, and class attendance when compared to academic ability. One standard deviation increase in conscientiousness translated to an 0.11 increase in GPA and a two percent increase in course performance.

Burns (2010) posited that research identifying institutional traits and practices which promote student success was still in its seminal years. Bailey, Calcagno, Jenkins, Kienzl, and Leinbach (2005) claimed that individual student attributes emerge as more essential predictors of student success than institutional factors. Research investigating the influence of an institution's formative years on student success was particularly valuable as preliminary studies have demonstrated that dissimilar higher education institutions with similar student profiles can demonstrate very different retention and graduation rates. Conservative institutional performance tended to be effective for baccalaureate institutions because four-year colleges and universities tend to have a more direct and applicable outcome measure – attainment of a baccalaureate degree.

College preparation.

Conley's (2005) research indicated that academic preparedness was the most important determinant of college student success. Other researchers reported that it is academic preparedness combined with student motivation that most accurately

determined college student success (Kuh, Kinzie, Schuh, Whitt & Associates, 2005; Burns, 2010). Higher education research indicated that the characteristics of students most likely to persist to graduation included those who exhibited strong high school preparation tendencies (Burns, 2010). Further, students who are ill-prepared for college academics may lack the social capital for success in college (Karp et al., 2008).

Social capital.

Social capital was described as students with parents who have college degrees, have earned a high school diploma rather than a General Education Degree (GED), have siblings or other relatives who attended and/or graduated from college, and/or have employers or other contacts who provide information about college (Johnson et al., n.d.). Students without social capital have limited information about postsecondary education. They may have difficulty navigating the college application process, and they may be hesitant to access support services available to students (Karp et al., 2008). College students need high levels of social capital to best utilize college student support services. Access to strong social networks, including friends and family who are familiar with higher education, often serve as avenues of assistance in providing support to college students (Burns, 2010). In addition, these students also experienced higher levels of degree progress. When compared to students who did not access college support services, students with low levels of social capital but who accessed support services made greater degree progress. Student use of college support services reduced the influence of low levels of social capital on student success (Burns, 2010).

Other aspects of college student retention.

Because of the potential loss of students, a variety of factors are important when contemplating retention strategies. Other factors contributing to the concept of student departure included reduced support and disillusionment. It is during the second year of college that many institutional programs, orientations, and efforts associated with the freshman year experience are often limited or eliminated. The elimination of these programs leaves students feeling frustrated, ignored, and abandoned by the college or university, which increases the risk of student departure (Sanchez-Leguinel, 2008).

As the challenges and demands of college life become a reality, students often become disillusioned, further leading to their risk of departure (Boivin et al., 2000). Frequently, when students attempt to select and commit to a major and struggle with a rigorous curriculum and increasingly difficult coursework while also dealing with the expectation of attaining higher academic standards, they often become disillusioned and may depart from the institution. Consequently, the collision of these challenges, combined with reduced student support services, lead to students' feelings of disengagement which can lead to departure from the institution (Sanchez-Leguinel, 2008).

Graunke and Woosley (2005) reported that faculty interactions with students and students' commitment to a major are significant predictors of academic success. In their study, they indicated that student engagement in social activities and commitment to the institution do not heavily impact academic performance. Pattengale and Schreiner (2000) reported a remarkable increase in apathy and a decline in motivation that is related to student struggles and expectations.

Student advisement should focus on student interests, establishing goals, and planning for the future (Anderson & Schreiner, 2000). Several key elements must be incorporated into the design of an advising plan. Wyckoff (1999) noted that, “To establish a high degree of commitment to the academic advising process, university and college administrators must become cognizant not only of the educational value of advising but of the role advising plays in the retention of students” (p. 3). The college or university must design strategies for preventing problems for students before they actually become major obstacles. Orientation programs, curriculum, planning, and committing to an area of study or major, engaging with other students, and committing to the institution were recommendations for interventions to promote student persistence. Finally, Graunke and Woosley’s (2005) research indicated that higher education institutions should develop programs related to improving student relationships with faculty members and that assist students with advising and major selection.

Overview of enrollment management.

Enrollment management is central to the success of a college or university (Duniway & Wiegand, 2009). A school must enroll students in courses, and completion of a series of these courses will lead to graduation. Most colleges and universities are less interested in registering students into individual courses than they are in graduating students who complete particular academic programs. Once a group of students are admitted, the groups’ retention and graduation patterns can provide an institution with important information about how successfully it is achieving its academic goals.

As college and university enrollments grow, higher education professionals must continue to recruit and retain students as well as manage enrollments (Stewart, 2004).

Enrollment officers are becoming increasingly important to the robust life of higher education. Evidence of this change has manifested itself in the growing number of enrollment management structures in higher education (Wolff & Bryant, 1999). The research of Braxton and McClendon (2002) indicated that recruitment activities employed by financial aid and admissions offices play important roles in enrollment management and influence enrollment as well as persistence to graduation.

Higher education research noted that enrollment management has often been viewed as a synergistic organizational theory used to link several different administrative functions, areas, or offices within a college or university so as to optimize institutional resources and enrollment goals (Black, 2001; Hossler et al., 1990). Enrollment management practitioners focus on institutional data, excellent service, cooperation, collaboration, communication, and partnering across campus so as to progress toward institutional success and achieve desired student success outcomes (Penn, 1999). Kerlin (2008) commented that “The process of enrollment management should be inclusive of all sectors of the college” (p. 11). Utilized as a collection of strategies, enrollment management presents a logical avenue for recruiting, enrolling, retaining, and graduating students, thus strengthening student learning and student success (Garland & Grace, 1993).

As early as the 1970s, enrollment management has steadily attracted the attention of postsecondary education leaders and practitioners. Penn (1999) illustrated the primary function of enrollment management as controlling the composition and size of the student body. As the number of colleges and universities increases and the number of high school graduates declines, competition among colleges and universities to admit and

enroll students combined with the pressure of retaining and graduating students has proven to be a daunting task for chief enrollment officers (Healey & Schmidt, 1997). It is because of these enrollment related challenges that the formalized field of enrollment management has evolved (Hutt, Bray, Jones, Leach, & Ward, 2010).

Institutional constituencies are challenged with preparing students to be successful and intentional learners (National Association of Student Personnel Administrators & American College Personnel Association, 2004). Faculty members must transcend the limits of their disciplines and focus more specifically on the needs associated with student learning and success. Student affairs practitioners serve as resources for faculty members who are dedicated to re-evaluating student learning and success in an effort to connect academic learning with student life. Further, student affairs practitioners have unique opportunities to inform student learning, student development, and student services (Blimling, 2002). To strengthen student success programming, an entire institution should be considered a learning community thus linking the organization's strongest efforts to sustain student success (National Association of Student Personnel Administrators & American College Personnel Association, 2004).

Higher education administrators seek to address the problems of college student attrition by implementing specific intervention strategies targeted at reducing college student departure (Tan & Pope, 2007). Enrollment strategies combined with student services, staffing, and institutional culture are among the many facets of an institution's enrollment management structural frame (Black, 2004a). Institutional accomplishments focused on improving student success via a host of enrollment management strategies

may be a direct result of the chief enrollment officer's ability to influence, communicate, persuade, lobby, partner, and bargain with other institutional constituents (Bontrager, 2004a). Specifically, numerous colleges and universities seek to reduce dropout rates by undertaking programs and initiatives that are specifically aimed at integrating students into the total academic program (Tan & Pope, 2007).

Bontrager (2004b) provided a more strategic overview of enrollment management. This view consisted of a number of organizational interpretations and theories that shaped the infrastructure of a successful strategic enrollment management (SEM) model. Glenn's (2009) assessment of strategic enrollment management focused on an institution's desire to advance the efficacy of its service delivery as being a primary concern and directly linked with its strategic enrollment management plan. Colleges and universities tend to devote more resources to enrollment management strategies targeted at first year programs (Jamelske, 2009). In the past 30 years, Jamelske noted that first year enrollment management initiatives have grown considerably with approximately 95% of four-year U.S. colleges and universities touting some type of initiative. First year enrollment management strategies vary from orientation programs to academic success approaches which include enrollment assistance programs, learning communities, calibrated scheduling, First-Year Experience courses, advising models, and/or all of the previous – depending on the type of institution and the desired student success outcomes.

Ideally, a college or university's enrollment is based on a comprehensive, integrated strategic plan that includes identifying, attracting, selecting, registering, retaining, and graduating a particular segment of students (Huddleston, 2000). A student's academic environment, the operational effectiveness of the school's transition

programs, student services, and personal development opportunities largely influence the quality of the student's collegiate experience, thus contributing to the success of that student and the institution. Within this broad framework, the efforts of chief enrollment officers influenced and molded those areas of the institution that have a strong impact on a student's decision to enroll, persist, and graduate. The effective strategic management and direction of these institutional areas are vital for institutional growth, fiscal health, and student success.

Most enrollment management strategies suggested that the key goals of increased student performance, persistence, and graduation can be attained by socially and academically incorporating students into the campus community (Goodman & Pascarella, 2006; Pascarella & Terenzini, 2005; Tobolowsky, Mamrick, & Cox, 2005). As a theory and practice, strategic enrollment management remains comparatively new to higher education (Huddleston, 2000). While there continues to be a growing body of literature related to the influence of enrollment management programs on college student success, the results are mixed and additional research is needed.

Enrollment management defined.

A search of higher education literature yielded a number of definitions for enrollment management (LoBasso, 2006). Over the years, as practitioners have better understood the extensiveness of enrollment management, the definitions of enrollment management have continued to grow. As early as the 1970s, Maguire (1976) of Boston College used the term 'enrollment management' to describe an institution's efforts to influence student enrollment. Maguire further described enrollment management as an

approach for organizing an assortment of institutional processes germane to student enrollment.

Hossler (1986) summarized enrollment management as a procedure influencing the size of the student body by the intentional collaboration and efforts of admissions, advising, financial aid, pricing, orientation, retention, and other related services. Specifically, Hossler (1986) commented that enrollment management practices began as an effort to join recruitment and retention efforts. Other researchers further expanded the definition of enrollment management to encompass an organized idea with a common set of activities designed to influence enrollments (Hossler et al., 1990). Specifically, these researchers have described enrollment management as a wide-ranging organizational idea that included institutional activities and strategic planning supported by institutional data. These activities were intended to address marketing, recruiting, transition to college, and college student retention. Bean (1996) reflected on enrollment management by indicating that it is a universal, collaborative attitude possessed by all institutional constituents regarding the management of its enrollments.

Dolence (1993) presented a more decisive definition by describing enrollment management as a broad course of action designed to help an institution reach and sustain optimal enrollment. According to Dolence (1996), "Simply defined, strategic enrollment management is: a comprehensive process designed to help an institution achieve and maintain the optimum recruitment, retention, and graduation rates of students, where 'optimum' is defined within the academic context of the institution" (p. 16). Dolence described the span of enrollment management in higher education: "There is a simple

SEM rule – any factor that influences a student’s decision to attend or to continue enrolling is fair game for enrollment management” (p. 16).

According to Dennis (1998), the concept of enrollment management has transitioned into one that involves the entire campus community. Dennis stated, “I realize that I have modified what I used to think of as enrollment management, or managing the enrollment of the entering class, to a more fluid and global concept, involving the entire campus community” (p. 7). Hossler et al (1990) defined enrollment management with the following: “...we believe enrollment management is an organizational concept and systematic set of activities designed to enable educational institutions to exert more influence over their student enrollments” (p. 5). Penn (1999) described enrollment management as the utilization of data combined with theory and practice to provide academicians and higher education administrators with information about programs, the quality of students, and student demographic trends. Finally, Bontrager (2004) described enrollment management as a process that enables the college or university to fill its institutional mission and the students’ educational goals.

In essence, the previous enrollment management definitions demonstrated a cohesive method for influencing institutional enrollments (LoBasso, 2006). An institution’s strategic enrollment plan incorporates the act of enrolling students with the missions of the various departmental units, which once functioned independently and now function interdependently. The connecting theme identified with this enrollment management concept was the holistic outlook possessed by an entire organization as it manages enrollments (Beal, 1996).

According to Humphrey (2008), “All members of a campus community play important roles in the recruitment, retention, and learning of students and share responsibility for the enrollment process” (p. 3). Traditionally defined, enrollment management processes guide institutional practices in new student recruitment, admissions, financial aid, student support services, curriculum development, and other academic areas that affect enrollment, student persistence, and student success (Black, 2001; Hossler et al., 1990). Expanding on the campus community’s role in effective enrollment management, in their book, *Strategic Marketing for Educational Institutions*, Kotler and Fox (1995) described enrollment management as the coordination of functions directly impacting admission, financial aid, recruitment, and retention of students. Of particular importance were recruiting and admissions practices, transition programs, advising and enrollment assistance programs, and the quality of service to students.

In American College Testing’s (2006) *Summary Report of the Eighth Annual Conference of the National Council on Student Development*, Allen commented on the use of enrollment management strategies combined with enrollment assistance techniques to develop a student assistance model in support of student success. These enrollment assistance strategies focused on a triage approach where interventions were implemented to remove barriers so as to more easily transition students and assist with course registration in support of overall student success, satisfaction, and retention. In this model, higher education practitioners shared their expertise in transitioning new students to college while assisting with registration and placement within a teaching context so that students could become self-sufficient in the next term or academic year.

Helfgot (2006) stated that enrollment assistance was an important part of enrollment management in support of overall student success. Specifically, Helfgot commented that a significant part of the transition process was providing information to new students as they begin their college life. An early implementation of enrollment management transition programs invested in the future of new freshmen and enabled higher education practitioners to teach new freshmen to better navigate the college or university system during the first semester and beyond.

Vander Shee's (2009) extensive research into enrollment management provided a number of elements which must coexist and partner so as to promote student success. These success programs should include early alert interventions and other tactics focused on assisting the 'at risk' student. The institution should have an exit interview process for students who do not persist so as to collect data on which to base retention policies and procedures. The institution must design, implement, maintain, and assess effective transition programs. Experienced professionals should lead the university's student success programs and retention efforts. The institution's strategic plan should include a long range enrollment management approach. Finally, Vander Shee recommended that through the use of research and institutional data, higher education leaders must examine the institution's vision, mission, and goals and create a framework that coordinates and facilitates the institution's enrollment management efforts.

Advancing student academic success begins with student recruitment (Bontrager, 2004b). One of the principal goals of recruitment is to establish whether the student's academic training, educational goals, professional aspirations, and personal preferences are consistent with institutional offerings. Successful enrollment management strategies

regard the recruitment process as the first step in building significant, life-long relationships in which the level of student-institution fit is high. Other versions of enrollment management theory consisted of McIntyre's comprehensive enrollment management (1997), the application of business theories to the discipline of enrollment management (Blackburn, 1998), the development of enrollment management structures (Popovics, 2000), and the focus on chief enrollment officers (Jones, 2003). Based on the sheer number of theoretical developments, it became clear that enrollment management techniques are an integral part of higher education.

Historical perspective of enrollment management.

Throughout much of their history, colleges and universities have benefitted from an abundant pool of students (Barnes & Harris, 2010). The origins of enrollment management can be traced back to Kemerer, Baldrige, and Green (1982); Hossler (1984); Bean (1986); and Dolence (1986). As early as the 1950s, a number of factors influenced higher education enrollments. Henderson (2000) posited that higher education has experienced a consistent flow of students from the G. I. Bill in the 1950s, to the Civil Rights Movement of the 1960s, and to the end of the baby boom in the 1970s.

The economic down-turn of the 1970s, the decline in the number of high school graduates (Bontrager, 2004a; Penn, 1999), and the public's declining trust in public agencies (Hartle, 1994) negatively impacted college enrollments and propelled enrollment management as a concept and organizational function (Coomes, 2000). With the decline in the number of high school graduates came the beginning of a period of increased competition for admissible students among colleges and universities (Penn, 1999). As early as the 1970s, enrollment management was a relatively new

organizational structure and quickly became an essential function for higher education institutions (Coomes, 2000; Humphrey, 2008; LoBasso, 2006). However, by the mid-1990s, the focus turned to increasing student enrollment as well as improving institutional efficiency, thus reducing institutional costs and improving net revenue (Bontrager, 2004a).

Following years of elevated enrollments, higher education institutions have invested heavily in new and improved facilities to accommodate the growth of new students, and the number of interested, eligible students has begun to decline, thus resulting in increased competition by colleges and universities (Bontrager, 2004a). As a result, higher education institutions employed comprehensive approaches to enrollment, moving beyond marketing, recruitment, and financial aid and including more sophisticated enrollment strategies.

Fortunately, through the 1980s, many colleges and universities were able to compensate for the decline in the number of high school graduates by enrolling more non-traditional students. By attracting non-traditional students, urban colleges and universities have been able to grow their enrollments despite the decrease in high school graduates. History demonstrated that enrollment management results from the original role of the admissions officer have evolved into an effort to attract and retain college students. From early on, enrollment management has been fundamentally described as a method of increasing enrollment to recover fiscal stability.

Humphrey (2008) surmised that because of the deep budget cuts of the 1990s and 2000s, higher education leaders have reorganized functions and units into departments or divisions that directly affect an institution's ability to generate tuition revenue. These

new structures are referred to as divisions of enrollment management. Typically, these collective units are charged with recruiting, enrolling, and retaining students that will produce tuition revenue for the institution and result in student persistence to graduation.

The theory of enrollment management has been further developed by Dolence (1996). Strategic enrollment management has been touted as an all-inclusive process intended to aid institutions in achieving and maintaining the ideal recruitment, retention, and graduation rates. Rather than outlining the specific areas within an institution that should be involved with strategic enrollment management, Dolence basically stated that any element influencing a student's decision to continue enrollment is fodder for strategic enrollment management.

Founding models, framework, and components of enrollment management.

Enrollment management structures are based on systems theory and are typically designed to assist colleges and universities in achieving their mission and goals (Yale, 2010a). Prior to employing a specific enrollment management model, colleges and universities must be mindful of strategic goals, organizational designs, and desired outcomes. While the scope of enrollment management strategies and structures vary, they must support the values and needs of the higher education institution.

A review of the literature revealed no paucity of research associated with various enrollment management structures. Even though enrollment management is a relatively young concept, it is established based on several theories thus forming a strong foundation. Because colleges and universities tend to be organized in departmental silos and bureaucratic administrative structures, organizing an effective enrollment management structure becomes challenging (Kezar & Lester, 2009). Enrollment

management must be considered an institutional necessity and must not be demoted to a small sector of the college or university (Kemerer, Baldrige, & Green, 1982). Yale's (2010b) research indicated that all areas of a postsecondary institution are responsible for improving student success. Colleges and universities must connect more with students, recognize student needs earlier, follow and record student advancement and persistence, and quantify and evaluate the impact of institutional enrollment management efforts.

An institution's vision, mission, and goals must articulate and address its desire to improve student learning and success (Yale, 2010b). The college or university's mission must be viewed as a shared system of beliefs, central to the organization, embraced by all faculty and staff, and focusing on those institutional efforts for improving student persistence and success. A college or university's strategic enrollment management plan should be based on distinctive institutional requirements and the assets of individuals within that organization (Hossler et al., 1990). The conventional view of enrollment management structures focuses on advising, admissions, bursar/student accounts, career services, financial aid, institutional research, recruitment, and registrar-related student services rather than frameworks that span functional areas to best promote student success (Hossler et al., 1990; Yale, 2010b).

In their book, *Strategies for Effective Enrollment Management*, Kemerer, Baldrige, and Green (1982) illustrated the beginnings and early evolutionary stages of enrollment management structures. According to these authors, enrollment management models often address institutional problems; however, such structures tend to produce their own natural challenges. Often, enrollment management organizations fail to utilize research data to inform decisions, lack campus-wide awareness regarding enrollment

related concerns, and fail to collaborate and coordinate enrollment related efforts. Within this context, enrollment management structures are formed. According to these authors, four basic structures existed within enrollment management: the committee, the matrix system, the division, and the coordinator.

In her study, Yale (2010b) used a collaborative enrollment management framework to improve student engagement, involvement, and student learning thereby improving student persistence and graduation rates. Yale referenced collaboration so as to improve student engagement and student success (Wesemann, 2005; Yale, 2010a). In her research focusing on enrollment management, Yale reported a ten percent increase in first to second year retention rates over a nine year period.

The modern enrollment management model has moved from the traditional structure based on 'silos' defined by separation of duties and responsibilities of administrative departments toward the newer type of structure in which related enrollment offices, coordinated specifically for enrollment management, foster student success (Blake, 2008). Newton and Smith (2008) posited that a vital guiding belief for higher education is that student services and academic affairs must emphasize the organizational association necessary for a collaborative enrollment management approach to improved student success. This structure must support student success and achievement of educational goals. These collaborative endeavors will distinguish institutions from one another – particularly in a period where accountability is one of the components driving the enrollment management effort. In their study, these authors described a collaborative type of enrollment management structure at Ivy Tech Community College (Bloomington) which includes admissions, financial aid, marketing,

records, and student development with institutional outcomes of increased persistence and graduation rates.

Although the literature described numerous enrollment management structures and models that were effective in practice, there was no single structure that worked well for all institutions (Kerlin, 2008; LoBasso, 2006). Student affairs and academic affairs partnerships struggle to become institutionalized (Kezar & Lester, 2009). An institution's structure will include many facets of its strategic enrollment management plan including enrollment strategies, delivery of student services, staff levels and trends, and the institutional culture (Black, 2004b). Huddleston (2001) commented on the reporting structure of enrollment management models: "The reporting areas for these organizational models vary. The enrollment organization may be an important part of academic affairs, student affairs, or the president's portfolio" (p. 125). Organizations that are structured across functions better address the needs for effective student learning and success.

Many institutions do not have a specific definition of enrollment management driving their work; rather, their enrollment policies are defined in existing terms by various offices within the organization (Penn, 1999). In a recent issue of *College and University*, Hossler and Kalsbeek (2008) noted the variety of office arrangements that can exist (Hutt, Bray, Jones, Leach, & Ward, 2010). While student affairs or student services often control enrollment management initiatives (Noel-Levitz, 1996), it is essential for multiple offices to work together functionally and structurally in support of overall institutional policy to build and maintain desired class sizes and compositions (Dixon 1995, Hossler 1984, Hossler and Kalsbeek 2008).

In their recent study involving the University of Alabama, Hutt et al., (2010) recognized the need for an alternate approach to identifying effective structures and styles. Their case study operationalized many of the recommendations and approaches suggested in Hossler and Kalsbeek (2008) by presenting one university's successful efforts to advance in national ratings. Given the increased use of enrollment management offices in higher education, along with pushes from many institutions to improve melt, yield, enrollment, and retention numbers, the purpose of their study is to explain how The University of Alabama (UA) increased enrollment, retention, and incoming students' quality over the past five years through the combined effort of multiple offices on campus.

Research illustrated that there are benefits to prioritizing retention and intervention methods, predominantly at important times such as the student's shift to college life and the student's first year of college (Dolence, 1993). Recognizing that college student retention is comprised of individual and institutional variables (Bean & Eaton, 2002), effective transitioning is essential for retaining students; however, higher education administrators must recognize that enrollment management transcends the sphere of transitioning students (Walters, 2003). Relationship-building and motivating institutional members to embrace the institution's enrollment management strategies are essential for integrating services and thus positively influence student success (Black, 2004a).

Collaborative efforts involving student services and academic affairs provide a vital institutional response to the multiple needs of students by providing a foundation for student development (Newton & Smith, 2008; Sidle & McReynolds, 2009). In their

book, *Organizing Higher Education for Collaboration*, Kezar and Lester (2009) indicated that collaboration is essential to the learning mission of higher education institutions and many of the associated critical outcomes and processes. While the models and strategies used in the past have been successful in improving overall understanding of student college choice; these approaches often assumed that the application, admission, and enrollment programs were independent of each other (DesJardins, Ahlburg, & McCall, 2006). The application, admission, financial aid determination, and enrollment assistance programs were actually dependent on one another in the development of an integrated enrollment management model.

Huddleston (2000) speculated that incorporation, communication, cooperation, and partnerships between student services and academic affairs were crucial for a strategic enrollment management model's positive influence on student success. The traditional higher education structure of academic affairs and student affairs has been one of convenience (Pascarella & Terenzi, 1995). Enhancing student success may require new methods of collaborating and communication for faculty, administrators, student affairs, and academicians so as to promote overall student learning. While student affairs practitioners are integral to the student learning and success process, primarily because of integration and engagement opportunities, faculty, administration, and staff as well as student affairs practitioners must be immersed in the enrollment management process so as to bring about an effective student-learning focused strategic enrollment management program (National Association of Student Personnel Administrators & American College Personnel Association, 2004; Humphrey, 2008). Students are more likely to learn and

succeed when support comes from multiple sources working collaboratively (Kuh, Kinzie, Shuh, & Whitt, 2005).

Bontrager (2004b) described the central ideas of enrollment management as related to student success. The institution's enrollment management strategy must establish clear goals for the number and types of students needed to fulfill the institutional mission. The organizational model must promote institutional success by improving student access, transition, persistence, and graduation. Chief enrollment officers must determine, achieve, and maintain optimum enrollments. Finally, institutional leaders must develop an effective delivery of academic programs. Ultimately, the model will improve service levels to all stakeholders including prospective and current students, other institutional departments, other institutions, and coordinating agencies.

Huddleston (2000) observed that a higher education institution's enrollment is broadly developed and founded on an intentional, interconnected plan including the identification, attraction, admission, registration, retention, and graduation of specific student sectors. The value of the students' college experience has been based principally on the academic milieu, viable superiority of the institution's transition programs, student services, and personal growth options. Within this expansive framework, a chief enrollment officer's endeavors have been aimed at shaping and influencing specific components that have noteworthy influence on a student's choice to enroll, persist, and graduate. The intentional management of these components is critical to a college or university's development, fiscal vigor, and student contentment (Huddleston, 2000).

In their national study, Huddleston and Rumbough (1997) described functional areas most often associated with enrollment management: admissions, advising, financial aid, institutional research, marketing, orientation, registrar, and retention. These areas serve a vital function within an enrollment management model and reinforce the opportunities for student success. In her community college study, Kerlin (2008) suggested that higher education administrators utilize common components of enrollment management, acclimatize those facets to their institutional culture, and begin improvements in persistence, graduation rates, and student success.

More than 20 years ago, the 'one-stop shop' concept was explored in the United States (Walters, 2003). Since then, it has become a growing trend among colleges and universities (Knopp, 2001) – especially considering recent economic challenges that require colleges and universities to do more with less (Moneta, 1997). This model is guided by the student-centered philosophy that acknowledges the potential positive effects on student satisfaction and retention that occur with increased student engagement (Bean, 1983; Tinto, 1998). Embedded in this model are the expectations of enhanced efficiency, improved quality service, and accountability (Carr & Johansson, 1995). Knopp (2001) indicated that the customer service type model meets the critical goal of helping students to interact more effectively and efficiently with the institution. Central to this model is the idea that various service departments such as student services, academic affairs, and information technology collaborate and coordinate more effectively in servicing students (Borus, 1995).

Chief enrollment officers progress in their field as they professionally develop through education, experience, and networking. The body of knowledge presented by

seasoned chief enrollment officers, such as admissions and registrar offices, often provided the foundation for an enrollment management model focused on student success (Blake, 2008). These innovative guidelines and common missions served as a catalyst for fresh ideas and organizational transformations to build enrollment and allow for greater attention on student learning and success (Huddleston & Rumbough, 1997).

Academic success strategies of enrollment management.

The most desired outcome for higher education leaders is student academic success (Bontrager, 2004b). “It is the curriculum, academic policy, and the corresponding choices students make to attend, persist, and drop out that drive the planning implementation, and evaluation of an institution’s recruitment and retention programs” (Dolence, 1993, p. 9). An institution’s enrollment and competitive position will be determined based on the degree to which the college or university addresses these academic success issues. Effective enrollment management approaches position an institution to make reasonable predictions about its future resource demands (Muston, 1985). Therefore, the focus on student success and academic success strategies offers a valuable approach to improving college student retention.

A review of enrollment management literature demonstrated that colleges and universities across the United States have strengthened their enrollments and retention rates through a variety of tactics and strategies associated with enrollment management (Kerlin, 2008). Braxton and McClendon (2002) described institutional practices evolving from empirically grounded forces that positively influence student persistence to graduation; specifically, these researchers suggested that advising, institutional practices and programs, enrollment management approaches, and orientation programs are among

the most positively influential tactics for improving college student success. As the literature indicated, there is no paucity of good ideas and best practices associated with enrollment management approaches. However, reflecting on its own institutional culture, each college and university must develop its own unique approach for utilizing enrollment management tactics and strategies to improve college student success.

Burns (2010) described institutional interventions targeted at collaborating and partnering with key stakeholders. Specifically, Burns discussed the Achieving the Dream initiative, which created PK-16 partnerships, fostered student engagement, and, built strong relationships between student affairs and academic affairs. These broad institutional approaches focused on promoting student success. Higher education institutions must welcome those basic concepts and principles that foster appropriate changes in their institutional practices, organization, policies, and cultures aimed at improving college student retention and student success.

Inside and outside of the classroom, student-faculty relationships and interaction promoted student academic integration and persistence to graduation (Kuh, Schuh, & Whitt, 1992). Bean posited that enrollment management strategies which successfully transition students to college and promote persistence to graduation were indelibly linked to the student's identification and affiliation with academic departments and specific members of the faculty (Hossler et al., 1990). College and university chief enrollment officers have the unique challenge of collaborating and coordinating to bring these academic success strategies into alignment with the academic mission of the institution (Bontrager, 2004b). Moreover, higher education administrators have begun to address themes of student transition and adjustment through various academic success strategies

such as transition programs, calibrated scheduling and advising, learning communities, and orientation programs (Zarvel et al., 1991).

Over the past 30 years, the importance of faculty-student relationships and academic advising on college student success has been emphasized (Glennen et al, 1996). Specifically, higher education professionals who are in direct contact with college students typically understand the challenges they face and are quality candidates for roles like advisor or mentor. Mentoring and advising require the joint efforts and responsibility of faculty, staff, and students (Kezar & Lester, 2009). Typically, high levels of collaboration exist between academic affairs and student services – especially in enrollment management and student success related activities (Kezar, Hirsch, & Burack, 2002). To support student success, effective enrollment management approaches must focus on vertical communication so as to articulate the institution’s academic mission, horizontal communication to open discussion and responses, and a framework consistent with the institution’s mission (Henderson, 2005). Colleges and universities must induce expertise from all areas of the institution to help students be successful.

Students’ engagement with their educational institutions and their learning has great importance. Karp et al. (2008) identified students persisting to their second year as those with a sense of belonging at their college (Burns, 2010). The research of Kuh et al. (2005) identified six features of undergraduate institutions that foster student engagement and persistence. These researchers concluded that two key components contributing to student success included the amount of time and effort students invested in their college experience and how institutions organized learning opportunities and allocated resources to induce students to participate. Burns (2010) speculated that most institutions find this

second component to be most relevant; institutional leaders tend to have more direct influence over resource allocation and institutional organization.

Walters (2003) commented that “focus must be placed on enhancing awareness of the enrollment process” (p. 43). Blau (1973) recognized that a stressful enrollment process can negatively impact student persistence and require the collaborative and cooperative efforts of numerous departments to remedy the adverse impact. Walters (2003) further commented that cross-training and customer service have a “direct relationship to the issue of bureaucracy and inconsistency of service within the enrollment process” (p. 44). Moreover, Walters posited that the chief enrollment officer must implement enrollment strategies to “create a climate where student services personnel worked collaboratively to simplify and expedite the process of enrollment” (p. 45). Finally, Walters suggested an enrollment management strategy to specifically address the tenacious challenges associated with an awkward and exasperating enrollment process and to become the principal catalyst for dealing with institutional enrollment issues.

Within the varied U.S. higher education setting, no single method or model existed that adequately and appropriately supported college student success (Kerlin, 2008). Higher education administrators can utilize various elements of enrollment management so as to plan and acclimatize strategies to their organization’s culture, thus beginning the process for improving college student success. The process of developing a comprehensive institutional enrollment management model can be overwhelming, and institutional leaders may discover more questions than answers as they navigate the process.

Duniway and Wiegand (2009) indicated that a systematic approach for supporting enrollment management is necessary because of the sheer complexity of developing such a model. Enrollment management is a comprehensive organizational concept which includes many institutional activities and functions such as strategic planning, data-driven decisions, marketing, student academic preparation, recruitment, transitioning, bureaucratic interactions, student attrition and retention, student self-efficacy, and social and academic interactions. According to Colton et al. (1999), the success of invasive intervention programs demanded a critical appraisal of retention needs and the demographics of the adopting institutions. Although there are numerous strategies within an effective enrollment management plan, this study focused exclusively on transition programs and academic success strategies which promoted student success.

Transition programs.

Dennis' (1998) research confirmed that the college experience is new to traditional and nontraditional students, and the university environment can often appear unsupportive. Corwin and Cintron (2011) commented on the transition from high school to college: "The transition from high school to college is never an easy process" (p. 1). Managing new opportunities which are academically rigorous can be a daunting task for a first-year student. Along with managing the priorities of college life, freshmen are often concerned about social acceptance at college. The first year of college is commonly considered one of the most confusing transition stages of a college student's life. Tinto's (1982) retention research demonstrated that students are most likely to depart during their first-year of college and that their departure is likely to be voluntary. Leafgren (1989) posited that the academic success of first-year students can be

substantially diminished if student concerns are not satisfactorily resolved. Ultimately, the transition concerns of first-year college students can lead to a decrease in retention (Cutrona, 1982).

Enrollment management endeavors are primarily associated with college choice, transition to college, student persistence and retention, and student learning outcomes. Such efforts are typically organized through an institution's strategic plan and supported through institutional research, analysis, and data (Hossler, 2000). Transition programs address academic, personal, and social experience and are part of the retention process (Hicks, 2005; Salinitri, 2005). A number of postsecondary institutions have developed programs to specifically address transition issues for first-year students (Levine, 1991; Tinto, 1993; Greene & Puetzer, 2002). These transition programs deal with topics such as persistence, student success, student learning outcomes, and programs that promote progress to degree. Such transition programs often include an intensive orientation component; advising, counseling, or mentoring; and enrollment assistance programs (Brown, 1995; Capolupo, Fuller & Wilson, 1995; Salinitri, 2005; Strommer, 1993; Hicks, 2003).

According to Tinto (1993), the methods students use to transition to college are vital for their ultimate incorporation into college life and their ultimate success. Specific aspects of college transition are particularly important for academic adjustment (Hurtado, Carter, & Spuler, 1996). Recognizing that retention is the collective result of individual and institutional variables, effective transitioning is an essential strategy for retaining students (Walters, 2003). Kuh et al., (2005) maintained that institutions that provide

acculturation experiences for students that include strong transition programs advance their opportunities for increasing student success.

A consistent finding of several studies suggested that enrollment management transitioning programs which focus on involvement, engagement, and association were vital for student development and advancement (Astin, 1993; Hurtado & Carter, 1997; Pascarella & Terenzini, 1991). Bean and Eaton (2002) commented that efficient transitioning is a crucial tactic for student success. Bontrager (2004b) indicated that when students choose to attend a college or university, the institution's enrollment management task becomes one of assisting the student in transitioning to the institution and cultivating the student-university relationship.

In their 2007 study, Kelly, Kendrick, Newgent, and Lucas, assessed the necessity for supplementary transition programs to sustain college student retention by assisting students with cognitive growth and decision-making abilities, thus resulting in a higher level of self-efficacy. Shao, Hufnagel, and Karp (2010) posited that transition programs result in higher semester GPAs, more earned credit hours, a reduced likelihood of being on academic probation or suspension, and a greater probability of students returning for their second year of college.

Many programmatic and classroom-based interventions require strong connections between the curricular and the co-curricular. Engaging and supporting the whole student requires colleges to use all of their resources (Keeling, 2004). Student affairs practitioners should participate in an institution's efforts to create learning-centered cultures and programs for promoting college student success (Burns, 2010; Dale & Drake, 2005). Higher education institutions often use some form of learning

community to support undecided students or other 'at risk' student populations during transition to college life (Keenan, 2008).

A variety of performance-based programs, such as advising, counseling, mentoring, and orientation, have proven to positively impact student success and are useful in helping students to navigate resources (Burns, 2010; Mayhew, Vanderlinden, & Kim, 2010). As early as 1981, Higginson surveyed college freshmen and found that those enrollment management transition strategies related to advising, course schedule planning, calibrated placement, academic survival programs, and enrollment assistance strategies were most valuable to new students. Pascarella and Terenzini (2005) reported positive results from student participation in advising and counseling programs. These enrollment management approaches can have a powerful impact on relieving college anxieties for students and parents (Bontrager, 2004b). In addition, comprehensive transition support programs such as career services, financial counseling, mentoring, tutoring, enrollment assistance, and workshops positively impacted student success (Burns, 2010; Fike & Fike, 2008; Pascarella & Terenzini, 2005).

Orientation programs.

The college orientation process bridges the gap between high school and college for first-year students and introduces students to their new collegiate environment. Colleges and universities commonly offer orientation programs and early registration as part of their enrollment management approach to retaining and graduating students (Bontrager, 2004b). Several researchers posited that effective orientation programs positively impacted both the recruitment and retention of students (Hossler, 1984; Pascarella & Terenzini, 1991, Tinto, 1993). The purpose of orientation is "to help

freshmen make the transition from their previous environment to the collegiate environment and enhance their success” (Upcraft & Gardner, 1989, p. 82).

Perigo and Upcraft (1989, p. 82) defined an orientation program as “any effort to help freshmen make the transition from their previous environment to the collegiate environment and enhance their success.” The role of the orientation process within the enrollment management framework is to strengthen student transition and retention. Orientation may be the first indication of a student’s perception of the college.

Supporting higher education’s orientation approach to transitioning, Tinto’s (1975) theory of student integration intimated that students who feel a connection to a college or university will persist. Because of Tinto’s research as well as that of other theorists (Daddona & Cooper, 2002; Gass, 1990; Shanley & Witten, 1990), many higher education institutions have implemented freshman orientation programs in an attempt at increasing student commitment and increased persistence (Perrine & Spain, 2008).

With most freshman orientation programs, students are brought to campus in the summer for various transition and engagement activities (Bontrager, 2004b). Freshman orientation programs vary in length, content, and expected outcomes; however, all are aimed at transitioning new students to college and enhancing student learning and success (Perrine & Spain, 2008). Students respond positively to orientation programs and find them helpful for adjusting to college; however, little research addressed whether early orientation programs actually improved persistence to graduation. Because many programs are optional rather than mandatory, results regarding college student retention were mixed.

Institutional commitment, communication, and collaboration.

Glenn (2009) indicated that a shared services delivery model is necessary for efficiency and effectiveness in higher education enrollment and student services functions. During a transition program, campus collaborations become critical for promoting student retention. Bontrager (2004a) asserted that institutions must successfully articulate their enrollment management theories, frameworks, central concepts, and best practices so they can be adapted and applied within the institution.

To effectively implement enrollment management transition strategies, colleges and universities must establish clear goals for the number and types of students required to satisfy the institutional mission. Higher education institutions must strive to promote student success utilizing programs targeted at transitioning new students so they persist to graduation. While most higher education leaders tend to gravitate to tactical approaches, a more useful approach for successful enrollment management is the identification of desired institutional outcomes, utilization of data to make informed decisions and evaluate strategies, and the creation of collaborative partnerships across functional areas.

Kluepfel, Parelius, and Roberts (1994) highlighted the benefits of faculty involvement in increasing success of students in specific entry-level courses and the ensuing increase in retention. Special credit-bearing courses targeted at students in need of developmental course work were created in 10 different departments at Rutgers University. These courses were designed to increase faculty–student contact by requiring out-of-classroom interaction and allowing faculty to spend more time with each student. Great care was taken to recruit faculty known for outstanding teaching and their stated desire to work with students in developmental courses.

Executive administrators must engage the institution in open discussion about enrollment strategies and initiatives (Humphrey, 2008). Communicating enrollment goals and assisting all institutional stakeholders in understanding individual and collective roles in institutional enrollment management transition strategies can avoid potentially negative student success outcomes (Bontrager, 2004a). Chief enrollment officers are concerned about students, their educational needs, learning and success, and the value of connecting so as to build personal relationships with various campus stakeholders (Bontrager, 2004b; Humphrey 2008). Building and maintaining those relationships requires that practitioners pay close attention to campus business practices. Students will not feel well served if their needs are not satisfactorily met concerning content and timeliness.

A successful enrollment management transition strategy must place high value on the analysis and continuous improvement of business practices so as to provide the highest level of service in the briefest time possible. The issue of service is less a management issue and more of a campus culture issue. Staff, at all levels and in all divisions, must be carefully and thoroughly selected, developed, and trained so as to understand their role in the delivery of quality and timely service.

While additional research is needed about transition and integration into college, there was minimal argument among practitioners and researchers about the magnitude of the transition phase (Hurtado & Carter, 1997). Studies suggested that early transition programs that facilitate the formation of peer groups and adjustment to college can be accomplished through enrollment management strategies (Hurtado & Carter, 1997; Pascarella, Terenzini, & Wolfle, 1986). Bontrager (2004a) posited that achieving optimal

enrollments requires that colleges and universities launch cutting-edge strategic enrollment management initiatives.

Enrollment assistance programs.

Enrollment management transition programs may include a variety of mini-programs. For example, some institutions conduct ‘bridge’ programs which incorporate more academic preparation into the enrollment management approach. The primary purposes of early enrollment management programs are to provide early orientation to campus life and to register students for their first semester courses so as to start new students on the right path toward graduation (Bontrager, 2004b). Enrollment management strengthens student affiliation with the institution and promotes persistence through the student’s first few weeks of college.

Entrenched within strategic enrollment management is the need for an arrangement to deal directly with the challenges of enrollment assistance programming (Walters, 2003). A climate is needed where student services personnel work collaboratively to simplify and expedite the process of enrollment so as to avoid the potentially negative impact that a stressful enrollment assistance program can have on college student persistence (Walters, 2003). Effective enrollment assistance programs consisted of quality advising and customer service as well as effective enrollment assistance programs.

Hossler (1984) identified eight areas in which chief enrollment officers should accept immediate accountability. These areas included student marketing and recruitment, pricing and financial aid, academic and career advising, academic assistance programs, institutional research, orientation, retention programs, and student services.

Huddleston (2000) commented that strategic enrollment management was central for new student transition programs – particularly those focusing on academic assistance and registration. He clarified that orientation methodology assists students with their academic success by providing information and guidance on advising, registration, housing, placement tests, co-curricular activities, engagement, and transitioning to the campus community.

Huddleston and Rumbough (1997) posited that advising and enrollment assistance programs have a strong effect on student success. By studying first-year seminars, learning communities, and other related programs, institutions create a more focused and coordinated effort at intervening so as to “create the best package of services, programs, and interventions to assist students toward a more successful transition to college” (Keup, 2006, p. 65). Mastrodicasa’s (2001) research discussed the benefits of faculty involvement in advising incoming freshmen. Faculty involvement with advising affects new students as well as the overall organization. This study showed that students benefitted by getting the needed courses for their degree programs, resulting in the positive customer satisfaction of students and parents. Ultimately, the university benefits by more carefully and accurately responding with full classrooms and through expanded sections and course offerings.

Engstrom and Tinto (2008) conducted a multi-institutional, longitudinal four-year study on the impact of learning communities on the success of low-income and underprepared students. They found students in learning communities to be significantly more academically and socially engaged and perceived a higher level of encouragement, support, and intellectual gain than similar students not enrolled in a learning community.

Learning community students were also more likely to persist to the following academic year than their peers. Scrivener et al. (2008) found that first-year students at Kingsborough Community College who participated in a learning community experienced improved educational outcomes. These studies aligned with others indicating learning communities have strong positive effects on educational outcomes and student persistence (Pascarella & Terenzini, 2005, Burns, 2010).

The availability of relevant data is critical for developing and implementing successful enrollment assistance programs. Data related to high school coursework and grades, standardized test scores, educational aspirations, and comparative data on those students who persist are particularly useful when employing enrollment assistance programs in support of college student retention (Bontrager, 2004b). Data such as these described above are particularly critical as they allow colleges and universities to move beyond the concept of predictive modeling for effective retention and recruitment to deployment of other enrollment management transition strategies in support of their goal. These data can provide enrollment staff with the tools to implement effective early warning programs and enrollment management related activities so as to retain students (Tinto, 1993).

Importance of college student retention on higher education.

With growing interest in student learning and an increased awareness of the need to advance student success, higher education administrators recognize that student persistence and retention are among the most critical issues facing contemporary higher education (McClenney & Waiwaiole, 2005). Higher education's accountability movement has pressured postsecondary education institutions to focus on improving

student success (Newton & Smith, 2008). Ehrenberg (2006) posited that higher education funding is shrinking as foundations and corporations provide fewer resources from philanthropic giving; however, it is likely that corporations and foundations will be more likely to continue philanthropic funding if higher education institutions demonstrate accountability, efficiency, and effectiveness in retaining and graduating students. Federal and state agencies continue to pressure higher education institutions to take on new accountability efforts including improved college student retention (Kezar & Lester, 2009). Many colleges and universities have been forced to make difficult financial choices while state budgets have provided few increases for higher education. Tinto (1987) noted that “Institutions have come to view the retention of students to degree completion as the only reasonable cause of action left to ensure their survival” (p. 2).

As attrition rates remain high, continued focus on improving college student retention is a critical issue facing post-secondary education administrators. Higher education institutions are placing greater emphasis on retaining students for continued enrollment (Rossmann & El-Khawas, 1987). Because of the strong impact on funding, improving retention rates becomes increasingly important for higher education administrators (Monroe, 2006). Further, Ishler and Upcraft (2005) provided guidance on how colleges and universities must react to the growing student retention issue: “Institutions cannot afford to admit students and hope that they sink or swim on their own. Many institutions have come to understand the need to both challenge and support the students they admit and make a commitment to helping them succeed” (p. 29).

For a variety of reasons discussed earlier, researchers, higher education practitioners, and policymakers devote much attention to student success initiatives. The

literature indicated that higher education's interest is in response to the demand for increased institutional accountability and assessment initiatives (Cohen & Brawer, 1996). College and university leaders focus on student success initiatives because of the high cost of recruiting students as compared the lesser cost of retaining students (Brooks-Leonard, 1991). Grosset (1991) contended that institutions become more enrollment reliant – particularly during slow economic periods. The considerable cost associated with student attrition demands that higher education practitioners examine the influences on college student success (Summers, 2003).

Economic and financial influences.

The current demographic and economic swings in the United States are undoubtedly transforming higher education (Betts, Hartman, & Oxholm, 2009). Because of the decline in state funding, the increased cost of operating a college or university, and declining endowments, higher education must re-examine, readjust, and reposition itself to meet the emerging challenges of contemporary higher education. As federal and state appropriations decline, colleges and universities are increasingly driven toward a market orientation requiring effective enrollment management techniques (Benjamin & Carroll, 1998). The current economic conditions in the United States present even greater financial and operational challenges and limit the use of already insufficient resources in higher education; therefore, it becomes even more critical for our colleges and universities to direct energies at improving student success and persistence to graduation (Yale, 2010b).

In general, nearly all organizations are vulnerable to a mixture of demands from external constituents (Kezar & Lester, 2009). These external pressures, including

governmental agencies, accountability movements, and customer expectations, enable, facilitate, and hinder collaborative enrollment management approaches to student success. In contemporary higher education, issues related to funding, budgets, and the cost of recruiting are indelibly linked to retention rates. In the midst of a fiscal milieu of diminishing state and federal funding, college student persistence has become an issue directly linked to financial survival for higher education institutions (Summers, 2003). Federal agencies and state governments demand economic reforms and increased accountability (Kezar & Lester, 2009). As state allocations for public colleges and universities continue to decline, institutional resources become a greater challenge.

College student retention is critical to higher education, but it is also critical to students. If students do not persist, opportunities for development and learning are foreclosed; graduation is impossible; and success in later life may be diminished. In essence, retention is important to students because a college education pays (Jamelske, 2009). For example, in 2003, the median annual salary in the United States was \$30,800 for an employee with a high school diploma and no college degree; the median earnings for an employee with a bachelor's degree were \$49,900 (College Board, 2005). Furthermore, the lifetime earnings for an individual with a bachelor's degree were estimated to be approximately two times that of someone with only a high school diploma (Day & Newburger, 2002).

To higher education institutions, retention is critical because it pays (Jamelske, 2009). The national six-year graduation rate for four-year higher education institutions was 60 percent (American Institutes for Research, 2010). According to Mark Schneider, Vice President of American Institutes for Research (2010), in a five year period, state and

federal governments spent more than \$9 billion in support of students at four-year institutions who did not return for their sophomore year. Because of tuition and fees as well as state and federal subsidies for public universities, students, and thus tuition revenue, are the financial salvation for many colleges and universities. Low retention rates indicate that an institution is continuously working to replace students that leave the college or university. Finally, if students depart before graduation, they will likely not become donors to their former institution.

Higher education institutions utilize an assortment of methods to strategically market and manage student enrollments so as to improve student success (Barnes & Harris, 2010). College and university leaders cannot effectively improve student retention without also addressing the impact of retention on higher education finances (Yorke & Longden, 2004). Many colleges and universities have invested resources in resolving enrollment associated problems with little success – largely because of poor planning and insufficient accountability measures (Bontrager, 2004a). Furthermore, when academic failure leads to withdrawal or separation from the higher education institution, lost tuition revenues can total hundreds of thousands of dollars per year for the institution (Stupinsky et al., 2007). Through the history of higher education in the United States, numerous colleges and universities have closed because of insufficient enrollments leading to inadequate revenue which is necessary to offset operational and administrative expenses (Thelin, 2004).

Caison's (2005) research indicated that student attrition has prompted the concern of legislatures regarding the competent use of limited resources. Students and parents are anxious about the successful completion of a degree and the cost associated with that

degree. Increasingly, higher education is a considerable investment for governments as well as families.

From an economic perspective, the attainment of a college degree positively feeds the economy. Low retention rates in post-secondary education adversely impact the workforce. Students who do not persist often lack the credentials, education, and/or training to enter the professional workforce (Hagedorn, 2005; McMahon, 2000). Organizations and industries must invest in their own training programs or relocate to geographic areas where there is a sufficiently trained labor market. Earning a college degree may lead to a decrease in long-term poverty, higher personal income per capita, and an increased state tax base, thus contributing to a stronger economy (McMahon, 2000). Possessing this academic credential has strong benefits including lifetime earnings potential which is twice that of high school graduates (Martin & Hanrahan, 2004).

College graduates make substantial contributions to society via the taxes they pay (Sorensen, Brewer, & Brighton, 1995). In essence, if the education of the citizenry is greater, the advantage to the U.S. economy is greater. Most colleges and universities continue to operate with tightened budgets; given these financial circumstances, student retention and persistence to graduation have become increasingly important (Jamelske, 2009). With the current economic situation in the United States threatening even greater operational and resource challenges, it becomes even more critical that higher education institutions channel their efforts toward improving student success (Yale, 2010b).

Accountability, accreditation, and assessment influences.

Research associated with program effectiveness targeted at retention and degree completion has grown as public pressures for increased accountability have also increased (Pascarella & Terenzini, 2005). The increased analysis of colleges and universities, specifically increased accountability, accreditation, and college ratings and/or rankings, is motivation for increasing college enrollments. Specifically, answerability enterprises such as regional and professional accreditation associations have increased interest in college student retention and student success (Penn, 1999).

In a period of diminished resources, postsecondary education administrators seek ways of maximizing resources while maintaining or improving existing levels of effectiveness (Kezar & Lester, 2009). Because many colleges and universities receive public funding, they are subject to accountability requirements from the federal government, state agencies, and regional accrediting organizations. A number of state legislatures have communicated to their colleges and universities that they cannot continue business as usual and must develop and implement approaches and strategies to improve student success. U.S. higher education now finds itself in an ever-changing environment where a number of political and public constituents demand increased accountability (Newton & Smith, 2008).

Increasingly, federal and state governmental agencies judge post-secondary institutions that utilize definitions developed by politicians (Seidman, 2004). Summers (2003) posited that because of the considerable attention paid to accountability in the use of public resources, college student persistence has become even more essential to higher education. Numerous colleges and universities, their governing bodies, and state and

federal legislative agencies have adopted ‘performance-funding indicators,’ such as retention rates and graduation rates (Huddleston, 2000). These governing bodies hold universities accountable for earned student outcomes as a basis for funding (Burke, 1997; Tichenor & Cosgove, 1991).

Institutional goals for retention and persistence of students are frequently among those performance-funding indicators (Hagedorn, 2005). Higher education administrators debate the interpretation of the definitions used and question whether those data provided to federal and state agencies are accurate. For colleges and universities, regional accrediting associations provide the checks and balances on professional preparation and curriculum, and, therefore, pressure and influence the institution’s approach to student success (Kezar & Lester, 2009). Educators must be prepared to provide the necessary resources and support to enable all constituencies to meet new expectations regarding student learning and success to effectively contribute to achieving holistic student learning outcomes. All institutional constituencies must be prepared to assess and change their work to improve student learning and success (National Association of Student Personnel Administrators & American College Personnel Association, 2004).

State and federal governments must establish benchmarks for each segment of higher education regarding retention, attrition, and graduation rates while maintaining their institutional mission. Funding for higher education institutions continues to be based on quality measures developed by federal and state agencies – many of which are linked to student retention rates. The result for colleges and universities can be the

withholding of financial aid, which indirectly impacts student recruitment, admission, and retention.

The federal government has considered using post-secondary institutional retention rates in a national system of higher education accountability (Tinto, 2006). A number of state governments and agencies already use institutional retention rates in their systems of accountability. Consequently, the measure of student retention has emerged as a test of institutional efficiency and has developed into a topic of strategic significance for the organization.

Competition for students.

Student retention literature is important to higher education leadership because of the considerable competition for students among colleges and universities (Paul, 2001; Peltier, Laden, & Matranga, 1999; Salinitri, 2005). Compounding the pressures of increased competition and possible enrollment shortages have been severe reductions in state and federal funding for higher education (Breneman 1997). Higher retention rates positively influence a college or university's reputation thus improving the institution's capacity to entice the best students and faculty (Hagedorn, 2005). Post-secondary institutions continue to seek students who can succeed academically and who can be retained throughout their undergraduate years (Gifford et al., 2006).

Competition for students between universities is high, and an institution's reputation and level of funding often depend on its capacity for retaining high numbers of students as evidence of academic success (Tichenor & Cosgrove, 1991; Tinto, 2006). In the past 20 years, the impact and visibility of college ratings and rankings have steadily increased and are predicted to become even more evident in the future (Rentz & Zhang,

2011). Publications, such as *U.S. News & World Report*, have become important accountability mechanisms and marketing tools. In fact, multiple institutions now include aspirations to 'move up' or into certain levels of the *U.S. News & World Report* rankings as part of their mission statement (McCormick & Zhao, 2002; Hutt, Bray, Jones, Leach, & Ward, 2010). In the *U.S. News and World Report on College Rankings*, an institution's retention rate and graduation rate carry a weight of 20% in the ranking process (U.S. News & World Report, 2010). Although most chief enrollment officers are not fond of college rankings, they are cognizant of the considerable impact ratings and rankings have on students, parents, higher education presidents, and the public (Rentz & Zhang, 2011). Moreover, many students and parents subscribe to the notion that attending prestigious institutions, such as those touted by popular ranking publications such as *U.S. News & World Report* and *The Princeton Review*, lead to greater student learning, development, and success (Hagedor, 2006; Hossler, 2009; McDonough, Antonio, Walpole, & Perez, 1998; Pascarella & Terenzini, 1995).

According to Farrell and Vander Werf (2007), *U.S. News & World Report* has inordinately focused on input measures, such as student selectivity and average retention of freshmen, which has impacted recruitment and retention and ultimately affected the financial and economic health of the higher education institution. Numerous colleges and universities strive to rise to the top tier of the rankings with the belief that a higher ranking will result in increased applications for admission and increased enrollees, resulting in greater revenue for the institution (Seidman, 2004). Higher education institutions who recruit better students typically have a higher retention rate -- the higher an institution's retention rate, the more competitive they are in recruiting the best students

(Jamelske, 2009; Sauter, 2005). Consequently, higher retention rates improve regional and national rankings, thus becoming of extreme importance to an institution's recruitment efforts (Porter & Swing, 2006). However, Rentz and Zhang (2011) noted that "an effective enrollment management system constantly monitors the institution's image in the enrolled student body as well as its image in published rankings to determine how these images are affecting recruitment and retention efforts" (p. 77).

Influence of enrollment management on student success.

College and university chief enrollment officers play a key role in facilitating the various policies, procedures, and processes associated with recruitment, admission, matriculation, and retention of students (Barnes & Harris, 2010). Dolence (1993) commented that "it is the curriculum, academic policy, and corresponding choices students make to attend, persist, and drop out that drive the planning implementation, and evaluation of an institution's recruitment and retention programs" (p. 9). It is the extent to which administrators address these issues that partially determines institutional enrollments and competitive positioning.

Codjoe and Helms (2005) commented on the different perspectives of college student attrition. College student attrition is viewed positively when students meet their academic goals of graduation. Neutral attrition occurs when students depart for reasons associated with work or other schedule conflicts. Negative attrition occurs when students are underprepared for college or lack motivation in their academic endeavors. Data indicated that retention rates at most colleges and universities were well below the desired levels.

Higher education leaders focus on enhancing awareness of the enrollment process and its impact on college student retention (Walters, 2003). Bontrager (2004b) posited that a student's decision to remain engaged with and enrolled at an institution depended on the institution's ability to cultivate and expand on relationships with students. One of the most effective means of relationship-building with students is through communications and experiences throughout the student's educational career.

Student post-graduation and career aspirations were vital for effective enrollment management – especially in determining a student's fit with the organization (Bean, 1990). Retained students identify more closely with the institution and are more likely to become active alumni and post-graduation donors (Bontrager, 2004b). Bontrager posited that the promotional and financial support of satisfied alums recycles institutional resources and assists in sustaining the future enrollment of the institution, thus contributing to the financial viability of the college or university.

Economic and funding influences on enrollment management.

Although higher education institutions typically receive the bulk of their financial support from federal and state agencies, “state investment in higher education has substantially declined relative to changes in enrollment, in state wealth, and in the growth of institutional budgets” (McLendon & Mokher, 2009, p. 11). Higher education institutions continue to face challenges caused by declining means of financial support. Faced with budget cuts, higher education institutions have increased tuition in an effort to bolster finances. In the last decade, tuition and fees at public colleges and universities have increased at a rate that is twice the inflation rate (DesJardins, Ahlburg, & McCall,

2006). Accountability measures, such as retention, graduation rates, and overall student success, impact federal and state support and funding (Barnes & Harris, 2010).

Not only is student success vital for fiscal stability, but it is also important for the continuation and augmentation of the institution's academic distinction and rank. Chief enrollment officers reported an established trend of decreased funding resulting in higher tuition and placing grave constraints on future institutional accomplishments (Humphrey, 2006). To reduce adverse impacts on enrollment, institutions have simultaneously been increasing their use of tuition discounts and aid. Various levels of government have either intervened or threatened to intervene in the college price-setting market (DesJardins, Ahlburg, & McCall, 2006).

The primary purpose of strategic enrollment management is to capitalize on enrollments as efficiently and effectively as possible (LoBasso, 2006). As state and federal funding appropriations continue to decline, the use of enrollment management strategies will become a larger part of an institution's approach at maximizing resources. Colleges and universities can resort to increasing revenue by raising tuition. However, by doing so, the cost of tuition will eventually become so high that few students will be willing and/or able to pay the increased cost, thus ultimately lowering enrollment and reducing revenue. The interchange of the cost of tuition and students' willingness to pay the cost refers to price elasticity (Bontrager, 2004b). Bontrager (2004a) posited that enrollment management strategies were directly linked to the institution's financial viability.

Since tuition revenue accounts for millions in higher education, campus-based financial aid has become a large expenditure for most four-year colleges and universities

(Black, 2001). Higher education's enrollment management efforts have become closely linked to revenue projections, budgeting, and financial planning (Boyer, 1987).

Typically, private and public higher education institutions use a portion of their tuition income to fund campus-based scholarships for students (Hossler et al., 1990). St. John (2006) contended that "as tuition has risen, enrollment management has become an even more important mechanism for promoting and ensuring financial stability" (p. 276).

Studies associated with enrollment management and student success dominated the higher education literature; however, these same studies also highlighted the inadequacies of the literature related to the influence of enrollment management strategies on persistence and retention (Goodman & Pascarella, 2006). While a number of studies have been conducted on enrollment management, retention, and student success, because of the influence of student persistence on institutional accountability, economics, and finances in higher education, additional research is needed. Specifically, research is needed regarding enrollment management transition strategies that positively influence college student persistence at large public colleges and universities in the United States. A further weakness of the existing literature was that many studies which formed the foundation of higher education retention have assumed a traditional view of students rather than a more realistic contemporary view of the diverse student population (Pascarella & Terenzini, 1998).

Traditionally, higher education administrators equated enrollment problems with the need to recruit and admit an appropriate number of students with minimal concern for the aftereffects. However, Astin (1975) reminded college and university leaders of the following:

In four-year institutions, any change that deters students from dropping out can affect three classes of students at once, whereas any change in recruiting practices can affect only one class in a given year. From this viewpoint, investing resources to prevent dropping out may be more cost effective than applying the same resources to more vigorous recruitment (p. 2).

Students who do not fit with the institutional culture or who are released by the college or university for academic deficiencies are often replaced with the following year's incoming class. The traditional view of enrollment management has been frontloading through the admissions process – in essence, the practice of oversubscribing the freshman class to accommodate for the attrition of freshmen and sophomores (Penn, 1999).

The concept of net returns is vital to chief enrollment officers for making solid decisions regarding enrollment management practices. Enrollment management tactics suggest that possibilities exist for increasing resources while reducing costs, thus resulting in improved net revenue in the form of student success (Bontrager, 2004b). Efforts to garner financial support should be based on an enrollment management plan that calculates pragmatic results over a period of time with ensuing answerability to the institution's projected results. Regardless of numerous essential enrollment responsibilities, chief enrollment officers are greatly impacted by the emphasis on funding and revenue generation (Humphrey, 2006).

Influence of competition for students on enrollment management.

In recent years, higher education literature has teamed with research related to increased competition in higher education as demonstrated by the quest for regional and national rankings, institutional prestige, and resources (Brewer, Gates, & Goldman, 2002;

Newman, Couturier, & Scurry, 2004); Slaughter & Rhoades, 2004). One aspect of this competition is the perceived necessity for public colleges and universities to compete with one another. Chief enrollment officers relentlessly assessed whether their college or university is competitive with their peer institutions (Humphrey, 2006). Within this context, enrollment managers focused on attracting the most desirable students so as to improve student success on their individual campuses (Barnes & Harris, 2010; McPherson & Schapiro, 1998).

In an era of scarce resources, colleges and universities engage in continuous competition and increasingly focus their efforts on obtaining new and additional sources of revenue (Salancik & Pfeffer, 1978). Essentially, institutions drain their resources on strategies for enticing students from other colleges and universities. Because they are resource dependent, institutions, particularly public colleges and universities, seek additional sources of financial support to improve institutional quality so as to become impervious to the impulses of state legislators (Barnes & Harris, 2010). From this perspective, higher education institutions compete with peer institutions for high-ability students, quality faculty, and state and federal funding to improve student success (Powers, 2003).

While prestige and ample resources afford colleges and universities the opportunity to successfully engage in enrollment management approaches, higher education institutions remain susceptible to challenges. These challenges often include rankings, economic conditions, and a desire for increased quality and improved student success. All of these current trends in competition suggest the need for a better

understanding of how strategic enrollment management techniques influence student success in contemporary colleges and universities (Barnes & Harris, 2010).

Assessment and accountability influences on enrollment management.

Each higher education institution is accountable for improving student success on its campus (Yale, 2010b). Colleges and universities can better accomplish their student success goals through the use of enrollment management transition strategies to more effectively engage with students; to identify student needs earlier in their academic career; to track student persistence and progress to degree; and to measure and assess the impact of these enrollment management transition strategies on student success.

Measurable enrollment management approaches provide college and university administrators with information so as to make data-driven decisions regarding student success.

Summary of the Literature

The field of student attrition and associated literature has grown considerably since the 1960s (Tinto, 1982). Considering this rapid growth combined with the increasingly more sophisticated tools for handling of student attrition, higher education administrators must consider the extent and direction of their efforts. A variety of researchers have contributed to the body of literature addressing student engagement, student persistence, and student success (Astin, 1997; Bean, 1985; Pascarella & Terenzini, 2005; Tinto, 1987).

Kuh et al. (2005) asserted that a single blueprint for student success does not exist and that there are many roads to becoming an institution that successfully engages students in their learning. Even though many educationally engaging institutions have

similar policies and practices, they still differ in their approach to effectiveness. The absence of a single plan is a positive sign for enhancing student learning and engagement because it provides an opportunity for interventions that align with student needs which fit the mission, people, and cultures of the institution (Burns, 2010).

Higher education literature provided institutional leaders with ideas for constructing blueprints that reflected their institutional mission and student needs. Colleges' plans for supporting student success must include strategies for addressing the challenges students face, such as work and family responsibilities, low-income, inadequate academic preparation, and lack of social capital (Burns, 2010). The growing number and type of interventions available provide colleges with options that can be adopted and customized to institutional needs. Colleges can also encourage a culture of inquiry and evidence-based practice among administrators, faculty and staff. Several of these interventions began with identification and analysis of appropriate data to answer questions about student success (Burns, 2010). While a number of strategic enrollment management practices may be effective in promoting institutional enrollment objectives, the institution's success ultimately centers on two key factors – the college or university's commitment to change and the proficiency of the chief enrollment officer (Bontrager, 2004b). These core concepts and best practices are essential for effective enrollment management.

Enrollment management and student success literature was consistent in indicating that key offices, departments, and individuals play an important role in enrollment management strategies for student success (LoBasso, 2006). It was also clear that enrollment management strategies and models vary, and there is no ideal

configuration for all schools. The literature was also consistent in commenting that all institutional constituents play essential roles in the recruitment, retention, enrollment, and learning of students and share in the responsibility for student success (Humphrey, 2008).

Enrollment management transition strategies, while invaluable for improving college student retention, are not an immediate remedy to the retention challenge. In fact, enrollment management strategies involve a series of carefully deployed programs and processes that are developed, implemented, assessed, adjusted, and readjusted (Humphrey, 2008). Critically, chief enrollment officers must possess the patience for allowing the implementation cycle to complete so as to accommodate the requisite planning and evaluation for effective enrollment management. By doing so, the institution realizes the impact of enrollment management on improved retention and persistence to graduation (Bontrager, 2004b).

Conclusion

Higher education institutions are under increasing pressure and scrutiny to improve student outcomes such as retention, persistence, and degree completion (Zepke & Leach, 2005). Many reasons exist to cause institutions to be cognizant of student satisfaction, but the most compelling reason is that students with low levels of institutional satisfaction contribute to student attrition, which is costly for the institution, reduces enrollment, and adversely impacts the success of the school (C. Schroeder, personal communication, December 1, 2004).

University institutional research offices are beginning to show that simply raising the first-year retention rate (freshman to sophomore year) does not have as much of an effect on graduation rates as does increasing retention rates for the sophomore through

senior years. For instance, data from Lehigh University indicated that even an impossible 99% freshman retention rate would yield, at most, an 86.5% graduation rate if there were no improvements in sophomore and junior retention rates (Lehigh University, 2003). The Lehigh study indicated that a sense of institutional belonging was most important during a student's freshman year, yet it also remained of considerable importance during the student's sophomore and junior years (Bean, 1985).

In American higher education today, the environment of mounting financial constraints, unreliable student enrollments, and diversity challenges, colleges and universities must be more aware, flexible, and proactive in strategically positioning themselves to meet enrollment and retention challenges (Culp & Helfgot, 1998). To overcome increasing financial and budgetary challenges, colleges and universities must be creative and develop a strong institutional commitment for a collaborative enrollment management approach so as to instill intrinsic commitment to student success (Kezar & Lester, 2009). The idea of a continuous improvement culture is central to an institution's mission for becoming more student-centered and utilizing enrollment management concepts to improve college student persistence to graduation (Marcus, 1999).

It is vital that institutional leaders clarify to the entire campus community that the need for change is a powerful and useful element in the enrollment management process (Walters, 2003). The ideas, processes, and programs executed in a strategic enrollment management plan enhance student learning as well as overall student success (Huddleston, 2000). The success of enrollment management plans are largely due to the integration of key administrative areas working together to strengthen opportunities for student learning and academic success.

Studies associated with first- to second-year student persistence dominated higher education research and emphasized the gap in the literature related to persistence and retention of other levels of students (Goodman & Pascarella, 2006). A further weakness of the existing literature was that many of the existing studies, forming the foundation for retention in higher education, assumed a traditional view of students rather than the more realistic perception of a very diverse student population (Pascarella & Terenzini, 1998). A major gap in Tinto's Student Integration Theory and associated research was the role of external factors in shaping perceptions, commitments, and preferences (Bean, 1985). The literature on college student retention during the second year of enrollment was limited when compared to freshman retention literature. While problems related to retention in the second year were suggested in the literature, successful strategies for reinforcing retention of second year students were poorly defined.

Literature examining success in achieving desired student outcomes through enrollment management strategies has grown considerably over the last 30 years (Jamelske, 2009). The literature indicated that the most common student success areas studied include grade point average, retention, graduation, and student satisfaction. Barefoot (2000) posited that the bulk of research has focused on retention of first-year students because the largest numbers of dropouts occur at some point in the first-year (Tinto, 1993). In general, evidence indicated that college students who are involved in some type of organized first year program report increased engagement with the campus, earn higher grades, experience higher levels of satisfaction, and are more likely to be retained, graduate, and become involved alums; however, the literature was deficient in addressing how specific enrollment management techniques influenced student success

(Jamelske, 2009). Given this conclusion, it became clear that a better understanding of the influence of enrollment management influence student success was needed.

Literature showed that defining elements for successful enrollment management efforts included support at the highest levels; however, clear goals regarding tuition and enrollment, and a shared vision of how a campus would achieve those goals were often lacking (Dolence, 1996; Penn, 1999). The success of a college's enrollment management efforts gives credence to the suggestion that support and vision from the uppermost levels of the institution make all the difference (Hossler & Kalsbeek, 2008). Multiple areas of campus must be in agreement and must work together if enrollment management efforts are to be developed and sustained.

All areas of a college or university can impact an institution's continuing ability to maintain enrollment increases (Hutt et al., 2010). Enrollment and retention gains have pervasive effects, demanding considerable effort in the areas of admissions, recruitment, and student success. Higher education leaders and practitioners rely on evidence of student learning and those variables and programs which influence student success as presented in the literature (Burns, 2010). Innovative plans and interventions, pedagogy, and institutional practices in support of improved student success result in unique designs for change in higher education.

If colleges and universities are to endure the challenges of the future, they must emphasize planning and preparation to address the issues of institutional retention (Kotler & Murphy, 1981). In the pursuit of enhanced retention efforts, orchestrating change will remain a primary leadership challenge (Walters & McKay, 2005). The literature indicated that the better prepared students are academically, the greater the likelihood that

the student will become integrated into the academic systems of the post-secondary institution, resulting in the student's persistence to graduation (Seidman, 2004). Chapter Three of this dissertation outlines plans for a comprehensive survey of large, U.S. public colleges and universities to determine the influence of enrollment management on college student success.

Chapter Three

Methodology and Procedures

Introduction.

Chapter Three provides an overview of the methodology and procedures used to determine the influence of an institution's enrollment management transition strategies on student success measures at the respective institutions. In addition, this chapter reviews the statement of the problem, describes the research questions, method of investigation, population, instrument development, participants, data collection procedures, ethical considerations, and analyses of the data. The study employs a non-experimental, quantitative correlational approach to exploring the transition strategies and practices at large, public colleges and universities in the United States, as determined by the Carnegie Classification of Institutions of Higher Education (2010). Further, this study explores how the transition strategies at these target institutions influence college student retention, persistence, and graduation rates.

Purpose of the study.

The purpose of this study was to determine the direction of the relationship of various enrollment management transition strategies on college student success at large, public U.S. higher education institutions as categorized by the Carnegie Classification of Institutions of Higher Education (2010). For the purpose of this study, student success measures were identified by first-year (freshman to sophomore) retention rates and four- and six-year graduation rates. Furthermore, the purpose of this study was to identify the relationship between the enrollment management transition strategies employed and the institution's success at achieving retention and graduation rate goals at the undergraduate

level. Additionally, this study sought to establish the direction of the relationship between the amount of time the transition strategy had been in place and the institution's height of success in achieving established retention and graduation goals at the undergraduate level.

The study was designed to obtain the types of enrollment management transition strategies utilized with new freshmen at large, public U.S. colleges and universities. By examining the degree to which various transition strategies contributed to or impeded the persistence and graduation of students, as determined by first-year retention and four-year and six-year graduation rates, the institutional transition strategies which supported student success were identified. Furthermore, by comparing the amount of time transition strategies were in place to the institution's attainment of student success goals, the researcher inferred that the transition strategies positively influence, negatively influenced, or did not influence the institution in its realization of stated goals.

It appeared that minimal research had been conducted to investigate the relationship of specific enrollment management strategies on college student retention and persistence to graduation at large, public, predominantly undergraduate colleges and universities (Vander Shee, 2007). Moreover, the bulk of the retention literature was based on a collection of quantitative studies designed to identify predictive variables for college student success (Cokley, Bernard, Cunningham, & Motoike, 2001; Glynn, Sauer, & Miller, 2003; Waggoner & Goldman, 2005). As indicated earlier, in an environment of diminishing financial resources, increased government regulation, and numerous economic and political challenges, student persistence to graduation is critical to the longevity and success of American colleges and universities (Summers, 2003).

This study investigated which of the several college enrollment management transitioning strategies were most directly related to increased student persistence at large public colleges and universities in the United States. In addition, this study sought to identify the direction of the relationship between the utilization of specific enrollment management techniques and college student persistence. Finally, this study focused on the utilization of components of enrollment management as an avenue for improving college student retention and degree completion.

This study focused broadly on enrollment management practices which influenced college student persistence. It focused more narrowly on how the institution's enrollment management transition strategies influenced college student persistence. It is important to emphasize that enrollment management approaches are not an immediate solution to retention and degree progress challenges; in actuality, enrollment management strategies typically consist of a series of intentional processes and programs that are deployed, assessed, and adjusted over a period of time, moving colleges and universities incrementally toward improved retention and graduation rates (Bontrager, 2004b).

As higher education administrators struggle to create objective measures of student success, improving both student retention and graduation rates has become increasingly important (Johnson, 2006; Kalsbeek & Hossler, 2010). A plethora of research studies demonstrated that higher education institutions have experienced minimal success in making significant measurable improvements in college student retention, persistence, degree completion, and progress toward degree (Codjoe & Helms, 2005; Kerkvliet & Nowell, 2005). Many college and university leaders have not directed either adequate time or resources toward intervention strategies to improve these desired

retention related outcomes. Conversely, some campus administrators have devoted considerable resources to the development and implementation of intervention plans which have failed to deliver the desired retention outcome (Kalsbeek & Hossler, 2010). In either case, higher education leaders must be patient and allow enough time to determine whether the employed strategies will accomplish their desired outcomes.

Statement of the problem.

This study sought to address the following primary question: What is the influence of enrollment management transition strategies on undergraduate student success in large, public U.S. colleges and universities? Further, the study sought to determine whether expected benefits were maintained, realized, or lost with the prolonged employment of these transition strategies. Finally, the researcher sought to determine whether benefits or detriments, as reported by the institution's chief enrollment officers, occurred as a result of the implementation of these enrollment management transition strategies.

Research questions.

Designing the research questions was a critical piece of the quantitative research process. Research questions tailored the research objective and the purpose to specific questions which researchers sought to address (Creswell, 2005; Johnson & Christensen, 2004). Quantitative research questions inquired about the relationships among variables, and in this study, the researcher sought information about the relationships among variables (Creswell, 2007). In this study, the researcher used quantitative research questions to mold and specifically focus the study (Creswell, 2009).

In broad terms, this study intended to examine whether there was a relationship between enrollment management transition strategies employed at large public colleges and universities in the United States and undergraduate college student persistence and graduation rates. Specifically, the following research questions were addressed in this study (Appendix A):

1. Which of the available enrollment management transition strategies have the most positive effect on freshman college student retention?
2. What is the impact of a higher education institution's enrollment assistance strategies (registration assistance and/or calibrated scheduling) on first-year persistence?
3. What is the impact of a higher education institution's enrollment management transition strategies on the four-year graduation rate?
4. What is the relationship between the first-year retention rate reported by the surveyed institutions at the time of the study and the length of time that specific enrollment management transition strategies have been employed at surveyed colleges and universities?
5. What is the relationship between the four- and six-year graduation rates of institutions surveyed and the length of time that specific enrollment management transition strategies have been employed at surveyed colleges and universities at the time of study?

Research design and rationale.

A review of higher education research and literature guided this study's design and methodology. This study employed a non-experimental, correlational quantitative research design so as to address the descriptive and associational research questions (Creswell, 2008; Johnson & Christensen, 2008). Non-experimental quantitative research design is used in research when "... the independent variable is not manipulated and there is no random assignment to groups" (Johnson & Christensen, 2008, p. 356). Further, a non-experimental methodology will test relationships between variables without controlling or manipulating subjects and/or conditions. Quantitative research design is a prescribed, objective, logical process utilizing numerical data to discover information about a particular subject (Cooper & Schindler, 2006). Finally, correlational research provided a different approach whereby the researcher could fully investigate the independent variable's relationship to the dependent variables in the study (Leedy & Ormrod, 2005).

Johnson and Christensen (2004) described non-experimental design as a study without random assignments of the subjects and manipulation of treatment. A non-experimental, quantitative design will allow the researcher to record data with accurate measurements and will provide for analyses through the use of multiple statistical tools (Creswell, 2007). In a non-experimental design, the research studies naturally occurring variation in the independent and dependent variables without intervention by the researcher or any other party. In addition, non-experimental research is used to describe a trend or to document the characteristics of a phenomenon where there is no manipulation of variables (Johnson, 2001).

Morris' (1991) research provided guidance regarding the selection of the research design to be employed in this study. Specifically, Morris commented that quantitative methods are seldom suitable for research on values. Further, survey research cannot capture the richness, complexity, and depth of value questions as survey research pays little attention to levels of importance or distinctions in verbiage. Consequently, this study was non-experimental in design as this type of research does not call for manipulation of the variables.

Descriptive research seeks to collect information for answering questions by analyzing variable relationships (Best & Kahn, 1998). Survey methodology was utilized to provide descriptive data on the influence of enrollment management transition and integration strategies on college student success using a non-experimental research design. Since the study was intended to give chief enrollment officers an opportunity to share their perspectives about the influence of enrollment management transition strategies on student success, the non-experimental quantitative research design was the most appropriate for accomplishing this task. The research questions were designed to gauge the attitudes of chief enrollment officers in relation to a set of variables that could have impacted college student success at their respective institutions.

Quantitative research design involves the compilation of numerical data which has been analyzed so as to enlighten, forecast, and manage phenomena of interest (Creswell, 2005). These data are typically obtained from questionnaires, tests, and/or other formal instruments. An effective study involving quantitative research will include elements such as hypotheses to predict results of the research prior to deployment of the study, control of related factors which may influence the study, the collection of data

from ample samples of participants, and the use of numerical and/or statistical approaches for analyzing collected data. Quantitative research studies tend to produce results that are generalizable.

While some researchers consider the benefits of quantitative research methods to be obvious, when researching the advantages of quantitative research methods, much of the literature described the advantages of quantitative research design by describing the disadvantages of qualitative research design. Unlike traditional qualitative methods, which are typically anecdotal, legalistic, and non-comparative, quantitative methods are comparable, explanatory, generalizable, and based on theory (Macridis, 1992; Popper, 1992, Susser 1992). Typically, quantitative research designs provide summaries of several cases that emphasize reliability and validity and can be replicated. In general, data collected via a quantitative research design are viewed as more objective and scientific than qualitative data due to the large number of cases studied.

The basic purpose of this study was to determine whether a relationship existed between variables, and a non-experimental, quantitative research design provided a descriptive and correlational approach for conducting this study (Leedy & Ormrod, 2005). A study qualifies as correlational if the data lend themselves only to interpretations about the degree to which certain things tend to co-occur or are related to each other. Consequently, a non-experimental, correlational quantitative research design was used for evaluating the relationship between the utilization of enrollment management transition strategies and college student success.

Since the design of this study was both descriptive and correlational, the study utilized a questionnaire composed of primarily closed-ended questions with a few open-

ended questions. Survey instruments tend to gather data which describes attitudes, beliefs, and behaviors of a population. This survey instrument was constructed and evaluated through an iterative review process and was administered to a purposeful sample of large, public U.S. colleges and universities. In this study, not only was data collected in the same timeframe and independent of each other but they were collected from approximately the same level administrator in the organization.

Rationale for quantitative research design.

In his 2009 book, *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, Creswell commented that “the quantitative researcher uses the literature deductively as a framework for the research questions or hypotheses” (p. 28). Additionally, Creswell indicated that “in a quantitative project, the problem is best addressed by understanding what factors or variables influence an outcome” (p. 99). Quantitative research questions ask about connections between variables, which is part of the information the researcher seeks to know.

Creswell (2003) further commented on the rationale for a quantitative research study: Using quantitative methods allows the researcher to provide a numerical description of trends of a population, attitudes, or opinions of a population by studying a sample of the population. From sample results, the researcher can generalize or make claims about the population (p. 153). In quantitative investigations, the researcher selects what will be studied and presents questions designed so that statistical analysis can aid in providing narrow results. This type of research is intended to offer precise numerical explanations with minimal bias while also being rooted in objectivity (Creswell, 2005). Quantitative research provides a standard to prioritize such future research and a context

in which it can be evaluated. Specifically, descriptive statistics can convert a set of numbers into indices that describe data (McMillan & Schumacher, 1989). From a standardized and comprehensive survey, descriptive statistics can readily be generated.

Because non-experimental research seeks to gather data without influencing the research milieu, it is non-invasive and encompasses normal occurrences (Heiman, 2002). Quantitative research can explore large groups of subjects and, using descriptive statistics, produce results that convey typical behavior for the particular group(s). To go beyond simply describing data, inferential statistics are commonly used to illustrate inferences about the population from a sample for estimation and hypothesis testing (Trochim, 2001).

A non-experimental research design is typically used extensively in educational studies to provide a general understanding of certain variables within an educational framework that cannot be readily manipulated (Wiersma & Jurs, 2005). In summary, the rationale for utilizing a non-experimental, correlation quantitative research design was that this approach would test whether a relationship existed between enrollment management transition strategies and college student success. Additionally, a qualitative research model would not be appropriate because the work of qualitative researchers is often exploratory in nature.

Limitations of the study.

It is necessary and responsible to identify the limitations associated with any research study. The review of literature provided guidance regarding the limitations associated with this type of non-experimental quantitative study. This guidance aided the researcher in the identification of those limitations specific to this research study.

Qualitative research touts the ability to understand events from the perspective of the individual(s) involved while quantitative research helps to explore traits by using statistical data (Thyer, 2001).

The researcher has utilized the literature as a guide for identifying a number of limitations associated with this non-experimental quantitative research design. This type of research design does not accommodate for the random assignment of cases to groups for manipulation of independent variables (McMillan & Schumacher, 2006). Those data that are related to the length of time that the enrollment management strategy has been in existence at the higher education institution were collected through a single survey instrument. The review of literature indicated that there were a number of varying definitions of enrollment management. The specificity of prescribed enrollment management transition strategy employed at each institution was also a limitation.

The researcher identified several limitations which were specific to the data collection plan. The self-report survey instrument, which was utilized to collect data for this study, was limited by the responses of the participants, and the responses could have been subject to contamination (Johnson & Christiansen, 2004). Survey instruments are only as good as their representation of the sample and the honesty of the respondents. Although there are potential threats to any of these limitations, issues of reliability and validity were also tested. To address this limitation, initial drafts of the instrument were peer evaluated and pilot-tested through an iterative process. Furthermore, the willingness of each participant to respond and the level of importance each participant assigned to the survey were also considered a limitation.

Measures and data collection.

For the purpose of this study, a survey method was the best approach for gathering information about the variables to be examined. According to Vessey (2006), researchers can utilize surveys to gather data which can be analyzed through quantitative analysis. Specifically, this study utilized a questionnaire, one of the six primary methods of data collection, as the scheme for collecting survey data (Tashakkori & Teddlie, 2003).

Recent developments in technologies have created alternative methods of conducting surveys through the use of e-mail and Web sites. Both methods use electronic communication, involve fewer resources, and make faster responses available than traditional methods. However, new survey methodologies also generate problems involving sampling, response consistency and participant motivation (Yun & Trunbo, 2006). A number of researchers have reported reasonably good response rates by using e-mail and/or Web to conduct their survey research (Kittleson, 1995; Schaefer & Dillman, 1998; Smith 1997).

Multiple contacts to participants tend to improve response rates (Yun & Trunbo, 2006). In general, survey response rates conducted via e-mail may only reach 25-30% without follow-up email (Kittleson, 1995). For example, Smith and Leigh (1997) reported a 5.3% higher response rate when conducting an e-mail survey and using multiple e-mail contacts. Using four e-mail contacts, Mehta and Sivadas (1995) reported a higher response rate, and Schaefer and Dillman (1998) also reported an increase in responses as a result of increasing e-mail contact with their participants.

While many researchers have enjoyed relatively strong response rates through the use of multiple e-mail contacts, others reported mixed results when using third or fourth

e-mail contacts. Specifically, Kittleston (1997) reported that the second e-mail contact doubled the response rate, but third or fourth e-mail contacts only marginally impacted the number of responses. Heberlein and Baumgartner (1978) reported that each additional e-mail contact resulted in an increase in the response rate. Isaac and Michael (1990) reported an increase in the number of responses when using third and fourth e-mail contacts.

Researchers have also reported concern regarding the timing of follow-up email contacts. Anderson and Gansneder (1995) and Dillman (1978) agreed that traditional mail surveys and follow-up mailings should be sent at one, three, and seven weeks from the original mailing date. These researchers also agreed that e-mail follow-ups should occur at least one week sooner than the timeline for traditional mail surveys. Additionally, Schaefer and Dillman (1998) recommended that listservs should not be utilized in survey research because such lists are more impersonal and tend to elicit responses inadvertently sent to the entire list.

Following the guidance of a number of researchers (Anderson & Gansneder, 1995; Creswell, 1994; Dillman, 1978; Heberlein & Baumgartner, 1978; Isaac & Michael, 1990; Kittleston, 1997; Schaefer & Dillman, 1998; Smith & Leigh, 1997), three steps were conducted in an effort to gain a high response rate. The researcher sent the initial introductory email with the link to the questionnaire. After five business days, the researcher sent a second email; after an additional five business days, the researcher sent a third email as a reminder. After a total of three weeks, the researcher began coding, cleaning, and data analysis. As responses were returned, each survey was coded, if necessary, and the data cleaned.

Research permission and ethical considerations.

The researcher addressed ethical issues throughout the study. Researchers require permission to collect data from individuals. For the purpose of this study, permission was sought from the Campus-Based Human Subjects Committee (CBHSC) of the Darden College of Education at Old Dominion University requesting permission for conducting an exempt study for this research project as outlined in Appendix B. In compliance with the expectations of the CBHSC, permission was obtained from the participants via an informed consent process. The informed consent indicated that participants were guaranteed certain rights, agreed to participate in the study, and acknowledged that their rights were protected. A statement associated with informed consent was affixed to the Web survey and reflected that the subject was in compliance by their participation.

Respondents participated after receiving detailed information regarding the purpose of the survey as outlined in Appendix C, intended utilization and publication of the results, and informed consent as detailed in Appendix D. Participation was voluntary, and respondents were assured of their anonymity and that their answers would be reported in aggregate form only. Participants' anonymity was protected by numerically encoding each questionnaire returned and retaining the responses in a confidential environment.

All data collected as part of this study was maintained on an encrypted, password protected flash drive and backed up on a secure server behind a firewall with high-security and password protected access. Further, the identities of subjects were anonymous on the questionnaire responses. Although participants were asked to provide their title, this information was kept confidential, reported only in aggregate form as a

descriptive statistic, available only to the researcher, and destroyed once data analyses were reported.

The survey questionnaire was Web-based and accessed through the URL embedded in the email. The tool used for data collection was SurveyMonkey as this application included stringent privacy and confidentiality standards and protections. An advantage of a Web-based survey was that subjects' responses could be automatically stored in a data base and easily transferred into numeric data by using the Statistical Package for the Social Sciences (SPSS) application, which can be deleted after completion of the research study and can be reported out in Microsoft Excel format. Only the researcher had access to the individual responses to the questionnaire.

Population.

The target population of this study consisted of all colleges and universities in the United States, and the sampling frame consisted of those U.S. colleges and universities classified as large, public higher education institutions as determined by the Carnegie Classification of Institutions of Higher Education (2010). Since the early 1970s, the Carnegie Classification of Institutions of Higher Education has been touted as the first organization for classifying and relating diversity in U.S. higher education institutions (Carnegie Foundation for the Advancement of Teaching, 2001). This structure has been broadly used in the study of higher education and in the design of research studies to aid in ensuring acceptable representation of sampled institutions. The various Carnegie classifications offer diverse frames of reference through which to view U.S. colleges and universities.

This study focused on large public institutions because they enroll approximately 90% of all students pursuing a postsecondary education (Zusman, 1999). Since public institutions educate the largest portion of students in the U.S., focusing on large public institutions can reveal current practices in contemporary higher education that affect the greatest number of students. Rowley and Sherman (2001) stated that many traditional institutions of higher education choose to emulate the large public colleges and universities and use them as models and examples for their own changes. For these reasons, this research study focused exclusively on large four-year public U.S. higher education institutions as determined by the Carnegie Classification of Institutions of Higher Education (2010).

Sample.

Large samples with meticulous selection are stronger because they yield results with greater accuracy; however, data collection and analysis are proportionately more expensive and labor intensive with larger samples. In essence, the ideal sample size for a survey depends on three key factors: available resources, intent of the study, and the desired quality for the survey (Kelley, Clark, Brown, & Sitzia, 2003). While Fink and Kosecoff (1985) did not define an adequate size for a sample, they commented that larger samples can reduce sampling errors. Fowler (2002) indicated that precision steadily increases up to a sample size of 150 to 200 respondents. There is only a modest gain when increasing the sample size beyond 200.

The overall sampling strategy employed in this research involved purposeful sampling. Johnson and Christensen (2004) described purposeful sampling as enabling the researcher to specify the traits of a desired population and to locate individuals with

those characteristics. Tashakkori and Teddlie (2003) noted that sampling techniques entail selecting specific units or cases “based on a specific purpose rather than randomly” (p. 713). With purposeful sampling, Creswell and Plano Clark (2007) noted that the researcher intentionally selects participants who have experience with a central idea or main concept under investigation.

Because experimental research design entails explicit random selection and assignment of participants, a non-experimental design was appropriate based on the inability to randomly select or assign subjects in the study (Creswell, 2005). For the purpose of this study, the research questions answered required feedback from chief enrollment officers, or their designee, at large, public U.S. higher education institutions. Therefore, the specific characteristics of the desired population were administrators who deal with enrollment management, retention, and graduation rates. Because the researcher had access to the names of a population of chief enrollment officers through membership in the American Association of Collegiate Registrars and Admissions Officers (AACRAO), single-stage sampling was utilized (Creswell, 2003).

The survey was distributed to the population directly without sampling groups or organizations to identify the desired population. In this study, the target participants consisted of the chief enrollment officers, or their designee, for each of the 195 large public colleges and universities in the United States. The search criteria for obtaining the list of institutions are available in Appendix E, and a list of the 195 higher education institutions is presented in Appendix F.

The non-probability sample was purposefully selected. In purposeful sampling, the researcher selects specific elements from the population that will be useful about the

topic of interest (McMillan & Schumacher, 2006). On the basis of the researcher's information about the population, a judgment is made about which subjects should be chosen to afford the best information for the study.

As indicated earlier, the Carnegie Classification of Institutions of Higher Education is a known repository of colleges and universities in the United States (Carnegie Foundation for the Advancement of Teaching, 2001). Large, public U.S. colleges and universities were surveyed as they are typically reputed as being at the forefront of institutions employing advanced enrollment management transition strategies. Therefore, the institutions included in this study were based upon the identification of a purposeful sample which exemplifies the features of an institution employing enrollment management transition strategies in support of student success goals as defined from a review of higher education literature (Black, 2001).

Purposeful sampling techniques can be viewed as selecting units such as individuals, groups of individuals, and/or institutions (Teddlie & Yu, 2007). Maxwell (1996) commented further on purposeful sampling by describing this approach as choosing "particular settings, persons, or events that are deliberately selected for the important information they can provide that cannot be gotten as well from other choices" (p. 87). Although purposeful sampling techniques are primarily used with qualitative studies, it was employed in this study because it speaks to specific purposes associated with answering each research question.

According to Noel-Levitz (1996), an institution's chief enrollment officer stays abreast of state, federal, and institutional legislature, is able to discuss funding allocations, and is able to measure the public's support for higher education. This

professional has a background in admissions, communications, enrollment, marketing, research and analysis, personnel management, and/or fiscal concepts. According to the National Association for College Admission Counseling (NACAC) (2010), the chief enrollment officer is defined as the individual responsible for developing marketing plans associated with recruitment and retention of students and coordinating the institutional efforts of admissions, financial aid, records, registration, and advising.

Black (2001) described the chief enrollment officer as an individual who efficiently and effectively incorporates often unrelated functions together to manipulate enrollment. LoBasso (2006) defined the chief enrollment officer as having oversight of at least two of the following functions: admissions, registration, financial aid, records, retention, orientation, advising, academic support, career services, cooperative education, alumni relations, marketing, institutional research, and/or, bursar. For the purpose of this study and after examining a variety of definitions and descriptions in the literature, unless the postsecondary institution specifically listed an individual with the title of chief enrollment officer, the institution's registrar will serve as chief enrollment officer. The rationale for the selection of these professionals is their tendency to have more experience and/or education associated with student success and/or enrollment management.

Sampling is an essential piece of the research process as it aids in informing the quality of inferences stemming from the findings (Onquegbuzie & Collins, 2007). The number of subjects in the study is referred to as the sample size. Whether employing a qualitative or quantitative research design, the researcher must determine an adequate number of participants, or sample size, and a sampling scheme. In general, researchers

should include a sufficient size to obtain credible results. Two approaches exist for determining adequate sample size: published tables or sample size calculators based on established formulas and various general guidelines. Utilizing general guidelines for determining sample size is a more informal approach and tends to be used more in educational research (McMillan & Schumacher, 2006).

In this study, participants were chief enrollment officers, or their designee, at large, public U.S. post-secondary institutions. Participants were selected based on their job title and/or job functions and attempted to include the individual with a title of chief enrollment officer or registrar in absence of a chief enrollment officer (Bodfish, 2002; Huddleston & Rumbough, 1997). The individuals and their contact information was initially determined through the use of the *2011 American Association of Collegiate Registrar and Admissions Officers (AACRAO) Membership Guide*.

Instrumentation.

“The quality of the research depends most on proper conceptualization, design, subject selection, instruments, and procedures” (McMillan & Schumacher, 1989, p. 209). Creswell (2005) indicated that an instrument was a tool for observing, measuring, or documenting quantitative data. For many reasons, the questionnaire is the most widely used instrument for collecting information from participants. Specifically, the questionnaire is relatively economical, contains standardized questions, helps to ensure anonymity, and contains questions that are targeted at a specific purpose (McMillan & Schumacher, 1989).

Babbie (1990) and Creswell (1994) indicated that survey research generalizes from a sample to a population so that researchers can draw conclusions about an attribute,

outlook, or actions of the population. Creswell (1994) commented that “something can be measured objectively by using a questionnaire or an instrument” (p. 2). After the researcher identifies an instrument appropriate for gathering these data, the analysis will follow a statistical format for organizing and analyzing quantitative data and interpreting numbers which are derived from measuring a variable or trait (McMillan & Schumacher, 1989).

To collect survey data, which consists of a set of question and can be administered in questionnaire format, the researcher either mails, e-mails, or asks questions in an interview by phone or in person (Gay, Mills, & Airasian, 2009). In this study, data were collected using a self-report instrument. This approach was appropriate because self-report instruments acquire data from participants regarding their knowledge, attitudes, beliefs, and behaviors. Further, self-report instruments are appropriate for collecting data from a large group and provide a description of the phenomenon from a carefully selected sample of respondents (Mertens, 2005).

The researcher explored a number of available avenues for an appropriate existing survey tool. Although existing surveys were discovered through extensive searches of journal databases, books, and Internet sites, an appropriate survey tool could not be located. The most relevant instruments were lacking in that they focused on enrollment management structures or student success predictors; none examined the influence of enrollment management transition strategies on college student success. Further, the researcher examined Lester and Bishop’s (2000) *Handbook of Tests and Measurements in Education and the Social Sciences* and was unable to locate an appropriate survey instrument.

Because the researcher was unable to locate a suitable existing survey tool, an instrument was developed for this research study using questions derived from the review of higher education literature. Quantitative or closed-ended questions tend to assist in gathering data that are descriptive, correlational, and comparative in nature (Onwuegbuzie & Leech, 2007). Qualitative research questions are open-ended, evolving, and non-directional and seek to discover, explore, or describe (Creswell, 1998). Although the majority of the questions used in this survey instrument were closed-ended, a few open-ended questions were also included so as to gather richer data. The survey instrument was questionnaire and consisted of four sections as summarized in the blueprint detailed in Appendix G.

One section consisted of six questions primarily addressing demographics of the respondents. The purpose of this section was to allow for anonymity so that the institution did not have to be identified. By collecting demographic data, the researcher can cross-tabulate and compare subgroups, if desired, to determine how opinions vary between the various groups (Kelly, Clark, Brown, & Sitzia, 2003).

The next section consisted of 20 closed-ended questions. This section collected data on enrollment management transition strategies at the respondents' institutions. Detailed information regarding the existence of an enrollment management transition strategy and the length of time the programs have been in place were collected.

The following section consisted of six questions focused on collecting measures of student success at the respondent institutions. Specifically, this section focused on freshman to sophomore retention rate and the four-year and six-year graduation rates. In addition, this section collected data associated with student success goals and whether the

institution realized established objectives as measured by freshman to sophomore retention rate and four- and six-year graduation rates.

The next section contained questions targeted at gathering data associated with the perceived influence of enrollment management transition strategies on college student success. This section contained open-ended and closed-ended items to encourage feedback and to gather rich data to assist in determining the influence of transition strategies on college student success. Further, this section contained items targeted at identifying benefits or detriments of the institution's transition strategies on college student success goals.

A self-administered survey was the most appropriate method of data collection for this research study as surveys are widely accepted for both quantitative and qualitative data collection (Brewer & Hunter, 2006; Creswell, 2003; Weimer, 2006). A survey instrument can also be utilized to understand the traits of a population (Johnson & Christensen, 2004). Further, survey instruments are valuable for gathering information from subjects so as to express or clarify information, thoughts, ideals, and conduct (Babbie, 1990).

Creswell (2003) indicated that survey instruments are effective in that they work well with large populations, are relatively affordable, and can be employed with a reasonable response time. Moreover, survey instruments are an effective tool in that they provide for anonymity which can encourage subjects to respond honestly (Fowler, 1993). Yin (2003) commented that survey instruments are especially beneficial when the research study seeks to describe an incidence or phenomenon. Surveys are also advantageous when the researcher desires to predict certain outcomes. Finally, the

survey tool allows the researcher to collect a broad array of descriptive data from a large population that can be generalized to a larger population (Creswell, 2003).

Based on literature from the researchers referenced earlier, this study utilized an iterative design process to develop the survey instrument. The instrument was developed utilizing literature and supporting research in order to investigate the influence of enrollment management transition strategies employed and the institution's realization of stated student success goals. The instrument was constructed based on the Johnson and Christensen's *Principles of Questionnaire Construction* (2000).

Based on guidance provided by Tashakkori and Teddlie (2003), the questionnaire was constructed as a self-report data collection instrument to be completed by the research participants. The instrument consisted of Type 1 data collection (qualitative questionnaire) with unstructured, open-ended questions as well as Type 3 data collection (quantitative questions) with structured, closed-ended questions. The bulk of the questionnaire included closed-ended items so as to be quantifiable; however, a small portion of the questionnaire included open-ended items designed to encourage participants to indicate their views on certain areas of their institution's utilization of enrollment management transition strategies as a tool for student success.

An iterative peer evaluation of the instrument was conducted by a panel of higher education enrollment specialists and/or researchers. The panel provided advice on the construction of the survey including bias, clarity, content, effectiveness of the questions, face validity, flow, and interpretability (Gall, Gall, & Borg, 2007). The iterative peer evaluation was followed by a pilot test to check for clarity, ambiguity, completion time, directions, and other associated difficulties associated with responding to the

questionnaire (McMillan & Schumacher, 2006). The survey instrument is presented in Appendix H.

A summary of the rationale for performing a pilot study is as follows (Van Teijlingen, Rennie, & Hundley, 2001):

- Assessment of the feasibility of steps necessary for the main study;
- Identification of potential human error and data optimization problems; and
- Assessment of time and budget challenges which can occur during the research study;

Items on the questionnaire addressed enrollment management transition strategies; the division to which the chief enrollment officer reports; student success measures; the length of time transition strategies were in place; and perceptions related to transition strategies and student success. In addition, the instrument asked the participants to identify benefits or detriments expected with the implementation of the transition strategies at their institution and whether their goals were realized. Open-ended questions addressed whether significant improvement was realized as well as whether the respondent felt that their transition strategies could be further improved. The closed-ended questions focused on determining whether a relationship existed between an institution's enrollment management transition strategies and realizing student success goals as well as the degree to which expected benefits were met.

The Likert-type scale has been used by researchers for decades. As early as 1932, Rensis Likert developed this original scale of measurement. Likert reported very satisfactory reliability data for the scales developed with his procedure. Subsequent research has generally confirmed the fact that Likert-type attitude scales are valid and

reliable tools for measurement (Jamieson, 2004). Jamieson further commented on the rationale for utilizing an interval scale based on Likert-type categories as well as its importance. If the wrong technique is used, the researcher risks arriving at an incorrect conclusion associated with the significance of the research. Because of the stated value of this type of scale, the closed-ended questions were measured on a 5- or 7-point Likert-type.

Reliability and validity.

The validity and reliability of a survey tool are critical for reducing errors arising from measurement problems in research study. Definitions of reliability and validity are important for designing and evaluating research because findings are directly related to the measure that is employed. Researchers should select an instrument that provides strong evidence that making such conclusions is valid and reliable (McMillan & Schumacher, 2006).

Thorndike (1997) commented that reliability is important for accuracy and precision with a measurement process. McMillan and Schumacher (1989) also provided guidance on the importance of reliability in a research study:

Reliability refers to the consistency of measurement, the extent to which the results are similar over different forms of the same instrument or occasions of data collecting. The goal of developing reliable measures is to minimize the influence of chance or other variables unrelated to the intent of the measure. If an instrument is unreliable, the information obtained is ambiguous, inconsistent, and useless. It is therefore important for researchers to select and develop data gathering procedures that will be highly reliable (p. 243).

To establish test validity, the most commonly used approach is the construct validation of an instrument (Haladyna & Downing, 2004). Construct validity is accomplished if the items gauge knowledge and skills that are tangible demonstrations of the theorized, unobservable phenomenon. In essence, the test is successful at measuring the targeted fundamental constructs (Crocker & Algina, 1986).

In research studies, reliability refers to the consistency of measurement -- the extent to which the results are similar over different forms of the same instrument or occasions of data collection. If a survey instrument has minimal errors, then it is deemed reliable; conversely, if an instrument has numerous errors, it is determined to have a low level of reliability. Error can be measured by how consistently a trait can be assessed (McMillan & Schumacher, 2006). The pilot study spoke to the level of reliability of the proposed survey instrument and lead to various iterations of the questionnaire in an effort to improve reliability, as needed.

In survey research, validity relates to the level to which a study correctly reflects or evaluates the specific idea which the research seeks to measure (Thorndike, 1997). In addition to their commentary on validity, McMillan and Schumacher (1989) provided insight as to the importance of validity in a research study:

Validity is the extent to which inferences made on the basis of numerical scores are appropriate, meaningful, and useful. Validity is a judgment of the appropriateness of a measure for specific inferences or decisions that result from the scores generated . . . in order to assure others that the procedures have validity in relation to the research problems, subjects, and setting of the study, it is

incumbent on the investigator to describe the validity of the instruments used to collect data (p. 241).

According to Tashakkori and Teddlie (2003), validity refers to the idea of high quality research so as to be “plausible, credible, trustworthy, and, therefore, defensible” (Johnson & Christensen, 2000, p. 207). In the context of research design, validity refers to the degree to which scientific explanations match reality and refers to the truthfulness of findings and conclusions (McMillan & Schumacher, 2006). Explanations associated with observed phenomena approximate areas of reality and truth. The degree to which explanations are accurate encompasses the validity of the research design.

Since the instrument was developed by the researcher, the reliability and validity of the instrument was determined through peer evaluation and pilot testing (Johnson & Christensen, 2000; Tashakkori & Teddlie, 2003). An iterative review and modify process is a method which was employed to validate the criteria, content, and design of the survey instrument (K. Moore, personal communication, September 27, 2006). A panel of experts was used to test face validity and a pilot study was conducted to test the reliability and content validity of the instrument. Peer evaluation and initial pilot testing occurred during late fall 2011. The instrument designed by the researcher was titled the Enrollment Management Student Success Strategies Questionnaire (EMSSSQ) and was a self-administered survey instrument consisting of 73 items targeted at covering a full range of issues related to enrollment management transition strategies and/or student success. Content validity was also verified through the use of subject expert review. The peer evaluation was performed by a panel of enrollment professionals to confirm the instrument’s validity.

As indicated earlier, the formative committee reviewed, critiqued, and examined the preliminary researcher-developed survey for effectiveness. The formative committee consisted of a selection of individuals who possessed knowledge related to this study's problem, the organization(s) impacted, and the strategies employed at the surveyed institutions (K. Moore, personal communication, September 27, 2006). The charge of the formative committee was to review the criteria developed by the researcher and determine whether changes should be made. After the formative review, the researcher modified the survey instrument incorporating suggestions from the formative committee into the revised instrument and submitting to the summative committee for approval. After the summative committee had reviewed, the formative committee finalized the content and design of the instrument.

Similar to the formative committee, the summative committee consisted of individuals who possessed knowledge relative to the study's problem and the purpose of the study. However, the summative committee possessed a stronger degree of expertise in the areas of enrollment management and student success (K. Moore, personal communication, September 27, 2006). In addition, at least one member of the summative committee had some background in higher education research and/or assessment. The charge of the summative committee was to review the criteria and instrument and perform an iterative review and modify process that recurred until the instrument was finalized. After all necessary changes had been made as a result of the iterative process, the survey instrument was considered valid for the purposes of this study.

Finally, in this study, stability or reliability of the survey tool was obtained through pilot testing the instrument to demonstrate that the same results were acquired

with repeated administration of the same instrument to similar study respondents. At the pilot study phase of this study, a judgment sample of five to eight higher education professionals was drawn to participate in testing this instrument.

The intent of the pilot study was to determine whether the instrument was designed in a manner that elicited the required information from the participants (International Institute for Educational Planning, 2005). Pilot testing typically allows weaknesses in a survey instrument to be detected so they have be removed or revised before the large scale study is employed. The pilot study also served to assess whether the items could be understood by the expected respondents

The pilot study was also beneficial in ensuring that the ideas and/or methods behind the research ideas were sound. Specifically, the survey instrument was designed based on an iterative review and modify process utilizing a formative committee and a summative committee. The formative committee included a group of individuals with knowledge related to the relationship of enrollment management transition strategies on college student success in large public four-year colleges and universities. The formative committee reviewed the research criteria and recommended changes to the researcher. The summative committee also included a group of individuals with in-depth knowledge of the influence of enrollment management transition strategies on college student success as well as educational research in large public four-year colleges and universities. After the formative committee reviewed the draft research instrument, the summative committee reviewed and made recommendations to the researcher (K. Moore, personal communication, September 27, 2006). After revisions from the formative and summative committees were made to the survey instrument, the formative committee reviewed the

revised instrument. Finally, the summative committee reviewed the revised instrument after all iterations had been reflected in the final draft. After all revisions had been completed, the instrument was considered valid for the purpose of this study.

Data analysis.

Quantitative research design classifies and constructs statistical models of data that can be used to generalize to a larger population. Once collected, these data were imported into SPSS for statistical analysis. After the data had been collected and before any statistical analysis was performed, the data was screened and cleaned on the univariate and multivariate levels (Tabachnick & Fidell, 2000).

The following methods of statistical analysis were employed for data captured in response to these three individual research questions:

1. Which of the available enrollment management transition strategies have the most positive effect on freshman college student retention?
2. What is the impact of a higher education institution's enrollment assistance strategies (registration assistance and/or calibrated scheduling) on first-year persistence?
3. What is the impact of a higher education institution's enrollment management transition strategies on the four-year graduation rate?

For the purpose of this study, a one-way analysis of variance (ANOVA) approach was utilized to determine the overall significant differences (Maresca, 2004). This analysis was utilized because there was a single dependent variable (the institution's measure of student success) that was continuous and an independent variable that was categorical (the enrollment management transition strategies employed at the higher

education institution). The ANOVA determines variance under different conditions due to a factor other than mere chance and tests for significance among group means by determining variance in the dependent variable due to the effects of the independent variable. This is particularly appropriate to use when the independent variable is quantitative and the population is normally distributed (Jaccard & Becker, 2002).

While a *t*-test could also be used, it has a higher probability of a Type I Error (Jackson, 2009). Type I Error is a pervasive error in scientific practice that threatens neither the search for reliable knowledge nor the epistemic basis of science; rather, Type I Error is described as a form of negative knowledge (Collins & Pinch 1993; Darden 1998; Allchin 2000). In essence, Type I Error results in confusing chance effects or unauthentic correlations for legitimate correlations or regularities (Mayo, 1996). Because of the higher probability of a Type I Error when utilizing a *t*-test for statistical analysis, the researcher will employ the ANOVA to aid in answering these research questions. However, because Research Question 2 dealt with first-year retention rates before and after deployment of enrollment management transition strategies, for the purpose of this study, the Dependent *t*-test of Paired Samples was used. This form of analysis is the most frequently used inferential statistical test for variables measured on the interval or ratio scale (Stevens, 1996). The Dependent *t*-test of Paired Samples is typically used to determine if there are differences between group means.

In addition, descriptive statistics were used to “provide a clear, accurate description of individuals, events, or processes” (Gall et al., 1999, p. 172), and those descriptive data were reported in tabular form. Survey instruments are typically utilized for gathering descriptive information. Descriptive research is designed to document

attitudes, conditions, and/or characteristics of individuals or groups of individuals as well as to provide a clear accurate description of individuals, events, or processes (Portney & Watkins, 2000; Gall et al, 1999).

In general, descriptive statistics report summary data. The three major types of descriptive statistics include frequencies, measures of central tendency, and measures of variability. Frequency statistics tallies the number of occurrences of each variable within the sample. Measures of central tendency provide one number representing the entire set of values. Measures of variability designate the degree to which values vary around the average. Survey research frequently includes measures of descriptive statistics, which permits the researcher to describe many pieces of data with a few indices.

The following methods of statistical analysis were employed for data captured in response to these two individual research questions:

4. What is the relationship between the first-year retention rate reported by the surveyed institutions at the time of the study and the length of time that specific enrollment management transition strategies have been employed at surveyed colleges and universities?
5. What is the relationship between the four- and six-year graduation rates of institutions surveyed and the length of time that specific enrollment management transition strategies have been employed at surveyed colleges and universities at the time of study?

To answer these two research questions, correlation coefficients were used because they provide a measurement of the strength and direction of the relationship between two quantifiable variables. If two variables move in the same direction, a

positive correlation is assumed. Similarly, if two variables move in opposite directions, a negative correlation is assumed (Alreck & Settle, 1995).

To determine the influence or relationship of enrollment management transition strategies on college student success, the most common correlation technique is the Pearson's Product Moment Coefficient, represented by r , for determining the influence or relationship of enrollment management transition strategies on college student success. Results of the survey were compared and correlated with the initial results in the pilot study and expressed by the "Pearson r coefficient" (McMillan & Schumacher, 2006).

While the Spearman rho correlation could be used in this study, the Spearman rho is a gauge of the linear relationship between two variables and is not as appropriate as the Pearson's Product Moment Coefficient. Further, the Spearman rho correlation is different from the Pearson correlation in that the calculation is completed after the numbers have been converted to ranks (Gay, Mills and Airasian, 2006). The Spearman rho is used when data are ordinal; the Pearson r is used when the variables are in interval or ratio data (Gay et al, 2006). In summary, because this study used interval data, the Pearson's Product Moment Coefficient was the more appropriate measure of influence or relationship of enrollment management transition strategies on college student success.

Organization of the study.

Chapter One of this study introduced the problem statement and its design components. Chapter Two presented a review of the related literature and research relevant to the problem of the study. Chapter Three described methodology and procedures used for data collection and analysis. Chapter Four provided an analysis of

the data. Chapter Five summarized the results of the study, drew conclusions based upon those results, and offered recommendations for future research.

Summary

This chapter described the methods of investigation used in this study. It discussed the survey population, survey instrument, measures of student success, and data collection and analysis procedures. It should be noted that adjustments to the statistical analyses due to the inequality or lack of institutions in sample size are explained in Chapter Four.

This chapter reviewed the statement of the problem and described the research questions, population and data collection procedures, instrument development, and analysis of the data. The analyses of the data are presented in Chapter Four. Chapter Five provides a summary, discussion, and conclusions generated from the data analysis as well as implications and recommendations for future research.

Chapter Four

Presentation of Data

Introduction.

This research was conducted to describe the relationship between enrollment management transition strategies and college student success at large, public U.S. higher education institutions as categorized by the Carnegie Classification of Institutions of Higher Education (2010). Overall, this chapter presents the findings of the study. Specifically, this chapter presents the descriptive, statistical, and ancillary findings and analyses of data regarding the relationship of enrollment management transition strategies on college student success as measured by first-year student retention rates and four- and six-year graduation rates.

In an effort to answer the five stated research questions, data gathered in response to the survey as well as the associated results are presented in this chapter. Specifically, results are presented through the following statistical analyses: descriptive statistics, Pearson's Product-Moment Correlation Coefficient, dependent *t*-test for paired samples, and factorial analyses of variance (ANOVA) assisted in answering these research questions. Descriptive data included the mode and frequencies. These data represent the responses from the 87 colleges and universities who participated in the electronic (online) survey. The findings are presented in the same order in which the research questions were posed.

Review of study.

The purpose of this study was to determine the direction of the relationship of various enrollment management transition strategies on college student success at large,

public U.S. higher education institutions as categorized by the Carnegie Classification of Institutions of Higher Education (2010). For the purpose of this study, student success measures were identified by first-year (freshman to sophomore) retention rates and four- and six-year graduation rates. Furthermore, this study sought to establish the direction of the relationship between the amount of time in which the transition strategy was in place and the institution's height of success in achieving established retention and graduation goals at the undergraduate level.

The study was designed to obtain the types of enrollment management transition strategies utilized with new freshmen at large, public U.S. colleges and universities. By examining the degree to which various transition strategies contributed to or impeded the persistence and graduation of students, as determined by first-year retention rates and four- and six-year graduation rates, the institutional transition strategies which most strongly supported student success were identified. Furthermore, by comparing the amount of time transition strategies were in place to the institution's attainment of student success goals, the researcher was able to infer that the transition strategies positively or negatively influenced the institution in its realization of stated goals or that there was no measurable impact.

This study investigated which of the stated enrollment management transitioning techniques were most directly related to increased student persistence at large public colleges and universities in the United States. In addition, this study attempted to identify the direction of the relationship between the utilization of specific enrollment management techniques and college student persistence. Finally, this study focused on the utilization of components of enrollment management transitioning strategies as an

avenue for improving college student retention and degree completion. In summary, this study focused broadly on enrollment management transitioning practices which influenced college student persistence and more narrowly on the degree to which the institution's enrollment management transition strategies influenced first-year retention and the four- and six-year graduation rates.

This chapter presents the analysis of quantitative data through the analysis of variance (ANOVA), Pearson's Product-Moment Correlation Coefficient (Pearson's r), dependent t -test for paired samples, and descriptive statistics using the Statistical Package for the Social Sciences (SPSS), Version 17. The data presented assisted the researcher in discussing the relationships between the dependent variables (first-year retention rate, four-year graduation rate, and six-year graduation rate) and the independent variable (enrollment management transition strategy). Through this analysis of data, the researcher attempted to answer the research questions which channeled this study.

Five research questions were designed to guide the study and to determine whether expected benefits were maintained, realized, or lost with the prolonged employment of these transition strategies at the higher education institution. Further, these research questions served to determine whether benefits or detriments, as reported by the institution's chief enrollment officer or his/her designee, occurred as a result of the implementation of these enrollment management transition strategies. These research questions are as follows:

1. Which of the available enrollment management transition strategies have the most positive effect on freshman college student retention?

2. What is the impact of a higher education institution's enrollment assistance strategies (registration assistance and/or calibrated scheduling) on first-year persistence?
3. What is the impact of a higher education institution's enrollment management transition strategies on the four-year graduation rate?
4. What is the relationship between the first-year retention rate reported by the surveyed institutions at the time of the study and the length of time that specific enrollment management transition strategies have been employed at surveyed colleges and universities?
5. What is the relationship between the four- and six-year graduation rates of institutions surveyed and the length of time that specific enrollment management transition strategies have been employed at surveyed colleges and universities at the time of study?

Instrument development.

The instrumentation for this study was a researcher-developed questionnaire. It was designed after reviewing related research and survey materials on the topic. An iterative review process was employed to ensure the accuracy and effectiveness of the instrument. Adjustments were made to accommodate for proper data collections. SurveyMonkey, an electronic survey service, was used to collect responses to the questions as well as participants' demographic information. The introductory email letter, previously described in this chapter as well as in Chapter Three, contained a hyperlink which brought the participants directly to the questionnaire in SurveyMonkey. This instrument was developed through an iterative process involving a formative

committee, a summative committee, and a pilot test. The formative and summative committees served to establish validity. The pilot test group served to confirm the reliability of the instrument.

Review of the Formative Committee.

To develop the framework for the survey instrument and its ensuing content, the researcher created a formative committee and engaged higher education professionals to form the committee. These higher education enrollment professionals were contacted via existing email listservs and asked to serve in this evaluative capacity. Members were sought based on experience in the field of higher education with a specific emphasis on admissions, enrollment, financial aid, and/or assessment. A complete list of members is available in Appendix I. Initially, the Formative Committee assisted with the development and review of the draft survey instrument which was designed to collect data so as to determine the influence of enrollment management transition strategies on college student success. All meetings and discussions of the Formative Committee were conducted electronically.

The initial draft of the survey instrument was developed based on information obtained from the literature and was presented to the Formative Committee for review and revision at the first electronic meeting. The Committee examined the draft survey, introductory email, and follow-up emails. After its initial review, the Committee assisted with developing a revised draft of the questionnaire as well as revised emails for the participants.

Based on feedback from the Formative Committee, the researcher incorporated the recommended revisions into the draft survey instrument and the draft emails for

presentation to the Committee for further review. As part of the iterative process, these items were distributed electronically to the Committee members for additional consideration. Members of the Formative Committee made recommendations to refine the second draft survey instrument and second draft emails. After the second round of reviews, the Committee recommended formatting changes for the draft survey instrument and recommended no changes to the emails.

To finalize the work of the Formative Committee and in preparation for feedback from the Summative Committee, the researcher revised the draft survey instrument and made no additional revisions to the draft emails based on feedback from the Formative Committee. The draft survey instrument and the draft emails were sent electronically to all members of the Formative Committee for final review and validation. The Formative Committee approved the survey instrument and emails and recommended that these items be referred to the Summative Committee for review and validation. A copy of the revised email is included in Appendix K, and a copy of the revised instrument, Enrollment Management Student Success Strategies Questionnaire (EMSSSQ), is included in Appendix L.

Although the Formative Committee consisted of three subject matter experts, only two of the committee members were available to fully participate in this iterative process. Late in the process, the third member of the committee indicated competing commitments with his/her employer and indicated that an extension would be needed if s/he were to fully participate in this iterative process. After consultation with the methodologist for this research study, the decision was made to proceed with the formative process involving the two available committee members.

Review of Summative Committee.

To finalize the survey instrument, the researcher formed a second committee, the Summative Committee. The survey was evaluated for construct validity with a panel of higher education experts (expert face validity) having various levels of expertise. This three member committee was comprised of experts in the fields of higher education enrollment, admissions, financial aid, and/or institutional research or assessment, having a minimum of five years of full-time professional experience. Evidence of the qualifications of these individuals is presented in Appendix J.

These members were engaged to validate the work of the Formative Committee and to determine whether the survey instrument was useful in practical application. Furthermore, questions were analyzed by this panel to ensure ease of readability and to confirm that all topics of interest for this project were addressed. Finally, questions were minimally refined for grammar and/or formatting prior to presentation to the pilot population. All meetings and discussions of the Summative Committee were conducted electronically.

The draft survey instrument and draft emails were sent electronically to each member of the Summative Committee and accompanied with instructions for providing feedback for each item so as to communicate suggestions and changes in the survey instrument and/or emails. One member commented that the purpose of the survey was clearly defined and that the survey was easy to read and user friendly. Another member indicated that no changes were needed to the introductory email. In general, the Committee suggested minor revisions to wording of the survey instrument for

clarification. All suggestions from the first round of reviews were incorporated into the survey instrument.

After all changes from the first round of reviews were incorporated into the survey instrument and, based on the Committee's feedback, no changes were made to the emails, these documents were again sent electronically to all Committee members. The Summative Committee reviewed and validated the revised survey instrument and the existing emails. After the second round of reviews, one member suggested using "skip logic" in the online survey instrument so that participants would access only those questions which related to areas in which s/he had positively answered early in the survey. The thought behind this recommendation was that participants might be more likely to complete the survey if irrelevant questions did not display.

The recommended "skip logic" was incorporated into the survey. This cycle of review continued with the Committee until there were no additional recommendations for changes. When there were no further comments or recommendations, the survey instrument was deemed valid.

Pilot testing.

As a check for validity and to test logistics so as to improve the instrument's quality and efficiency, the researcher convened an eight member panel of higher education enrollment and/or student success experts to review the survey instrument in a test environment prior to implementation (Lancaster, Dodd, & Williamson, 2004). These panel members were identified through the use of an existing higher education email listserv. An email requesting volunteers to serve as members of a developmental panel to participate in a pilot test for the purpose of pre-testing the survey instrument was sent to

these 23 higher education professionals. Eight of the 23 agreed to serve in this capacity. These eight higher education professionals had been employed in an enrollment-related field of higher education for at least three years. The expertise of these developmental panel members was determined based on their membership in the organization sponsoring the email listserv as all members are higher education enrollment, admissions, retention, and/or student success professionals.

The panel members were asked to assess the validity and efficacy of the instrument to reveal deficiencies in the design of the instrument or the procedure so as to address those deficiencies before the survey was deployed on a large scale. Questions which were identified as confusing were examined and recommendations for revisions were provided. Overall, the panel recommended minor changes to the formatting of the survey instrument. Using concerns and suggestions expressed by the pilot group, the researcher assessed the usability of each question and made revisions as needed. After the pilot study, the survey was deemed appropriate for distribution on a large scale.

Overview of participants and demographics.

Participants.

The researcher chose a purposeful sample of 195 public colleges and universities in the United States as defined by the Carnegie Classification of Institutions of Higher Education (2010). Demographic data on the responding institutions were collected to include geographic location of the institution, approximate enrollment, and position whose primary role included chief enrollment officer, and accrediting body. A list of the 195 higher education institutions surveyed along with their general geographic location is presented in Appendix E. To protect the identity of the individuals initially contacted at

each of these 195 higher education institutions, a detailed list to include the name and/or title of the individuals has not been provided. Further, since all responses were anonymous, a detailed list of these institutions responding to the survey instrument has also not been provided.

The respondents to this study were comprised of the chief enrollment officers, or their designees, from the colleges and universities within the sample. Because chief enrollment officers are responsible for most enrollment management related activities, these individuals typically have access to the type of information requested through the survey instrument. Initially, the *American Association of Collegiate Registrars and Admissions Officers (AACRAO) Membership Guide* was utilized to identify whether there was a position of chief enrollment officer at each institution. Of the 195 institutions, ten higher education institutions were not listed in the *Membership Guide*. An initial review of those 185 institutions listed in the *Guide* yielded no college or universities touting a position with the specific title of chief enrollment officer. In lieu of the chief enrollment officer, Appendix O provides the hierarchy of position titles which was used to select an individual respondent at each institution. These positions were selected and ranked according to their estimated accessibility to retention and graduation data as well as their familiarity with the enrollment management transition strategies employed at their higher education institution. It should be noted that 56 different position titles were found in either the *Membership Guide* or on the various institutions' websites.

The *AACRAO Membership Guide* was utilized to determine email contact information for the 185 member institutions. Of those ten institutions not listed in the *AACRAO Membership Guide*, there were none listing a specific position of chief

enrollment officer. Therefore, the researcher used the same hierarchy as provided in Appendix O to determine the participants at those ten institutions. The individual websites of the ten institutions not listed in the *AACRAO Membership Guide* were used to collect email contact information for the individual deemed as the most suitable participant at that institution based on the hierarchy detailed in Appendix O.

Demographics and characteristics of participating institutions.

The selection of participants was explained in detail in Chapter Three. The respondents were individuals who were identified as most knowledgeable regarding the enrollment management transition strategies utilized at each college or university as well as having strong familiarity with retention and graduation data. A description of the surveyed institutions included the name of the institution and the location of the institution which has been detailed in Appendix F.

Because responses were anonymous, thus protecting the identity of the respondents and the surveyed institutions, there is no method for determining consistency in the titles for those individuals who responded. Without further inquiry, it is impossible to determine whether the survey was completed by the individual contacted or delegated to another individual at the institution because of his/her responsibility for or knowledge of enrollment management transition strategies at that particular institution.

Of those 87 institutions responding to the survey instrument, 26.4% indicated that the position at their institution whose primary responsibility included the role of chief enrollment officer was the title of Vice President for Enrollment, Enrollment Management, or Enrollment Services. A close second was reported as the position of Assistant or Associate Vice President for Enrollment, Enrollment Management, or

Enrollment Services with 25.3%. Of those 87 institutions responding, 26.4% reported that the primary role of chief enrollment officer fell to a position with a title other than those provided in the table below. Specific results can be found below in Table 1.

Table 1

Position Titles including Responsibility of the Role of Chief Enrollment Officer

Position with Role of Chief Enrollment Officer	Frequency	Percent	Valid Percent	Cumulative Percent
Assistant or Associate Vice President for Enrollment, Enrollment Management, or Enrollment Services	22	25.3	25.3	32.2
Dean of Enrollment Management or Enrollment Services	3	3.4	3.4	35.6
Dean or Director of Admissions	3	3.4	3.4	39.1
Other (please specify)	23	26.4	26.4	65.5
Provost	3	3.4	3.4	69.0
University Registrar	4	4.6	4.6	73.6
Vice President for Enrollment, Enrollment Management, or Enrollment Services	23	26.4	26.4	100.0
Total	87	100.0	100.0	

Of the 87 respondents, 37.9% indicated that the position title whose primary responsibility included chief enrollment officer reported to the Division of Academic Affairs. Of those institutions responding, 26.4% indicated that the position at their institution with the primary role of chief enrollment officer reported to a division or unit that was outside of the three areas listed below. Finally, of those 87 institutions

responding, 23% reported that the position with the primary role of chief enrollment officer reported to the Division of Student Affairs. Specific results are available below in Table 2.

Table 2

Organizational Unit/Reporting Line of Chief Enrollment Officer

Organizational Unit of Chief Enrollment Officer	Frequency	Percent	Valid Percent	Cumulative Percent
Academic Affairs	33	37.9	37.9	44.8
Enrollment and Student Services or Student Services	5	5.7	5.7	50.6
Other (please specify)	23	26.4	26.4	77.0
Student Affairs	20	23.0	23.0	100.0
Total	87	100.0	100.0	

The geographic location of the 87 responding institutions was also collected. Of those institutions participating in the survey, 28.7% indicated a geographic location in the Southeast. Respondents indicated that 23% were located in the Midwest, and 18.4% reported a geographic location in the Southwest. Specific results are available below in Table 3.

Table 3
Geographic Location of Responding Institutions

Institution's Geographic Location	Frequency	Percent	Valid Percent	Cumulative Percent
Mid-Atlantic States	9	10.3	10.3	17.2
Midwestern States	20	23.0	23.0	40.2
Northeastern States	5	5.7	5.7	46.0
Northwestern States	3	3.4	3.4	49.4
Other (please specify)	3	3.4	3.4	52.9
Southeastern States	25	28.7	28.7	81.6
Southwestern States	16	18.4	18.4	100.0
Total	87	100.0	100.0	

Data indicated that the majority (40.2%) of responding higher education institutions were regionally accredited through the Southern Association of Colleges and Schools. As a close second, data indicated that 34.5% of the 87 responding colleges and universities were regionally accredited through the North Central Association of Colleges and Schools. The smallest group of responding institutions (2.3%) was regionally accredited through the New England Association of Schools and Colleges. Specific findings regarding the regional accrediting body for all responding institutions are available below in Table 4.

Table 4
Regional Accreditation of Responding Institutions

Institution's Regional Accrediting Organization	Frequency	Percent	Valid Percent	Cumulative Percent
Middle States Association of Colleges and Schools	6	6.9	6.9	13.8
New England Association of Schools and Colleges	2	2.3	2.3	16.1
North Central Association of Colleges and Schools	30	34.5	34.5	50.6
Northwest Commission on Colleges and Universities	3	3.4	3.4	54.0
Southern Association of Colleges and Schools	35	40.2	40.2	94.3
Western Association of Schools and Colleges	5	5.7	5.7	100.0
Total	87	100.0	100.0	

Of the 87 higher education institutions responding to the survey, over 25% indicated student enrollment of 15,000 to 19,999. Over 21% of the responding institutions reported student enrollment of 10,000 to 14,999. Only 5.7% of the responding institutions indicated a student body size of over 35,000 enrolled. Specific details regarding the enrollment size of the responding institutions is available below in Table 5.

Table 5

Undergraduate Student Enrollment of Responding Institutions (FTE)

Undergraduate Student Population of Responding Institutions (FTE)	Frequency	Percent	Valid Percent	Cumulative Percent
10,000-14,999	19	21.8	21.8	28.7
15,000-19,999	22	25.3	25.3	54.0
20,000-24,999	15	17.2	17.2	71.3
25,000-29,999	13	14.9	14.9	86.2
30,000-34,999	6	6.9	6.9	93.1
35,000 or more	5	5.7	5.7	98.9
Not sure or information unavailable	1	1.1	1.1	100.0
Total	87	100.0	100.0	

The majority (31%) of the 87 responding institutions indicated that their undergraduate population was partially (50%) residential. A close second is 28.7% of the responding institutions indicating that their undergraduate population was marginally (25%) residential. The smallest group of responding institutions (2.3%) indicated that their undergraduate population was completely residential. Specific values from the data collection regarding the type of undergraduate student population found at the 87 responding higher education institutions can be found below in Table 6.

Table 6

Residential Student Population of Responding Institutions (FTE)

Residential Student Population of Responding Institutions	Frequency	Percent	Valid Percent	Cumulative Percent
Undergraduate population is completely residential.	2	2.3	2.3	9.2
Undergraduate population is marginally (25%) residential.	25	28.7	28.7	37.9
Undergraduate population is mostly (75% or more) residential.	20	23.0	23.0	60.9
Undergraduate population is not residential.	7	8.0	8.0	69.0
Undergraduate population is partially (50%) residential.	27	31.0	31.0	100.0
Total	87	100.0	100.0	

Overview of data collection, timeline, and responses.

Each participant identified through the previously described methodology was emailed the introductory letter along with a link to the online survey. In Phase One, these 195 subjects were informed of the purpose of the survey in the email and asked to complete the survey. The initial email to the sample is combined with the initial survey and presented in Appendix H. In Phase Two, after five business days (one calendar week), the 195 subjects received a reminder email, which is presented in Appendix M, asking that the survey be completed and thanking the participants for their contribution to the research. In Phase Three, the final stage of data collection, after an additional five

business days (one calendar week), these 195 subjects received a final reminder email, which is presented in Appendix N, asking that the participants complete the survey and thanking them for their contribution to the research. After a total of 21 calendar days, the researcher began to compile data for reporting and analysis.

Response rate.

The survey was sent to one individual at each public college or university in the sample (n=195). Of the 195 surveys administered, 87 responses were returned within the expected timeframe for a response rate of 45%. In Phase One, 37 survey responses were submitted to the researcher yielding an initial response rate of 19%. For the second phase of the study, the researcher sent a reminder email to all subjects requesting that the survey be completed, and 35 additional responses were submitted to the researcher yielding a cumulative response rate of 37%. For the third and final phase of the data collection, the researcher sent a final reminder email to all participants requesting that the survey be completed; ten additional responses were submitted to the researcher in this final phase of the data collection yielding a total of 87 responses and a final cumulative response rate of 45%. Two additional survey responses were received after the initial deadline. Because these two responses were received outside of the original timeframe, these data were not included in any reporting or analyses. Table 7, also available in Appendix P, details the data collection timeline and summary of responses.

Table 7

Data Collection Timetable and Summary of Results

	# Email Surveys Sent	# Responses Received	% Response Rate
Phase I (Initial Email Survey)	195	37	19%
Phase II (First Email Reminder)	195	72	37%
Phase III (Final Email Reminder)	195	87	45%

Findings.

Data were collected, cleaned, and coded prior to performing statistical analysis.

All responses to the survey were tabulated using the software program, Statistical Package for the Social Sciences (SPSS), Version 17.0. Descriptive statistics were used to describe the basic features of the data in this study as they provided simple summaries about the sample.

All written comments provided in response to the open-ended questions on the survey are listed in Appendix R. A summary of these comments is presented below in Table 8.

Table 8

Summary of Open-Ended Survey Questions Answered

Question	# of Responses	% of Responses
Question 71: Describe the impact of the enrollment management strategies employed by your institution on student success and retention.	16	18%
Question 72: Describe the most valued benefit of the enrollment management transition strategies at your institution.	15	17%
Question 73: Please briefly explain any other enrollment management transition strategies employed by your institution that have not already been listed.	15	17%

In Chapter Five, all data are analyzed and discussed with respect to the five research questions.

Analysis of data collection.

Several statistical analyses were utilized to examine the results. To study relationships among variables measured on an interval level, the Pearson Product-Moment Correlation Coefficient, also referred to as Pearson's r , was used. The factorial analysis of variance (ANOVA) statistical test was used to determine statistical significance among two or more group means (Fraenkel & Wallen, 2003). Descriptive statistics are used to describe the basic features of the data (Fraenkel & Wallen, 2003); in this study, frequencies and mode were utilized.

The Pearson's Product-Moment Correlation Coefficient is the most frequently used correlation for measuring the degree and the direction of relationships between variables (Polit, 2010). The Pearson's r was calculated to determine existence and strength of relationships with the enrollment management transition strategy and the length of time in which the strategy had been employed. The association (the strength and direction of the relationship) is measured by the numerical value of the correlation denoted by r . If the correlation coefficient value is a positive or a negative value of one, there is a perfect, direct or inverse, relationship between the variables. Values near zero indicate a lack of evidence between the variables. The value closer to 1.0 denotes a strong relationship (Green & Salkind, 2008).

To test the effects of an independent categorical variable on one dependent continuous variable (between group differences), the ANOVA was used to test the difference in means between groups. The ANOVA was performed to test the effects of the independent variable (the enrollment management transition strategy) on the dependent variable (student success as defined by the research question). When only two groups were present in the categorical variables, the dependent t -test for paired samples was used to calculate differences in means. This approach implied that each individual observation of one sample had a unique corresponding member in the other sample.

For the statistical analyses utilized in this study, the level of statistical significance was set at .05. When a statistical finding yielded a result greater than the .05 alpha level, then the analysis indicated that there was no statistically significant finding. When a statistical finding offered a result at or below this alpha level of .05, then the analysis indicated that there was a statistically significant finding.

As part of the coding process and in order to perform statistical analyses to attempt to answer the research questions below, it was necessary for the researcher to assign a numeric value to each of the seven retention rate ranges, four-year graduation rate ranges, and six-year graduation rate ranges as well as assigning a numeric value to each of the five ranges representing the period of time particular enrollment management transition strategies had been in place. The specific values assigned to each of these ranges are presented below in Table 9.

Table 9

Numeric Values Assigned to First-Year Retention Rate Ranges, Four-Year Graduation Rate Ranges, and Six-Year Graduation Rate Ranges

Stated Range	Numeric Value Assigned
< 40%	1
40.0 – 49.9%	2
50.0 – 59.9%	3
60.0 – 69.9%	4
70.0 – 79.9%	5
80.0 – 89.9%	6
≥ 90%	7
One Year	1
2 – 4 Years	2
5 – 7 Years	3
8 -10 Years	4
Information Not Known or Not Available	No Value Assigned

Research question 1.

Which of the available enrollment management transition strategies have the most positive effect on freshman college student retention?

To employ a one-way analysis of variance, the researcher computed the change in retention rate for each of the seven enrollment management transition strategies studied. As indicated earlier, in order to calculate the change value for each of the enrollment management transition strategies, the researcher assigned a numeric value to each of the seven retention rate ranges. The specific values representing the average change are presented below in Table 10.

After the change was calculated, an ANOVA was conducted to determine whether there was a statistically significant difference in the change between the means of the seven enrollment management transition strategies. The dependent variable was the average change in the first-year retention rate; these data were obtained from survey questions 14, 15, 22, 23, 30, 31, 38, 39, 46, 47, 54, 55, 62, and 63.

Table 10

Average Change in First-Year Retention Rate for the Seven Enrollment Management Transition Strategies Studied

Enrollment Management Transition Strategy	Computed Average Change
Mandatory New Student Summer Orientation	0.32
Welcome Week	0.21
Voluntary Freshman Learning Communities	0.26
Mandatory Freshman Learning Communities	0.00
Registration Assistance and/or Calibrated Scheduling	0.36
Mandatory First-Year Seminar	0.00
Mandatory Common Reading	0.33

Calculations were performed on these values to determine the change in first-year retention rate as a result of the enrollment management transition strategy employed. The

grouping variable was the enrollment management transition strategy. The change represented the difference in the institution's first-year retention rate after implementation of the specific enrollment management transition strategy(ies). Results of the ANOVA were not found to be statistically significant, $F(6, 73) = .174$, $p = .983$, $p < .05$, suggesting that there were no statistically significant differences in the means of the seven enrollment management transition strategies. Because the p value was greater than .05, there was no need to conduct a post hoc analysis. Table 11 displays the results of this ANOVA.

Table 11

Enrollment Management Transition Strategy's Impact on First-Year Retention Rate

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	.590 ^a	6	.098	.174	.983	.014
Intercept	1.780	1	1.780	3.141	.081	.041
Enrollment Management Transition Strategy	.590	6	.098	.174	.983	.014
Error	41.360	73	.567			
Total	48.000	80				
Corrected Total	41.950	79				

a. R Squared = .014 (Adjusted R Squared = -.067)

Research question 2.

What is the impact of a higher education institution's enrollment assistance strategies (registration assistance and/or calibrated scheduling) on first-year persistence?

To answer this research question, the researcher considered the first-year retention rate immediately prior to and following employment of enrollment assistance transition strategies as reported by these responding institutions. According to Green and Salkind (2008), the dependent *t*-test for paired samples is appropriate for pre-test/post-test analyses. When only two groups were present in the categorical variables, the dependent *t*-test for paired samples was most appropriate for calculating differences in means. This approach implied that each individual observation of one sample had a unique corresponding member in the other sample.

The survey questions which collected data on the first-year retention rate for the transition strategy employed are 46 and 47. The findings from this paired sample *t*-test yielded $t(10) = -1.305$, $p = .221$, therefore, there is no statistical difference in the two means. Table 12 presents the results of the Paired Samples *t*-test for this research question.

Table 12

Test of the Difference Between First-Year Retention Rates Before and After Enrollment Assistance Transition Strategy

Pair	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
				Lower	Upper			
				Paired Differences				
Freshman-retention-prior-RACCS – 1 Freshman-retention-after-RACCS	-.36364	.92442	.27872	-.98467	.25739	-1.305	10	.221

Research question 3.

What is the impact of a higher education institution's enrollment management transition strategies on the four-year graduation rate?

An ANOVA was conducted to determine whether there was a statistically significant difference in the change between the means of the seven enrollment management transition strategies. The dependent variable was the change in the four-year graduation rate. Data obtained from responses to survey questions 16, 17, 24, 25, 32, 33, 40, 41, 48, 49, 56, 57, 64, and 65 were used in this analysis.

To employ a one-way analysis of variance, as was the case with Research Question One, the researcher computed the change in four-year graduation rate for each of the seven enrollment management transition strategies studied. To calculate the change value for each of the enrollment management transition strategies, the researcher

assigned a numeric value to each of the seven four-year graduation rate ranges. The specific values representing the average change are presented below in Table 13.

Table 13

Average Change in Four-Year Graduation Rate for the Seven Enrollment Management Strategies Studied

Enrollment Management Transition Strategy	Computed Average Change
Mandatory New Student Summer Orientation	0.04
Welcome Week	-0.07
Voluntary Freshman Learning Communities	-0.11
Mandatory Freshman Learning Communities	0.00
Registration Assistance and/or Calibrated Scheduling	-0.10
Mandatory First-Year Seminar	0.00
Mandatory Common Reading	0.00

Calculations were performed on these values to determine the change in four-year graduation rate as a result of the enrollment management transition strategy. As was the case for the first research question, the grouping variable was the seven enrollment management transition strategies. The change represented the difference in the institution's four-year graduation rate after implementation of the specific enrollment management transition strategy(ies). Results of the ANOVA were not statistically significant, $F(7, 70) = .032$, $p = 1.00$; therefore, that there were no statistically significant differences in the means of the seven enrollment management transition strategies. Because the p value was greater than .05, there was no need to conduct a post hoc analysis. Table 14 displays the results of this ANOVA.

Table 14

Enrollment Management Transition Strategy's Impact on Four-Year Graduation Rate

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	.320 ^a	7	.046	.032	1.000	.003
Intercept	.026	1	.026	.018	.893	.000
Enrollment Management Transition Strategy	.320	7	.046	.032	1.000	.003
Error	98.565	70	1.408			
Total	99.000	78				
Corrected Total	98.885	77				

a. R Squared = .003 (Adjusted R Squared = -.096)

Research question 4.

What is the relationship between the first-year retention rate reported by the surveyed institutions at the time of the study and the length of time that specific enrollment management transition strategies have been employed at surveyed colleges and universities?

Pearson's Product-Moment Correlation Coefficient was computed to examine the relationship between the length of time the transition strategy had been employed and the change in first-year retention rate. The survey questions which collected data on the first-year retention rate and the length of time for which the transition strategy was employed are 13, 14, 15, 21, 22, 23, 29, 30, 31, 37, 38, 39, 45, 46, 47, 53, 54, 55, 61, 62, and 63.

The findings from these Pearson's Product-Moment Correlation Coefficients (r) revealed that there was no linear relationship between the length of time the various enrollment management transition strategies were employed and the reported first-year retention rate. Table 15 presents the results of the Pearson's Product-Moment Correlation Coefficient for this research question.

Table 15

Relationship Between Length of Time Enrollment Management Transition Strategy Employed and First-Year Retention Rate

		Length of Time	Change in First-Year Retention Rate
Mandatory Summer New Student Orientation	Pearson Correlation	1	.143
	Sig. (2-tailed)		.570
	N	31	18
Change in First-Year Retention Rate	Pearson Correlation	.143	1
	Sig. (2-tailed)	.570	
	N	18	25
Welcome Week Transitioning Programs	Pearson Correlation	1	.031
	Sig. (2-tailed)		.929
	N	15	11
Change in First-Year Retention Rate	Pearson Correlation	.031	1
	Sig. (2-tailed)	.929	
	N	11	14
Voluntary Freshman Learning Communities	Pearson Correlation	1	-.005
	Sig. (2-tailed)		.983
	N	23	19
Change in First-Year Retention Rate	Pearson Correlation	-.005	1
	Sig. (2-tailed)	.983	
	N	19	19
Mandatory Freshman Learning Communities	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	3	2
Change in First-Year Retention Rate	Pearson Correlation		
	Sig. (2-tailed)		
	N	2	2
Registration Assistance and/or Calibrated Class Scheduling	Pearson Correlation	1	.185
	Sig. (2-tailed)		.609
	N	11	10
Change in First-Year Retention Rate	Pearson Correlation	.185	1
	Sig. (2-tailed)	.609	
	N	10	11

Table 15 (continued)

Relationship Between Length of Time Enrollment Management Transition Strategy Employed and First-Year Retention Rate

		Length of Time	Change in First-Year Retention Rate
Mandatory First-Year Seminar	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	5	3
Change in First-Year Retention Rate	Pearson Correlation		
	Sig. (2-tailed)		
	N	3	3
Mandatory Common Reading	Pearson Correlation	1	-.294
	Sig. (2-tailed)		.631
	N	7	5
Change in First-Year Retention Rate	Pearson Correlation	-.294	1
	Sig. (2-tailed)	.631	
	N	5	6

Research question 5.

What is the relationship between the four- and six-year graduation rates of institutions surveyed and the length of time that specific enrollment management transition strategies have been employed at surveyed colleges and universities at the time of study?

Pearson's Product-Moment Correlation Coefficient was computed to examine the relationship between the length of time the transition strategy had been employed and the change in the four- and six-year graduation rates. The survey questions which collected data on the four-year graduation rate and the length of time for which the transition strategy was employed are 13, 16, 17, 21, 24, 25, 29, 32, 33, 37, 40, 41, 45, 48, 49, 53, 56, 57, 61, 64, and 65; for the purpose of this chapter, this research question will be referred to as 5a. The survey questions which collected data on the six-year graduation

rate and the length of time for which the transition strategy was employed are 13, 18, 19, 21, 26, 27, 29, 34, 35, 37, 42, 43, 45, 50, 51, 53, 58, 59, 61, 66, and 67; for the purpose of this chapter, this research question will be referred to a 5b. The findings from these Pearson's Product-Moment Correlation Coefficients (r) revealed that there was no linear relationship between the length of time these various enrollment management transition strategies and the four- and/or six-year graduation rates at the responding institutions.

For research question 5a, the Pearson's Product-Moment Correlation Coefficient indicated that there was no statistically significant correlation between the length of time the enrollment management transition strategies had been in place and the four-year graduation rate. The Pearson's r for Mandatory Summer Orientation Programs indicated $\alpha = .05$, $r(18) = -.052$, $p > .05$, which concluded that there was no relationship. The Pearson's r for Welcome Week indicated $\alpha = .05$, $r(9) = .027$, $p > .05$, which concluded that there was no relationship. The Pearson's r for Voluntary Freshman Learning Communities indicated $\alpha = .05$, $r(16) = -.244$, $p > .05$, which concluded that there was no relationship. The Pearson's r for Mandatory Freshman Learning Communities could not be computed because there was no change in the reported four-year graduation rate after implementation of this enrollment management transition strategy. The Pearson's r for Registration Assistance and/or Calibrated Class Scheduling indicated $\alpha = .05$, $r(7) = -.229$, $p > .05$, which concluded that there was no relationship. The Pearson's r for Mandatory First-Year Seminar could not be computed because there was no change in the reported four-year graduation rate after implementation of this enrollment management transition strategy. The Pearson's r for Mandatory Common Reading could not be computed because there was no change in the

reported four-year graduation rate after implementation of this enrollment management transition strategy. Table 16 presents the results of the Pearson's Product-Moment Correlation Coefficient for research question 5a.

Table 16

Relationship Between Enrollment Management Transition Strategy and Four-Year Graduation Rate

		Length of Time	Change in Four-Year Graduation Rate
Mandatory Summer New Student Orientation	Pearson Correlation	1	-.052
	Sig. (2-tailed)		.828
	N	31	20
Change in Four-Year Graduation Rate	Pearson Correlation	-.052	1
	Sig. (2-tailed)	.828	
	N	20	25
Welcome Week Transitioning Programs	Pearson Correlation	1	.027
	Sig. (2-tailed)		.938
	N	15	11
Change in Four-Year Graduation Rate	Pearson Correlation	.027	1
	Sig. (2-tailed)	.938	
	N	11	14
Voluntary Freshman Learning Communities	Pearson Correlation	1	-.244
	Sig. (2-tailed)		.328
	N	23	18
Change in Four-Year Graduation Rate	Pearson Correlation	-.244	1
	Sig. (2-tailed)	.328	
	N	18	18
Mandatory Freshman Learning Communities	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	3	2
Change in Four-Year Graduation Rate	Pearson Correlation		
	Sig. (2-tailed)		
	N	2	2
Registration Assistance and/or Calibrated Class Scheduling	Pearson Correlation	1	-.229
	Sig. (2-tailed)		.554
	N	11	9
Change in Four-Year Graduation Rate	Pearson Correlation	-.229	1
	Sig. (2-tailed)	.554	
	N	9	10

Table 16 (continued)

Relationship Between Enrollment Management Transition Strategy and Four-Year Graduation Rate

		Change in Four- Length of Year Graduation	
		Time	Rate
Mandatory First-Year Seminar	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	5	3
Change in Four-Year Graduation Rate	Pearson Correlation		
	Sig. (2-tailed)		
	N	3	3
Mandatory Common Reading	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	7	5
Change in Four-Year Graduation Rate	Pearson Correlation		
	Sig. (2-tailed)		
	N	5	6

For research question 5b, the Pearson's Product-Moment Correlation Coefficient was utilized to determine whether there was a statistically significant correlation between the length of time the enrollment management transition strategies had been in place and the six-year graduation rate. The Pearson's r for Mandatory Summer Orientation Programs indicated $\alpha = .05$, $r(18) = .102$, $p > .05$, which concluded that there was no relationship. The Pearson's r for Welcome Week indicated $\alpha = .05$, $r(11) = -.325$, $p > .05$, which concluded that there was no relationship. The Pearson's r for Voluntary Freshman Learning Communities indicated $\alpha = .05$, $r(14) = -.035$, $p > .05$, which concluded that there was no relationship. The Pearson's r for Mandatory Freshman Learning Communities could not be computed because there was no change in the reported six-year graduation rate after implementation of this enrollment management

transition strategy. The Pearson's r for Registration Assistance and/or Calibrated Class Scheduling indicated $\alpha = .05$, $r(6) = .545$, $p > .05$, which concluded that there was no relationship. The Pearson's r for Mandatory First-Year Seminar could not be computed because there was no change in the reported six-year graduation rate after implementation of this enrollment management transition strategy. The Pearson's r for Mandatory Common Reading indicated $\alpha = .05$, $r(3) = -.294$, $p > .05$, which concluded that there was no relationship. Table 17 presents the results of the Pearson's Product-Moment Correlation Coefficient for research question 5b.

Table 17

Relationship Between Enrollment Management Transition Strategy and Six-Year Graduation Rate

		Length of Time	Change in Four-Year Graduation Rate
Mandatory Summer New Student Orientation	Pearson Correlation	1	.102
	Sig. (2-tailed)		.670
	N	31	20
Change in Six-Year Graduation Rate	Pearson Correlation	.102	1
	Sig. (2-tailed)	.670	
	N	20	25
Welcome Week Transitioning Programs	Pearson Correlation	1	-.325
	Sig. (2-tailed)		.329
	N	15	11
Change in Six-Year Graduation Rate	Pearson Correlation	-.325	1
	Sig. (2-tailed)	.329	
	N	11	14
Voluntary Freshman Learning Communities	Pearson Correlation	1	-.035
	Sig. (2-tailed)		.898
	N	23	16
Change in Six-Year Graduation Rate	Pearson Correlation	-.035	1
	Sig. (2-tailed)	.898	
	N	16	16
Mandatory Freshman Learning Communities	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	3	1
Change in Six-Year Graduation Rate	Pearson Correlation		
	Sig. (2-tailed)		
	N	1	1
Registration Assistance and/or Calibrated Class Scheduling	Pearson Correlation	1	.545
	Sig. (2-tailed)		.162
	N	11	8
Change in Six-Year Graduation Rate	Pearson Correlation	.545	1
	Sig. (2-tailed)	.162	
	N	8	9

Table 17 (continued)

Relationship Between Enrollment Management Transition Strategy and Six-Year Graduation Rate

		Length of Time	Change in Four-Year Graduation Rate
Mandatory First-Year Seminar	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	5	0
Change in Six-Year Graduation Rate	Pearson Correlation		
	Sig. (2-tailed)		
	N	0	0
Mandatory Common Reading	Pearson Correlation	1	-.294
	Sig. (2-tailed)		.631
	N	7	5
Change in Six-Year Graduation Rate	Pearson Correlation	-.294	1
	Sig. (2-tailed)	.631	
	N	5	6

Chapter summary.

This chapter presented and discussed the findings of this study in terms of descriptors and data analysis. The research questions guiding the study were examined and reviewed. Research questions were answered with results from the Pearson's r , the ANOVA, dependent paired samples t -test, and descriptive statistics. Statistical analyses were performed to further operationalize the findings by examining relationships between the independent and the dependent variables. Chapter Five includes a summary of the study, discussion, limitations of the study, conclusions, and recommendations for future research.

Chapter Five

Presentation and Analyses of Data

Introduction.

This chapter provides an overview of this non-experimental quantitative research study. Included in this recap of the study are the major findings, conclusions, recommendations, and implications for policy, practice, and future research. In addition, this chapter discusses limitations of the study. The conclusions are based on the study's findings and yield recommendations, which focus on opportunities for future research as well as considerations regarding educational practice. Finally, this study addresses a gap in the higher education literature associated with enrollment management and college student success.

Chapter Four attempted to answer the five research questions, provided descriptive data about the population selected for participation in the study, and presented data collected via the survey instrument. Tables were provided to present numerical data used in the analyses to determine the influence of enrollment management transition strategies on college student success. The results are summarized and discussed in this chapter.

Overview of the study.

For a number of years, student persistence to graduation has been an ongoing problem (Hunter, Tobolowsky, Gardner, & Associates, 2010). In today's culture of declining revenues, reduced financial support from the state and/or federal governments, and higher enrollment standards, college and university administrators must exert extra efforts to retain those students for whom they have worked so diligently to recruit. In

general, the declining level of federal, state, and/or local support; increased cost of education; increasing accountabilities from external and internal constituencies; growing local, state, and federal policies, procedures, rules, and regulations; and economic challenges are among the numerous trials with which higher education administrators regularly deal (Altbach, Berdahl & Gumport, 2005).

Enrollment management goals include increasing enrollment, creating a student body that meets the expectation(s) of the institution, and improving graduation rates (Penn, 1999). A higher education institution's comprehensive strategy to manage its enrollments will improve productivity, service, and quality (Dolence, 1993). Enrolling students is no longer the sole responsibility of an admissions shop, and retaining and/or graduating students is and has never been the sole responsibility of any single departmental effort; rather, both are collaborative institutional efforts, and one greatly influences the other.

The purpose of this study was to examine the influential nature of enrollment management transition strategies on college student success as measured by first-year retention rates, four-year graduation rates, and six-year graduation rates. Persistence, retention, and graduation rates are among the many variables necessary for measuring student success in higher education. As indicated earlier, the purpose of this chapter is to provide final recommendations, conclusions, and a summary of the research study. Generalizations and limitations are also presented along with a general discussion of the research study's findings.

Based on this study and those theories referenced in Chapter Two, it is clear that colleges and universities have utilized various enrollment management transition

strategies to increase college student success. This study described and analyzed the influence of enrollment management transition strategies on first-year retention, the four-year graduation rate, and the six-year graduation rate at large, public U.S. higher education institutions, as categorized by the Carnegie Classification of Institutions of Higher Education (2010). The primary focus of this study was to examine the influence of these seven enrollment management transition strategies on college student success.

The following five research questions channeled this study and were presented in relation to the aforementioned variables:

1. Which of the available enrollment management transition strategies have the most positive effect on freshman college student retention?
2. What is the impact of a higher education institution's enrollment assistance strategies (registration assistance and/or calibrated scheduling) on first-year persistence?
3. What is the impact of a higher education institution's enrollment management transition strategies on the four-year graduation rate?
4. What is the relationship between the first-year retention rate reported by the surveyed institutions at the time of the study and the length of time that specific enrollment management transition strategies have been employed at surveyed colleges and universities?
5. What is the relationship between the four- and six-year graduation rates of institutions surveyed and the length of time that specific enrollment management transition strategies have been employed at surveyed colleges and universities at the time of study?

Summary of findings.

Data for this study were collected via an online survey. The survey was disseminated electronically to chief enrollment officers, or their designee, at 195 large, public U.S. higher education institutions as categorized by the Carnegie Classification of Institutions of Higher Education (2010). There were 87 total responses collected, yielding a 45% response rate. The survey was comprised of 73 items divided into various sections, some which required the respondent to fill in specific answers such as demographical data, while others asked the respondent to select the options that best described their institution and mark those accordingly in the online survey. The majority of the questions were rated on a Likert scale with either five or seven multiple choice selections.

Interpretations of findings.

This section highlights the major findings from the five research questions examined. Each question is presented with the major findings following. The researcher also discusses the findings along with any implications associated with each research question.

Research question 1.

Which of the available enrollment management transition strategies have the most positive effect on freshman college student retention?

The analysis of the ANOVA utilized for answering this research question, as discussed in Chapter Four, yielded no statistically significant difference in the change in the means of the first-year retention rate as related to the enrollment management transition strategy(ies) employed. However, based on these raw data collected, as

presented in Table 11, a notable finding was that registration assistance and/or calibrated scheduling for first-time freshmen had the highest positive change in the means of the first year retention rate of any of the seven enrollment transition strategies studied.

Based on these raw data, this finding indicates that registration assistance and/or calibrated scheduling for first-time freshmen had the most positive influence on the first-year retention rate of these institutions responding.

It should be noted, however, that the options provided on the survey instrument for participants' reporting of the first-year retention rate (before and after the institution's employment of the enrollment management transition strategy) were based on 10% increments. While the ANOVA did not reveal statistically significant differences, if actual retention rates had been reported by the participants rather than reporting via 10% ranges, there may have been statistically significant differences found. For example, while unlikely, an institution may have actually experienced an increase or decrease of 10% or more in the first-year retention rate after employment of the enrollment management transition strategy. More likely, the institution experienced less than a 10% increase or decrease but was unable to report the true increase or decrease because of the choices provided as answers to the relevant questions. Had the participants been able to report the exact increase or decrease in the change of the first-year retention rate, the ANOVA would likely have yielded a statistically significant difference in the means of the first-year retention rate. Further, had the survey instrument collected actual retention rates rather than ranges of retention rates, those enrollment management transition strategies which, based on these raw data, appeared to have negatively influenced the

first-year retention rate may have been found to show no change or even a positive change on the first-year retention rate of these institutions.

Research Question 2:

What is the impact of a higher education institution's enrollment assistance strategies (registration assistance and/or calibrated scheduling) on first-year persistence?

The analysis of the Dependent *t*-test for Paired Samples utilized to answer this research question, as discussed in Chapter Four, yielded no statistically significant difference in the mean of the first-year retention rate prior to employment of the enrollment assistance strategy and the mean of the first-year retention rate after employment of the enrollment assistance strategy. As indicated in the discussion of Research Question One, the raw data collected, as presented in Table 11, implied that enrollment assistance strategies (registration assistance and/or calibrated scheduling) for first-time freshmen had the highest positive change in the means of the first-year retention rate of any of the seven enrollment transition strategies studied. Based on this raw data, this finding indicates that enrollment assistance strategies had the most positive influence on the first-year retention rate of the institutions responding.

As indicated in the discussion for Research Question One, the options provided on the survey instrument for participants' reporting of the first-year retention rate (before and after the institution's employment of the enrollment management transition strategy) were based on 10% increments. Even though the Dependent *t*-test for Paired Samples did not reveal statistically significant differences, if actual retention rates had been reported by the participants rather than 10% ranges, there may have been statistically significant differences found in the means of the first-year retention rates. Further, had actual first-

year retention rate values been used, these differences in the means could have been positive, negative, or demonstrated no change.

Research Question 3:

What is the impact of a higher education institution's enrollment management transition strategies on the four-year graduation rate?

The results of the analysis of variance used for answering this research question, as discussed in Chapter Four, yielded no statistically significant difference in the change in the means of the four-year graduation rate as related to the enrollment management transition strategy(ies) employed. The raw data collected, as presented in Table 14, presented a noteworthy finding in that mandatory new student summer orientation had the highest positive change in the means of the four-year graduation rates of any of the seven enrollment transition strategies studied. Based on these raw data, this finding indicates that mandatory new student summer orientation had the most positive influence on the four-year retention rate of these institutions studied, and voluntary freshman learning communities had the most negative influence on the four-year retention rate of these institutions studied.

As discussed earlier, the options provided on the survey instrument for participants' reporting of the four-year retention rate in relation to employment of these seven enrollment management transition strategies were based on 10% increments. Although the ANOVA did not reveal statistically significant differences, if actual retention rates had been reported by the participants rather than 10% ranges, there may have been statistically significant differences found. Also to be noted, if actual four-year graduation rates had been reported and utilized in the analysis, those enrollment

management transition strategies which, based on these raw data, appear to have negatively influenced the four-year graduation rate may have actually been found to show no change or even a positive change on the four-year graduation rate of these institutions.

Research Question 4:

What is the relationship between the first-year retention rate reported by the surveyed institutions at the time of the study and the length of time that specific enrollment management transition strategies have been employed at surveyed colleges and universities?

The analysis of the Pearson's Product-Moment Correlation Coefficient (Pearson's r) yielded no statistically significant relationship between the changes in means of the first-year retention rate as a result of the number of years in which the enrollment management transition strategy was employed. However, it should again be noted that the options provided on the survey instrument for participants' reporting of the first-year retention rate were based on 10% ranges. Further, the options provided regarding the length of time in which the enrollment management transition had been employed were based on two-year ranges rather than the actual period of time.

While the Pearson's r did not reveal a statistically significant relationship, if actual retention rates and actual periods of employment had been reported by the participants rather than 10% ranges or two-year ranges, there may have been statistically significant relationships found. For example, while unlikely, an institution may have actually experienced an increase or decrease of seven or eight percent in the first-year retention rate, the analysis would not have indicated a significant change because the increase or decrease may not have spanned the ranges. If the participants had been able

to report the exact increase or decrease in the change of the first-year retention rate, the Pearson's r may have yielded a statistically significant relationship between the means of the first-year retention rate and the length of time transition strategies were employed.

Research Question 5:

What is the relationship between the four- and six-year graduation rates of institutions surveyed and the length of time that specific enrollment management transition strategies have been employed at surveyed colleges and universities at the time of study?

The analysis of the Pearson's Product-Moment Correlation Coefficient (Pearson's r) yielded no statistically significant relationship between the change in means of the four-year and six-year graduation rates as a result of the number of years in which the enrollment management transition strategy was employed. However, it should again be noted that the options provided on the survey instrument for participants' reporting of the four-year and six-year graduation rates were based on 10% ranges. Further, the options provided regarding the length of time in which the enrollment management transition had been employed were based on two-year ranges rather than the actual period of time.

While the Pearson's r did not reveal a statistically significant relationship, if actual four-year and six-year graduation rates and actual periods of employment had been reported by the participants rather than 10% ranges or two-year ranges, there may have been statistically significant relationships found. For example, while unlikely, an institution may have actually experienced an increase or decrease of seven or eight percent in the four-year and six-year graduation rates, the analysis would not have indicated a significant change because the increase or decrease may not have spanned the

ranges. If the participants had been able to report the exact increase or decrease in the change of the four-year and six-year graduation rates, the Pearson's r may have yielded a statistically significant relationship between the means of the four-year and six-year graduation rates and the length of time the enrollment management transition strategies had been employed.

Discussion and conclusions.

The conclusions drawn from this research study were derived from an extensive review of the higher education literature, data gathered via the survey administered, discussions of the formative and summative committees, recommendations of the formative and summative committees, and recommendations from the Old Dominion University Higher Education faculty. These processes served as vehicles for providing direction for development of the instrument, the data collection plan, and the process for analysis and examination which support the conclusions drawn in this study.

Literature and existing research studies exist regarding enrollment management, college student retention, the four-year graduation rate, and the six-year graduation rate; however, research is sparse regarding the influence of these seven enrollment management transition strategies on the first-year retention rate, the four-year graduation rate, and the six-year graduation rate. Higher education literature reiterates the importance of retention as a measure of student success for the higher education institution. The literature further emphasizes that increasing the retention and graduation of students remains a critical concern for higher education administrators. This research study contributes to the existing literature regarding the first-year retention rate, the four-

year graduation rate, and the six-year graduation rate by introducing the influence of these seven enrollment management transition strategies on retention and graduation.

Limitations of the study.

The limitations of the study arise from a variety of areas including but not limited to the sample and the survey instrument. The discussion of the limitations identified will help to shape future research. Further, a thorough understanding of the limitations of this study will aid higher education leaders in drawing relevant conclusions from the findings.

Data were collected from those subjects who responded from large, public U.S. higher education institutions, as categorized by the Carnegie Classification of Institutions of Higher Education (2010). First, a purposive convenience sampling method was used. Purposive sampling aims to select groups that display variation in the phenomena under investigation. The original study sample purposively selected the chief enrollment officers of large, public U.S. higher education institutions as categorized by the Carnegie Classification of Institutions of Higher Education (2010). This sample was comprised of 195 higher education institutions within the above referenced Carnegie Classification. The hierarchy of position titles, as presented in Appendix O, was used when surveying this population. It should be noted that the results of this study cannot be generalized to other populations of colleges and universities. The sample is not representative of all colleges and universities in the United States -- nor was it intended to be as it was purposefully chosen. The purposive selection of institutions decreases the generalizability of findings to other institutions.

Another limitation of the study is related to the method of data collection. Data were collected through the distribution of an e-mail survey instrument and were limited

to the information reported by the respondents. The advantage of this approach centers on the opportunity to gather information from individuals representing a large number of institutions in a variety of geographic locations. It was assumed that the respondents would understand the survey questions, follow the directions, and answer the questions honestly. It was also assumed that the respondents were aware of strategies, institutional data, and institutional characteristics and, thus, could answer questions adequately and accurately.

An additional limitation is associated with the development and testing of the survey instrument. The researcher utilized an iterative method of developing and testing the survey instrument involving a formative committee and a summative committee. In both committees, there was at least one member who could not fully commit to the responsibilities associated with committee membership. When members were solicited for each committee, the expectations, timeline, and responsibilities were communicated; however, once the committees convened, at least one member from each committee reported other demands on his/her time and was either not timely in responding or was non-responsive to the committee's work. Had all members of the committees been fully engaged in the development of the survey and/or the testing of the survey, it is possible that one of the committee members would have suggested making a change to the survey instrument so that respondents could report actual values rather than values that fell within a range which could have impacted the study's findings.

In addition, the individual institutions surveyed may have employed more than one of the seven enrollment management transition strategies simultaneously. It is impossible to determine whether this may have positively or negatively influenced their

first-year retention rate, four-year graduation rate, or six-year graduation. Further, it is also impossible to determine whether this had any influence at all on the previously referenced components of college student success.

The response rate must also be considered when discussing limitations of the study. It was assumed that meaningful data analysis does not require a 100% response rate. This particular study yielded a 45% response rate. Dillman (1978) suggested that steps taken to insure an adequate response rate are important, including having more than one contact with each institution or participant. While the researcher contacted each institution individually at least three times via email, a 100% response rate was still not achieved, and there is the possibility that findings could have changed if additional responses were received.

While the researcher utilized a thorough iterative process for developing and testing the survey instrument, the structure of the available choices for answers restricted the data collected. Because the instrument utilized 10% ranges in answers associated with the first-year retention rate, the four-year graduation rate, and the six-year graduation rate as well as two-year ranges for the length of time enrollment management transition strategies had been employed, the respondents were unable to provide specific data which may have yielded richer data thus resulting in statistically significant results. Further, while the iterative instrument development process involved a number of higher education professionals who vetted the instrument, none of those individuals involved with the development or testing of the instrument expressed concern with the structure of the answers associated with the above referenced rates or years. In addition, of the 87 participants responding to the survey, only one individual expressed concern, either via

email or in response to one of the open-ended questions, to the structure of the answers regarding the above referenced rates or period of years.

This study focused on the relationship of the seven identified enrollment management transition strategies on first-year retention, the four-year graduation rate, and the six-year graduation rate. The analyses of data collected in this study indicated that the representative institutions utilized some of the seven enrollment management transition strategies examined in the study; however, the analyses did not provide statistically significant evidence from which to draw conclusions. The raw data collected in this study indicated that relationships between certain enrollment management transition strategies and the first-year retention rate and/or the four-year graduation rate exist, and this finding has been noted in this chapter.

As indicated earlier, because of a number of limitations, the results of this study cannot be generalized to include all higher education institutions. However, this study does contribute to the body of literature regarding the influence of enrollment management transition strategies on college student success by the conclusions which can be drawn from the raw data collected. Finally, this study lays the groundwork for future research regarding the influence of enrollment management transition strategies on college student success.

Implications and recommendations for policy and practice.

Implications and recommendations for practice and policy based on data obtained from this study are numerous. Based on the conclusions reached through the data analyses and research questions, the researcher identified several recommendations as a result of this study. These recommendations should be shared with higher education

administrators in order to leverage enrollment management transition strategies in an effort to improve college student success.

Based on these raw data collected regarding the first-year retention rate, higher education administrators should investigate the use of registration assistance and/or calibrated freshman scheduling as well as mandatory new student summer orientation programs. The implementation of these two enrollment management transition strategies resulted in the highest positive change in first-year retention rates of those institutions responding to the relevant survey questions. By leveraging programming associated with registration assistance and mandatory summer orientation programs for new students, colleges and universities could experience an increase in the retention rate of their first-year students, thus improving the overall reputation of the institution, potential rankings by various publications, and an increased applicant pool, thus indirectly influencing federal and state funding and possibly private giving.

When further reviewing the raw data collected, it appears that mandatory new student summer orientation programs were found to also positively influence the four-year graduation rates of the institutions responding to those relevant survey questions. The implementation of a mandatory new student summer orientation program or the transition of an existing voluntary new student summer orientation program to a mandatory program, as part of an overall enrollment management transition strategy, could result in an increased four-year graduation rate for the institution. Because mandatory new student summer orientation programs were found to positively influence the first-year retention rate as well as the four-year graduation rate, higher education leaders should closely scrutinize the use of this type of program at their institution. Not

only could the implementation of this type of mandatory program increase the first-year retention rate but the four-year graduation rate might also be positively influenced, thus improving institutional reputation and brand recognition, potentially increasing the donor pool, and potentially increasing federal and/or state funding for the institution.

The following are recommendations for higher education leaders and administrators:

- Continue efforts in designing, developing, and/or implementing enrollment management transition strategies and assess their influence on the first-year retention rate, the four-year graduation rate, and the six-year graduation rate as relevant to the institution's overall mission and strategic plan;
- Leadership from executive management should align institutional policies and practices with strategic goals and objectives essential to the successful structuring, implementation, and assessment of enrollment management transition strategies in an effort to improve overall college student success;
- One cannot overrate the worth of convening a diverse group of campus stakeholders to examine, review, and discuss important enrollment and retention related issues (Simmons, 2007). If none exists, leadership should implement a model of cooperation, collaboration, and communication across campus so that the appropriate stakeholders and constituents are designing, developing, implementing, and assessing the institution's enrollment management transition strategies in support of overall student success as relevant to the institution's overall mission and strategic plan. When institutional services and programs are

interrelated, collaborative, and cooperative, then a college or university can be more responsive to students and their educational needs (Smith, 2001);

- Leadership from executive management should provide a mechanism to seek institution-wide commitment for developing, implementing, and assessing an enrollment management transition strategy to aid the institution in realizing its first-year retention rate, four-year graduation rate, and six-year graduation rate as relevant to the institution's overall mission and strategic plan;

As Walters (2003) indicated, enrollment management practices definitely influence college student retention. Hossler and Bean (1990) stated that effective enrollment management strategies include transitioning to college, attrition and retention, and student outcomes. Enrollment management transitioning strategies are a wide institutional concept that incorporates institutional data, leadership, and strategic planning into an overarching program that addresses recruiting, transitioning to college, retaining, and graduating students (Hossler, 1992; Walters, 2003). Given that these researchers recommended the utilization of enrollment management transitioning strategies as an integral approach for retaining and graduating students, it becomes imperative for higher education leaders to further investigate the incorporation of registration assistance/calibrated scheduling and mandatory new student summer orientation programs into their strategic plans for the future.

Recommendations for further research.

The focus of this study was to identify the influence of enrollment management transition strategies on college student success at large, public U.S. higher education institutions, as categorized by the Carnegie Classification of Institutions of Higher

Education (2010). The relationship of these enrollment management transition strategies could become reasons for designing, developing, implementing, and assessing a comprehensive institutional enrollment management transition program heavily utilizing one or more of these seven enrollment management transition strategies. The institutional goal would be to bring financial stability, improved first-year retention rates, increased four- and six-year graduation rates, and enhancement of overall student-learning outcomes at these types of colleges and universities in the United States.

As indicated earlier, gaps remain in the research literature relative to the influence of enrollment management transition strategies on college student success.

Recommendations for future research are listed below:

After evaluating the findings of this study, further research is needed to determine whether or not the factors influencing the effectiveness of enrollment management transition strategies at large four-year public institution would be the same if another sample of institutions were used in a study. Results of the research provided are a beginning for further research which could be conducted with other classifications of higher education institutions. Recommendations for future research include replicating this study with private institutions and/or institutions with smaller student populations thus making the findings more generalizable.

Second, it is recommended further research be conducted at a four-year private non-profit liberal arts institution to study the influence of enrollment management transition strategies on college student success. Hossler (2009) indicated that private non-profit institutions are expected to face serious enrollment and retention challenges in the next 20 years. As a result of recent economic challenges and a shifting marketplace, a

critical need exists for the examination of the influence of enrollment management transition strategies on college student success at private non-profit liberal arts institutions.

Prior to conducting the above recommended studies, it is suggested that the survey instrument be revised to allow for the respondents' individual reporting of first-year retention rates, four-year graduation rates, six-year graduation rates, and the individual periods of employment of each of the seven enrollment management transition strategies as relevant to the institution. By surveying another group of institutions with the amended survey instrument, richer data can be gathered to support analyses which should yield more conclusive results regarding the relationship of these various enrollment management transitioning strategies on these various components of college student success.

Finally, so as to round out the research on the influence of the seven enrollment management transition strategies on college student success, alums of these institutions should also be surveyed to determine whether the employment of these strategies influenced student decisions to persist and/or to graduate. Various student organizations exist and maintain contact information for alumni of the surveyed institutions. By capturing these data, the researcher would have conclusive findings from the institutional perspective as well as from the students' perspective.

Summary

The chapter presented a summary and discussion of the survey's findings and offered an interpretation of the significant findings of the study. Several limitations were presented and the policy implications were discussed. Based on the findings from the

study, which included analyses of the data collected via the Enrollment Management Student Success Strategies Questionnaire, the researcher made several recommendations for college and university administrators. Several recommendations were also outlined for further research.

In conclusion, this dissertation was presented in five chapters. Using a non-experimental quantitative research model, the study began by examining the enrollment management transition strategies that influence the first-year persistence rate and four- and six-year graduation rates at large, public U.S. higher education institutions as categorized by the Carnegie Classification of Institutions of Higher Education (2010). Chief enrollment officers, as determined through the use of the *AACRAO Member Guide* and/or the higher education institution's website, were identified and surveyed via email regarding the various enrollment management transition strategies employed at their respective institutions and the corresponding retention and graduation rate data.

Chapter One presented an overview of the study, including a statement of the problem and the significance of the study focusing on enrollment management transition strategies which influence college student retention and the four- and six-year graduation rates at large, public U.S. higher education institutions as categorized by the Carnegie Classification of Institutions of Higher Education (2010). Chapter Two provided an overview of the literature on enrollment management, enrollment management transition strategies, and college student success. Chapters Three through Five focused on the design of the study, the findings, and, finally, the interpretation and application of the findings as well implications for future research.

The findings from the non-experimental quantitative research model answered some questions which pertain to the influence of enrollment management transition strategies on college student success but also generated more questions for future exploration. The study also demonstrated the need for higher education administrators to conduct research in order to understand the influence of the seven enrollment management transition strategies on the various elements of college student success as well as to be proactive in identifying enrollment management transition strategies which positively influence college student success.

In closing, large, public U.S. higher education institutions, as categorized by the Carnegie Classification of Institutions of Higher Education (2010) can benefit from the findings from this type of research. Additionally, if colleges and universities can identify enrollment management transition strategies which positively influence college student persistence to graduation, these transition strategies can be employed early with sustained attention on transitioning, and premature departure could be greatly reduced if not nearly eradicated.

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Appendix A: Research Questions

1. Which of the available enrollment management transition strategies have the most positive effect on freshman college student retention?
2. What is the impact of a higher education institution's enrollment assistance strategies (registration assistance and/or calibrated scheduling) on first-year persistence?
3. What is the impact of a higher education institution's enrollment management transition strategies on the four-year graduation rate?
4. What is the relationship between the first-year retention rate reported by the surveyed institutions at the time of the study and the length of time that specific enrollment management transition strategies have been employed at surveyed colleges and universities?
5. What is the relationship between the four- and six-year graduation rates of institutions surveyed and the length of time that specific enrollment management transition strategies have been employed at surveyed colleges and universities at the time of study?

Appendix B: Human Subjects Application for Exempt Research

OLD DOMINION UNIVERSITY APPLICATION FOR EXEMPT RESEARCH

Note: For research projects regulated by or supported by the Federal Government, submit 10 copies of this application to the Institutional Review Board. Otherwise, submit to your college human subjects committee.

First Name: Dennis	Middle Initial: E	Last Name: Gregory
Telephone: (757) 683-3702	Fax Number:	E-mail: dgregory@odu.edu
Office Address: Darden College of Education Office #168-6		
City: Norfolk	State: VA	Zip: 23529
Department: Educational Foundations and Leadership		College: Darden College of Education
Complete Title of Research Project: The Influence of Enrollment Management Transition Strategies on College Student Success		Code Name (One word): Gregory_student_success
First Name: Lisa	Middle Initial: D	Last Name: Duncan Raines
Telephone: 757.660.7733	Fax Number:	Email: LDUNC003@odu.edu
Office Address: Darden College of Education Office #168-6		
City: Norfolk	State: VA	Zip: 23529
Affiliation: <input type="checkbox"/> Faculty <input checked="" type="checkbox"/> Graduate Student <input type="checkbox"/> Undergraduate Student <input type="checkbox"/> Staff <input type="checkbox"/> Other		
First Name:	Middle Initial:	Last Name:
Telephone:	Fax Number:	Email:
Office Address:		
City:	State:	Zip:
Affiliation: <input type="checkbox"/> Faculty <input type="checkbox"/> Graduate Student <input type="checkbox"/> Undergraduate Student <input type="checkbox"/> Staff <input type="checkbox"/> Other		

List additional investigators on attachment and check here: ___

1. This study is being conducted as part of (check all that apply):

- | | | | |
|-------------------------------------|-----------------------|--------------------------|---------------------------------------|
| <input type="checkbox"/> | Faculty Research | <input type="checkbox"/> | Non-Thesis Graduate Student Research |
| <input checked="" type="checkbox"/> | Doctoral Dissertation | <input type="checkbox"/> | Honors or Individual Problems Project |
| <input type="checkbox"/> | Masters Thesis | <input type="checkbox"/> | Other |

2. Is this research project externally funded or contracted for by an agency or institution which is independent of the university? Remember, if the project receives ANY federal support, then the project CANNOT be reviewed by a College Committee and MUST be reviewed by the University's Institutional Review Board (IRB).

- Yes (If yes, indicate the granting or contracting agency and provide identifying information.)
 No

Agency Name:
Mailing Address:
Point of Contact:
Telephone:

- 3a. Date you wish to start research (MM/DD/YY) 12/05/2011
3b. Date you wish to end research (MM/DD/YY) 02/01/2012

4. Has this project been reviewed by any other committee (university, governmental, private sector) for the protection of human research participants?

- Yes
 No

4a. If yes, is ODU conducting the primary review?

- Yes
 No (If no go to 4b)

4b. Who is conducting the primary review? Old Dominion University

5. Attach a description of the following items:

X Description of the Proposed Study

X Research Protocol

References

X Any Letters, Flyers, Questionnaires, etc. which will be distributed to the study subjects or other study participants

If the research is part of a research proposal submitted for federal, state or external funding, submit a copy of the FULL proposal

Note: The description should be in sufficient detail to allow the Human Subjects Review Committee to determine if the study can be classified as EXEMPT under Federal Regulations 45CFR46.101(b).

1. Identify which of the 6 federal exemption categories below applies to your research proposal and explain

why the proposed research meets the category. Federal law 45 CFR 46.101(b) identifies the following EXEMPT categories. Check all that apply and provide comments.

SPECIAL NOTE: The exemptions at 45 CFR 46.101(b) do not apply to research involving prisoners, fetuses, pregnant women, or human in vitro fertilization. The exemption at 45 CFR 46.101(b)(2), for research involving survey or interview procedures or observation of public behavior, does not apply to research with children, except for research involving observations of public behavior when the investigator(s) do not participate in the activities being observed.

X (6.1) Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as (i) research on regular and special education instructional strategies, or (ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.

Comments:

In this study, the researcher will collect data associated with enrollment management transition strategies and measures of student success at 212 large, public, predominantly undergraduate universities in the United States, as classified by the Carnegie Foundation for the Advancement of Teaching. The researcher will compile a final dataset which will contain no identifying information that could be used to link to the subjects or institutions. All personally identifiable data (to include employee names, email addresses, and/or institution names) will be removed from the final dataset; therefore, the identities of the subjects and their responses to the survey will remain confidential. Data will be viewed by only the researcher. Findings from the study will be reported in aggregate form only. Data will be retained on a password protected server which is also protected by a firewall. After data analyses and interpretation, these data will be deleted from secure server and destroyed by the researcher no later than May 31, 2012.

(6.2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) Information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; AND (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Comments:

(6.3) Research involving the use of educational tests (cognitive, diagnostic, aptitude,

achievement), survey procedures, interview procedures, or observation of public behavior that is not exempt under paragraph (b)(2) of this section, if:

(i) The human subjects are elected or appointed public officials or candidates for public office; or (ii) federal statute(s) require(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.

Comments:

____(6.4) Research, involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.

Comments:

____ (6.5) Does not apply to the university setting; do not use it

____(6.6) Taste and food quality evaluation and consumer acceptance studies, (i) if wholesome foods without additives are consumed or (ii) if a food is consumed that contains a food ingredient at or below the level and for a use found to be safe, or agricultural chemical or environmental contaminant at or below the level found to be safe, by the Food and Drug Administration or approved by the Environmental Protection Agency or the Food Safety and Inspection Service of the U.S. Department of Agriculture.

Comments:

PLEASE NOTE:

You may begin research when the College Committee or Institutional Review Board gives notice of its approval.

You **MUST** inform the College Committee or Institutional Review Board of ANY changes in method or procedure that may conceivably alter the exempt status of the project.

Responsible Project Investigator (Must be original signature)

Date

Description of Proposed Study:

This study is intended to collect data and provide statistical analyses so as to offer an understanding of the influence of enrollment management transition strategies on college student success for large, public higher education institutions in the United States, as determined by the Carnegie Classification of Institutions of Higher Education. Results from the survey will be used to assist enrollment professionals in understanding the influence of enrollment management concepts on whether their institution has achieved their desired retention and graduation goals. By understanding the relationship of

enrollment management transition strategies on college student success and whether these strategies have enabled or influenced the institution in achieving their desired goals can improve future models. Ultimately, a better understanding of the influence of transition strategies on college student success will help colleges and universities provide better service to students and improve overall student success.

This study will examine the influence of enrollment management transition strategies on college student success. For this purpose of this study, college student success is defined as first-year retention rate, four-year graduation rate, and six-year graduation rate. The 212 large, public, predominantly undergraduate universities in the United States, as classified by the Carnegie Foundation for the Advancement of Teaching will be the population in this study. Respondents will report the various enrollment management transition strategies employed at their institution along with the first-year retention rate, four-year graduation rate, and six-year graduation rate immediately prior to implementation of the transition strategy and at various intervals after implementation of the previously referenced strategy. Institutions who report an increase in the above referenced measures will be determined to have an improvement as a result of the enrollment management transition strategy(ies).

A researcher-designed survey instrument, the Enrollment Management Transition Strategies Student Success Questionnaire (EMTSSSQ), will be employed to gather necessary data for analysis and interpretation.

Research Protocol:

This study will utilize a researcher-designed survey instrument, the Enrollment Management Transition Strategies Student Success Questionnaire (EMTSSSQ). This instrument will be tested for validity through an iterative process involving a formative committee and summative committee for review and evaluation. Following this iterative process, the instrument will be tested for reliability through a pilot test. All processes involved in testing for validity and reliability will involve subject matter experts in the fields of enrollment management, student success, institutional research, and/or institutional assessment.

In this study, the researcher will utilize this survey instrument to collect data associated with enrollment management transition strategies and measures of student success at 212 large, public, predominantly undergraduate universities in the United States, as classified by the Carnegie Foundation for the Advancement of Teaching. The researcher will compile a final dataset which will contain no identifying information that could be used to link to the subjects or institutions. All personally identifiable data (to include employee names, email addresses, and/or institution names) will be removed from the final dataset; therefore, the identities of the subjects and their responses to the survey will remain confidential. Data will be viewed by only the researcher. Findings from the study will be reported in aggregate form only. Data will be retained on a password protected server which is also protected by a secure firewall. After data analyses and

interpretation, these data will be deleted from secure server and destroyed by the researcher no later than May 31, 2012.

Carnegie Foundation for the Advancement of Teaching. (2010).
<http://www.carnegiefoundation.org>

Email of Introduction to Participants

Thank you for agreeing to participate in a study of the influence of enrollment management transition strategies on college student success. This study is part of an effort to understand the influence of enrollment management transition strategies on college student success for large, public higher education institutions in the United States, as determined by the Carnegie Classification of Institutions of Higher Education.

We are contacting the chief enrollment officers to gather a variety of information regarding the types of transition strategies employed and their potential influence on freshman to sophomore retention and graduation rates. Further, we are asking for information about the chief enrollment officers' perception of the influence of these transition strategies on retention and graduation.

Results from the survey will be used to assist enrollment professionals in understanding the influence of enrollment management concepts on whether their institution has achieved their desired retention and graduation goals. By understanding the relationship of enrollment management transition strategies on college student success and whether these strategies have enabled or influenced the institution in achieving their desired goals can improve future models. Ultimately, a better understanding of the influence of transition strategies on college student success will help colleges and universities provide better service to students and improve overall student success.

Your answers will be completely confidential and will be released only in aggregate form so that no individual answers are identifiable. After you have completed the survey, your institution will not be connected with the responses in any way. After the data analysis has been reported, your responses will be deleted. Please note that completion of this questionnaire is completely voluntary. You may elect to be excluded from this study at any point; however, your participation will be extremely helpful as your answers will provide insight into the influence of enrollment management concepts on college student success in higher education.

Please direct any questions or comments about this research study to me at the following:

Voice: 757.660.7733

Email: LDUNC003@odu.edu

Again, thank you very much for agreeing to assist with this important research study.

Enrollment Management Student Success Strategies

Enrollment management transition strategies are a set of systematic and active processes by which an institution can influence its enrollment levels, retention rates, and graduation rates. Transition strategies involve a variety of efforts tailored to the needs of the specific institution. This research study seeks to investigate the influence of enrollment management transition strategies on college student success. It is hoped that the results of this study will aid higher education practitioners in future decisions regarding enrollment management student success strategies.

Please take some time now to fill out this questionnaire. Please remember your participation is voluntary, and your identity as well as that of your institution will be kept completely confidential.

Section I: Demographics

1. What is the title of the chief enrollment officer at your institution?
 - Dean or Director of Admissions
 - Dean of Enrollment Management or Enrollment Services
 - Provost
 - Vice President for Enrollment, Enrollment Management, or Enrollment Services
 - Assistant or Associate Vice President for Enrollment, Enrollment Management, or Enrollment Services
 - University Registrar
 - Other:

2. To which organizational unit does your institution's chief enrollment officer report?
 - Enrollment and Student Services or Student Services
 - Student Affairs
 - Academic Affairs
 - Student Success
 - Other:

3. Please indicate the area of the country which most appropriately describes your institution's location:
 - East Coast
 - West Coast
 - Midwest
 - Alaska, Pacific Islands, Puerto Rico
 - Other:

4. Under which regional higher education accrediting organization is your institution accredited?
- New England Association of Schools and Colleges
 - Middle States Association of Colleges and Schools
 - North Central Association of Colleges and Schools
 - Northwest Commission on Colleges and Universities
 - Southern Association of Colleges and Schools
 - Western Association of Schools and Colleges
 - Not regionally accredited or No Regional accreditation
5. Please indicate your institution's undergraduate student population (FTE).
- | | |
|--|--|
| <input type="checkbox"/> 10,000-14,999 | <input type="checkbox"/> 30,000-34,999 |
| <input type="checkbox"/> 15,000-19,999 | <input type="checkbox"/> 35,000 or more |
| <input type="checkbox"/> 20,000-24,999 | <input type="checkbox"/> Not sure or information unavailable |
| <input type="checkbox"/> 25,000-29,999 | |
6. Please indicate the best description of your institution.
- Undergraduate population is completely residential.
 - Undergraduate population is mostly (75% or more) residential.
 - Undergraduate population is partially (50%) residential.
 - Undergraduate population is marginally (25%) residential.
 - Undergraduate population is not residential.

Section II: Enrollment Management Transition Strategies

1. Which of the following enrollment management transition strategies does your institution employ? Please check all that apply.
- Summer New Freshman Orientation
 - Welcome Week Transitioning Programs for New Freshmen
 - Voluntary Freshman Learning Communities
 - Mandatory Freshman Learning Communities
 - Registration Assistance and Calibrated Class Scheduling
 - First Year Seminar
 - Common Reading
2. Please check the type of program that most closely describes your institution's summer orientation program for new freshmen.
- One Day On-campus Program
 - Two Day On-campus Program
 - Two Day On-campus Program with Overnight Stay
 - Online Program
 - My institution has no summer orientation program for new freshmen.

3. Please check the type of registration process that most closely represents what your institution utilizes with freshmen registration.
- Calibrated schedule chosen for students based on major and scores
 - Learning community that they choose with set courses that fit the community theme
 - Students choose some courses and are given some courses based on major and scores
 - Student registers for classes with the help of an advisor present
 - Student is advised but then registers for classes independently

Please check the length of time your institution has utilized the following enrollment management strategies.

4. Summer New Freshman Orientation
- | | |
|------------------------------------|---------------------------------------|
| <input type="checkbox"/> 1 Year | <input type="checkbox"/> Discontinued |
| <input type="checkbox"/> 2-4 Years | <input type="checkbox"/> Never Used |
| <input type="checkbox"/> 5+ Years | |
5. Welcome Week Transitioning Programs for New Freshmen
- | | |
|------------------------------------|---------------------------------------|
| <input type="checkbox"/> 1 Year | <input type="checkbox"/> Discontinued |
| <input type="checkbox"/> 2-4 Years | <input type="checkbox"/> Never Used |
| <input type="checkbox"/> 5+ Years | |
6. Voluntary Freshman Learning Communities
- | | |
|------------------------------------|---------------------------------------|
| <input type="checkbox"/> One Year | <input type="checkbox"/> Discontinued |
| <input type="checkbox"/> 2-4 Years | <input type="checkbox"/> Never Used |
| <input type="checkbox"/> 5+ Years | |
7. Mandatory Freshman Learning Communities
- | | |
|------------------------------------|---------------------------------------|
| <input type="checkbox"/> One Year | <input type="checkbox"/> Discontinued |
| <input type="checkbox"/> 2-4 Years | <input type="checkbox"/> Never Used |
| <input type="checkbox"/> 5+ Years | |
8. Registration Assistance and Calibrated Class Scheduling
- | | |
|------------------------------------|---------------------------------------|
| <input type="checkbox"/> One Year | <input type="checkbox"/> Discontinued |
| <input type="checkbox"/> 2-4 Years | <input type="checkbox"/> Never Used |
| <input type="checkbox"/> 5+ Years | |
9. First Year Seminar
- | | |
|------------------------------------|---------------------------------------|
| <input type="checkbox"/> One Year | <input type="checkbox"/> Discontinued |
| <input type="checkbox"/> 2-4 Years | <input type="checkbox"/> Never Used |
| <input type="checkbox"/> 5+ Years | |

10. Common Reading

 One Year 2-4 Years 5+ Years Discontinued Never Used

11. Which of the following enrollment management transition strategies do you perceive as benefiting student success the most at your institution? Please check one.

 Summer New Freshman Orientation Welcome Week Transitioning Programs for New Freshmen Voluntary Freshman Learning Communities Mandatory Freshman Learning Communities Registration Assistance and Calibrated Class Scheduling First Year Seminar Common Reading

12. Please provide the following information regarding Welcome Week (the week immediately prior to the start of fall term) programming for new freshmen at your institution.

 My institution does not provide this programming for new freshmen. My institution provides this program for new freshmen, and we have been doing so since _____. My institution does not currently provide this program for new freshmen but plans are in progress for such a program. My institution has previously provided this (or a similar) program but we no longer offer such a program. Unsure whether program has ever existed and whether there are plans to implement such a program.

13. Please provide the following information regarding voluntary learning communities for new freshmen at your institution.

 My institution does not provide this programming for new freshmen. My institution provides this program for new freshmen, and we have been doing so since _____. My institution does not currently provide this program for new freshmen but plans are in progress for such a program. My institution has previously provided this (or a similar) program but we no longer offer such a program. Unsure whether program has ever existed and whether there are plans to implement such a program.

14. Please provide the following information regarding mandatory learning communities for new freshmen at your institution.

- My institution does not provide this programming for new freshmen.
- My institution provides this program for new freshmen, and we have been doing so since _____.
- My institution does not currently provide this program for new freshmen but plans are in progress for such a program.
- My institution has previously provided this (or a similar) program but we no longer offer such a program.
- Unsure whether program has ever existed and whether there are plans to implement such a program.

15. Please provide the following information registration assistance and calibrated class scheduling for new freshmen at your institution.

- My institution does not provide this programming for new freshmen.
- My institution provides this program for new freshmen, and we have been doing so since _____.
- My institution does not currently provide this program for new freshmen but plans are in progress for such a program.
- My institution has previously provided this (or a similar) program but we no longer offer such a program.
- Unsure whether program has ever existed and whether there are plans to implement such a program.

16. Please provide the following information regarding the Common Reading for new freshmen at your institution.

- My institution does not provide this program for new freshmen.
- My institution provides this program for new freshmen, and we have been doing so since _____.
- My institution does not currently provide this program for new freshmen but plans are in progress for such a program.
- My institution has previously provided this program but we no longer offer such a program.
- Unsure whether this program has ever existed and whether there are plans to implement such a program.

Section III: Measures of Student Success

A. Freshman to Sophomore Fall Retention Rate Prior to Implementation:

Please indicate your institution's freshman to sophomore fall retention rate for the fall term immediately prior to implementation of the following enrollment management transition strategies:

1. **Summer New Freshman Orientation**

<input type="checkbox"/> 90% or higher	<input type="checkbox"/> 50-59.9%
<input type="checkbox"/> 80-89.9%	<input type="checkbox"/> Less than 50%
<input type="checkbox"/> 70-79.9%	<input type="checkbox"/> Program not offered
<input type="checkbox"/> 60-69.9%	

2. **Welcome Week Transitioning Programs for New Freshmen**

<input type="checkbox"/> 90% or higher	<input type="checkbox"/> 50-59.9%
<input type="checkbox"/> 80-89.9%	<input type="checkbox"/> Less than 50%
<input type="checkbox"/> 70-79.9%	<input type="checkbox"/> Program not offered
<input type="checkbox"/> 60-69.9%	

3. **Voluntary Freshman Learning Communities**

<input type="checkbox"/> 90% or higher	<input type="checkbox"/> 50-59.9%
<input type="checkbox"/> 80-89.9%	<input type="checkbox"/> Less than 50%
<input type="checkbox"/> 70-79.9%	<input type="checkbox"/> Program not offered
<input type="checkbox"/> 60-69.9%	

4. **Mandatory Freshman Learning Communities**

<input type="checkbox"/> 90% or higher	<input type="checkbox"/> 50-59.9%
<input type="checkbox"/> 80-89.9%	<input type="checkbox"/> Less than 50%
<input type="checkbox"/> 70-79.9%	<input type="checkbox"/> Program not offered
<input type="checkbox"/> 60-69.9%	

5. **Registration Assistance and Calibrated Class Scheduling**

<input type="checkbox"/> 90% or higher	<input type="checkbox"/> 50-59.9%
<input type="checkbox"/> 80-89.9%	<input type="checkbox"/> Less than 50%
<input type="checkbox"/> 70-79.9%	<input type="checkbox"/> Program not offered
<input type="checkbox"/> 60-69.9%	

6. **First Year Seminar**

<input type="checkbox"/> 90% or higher	<input type="checkbox"/> 50-59.9%
<input type="checkbox"/> 80-89.9%	<input type="checkbox"/> Less than 50%
<input type="checkbox"/> 70-79.9%	<input type="checkbox"/> Program not offered
<input type="checkbox"/> 60-69.9%	

7. **Common Reading**
- | | |
|--|--|
| <input type="checkbox"/> 90% or higher | <input type="checkbox"/> 50-59.9% |
| <input type="checkbox"/> 80-89.9% | <input type="checkbox"/> Less than 50% |
| <input type="checkbox"/> 70-79.9% | <input type="checkbox"/> Program not offered |
| <input type="checkbox"/> 60-69.9% | |

B. Freshman to Sophomore Fall Retention Rate After Implementation: Please indicate your institution's freshman to sophomore fall retention rate for the fall term immediately following implementation of the following enrollment management transition strategies:

1. **Summer New Freshman Orientation**
- | | |
|--|--|
| <input type="checkbox"/> 90% or higher | <input type="checkbox"/> 50-59.9% |
| <input type="checkbox"/> 80-89.9% | <input type="checkbox"/> Less than 50% |
| <input type="checkbox"/> 70-79.9% | <input type="checkbox"/> Program not offered |
| <input type="checkbox"/> 60-69.9% | |
2. **Welcome Week Transitioning Programs for New Freshmen**
- | | |
|--|--|
| <input type="checkbox"/> 90% or higher | <input type="checkbox"/> 50-59.9% |
| <input type="checkbox"/> 80-89.9% | <input type="checkbox"/> Less than 50% |
| <input type="checkbox"/> 70-79.9% | <input type="checkbox"/> Program not offered |
| <input type="checkbox"/> 60-69.9% | |
3. **Voluntary Freshman Learning Communities**
- | | |
|--|--|
| <input type="checkbox"/> 90% or higher | <input type="checkbox"/> 50-59.9% |
| <input type="checkbox"/> 80-89.9% | <input type="checkbox"/> Less than 50% |
| <input type="checkbox"/> 70-79.9% | <input type="checkbox"/> Program not offered |
| <input type="checkbox"/> 60-69.9% | |
4. **Mandatory Freshman Learning Communities**
- | | |
|--|--|
| <input type="checkbox"/> 90% or higher | <input type="checkbox"/> 50-59.9% |
| <input type="checkbox"/> 80-89.9% | <input type="checkbox"/> Less than 50% |
| <input type="checkbox"/> 70-79.9% | <input type="checkbox"/> Program not offered |
| <input type="checkbox"/> 60-69.9% | |
5. **Registration Assistance and Calibrated Class Scheduling**
- | | |
|--|--|
| <input type="checkbox"/> 90% or higher | <input type="checkbox"/> 50-59.9% |
| <input type="checkbox"/> 80-89.9% | <input type="checkbox"/> Less than 50% |
| <input type="checkbox"/> 70-79.9% | <input type="checkbox"/> Program not offered |
| <input type="checkbox"/> 60-69.9% | |

6. **First Year Seminar**
- | | |
|--|--|
| <input type="checkbox"/> 90% or higher | <input type="checkbox"/> 50-59.9% |
| <input type="checkbox"/> 80-89.9% | <input type="checkbox"/> Less than 50% |
| <input type="checkbox"/> 70-79.9% | <input type="checkbox"/> Program not offered |
| <input type="checkbox"/> 60-69.9% | |

7. **Common Reading**
- | | |
|--|--|
| <input type="checkbox"/> 90% or higher | <input type="checkbox"/> 50-59.9% |
| <input type="checkbox"/> 80-89.9% | <input type="checkbox"/> Less than 50% |
| <input type="checkbox"/> 70-79.9% | <input type="checkbox"/> Program not offered |
| <input type="checkbox"/> 60-69.9% | |

C. Four-Year Graduation Rate Prior to Implementation: Please indicate your institution's four-year graduation rate immediately prior to initial implementation of the following enrollment management transition strategies:

1. **Summer New Freshman Orientation**
- | | |
|--|--|
| <input type="checkbox"/> 90% or higher | <input type="checkbox"/> 50-59.9% |
| <input type="checkbox"/> 80-89.9% | <input type="checkbox"/> Less than 50% |
| <input type="checkbox"/> 70-79.9% | <input type="checkbox"/> Program not offered |
| <input type="checkbox"/> 60-69.9% | |

2. **Welcome Week Transitioning Programs for New Freshmen**
- | | |
|--|--|
| <input type="checkbox"/> 90% or higher | <input type="checkbox"/> 50-59.9% |
| <input type="checkbox"/> 80-89.9% | <input type="checkbox"/> Less than 50% |
| <input type="checkbox"/> 70-79.9% | <input type="checkbox"/> Program not offered |
| <input type="checkbox"/> 60-69.9% | |

3. **Voluntary Freshman Learning Communities**
- | | |
|--|--|
| <input type="checkbox"/> 90% or higher | <input type="checkbox"/> 50-59.9% |
| <input type="checkbox"/> 80-89.9% | <input type="checkbox"/> Less than 50% |
| <input type="checkbox"/> 70-79.9% | <input type="checkbox"/> Program not offered |
| <input type="checkbox"/> 60-69.9% | |

4. **Mandatory Freshman Learning Communities**
- | | |
|--|--|
| <input type="checkbox"/> 90% or higher | <input type="checkbox"/> 50-59.9% |
| <input type="checkbox"/> 80-89.9% | <input type="checkbox"/> Less than 50% |
| <input type="checkbox"/> 70-79.9% | <input type="checkbox"/> Program not offered |
| <input type="checkbox"/> 60-69.9% | |

5. **Registration Assistance and Calibrated Class Scheduling**
 90% or higher
 80-89.9%
 70-79.9%
 60-69.9%
 50-59.9%
 Less than 50%
 Program not offered
6. **First Year Seminar**
 90% or higher
 80-89.9%
 70-79.9%
 60-69.9%
 50-59.9%
 Less than 50%
 Program not offered
7. **Common Reading**
 90% or higher
 80-89.9%
 70-79.9%
 60-69.9%
 50-59.9%
 Less than 50%
 Program not offered

D. Four-Year Graduation Rate: Please indicate your institution's four-year graduation rate four years after implementation of the following enrollment management transition strategies:

1. **Summer New Freshman Orientation**
 90% or higher
 80-89.9%
 70-79.9%
 60-69.9%
 50-59.9%
 Less than 50%
 Program not offered
2. **Welcome Week Transitioning Programs for New Freshmen**
 90% or higher
 80-89.9%
 70-79.9%
 60-69.9%
 50-59.9%
 Less than 50%
 Program not offered
3. **Voluntary Freshman Learning Communities**
 90% or higher
 80-89.9%
 70-79.9%
 60-69.9%
 50-59.9%
 Less than 50%
 Program not offered

4. **Mandatory Freshman Learning Communities**
- | | |
|--|--|
| <input type="checkbox"/> 90% or higher | <input type="checkbox"/> 50-59.9% |
| <input type="checkbox"/> 80-89.9% | <input type="checkbox"/> Less than 50% |
| <input type="checkbox"/> 70-79.9% | <input type="checkbox"/> Program not offered |
| <input type="checkbox"/> 60-69.9% | |
5. **Registration Assistance and Calibrated Class Scheduling**
- | | |
|--|--|
| <input type="checkbox"/> 90% or higher | <input type="checkbox"/> 50-59.9% |
| <input type="checkbox"/> 80-89.9% | <input type="checkbox"/> Less than 50% |
| <input type="checkbox"/> 70-79.9% | <input type="checkbox"/> Program not offered |
| <input type="checkbox"/> 60-69.9% | |
6. **First Year Seminar**
- | | |
|--|--|
| <input type="checkbox"/> 90% or higher | <input type="checkbox"/> 50-59.9% |
| <input type="checkbox"/> 80-89.9% | <input type="checkbox"/> Less than 50% |
| <input type="checkbox"/> 70-79.9% | <input type="checkbox"/> Program not offered |
| <input type="checkbox"/> 60-69.9% | |
7. **Common Reading**
- | | |
|--|--|
| <input type="checkbox"/> 90% or higher | <input type="checkbox"/> 50-59.9% |
| <input type="checkbox"/> 80-89.9% | <input type="checkbox"/> Less than 50% |
| <input type="checkbox"/> 70-79.9% | <input type="checkbox"/> Program not offered |
| <input type="checkbox"/> 60-69.9% | |

E. Six-Year Graduation Rate Prior to Implementation: Please indicate your institution's six-year graduation rate immediately prior to implementation of the following enrollment management transition strategies:

1. **Summer New Freshman Orientation**
- | | |
|--|--|
| <input type="checkbox"/> 90% or higher | <input type="checkbox"/> 50-59.9% |
| <input type="checkbox"/> 80-89.9% | <input type="checkbox"/> Less than 50% |
| <input type="checkbox"/> 70-79.9% | <input type="checkbox"/> Program not offered |
| <input type="checkbox"/> 60-69.9% | |
2. **Welcome Week Transitioning Programs for New Freshmen**
- | | |
|--|--|
| <input type="checkbox"/> 90% or higher | <input type="checkbox"/> 50-59.9% |
| <input type="checkbox"/> 80-89.9% | <input type="checkbox"/> Less than 50% |
| <input type="checkbox"/> 70-79.9% | <input type="checkbox"/> Program not offered |
| <input type="checkbox"/> 60-69.9% | |

3. **Voluntary Freshman Learning Communities**
 90% or higher
 80-89.9%
 70-79.9%
 60-69.9%
 50-59.9%
 Less than 50%
 Program not offered
4. **Mandatory Freshman Learning Communities**
 90% or higher
 80-89.9%
 70-79.9%
 60-69.9%
 50-59.9%
 Less than 50%
 Program not offered
5. **Registration Assistance and Calibrated Class Scheduling**
 90% or higher
 80-89.9%
 70-79.9%
 60-69.9%
 50-59.9%
 Less than 50%
 Program not offered
6. **First Year Seminar**
 90% or higher
 80-89.9%
 70-79.9%
 60-69.9%
 50-59.9%
 Less than 50%
 Program not offered
7. **Common Reading**
 90% or higher
 80-89.9%
 70-79.9%
 60-69.9%
 50-59.9%
 Less than 50%
 Program not offered

F. Six-Year Graduation Rate After Implementation: Please indicate your institution's six-year graduation rate six years after implementation of the following enrollment management transition strategies:

1. **Summer New Freshman Orientation**
 90% or higher
 80-89.9%
 70-79.9%
 60-69.9%
 50-59.9%
 Less than 50%
 Program not offered

2. **Welcome Week Transitioning Programs for New Freshmen**
 90% or higher
 80-89.9%
 70-79.9%
 60-69.9%
 50-59.9%
 Less than 50%
 Program not offered
3. **Voluntary Freshman Learning Communities**
 90% or higher
 80-89.9%
 70-79.9%
 60-69.9%
 50-59.9%
 Less than 50%
 Program not offered
4. **Mandatory Freshman Learning Communities**
 90% or higher
 80-89.9%
 70-79.9%
 60-69.9%
 50-59.9%
 Less than 50%
 Program not offered
5. **Registration Assistance and Calibrated Class Scheduling**
 90% or higher
 80-89.9%
 70-79.9%
 60-69.9%
 50-59.9%
 Less than 50%
 Program not offered
6. **First Year Seminar**
 90% or higher
 80-89.9%
 70-79.9%
 60-69.9%
 50-59.9%
 Less than 50%
 Program not offered
7. **Common Reading**
 90% or higher
 80-89.9%
 70-79.9%
 60-69.9%
 50-59.9%
 Less than 50%
 Program not offered

Section IV: Perceptions of the Influence of Transition Strategies on Student Success

1. Which of the following enrollment management transition strategies do you perceive as most beneficial to student success at your institution? Please check one.
 - Summer New Freshman Orientation
 - Welcome Week Transitioning Programs for New Freshmen
 - Voluntary Freshman Learning Communities
 - Mandatory Freshman Learning Communities
 - Registration Assistance and Calibrated Class Scheduling
 - First Year Seminar
 - Common Reading

2. Which of the following enrollment management transition strategies do you perceive as least beneficial to student success at your institution? Please check one.
 - Summer New Freshman Orientation
 - Welcome Week Transitioning Programs for New Freshmen
 - Voluntary Freshman Learning Communities
 - Mandatory Freshman Learning Communities
 - Registration Assistance and Calibrated Class Scheduling
 - First Year Seminar
 - Common Reading

3. Please indicate which of the following applies to the influence of enrollment management strategies on students and/or success measures at your institution.
 - Increases the quality of new freshmen
 - Increases freshman to sophomore year retention
 - Improves the four-year graduation rate
 - Improves the six-year graduation rate
 - Increases student satisfaction
 - Improves student engagement with the institution
 - No perceived influence on student success

4. Describe the impact of the Enrollment Management Strategies employed by your institution on student success and retention?

5. Describe the most valued benefit of the enrollment management transition strategies at your institution.

6. Please briefly explain any other enrollment management transition strategies employed by your institution that have not already been listed.

**** Thank you for taking your time in completing this questionnaire. ****

Appendix C: Letter to Participants

Thank you for agreeing to participate in a study of the influence of enrollment management transition strategies on college student success. This study is part of an effort to understand the influence of enrollment management transition strategies on college student success for large, public higher education institutions in the United States, as determined by the Carnegie Classification of Institutions of Higher Education.

We are contacting the chief enrollment officers to gather a variety of information regarding the types of transition strategies employed and their potential influence on freshman to sophomore retention and graduation rates. Further, we are asking for information about the chief enrollment officers' perception of the influence of these transition strategies on retention and graduation

Results from the survey will be used to assist enrollment professionals in understanding the influence of enrollment management concepts on whether their institution has achieved their desired retention and graduation goals. By understanding the relationship of enrollment management transition strategies on college student success and whether these strategies have enabled or influenced the institution in achieving their desired goals can improve future models. Ultimately, a better understanding of the influence of transition strategies on college student success will help colleges and universities provide better service to students and improve overall student success.

Your answers will be completely confidential and will be released only in aggregate form so that no individual answers are identifiable. After you have completed the survey, your institution will not be connected with the responses in any way. After

the data analysis has been reported, your responses will be deleted. Please note that completion of this questionnaire is completely voluntary. You may elect to be excluded from this study at any point; however, your participation will be extremely helpful as your answers will provide insight into the influence of enrollment management concepts on college student success in higher education.

Please direct any questions or comments about this research study to me at the following:

Voice: 757.660.7733

Email: LDUNC003@odu.edu

Again, thank you very much for agreeing to assist with this important research study.

Appendix D: Informed Consent

Enrollment Management Student Success Strategies

Informed Consent

Lisa Duncan Raines and Old Dominion University's College of Education will be surveying chief enrollment officers to obtain current information about enrollment management transition programs and your institution's student success goals. Your institution's participation is critical to this project. The survey results will enhance the literature on the influence of enrollment management transition programs on college student success and whether these programs are beneficial for institutional attainment of stated student success outcomes.

Instructions

The survey will be conducted via email and will be forwarded to your institution's chief enrollment officer. If you have questions, please contact Lisa Duncan Raines via email at ldunc003@odu.edu or by phone at 757.660.7733. In keeping with the Old Dominion University's informed consent process, we wish to make you aware of your rights and the conditions of this research study. Specifically, there is no risk to you as a participant in this study. Your participation is voluntary, and there is no penalty for not participating. We anticipated that you will need approximately 15 minutes to complete the entire survey. You do not have to answer any question you do not wish to answer, and you have the right to withdraw from the study at any time without consequences. Your identity will be confidential to the extent provided by law, and your individual or college name will not be associated with or used in any report of the survey results. There is no compensation for your participation in this study. The benefit to participating will be the

knowledge you gain about your institution as a result of answering the survey questions. Completion of this survey indicates that you have read and agree with this informed consent. If you have any questions about the research procedures you may contact Lisa Duncan Raines at 2 Loquat Place, Hampton, Virginia 23666 or 757.660.7733. Any questions or concerns about research participants' rights may be directed to the Old Dominion University.

Appendix E: Carnegie Classification of Institutions of Higher Education**Classification Search Criteria**

Large

Four-year

Public

Non-residential, primarily residential, and highly residential

Located in the United States

Appendix F: Listing of Higher Education Institutions for Survey

Listing of 195 Large Public Higher Education Institutions

(Based on the Carnegie Classification of Institutions of Higher Education)

<u>Institution</u>	<u>Location</u>	<u>Control</u>
Appalachian State University	Boone, North Carolina	Public
Arizona State University at the Tempe Campus	Tempe, Arizona	Public
Auburn University Main Campus	Auburn University, Alabama	Public
Ball State University	Muncie, Indiana	Public
Boise State University	Boise, Idaho	Public
Bowling Green State University-Main Campus	Bowling Green, Ohio	Public
California Polytechnic State University-San Luis Obispo	San Luis Obispo, California	Public
California State Polytechnic University-Pomona	Pomona, California	Public
California State University-Chico	Chico, California	Public
California State University-East Bay	Hayward, California	Public
California State University-Fresno	Fresno, California	Public
California State University-Fullerton	Fullerton, California	Public
California State University-Long Beach	Long Beach, California	Public
California State University-Los Angeles	Los Angeles, California	Public
California State University-Northridge	Northridge, California	Public
California State University-Sacramento	Sacramento, California	Public

California State University-San Bernardino	San Bernardino, California	Public
Central Michigan University	Mt Pleasant, Michigan	Public
Clemson University	Clemson, South Carolina	Public
Cleveland State University	Cleveland, Ohio	Public
College of Charleston	Charleston, South Carolina	Public
Colorado State University	Fort Collins, Colorado	Public
CUNY Bernard M Baruch College	New York, New York	Public
CUNY Brooklyn College	Brooklyn, New York	Public
CUNY Hunter College	New York, New York	Public
CUNY John Jay College Criminal Justice	New York, New York	Public
CUNY Queens College	Flushing, New York	Public
East Carolina University	Greenville, North Carolina	Public
East Tennessee State University	Johnson City, Tennessee	Public
Eastern Illinois University	Charleston, Illinois	Public
Eastern Kentucky University	Richmond, Kentucky	Public
Eastern Michigan University	Ypsilanti, Michigan	Public
Ferris State University	Big Rapids, Michigan	Public
Florida Agricultural and Mechanical University	Tallahassee, Florida	Public
Florida Atlantic University-Boca Raton	Boca Raton, Florida	Public
Florida International University	Miami, Florida	Public
Florida State University	Tallahassee, Florida	Public
George Mason University	Fairfax, Virginia	Public

Georgia Institute of Technology-Main Campus	Atlanta, Georgia	Public
Georgia Southern University	Statesboro, Georgia	Public
Georgia State University	Atlanta, Georgia	Public
Grand Valley State University	Allendale, Michigan	Public
Idaho State University	Pocatello, Idaho	Public
Illinois State University	Normal, Illinois	Public
Indiana University-Bloomington	Bloomington, Indiana	Public
Indiana University of Pennsylvania-Main Campus	Indiana, Pennsylvania	Public
Indiana University-Purdue University-Indianapolis	Indianapolis, Indiana	Public
Iowa State University	Ames, Iowa	Public
James Madison University	Harrisonburg, Virginia	Public
Kansas State University	Manhattan, Kansas	Public
Kennesaw State University	Kennesaw, Georgia	Public
Kent State University-Main Campus	Kent, Ohio	Public
Louisiana State Univ & Ag & Mech & Hebert Laws Ctr	Baton Rouge, Louisiana	Public
Marshall University	Huntington, West Virginia	Public
Miami University-Oxford	Oxford, Ohio	Public
Michigan State University	East Lansing, Michigan	Public
Middle Tennessee State University	Murfreesboro, Tennessee	Public
Minnesota State University-Mankato	Mankato, Minnesota	Public
Mississippi State University	Mississippi State,	Public

Mississippi		
Missouri State University	Springfield, Missouri	Public
Montana State University-Bozeman	Bozeman, Montana	Public
Montclair State University	Montclair, New Jersey	Public
New Mexico State University-Main Campus	Las Cruces, New Mexico	Public
North Carolina State University at Raleigh	Raleigh, North Carolina	Public
North Dakota State University-Main Campus	Fargo, North Dakota	Public
Northern Arizona University	Flagstaff, Arizona	Public
Northern Illinois University	Dekalb, Illinois	Public
Northern Kentucky University	Highland Heights, Kentucky	Public
Oakland University	Rochester Hills, Michigan	Public
Ohio State University-Main Campus	Columbus, Ohio	Public
Ohio University-Main Campus	Athens, Ohio	Public
Oklahoma State University-Main Campus	Stillwater, Oklahoma	Public
Old Dominion University	Norfolk, Virginia	Public
Oregon State University	Corvallis, Oregon	Public
Pennsylvania State University-Main Campus	University Park, Pennsylvania	Public
Portland State University	Portland, Oregon	Public
Purdue University-Main Campus	West Lafayette, Indiana	Public
Rutgers University-New Brunswick	New Brunswick, New Jersey	Public
Saint Cloud State University	St Cloud, Minnesota	Public

Sam Houston State University	Huntsville, Texas	Public
San Diego State University	San Diego, California	Public
San Francisco State University	San Francisco, California	Public
San Jose State University	San Jose, California	Public
Southeastern Louisiana University	Hammond, Louisiana	Public
Southern Illinois University Carbondale	Carbondale, Illinois	Public
Southern Illinois University Edwardsville	Edwardsville, Illinois	Public
SUNY at Albany	Albany, New York	Public
SUNY at Binghamton	Binghamton, New York	Public
SUNY at Buffalo	Buffalo, New York	Public
SUNY at Stony Brook	Stony Brook, New York	Public
Temple University	Philadelphia, Pennsylvania	Public
Texas A & M University	College Station, Texas	Public
Texas Southern University	Houston, Texas	Public
Texas State University-San Marcos	San Marcos, Texas	Public
Texas Tech University	Lubbock, Texas	Public
Towson University	Towson, Maryland	Public
Troy University-Main Campus	Troy, Alabama	Public
University of Akron Main Campus	Akron, Ohio	Public
University of Alabama, The	Tuscaloosa, Alabama	Public
University of Alabama at Birmingham	Birmingham, Alabama	Public
University of Alaska Anchorage	Anchorage, Alaska	Public

University of Arizona	Tucson, Arizona	Public
University of Arkansas Main Campus	Fayetteville, Arkansas	Public
University of California-Berkeley	Berkeley, California	Public
University of California-Davis	Davis, California	Public
University of California-Irvine	Irvine, California	Public
University of California-Los Angeles	Los Angeles, California	Public
University of California-Riverside	Riverside, California	Public
University of California-San Diego	La Jolla, California	Public
University of California-Santa Barbara	Santa Barbara, California	Public
University of California-Santa Cruz	Santa Cruz, California	Public
University of Central Florida	Orlando, Florida	Public
University of Central Oklahoma	Edmond, Oklahoma	Public
University of Cincinnati-Main Campus	Cincinnati, Ohio	Public
University of Colorado at Boulder	Boulder, Colorado	Public
University of Colorado at Denver & Health Sci Ctr	Denver, Colorado	Public
University of Connecticut	Storrs, Connecticut	Public
University of Delaware	Newark, Delaware	Public
University of Florida	Gainesville, Florida	Public
University of Georgia	Athens, Georgia	Public
University of Hawaii at Manoa	Honolulu, Hawaii	Public
University of Houston	Houston, Texas	Public
University of Idaho	Moscow, Idaho	Public

University of Illinois at Chicago	Chicago, Illinois	Public
University of Illinois at Urbana-Champaign	Champaign, Illinois	Public
University of Iowa	Iowa City, Iowa	Public
University of Kansas Main Campus	Lawrence, Kansas	Public
University of Kentucky	Lexington, Kentucky	Public
University of Louisiana at Lafayette	Lafayette, Louisiana	Public
University of Louisville	Louisville, Kentucky	Public
University of Maryland-College Park	College Park, Maryland	Public
University of Maryland-University College	Adelphi, Maryland	Public
University of Massachusetts-Amherst	Amherst, Massachusetts	Public
University of Memphis	Memphis, Tennessee	Public
University of Michigan-Ann Arbor	Ann Arbor, Michigan	Public
University of Minnesota-Twin Cities	Minneapolis, Minnesota	Public
University of Mississippi Main Campus	University, Mississippi	Public
University of Missouri-Columbia	Columbia, Missouri	Public
University of Missouri-Kansas City	Kansas City, Missouri	Public
University of Montana-Missoula, The	Missoula, Montana	Public
University of Nebraska at Lincoln	Lincoln, Nebraska	Public
University of Nebraska at Omaha	Omaha, Nebraska	Public
University of Nevada-Las Vegas	Las Vegas, Nevada	Public
University of Nevada-Reno	Reno, Nevada	Public
University of New Hampshire-Main Campus	Durham, New Hampshire	Public

University of New Mexico-Main Campus	Albuquerque, New Mexico	Public
University of New Orleans	New Orleans, Louisiana	Public
University of North Carolina at Chapel Hill	Chapel Hill, North Carolina	Public
University of North Carolina at Charlotte	Charlotte, North Carolina	Public
University of North Carolina at Greensboro	Greensboro, North Carolina	Public
University of North Carolina-Wilmington	Wilmington, North Carolina	Public
University of North Dakota-Main Campus	Grand Forks, North Dakota	Public
University of North Florida	Jacksonville, Florida	Public
University of North Texas	Denton, Texas	Public
University of Northern Colorado	Greeley, Colorado	Public
University of Northern Iowa	Cedar Falls, Iowa	Public
University of Oklahoma Norman Campus	Norman, Oklahoma	Public
University of Oregon	Eugene, Oregon	Public
University of Pittsburgh-Main Campus	Pittsburgh, Pennsylvania	Public
University of Puerto Rico-Mayaguez	Mayaguez, Puerto Rico	Public
University of Puerto Rico-Rio Piedras Campus	Rio Piedras, Puerto Rico	Public
University of Rhode Island	Kingston, Rhode Island	Public
University of South Alabama	Mobile, Alabama	Public
University of South Carolina-Columbia	Columbia, South Carolina	Public
University of South Florida	Tampa, Florida	Public
University of Southern Mississippi	Hattiesburg, Mississippi	Public
University of Tennessee, The	Knoxville, Tennessee	Public

University of Texas at Arlington, The	Arlington, Texas	Public
University of Texas at Austin, The	Austin, Texas	Public
University of Texas at Dallas, The	Richardson, Texas	Public
University of Texas at El Paso, The	El Paso, Texas	Public
University of Texas at San Antonio, The	San Antonio, Texas	Public
University of Texas-Pan American, The	Edinburg, Texas	Public
University of Toledo	Toledo, Ohio	Public
University of Utah	Salt Lake City, Utah	Public
University of Virginia-Main Campus	Charlottesville, Virginia	Public
University of Washington-Seattle Campus	Seattle, Washington	Public
University of Wisconsin-Madison	Madison, Wisconsin	Public
University of Wisconsin-Milwaukee	Milwaukee, Wisconsin	Public
University of Wyoming	Laramie, Wyoming	Public
Utah State University	Logan, Utah	Public
Virginia Commonwealth University	Richmond, Virginia	Public
Virginia Polytechnic Institute and State Univ	Blacksburg, Virginia	Public
Washington State University	Pullman, Washington	Public
Wayne State University	Detroit, Michigan	Public
Weber State University	Ogden, Utah	Public
West Chester University of Pennsylvania	West Chester, Pennsylvania	Public
West Virginia University	Morgantown, West Virginia	Public
Western Illinois University	Macomb, Illinois	Public

Western Kentucky University	Bowling Green, Kentucky	Public
Western Michigan University	Kalamazoo, Michigan	Public
Western Washington University	Bellingham, Washington	Public
Wichita State University	Wichita, Kansas	Public
Wright State University-Main Campus	Dayton, Ohio	Public
Youngstown State University	Youngstown, Ohio	Public

Appendix G: Blueprint Table**Enrollment Management Student Success Strategies Survey: Blueprint Table**

Content Base Category	Number of Items
Demographic Information	6
Enrollment Management Transition Strategies	16
Measures of Student Success	21
Perceptions of the Influence of Transition Strategies on Student Success	6

Appendix H: Initial Survey Instrument

Enrollment Management Student Success Strategies

Enrollment management transition strategies are a set of systematic and active processes by which an institution can influence its enrollment levels, retention rates, and graduation rates. Transition strategies involve a variety of efforts tailored to the needs of the specific institution. This research student seeks to investigate the influence of enrollment management transition strategies on college student success. It is also hoped that the results of this study will aid higher education practitioners in future decisions regarding enrollment management student success strategies.

Please take some time now to fill out this brief questionnaire. Please remember your participation is voluntary, and your identity as well as that of your institution will be kept completely confidential.

Section I: Demographics

1. What is the title of the chief enrollment officer at your institution?
 - Dean or Director of Admissions
 - Dean of Enrollment Management or Enrollment Services
 - Provost
 - Vice President for Enrollment, Enrollment Management, or Enrollment Services
 - Other:

2. To which organizational unit does your institution's chief enrollment officer report?
 - Enrollment and Student Services or Student Services
 - Student Affairs
 - Academic Affairs
 - Student Success
 - Other:

3. Please indicate the area of the country which most appropriately describes your institution's location:
- East Coast
 - West Coast
 - Midwest
 - Alaska, Pacific Islands, Puerto Rico
 - Other:
-
4. Under which regional higher education accrediting organization is your institution accredited?
- New England Association of Schools and Colleges
 - Middle States Association of Colleges and Schools
 - North Central Association of Colleges and Schools
 - Northwest Commission on Colleges and Universities
 - Southern Association of Colleges and Schools
 - Western Association of Schools and Colleges
 - No regionally accredited
5. Please indicate your institution's undergraduate student population (FTE).
- | | |
|--|--|
| <input type="checkbox"/> 10,000-14,999 | <input type="checkbox"/> 30,000-34,999 |
| <input type="checkbox"/> 15,000-19,999 | <input type="checkbox"/> 35,000 or more |
| <input type="checkbox"/> 20,000-24,999 | <input type="checkbox"/> Not sure or information unavailable |
| <input type="checkbox"/> 25,000-29,999 | |
6. Please indicate the best description of your institution.
- Undergraduate population is completely residential.
 - Undergraduate population is mostly (75% or more) residential.
 - Undergraduate population is partially (50%) residential.
 - Undergraduate population is marginally (25%) residential.
 - Undergraduate population is not residential.

Section II: Enrollment Management Transition Strategies

1. Which of the following enrollment management transition strategies does your institution employ? Please check all that apply.
 - Summer New Freshman Orientation
 - Welcome Week Transitioning Programs for New Freshmen
 - Voluntary Freshman Learning Communities
 - Mandatory Freshman Learning Communities
 - Enrollment Assistance and Calibrated Class Scheduling
 - First Year Seminar
 - Common Reading

2. Please check the type of program that most closely describes your institution's summer orientation program for new freshmen.
 - One Day On-campus Program
 - Two Day On-campus Program
 - Two Day On-campus Program with Overnight Stay
 - Online Program
 - My institution has no summer orientation program for new freshmen.

3. Please check the type of registration process that most closely represents what your institution utilizes with freshmen registration.
 - Calibrated schedule chosen for students based on major and scores
 - Learning community that they choose with set courses that fit the community theme
 - Students choose some courses and are given some courses based major and scores
 - Student registers for classes with the help of an advisor present
 - Student is advised but then registers for classes independently

Please check the length of time your institution has utilized the following enrollment management strategies.

4. Summer New Freshman Orientation

<input type="checkbox"/> 1 Year	<input type="checkbox"/> Discontinued
<input type="checkbox"/> 2-4 Years	<input type="checkbox"/> Never Used
<input type="checkbox"/> 5+ Years	

5. Welcome Week Transitioning Programs for New Freshmen

<input type="checkbox"/> 1 Year	<input type="checkbox"/> Discontinued
<input type="checkbox"/> 2-4 Years	<input type="checkbox"/> Never Used
<input type="checkbox"/> 5+ Years	

6. **Voluntary Freshman Learning Communities**
 One Year Discontinued
 Two to Four Years Never Used
 Five or More Years
7. **Mandatory Freshman Learning Communities**
 One Year Discontinued
 Two to Four Years Never Used
 Five or More Years
8. **Enrollment Assistance and Calibrated Class Scheduling**
 One Year Discontinued
 Two to Four Years Never Used
 Five or More Years
9. **First Year Seminar**
 One Year Discontinued
 Two to Four Years Never Used
 Five or More Years
10. **Common Reading**
 One Year Discontinued
 Two to Four Years Never Used
 Five or More Years
11. **Which of the following enrollment management transition strategies do you perceive as benefiting student success the most at your institution? Please check one.**
 Summer New Freshman Orientation
 Welcome Week Transitioning Programs for New Freshmen
 Voluntary Freshman Learning Communities
 Mandatory Freshman Learning Communities
 Enrollment Assistance and Calibrated Class Scheduling
 First Year Seminar
 Common Reading

12. Please provide the following information regarding Welcome Week (the week immediately prior to the start of fall term) programming for new freshmen at your institution.
- My institution does not provide this programming for new freshmen.
 - My institution provides this program for new freshmen, and we have been doing so since _____.
 - My institution does not currently provide this program for new freshmen but plans are in progress for such a program.
 - My institution has previously provided this (or a similar) program but we no longer offer such a program.
 - Unsure whether program has ever existed and whether there are plans to implement such a program.
13. Please provide the following information regarding voluntary learning communities for new freshmen at your institution.
- My institution does not provide this programming for new freshmen.
 - My institution provides this program for new freshmen, and we have been doing so since _____.
 - My institution does not currently provide this program for new freshmen but plans are in progress for such a program.
 - My institution has previously provided this (or a similar) program but we no longer offer such a program.
 - Unsure whether program has ever existed and whether there are plans to implement such a program.
14. Please provide the following information regarding mandatory learning communities for new freshmen at your institution.
- My institution does not provide this programming for new freshmen.
 - My institution provides this program for new freshmen, and we have been doing so since _____.
 - My institution does not currently provide this program for new freshmen but plans are in progress for such a program.
 - My institution has previously provided this (or a similar) program but we no longer offer such a program.
 - Unsure whether program has ever existed and whether there are plans to implement such a program.

15. Please provide the following information enrollment assistance and calibrated class scheduling for new freshmen at your institution.
- My institution does not provide this programming for new freshmen.
 - My institution provides this program for new freshmen, and we have been doing so since _____.
 - My institution does not currently provide this program for new freshmen but plans are in progress for such a program.
 - My institution has previously provided this (or a similar) program but we no longer offer such a program.
 - Unsure whether program has ever existed and whether there are plans to implement such a program.
16. Please provide the following information regarding the Common Reading for new freshmen at your institution.
- My institution does not provide this program for new freshmen.
 - My institution provides this program for new freshmen, and we have been doing so since _____.
 - My institution does not currently provide this program for new freshmen but plans are in progress for such a program.
 - My institution has previously provided this program but we no longer offer such a program.
 - Unsure whether this program has ever existed and whether there are plans to implement such a program.

Section III: Measures of Student Success

A. Freshman to Sophomore Fall Retention Rate: Please indicate your institution's freshman to sophomore fall retention rate for the fall term immediately following implementation of the following enrollment management transition strategies:

1. Summer New Freshman Orientation
- | | |
|--|--|
| <input type="checkbox"/> 90% or higher | <input type="checkbox"/> 50-59.9% |
| <input type="checkbox"/> 80-89.9% | <input type="checkbox"/> Less than 50% |
| <input type="checkbox"/> 70-79.9% | <input type="checkbox"/> Program not offered |
| <input type="checkbox"/> 60-69.9% | |
2. Welcome Week Transitioning Programs for New Freshmen
- | | |
|--|--|
| <input type="checkbox"/> 90% or higher | <input type="checkbox"/> 50-59.9% |
| <input type="checkbox"/> 80-89.9% | <input type="checkbox"/> Less than 50% |
| <input type="checkbox"/> 70-79.9% | <input type="checkbox"/> Program not offered |
| <input type="checkbox"/> 60-69.9% | |

3. **Voluntary Freshman Learning Communities**
 90% or higher
 80-89.9%
 70-79.9%
 60-69.9%
 50-59.9%
 Less than 50%
 Program not offered
4. **Mandatory Freshman Learning Communities**
 90% or higher
 80-89.9%
 70-79.9%
 60-69.9%
 50-59.9%
 Less than 50%
 Program not offered
5. **Enrollment Assistance and Calibrated Class Scheduling**
 90% or higher
 80-89.9%
 70-79.9%
 60-69.9%
 50-59.9%
 Less than 50%
 Program not offered
6. **First Year Seminar**
 90% or higher
 80-89.9%
 70-79.9%
 60-69.9%
 50-59.9%
 Less than 50%
 Program not offered
7. **Common Reading**
 90% or higher
 80-89.9%
 70-79.9%
 60-69.9%
 50-59.9%
 Less than 50%
 Program not offered

B. Four-Year Graduation Rate: Please indicate your institution's four-year graduation rate four years after implementation of the following enrollment management transition strategies:

1. **Summer New Freshman Orientation**
 90% or higher
 80-89.9%
 70-79.9%
 60-69.9%
 50-59.9%
 Less than 50%
 Program not offered

2. **Welcome Week Transitioning Programs for New Freshmen**
 90% or higher
 80-89.9%
 70-79.9%
 60-69.9%
 50-59.9%
 Less than 50%
 Program not offered
3. **Voluntary Freshman Learning Communities**
 90% or higher
 80-89.9%
 70-79.9%
 60-69.9%
 50-59.9%
 Less than 50%
 Program not offered
4. **Mandatory Freshman Learning Communities**
 90% or higher
 80-89.9%
 70-79.9%
 60-69.9%
 50-59.9%
 Less than 50%
 Program not offered
5. **Enrollment Assistance and Calibrated Class Scheduling**
 90% or higher
 80-89.9%
 70-79.9%
 60-69.9%
 50-59.9%
 Less than 50%
 Program not offered
6. **First Year Seminar**
 90% or higher
 80-89.9%
 70-79.9%
 60-69.9%
 50-59.9%
 Less than 50%
 Program not offered
7. **Common Reading**
 90% or higher
 80-89.9%
 70-79.9%
 60-69.9%
 50-59.9%
 Less than 50%
 Program not offered

C. Six-Year Graduation Rate: Please indicate your institution's six-year graduation rate six years after implementation of the following enrollment management transition strategies:

1. **Summer New Freshman Orientation**

<input type="checkbox"/> 90% or higher	<input type="checkbox"/> 50-59.9%
<input type="checkbox"/> 80-89.9%	<input type="checkbox"/> Less than 50%
<input type="checkbox"/> 70-79.9%	<input type="checkbox"/> Program not offered
<input type="checkbox"/> 60-69.9%	

2. **Welcome Week Transitioning Programs for New Freshmen**

<input type="checkbox"/> 90% or higher	<input type="checkbox"/> 50-59.9%
<input type="checkbox"/> 80-89.9%	<input type="checkbox"/> Less than 50%
<input type="checkbox"/> 70-79.9%	<input type="checkbox"/> Program not offered
<input type="checkbox"/> 60-69.9%	

3. **Voluntary Freshman Learning Communities**

<input type="checkbox"/> 90% or higher	<input type="checkbox"/> 50-59.9%
<input type="checkbox"/> 80-89.9%	<input type="checkbox"/> Less than 50%
<input type="checkbox"/> 70-79.9%	<input type="checkbox"/> Program not offered
<input type="checkbox"/> 60-69.9%	

4. **Mandatory Freshman Learning Communities**

<input type="checkbox"/> 90% or higher	<input type="checkbox"/> 50-59.9%
<input type="checkbox"/> 80-89.9%	<input type="checkbox"/> Less than 50%
<input type="checkbox"/> 70-79.9%	<input type="checkbox"/> Program not offered
<input type="checkbox"/> 60-69.9%	

5. **Enrollment Assistance and Calibrated Class Scheduling**

<input type="checkbox"/> 90% or higher	<input type="checkbox"/> 50-59.9%
<input type="checkbox"/> 80-89.9%	<input type="checkbox"/> Less than 50%
<input type="checkbox"/> 70-79.9%	<input type="checkbox"/> Program not offered
<input type="checkbox"/> 60-69.9%	

6. **First Year Seminar**

<input type="checkbox"/> 90% or higher	<input type="checkbox"/> 50-59.9%
<input type="checkbox"/> 80-89.9%	<input type="checkbox"/> Less than 50%
<input type="checkbox"/> 70-79.9%	<input type="checkbox"/> Program not offered
<input type="checkbox"/> 60-69.9%	

7. **Common Reading**

<input type="checkbox"/> 90% or higher	<input type="checkbox"/> 50-59.9%
<input type="checkbox"/> 80-89.9%	<input type="checkbox"/> Less than 50%
<input type="checkbox"/> 70-79.9%	<input type="checkbox"/> Program not offered
<input type="checkbox"/> 60-69.9%	

Section IV: Perceptions of the Influence of Transition Strategies on Student Success

1. Which of the following enrollment management transition strategies do you perceive as most beneficial to student success at your institution? Please check one.
 - Summer New Freshman Orientation
 - Welcome Week Transitioning Programs for New Freshmen
 - Voluntary Freshman Learning Communities
 - Mandatory Freshman Learning Communities
 - Enrollment Assistance and Calibrated Class Scheduling
 - First Year Seminar
 - Common Reading

2. Which of the following enrollment management transition strategies do you perceive as least beneficial to student success at your institution? Please check one.
 - Summer New Freshman Orientation
 - Welcome Week Transitioning Programs for New Freshmen
 - Voluntary Freshman Learning Communities
 - Mandatory Freshman Learning Communities
 - Enrollment Assistance and Calibrated Class Scheduling
 - First Year Seminar
 - Common Reading

3. Please indicate which of the following applies to the influence of enrollment management strategies on students and/or success measures at your institution.
 - Increases the quality of new freshmen
 - Increases freshman to sophomore year retention
 - Improves the four-year graduation rate
 - Improves the six-year graduation rate
 - Increases student satisfaction
 - Improves student engagement with the institution
 - No perceived influence on student success

4. Describe the impact of the Enrollment Management Strategies employed by your institution on student success and retention?

5. Describe the most valued benefit of the enrollment management transition strategies at your institution.

6. Please briefly explain any other enrollment management transition strategies employed by your institution that have not already been listed.

**** Thank you for taking your time in completing this questionnaire. ****

Appendix I: Formative Committee

Mrs. Sarah Marchello
University Registrar
College of William and Mary
Williamsburg, VA

Mrs. Donna Shelton
Associate University Registrar
Christopher Newport University
Newport News, VA

Mr. Steven Wilson
Visiting Student Coordinator
Office of Financial Aid and Registrar
Duke University Medical School
Durham, NC

Appendix J: Summative Committee

Dr. Christopher Davis
Registrar
U.S. Naval Academy
Annapolis, MD

Ms. Jacqueline Nottingham
Director of Graduate Admissions & Academic Progress
Virginia Polytechnic Institute and State University
Blacksburg, VA

Dr. Tisha Paredes
Senior Research Associate
Office of Institutional Research
Old Dominion University
Norfolk, VA

Appendix K: Revised Email of Introduction to Participants

As part of the requirements for the Doctor of Philosophy in Higher Education at Old Dominion University, I am contacting the chief enrollment officers at select colleges and universities in the United States to gather a variety of information regarding the types of enrollment management transition strategies employed at their institution and their potential influence on freshman to sophomore retention and graduation rates. This study is part of an effort to understand the influence of enrollment management transition strategies on college student success for large, public higher education institutions in the United States.

Results from the survey will be used to assist enrollment professionals in understanding the influence of enrollment management concepts on whether their institution has achieved their desired retention and graduation goals. Ultimately, a better understanding of the influence of transition strategies on college student success will help colleges and universities provide better service to students and improve overall student success.

Your answers will be completely confidential and anonymous. After you have completed the survey, your institution will not be connected with the responses in any way. *Please note that completion of this questionnaire is completely voluntary.* To proceed to the survey, please click the link below:

<https://www.surveymonkey.com/s/EMSSS>

Please direct any questions or comments about this research study to me at the following:

Voice: 757.660.7733 or Email: LDUNC003@odu.edu

Again, thank you very much for agreeing to assist with this important research study.

Best,

Lisa Duncan Raines

Appendix L: Revised Online Survey Instrument

Final EMSSSQ

Enrollment Management Student Success Strategies Questionnaire

Enrollment management transition strategies are a set of systematic and active processes by which an institution can influence its enrollment levels, retention rates, and graduation rates. Transition strategies involve a variety of efforts tailored to the needs of the specific institution. This research study seeks to investigate the influence of enrollment management transition strategies on college student success. It is hoped that the results of this study will aid higher education practitioners in future decisions regarding enrollment management student success strategies.

Please note that all references to freshmen indicate first-time, first year undergraduate students.

Please take some time now to fill out this brief questionnaire. Please remember that your participation is voluntary, and your identity as well as that of your institution will be kept completely confidential.

Participation in this Survey:

Your answers will be completely confidential and will be released only in aggregate form so that no individual answers are identifiable. After you have completed the survey, your institution will not be connected with the responses in any way. After the data analysis has been reported, your responses will be deleted. Please note that completion of this questionnaire is completely voluntary. You may elect to be excluded from this study at any point; however, your participation will be extremely helpful as your answers will provide insight into the influence of enrollment management concepts on college student success in higher education.

***1. Please indicate your consent below:**

- I agree to the terms outlined above.
- I do not agree with the terms outlined above and will not participate in this survey.

***2. What is the title of the chief enrollment officer at your institution?**

***3. To which organizational unit does your institution's chief enrollment officer report?**

***4. Please indicate the area of the country which most appropriately describes your institution's location.**

***5. Under which regional higher education accrediting organization is your institution accredited?**

Final EMSSSQ

***6. Please indicate your institution's undergraduate student population (FTE).**

- 10,000-14,999

 30,000-34,999
 15,000-19,999

 35,000 or more
 20,000-24,999

 Not sure or information unavailable
 25,000-29,999

***7. Please indicate the best description of your institution.**

- Undergraduate population is completely residential.
 Undergraduate population is mostly (75% or more) residential.
 Undergraduate population is partially (50%) residential.
 Undergraduate population is marginally (25%) residential.
 Undergraduate population is not residential.

Section II: Enrollment Management Transition Strategies

***8. Which of the following enrollment management transition strategies does your institution employ? Please check all that apply.**

- Mandatory Summer New Freshman Orientation
 Mandatory Welcome Week Transitioning Programs for New Freshmen
 Voluntary Freshman Learning Communities
 Mandatory Freshman Learning Communities
 Registration Assistance and Calibrated Class Scheduling
 Mandatory First Year Seminar
 Common Reading

9. Please check the type of program that most closely describes your institution's mandatory summer orientation program for new freshmen.

- One Day On-campus Program
 Two Day On-campus Program
 Two Day On-campus Program with Overnight Stay
 Online Program
 My institution has no summer orientation program for new freshmen.

Final EMSSSQ

10. Please check the type of registration process that most closely represents what your institution utilizes with freshmen registration.

- Calibrated schedule chosen for students based on student's intended major, standardized test scores, high school GPA, interests, and/or other pre-college characteristics
- Learning community that they choose with set courses that fit the community theme
- Students choose some courses and are given some courses based on major and scores
- Student registers for classes with the help of an advisor present
- Student is advised but then registers for classes independently

11. Which of the following enrollment management transition strategies do you perceive as benefitting student success the most at your institution? Please check one.

- Mandatory Summer New Freshman Orientation
- Mandatory Welcome Week Transitioning Programs for New Freshmen
- Voluntary Freshman Learning Communities
- Mandatory Freshman Learning Communities
- Registration Assistance and Calibrated Class Scheduling
- Mandatory First Year Seminar
- Mandatory Common Reading

Summer New Freshmen Orientation

12. Please provide the following information regarding mandatory summer new freshmen orientation at your institution.

- My institution does not provide this programming for new freshmen.
- My institution does not currently provide this program for new freshmen but plans are in progress for such a program.
- My institution has previously provided this (or a similar) program but we no longer offer such a program.
- Unsure whether program has ever existed and whether there are plans to implement such a program.
- My institution provides this program for new freshmen, and we have been doing so since

Final EMSSSQ

13. Please check the length of time your institution has utilized a mandatory summer new freshman orientation program.

- One Year

 8 - 10 Years
 2 - 4 Years

 Information Not Known or Not Available
 5 - 7 Years

14. Please indicate your institution's freshman to sophomore fall retention rate for the fall term immediately prior to implementation of Mandatory Summer New Freshman Orientation.

- 90% or higher

 50 - 59.9%
 80 - 89.9%

 40 - 49.9%
 70 - 79.9%

 Less than 40%
 60 - 69.9%

15. Please indicate your institution's freshman to sophomore fall retention rate for the fall term immediately following implementation of Mandatory Summer New Freshman Orientation.

- 90% or higher

 50 - 59.9%
 80 - 89.9%

 40 - 49.9%
 70 - 79.9%

 Less than 40%
 60 - 69.9%

16. Please indicate your institution's four-year graduation rate immediately prior to initial implementation of Mandatory Summer New Freshman Orientation.

- 90% or higher

 50 - 59.9%
 80 - 89.9%

 40 - 49.9%
 70 - 79.9%

 Less than 40%
 60 - 69.9%

17. Please indicate your institution's four-year graduation rate four years after implementation of Mandatory Summer New Freshman Orientation.

- 90% or higher

 50 - 59.9%
 80 - 89.9%

 40 - 49.9%
 70 - 79.9%

 Less than 40%
 60 - 69.9%

Final EMSSSQ

18. Please indicate your institution's six-year graduation rate immediately prior to implementation of Mandatory Summer New Freshman Orientation.

- | | |
|-------------------------------------|-------------------------------------|
| <input type="radio"/> 90% or higher | <input type="radio"/> 50 - 59.9% |
| <input type="radio"/> 80 - 89.9% | <input type="radio"/> 40 - 49.9% |
| <input type="radio"/> 70 - 79.9% | <input type="radio"/> Less than 40% |
| <input type="radio"/> 60 - 69.9% | |

19. Please indicate your institution's six-year graduation rate six years after implementation of Mandatory Summer New Freshman Orientation.

- | | |
|-------------------------------------|-------------------------------------|
| <input type="radio"/> 90% or higher | <input type="radio"/> 50 - 59.9% |
| <input type="radio"/> 80 - 89.9% | <input type="radio"/> 40 - 49.9% |
| <input type="radio"/> 70 - 79.9% | <input type="radio"/> Less than 40% |
| <input type="radio"/> 60 - 69.9% | |

Welcome Week Transitioning Programs for New Freshmen

20. Please provide the following information regarding Mandatory Welcome Week (Immediately prior to the start of fall term) programming for new freshmen at your institution.

- My institution does not provide this programming for new freshmen.
- My institution does not currently provide this program for new freshmen but plans are in progress for such a program.
- My institution has previously provided this (or a similar) program but we no longer offer such a program.
- Unsure whether program has ever existed and whether there are plans to implement such a program.
- My institution provides this program for new freshmen, and we have been doing so since

21. Please check the length of time your institution has utilized Mandatory Welcome Week Transitioning Programs for New Freshmen.

- | | |
|-----------------------------------|--|
| <input type="radio"/> One Year | <input type="radio"/> 8 - 10 Years |
| <input type="radio"/> 2 - 4 Years | <input type="radio"/> Information Not Known or Not Available |
| <input type="radio"/> 5 - 7 Years | |

Final EMSSSQ

22. Please indicate your institution's freshman to sophomore fall retention rate for the fall term immediately prior to implementation of Mandatory Welcome Week Transitioning Programs for New Freshmen.

- | | |
|-------------------------------------|-------------------------------------|
| <input type="radio"/> 90% or higher | <input type="radio"/> 50 - 59.9% |
| <input type="radio"/> 80 - 89.9% | <input type="radio"/> 40 - 49.9% |
| <input type="radio"/> 70 - 79.9% | <input type="radio"/> Less than 40% |
| <input type="radio"/> 60 - 69.9% | |

23. Please indicate your institution's freshman to sophomore fall retention rate for the fall term immediately following implementation of Mandatory Welcome Week Transitioning Programs for New Freshmen.

- | | |
|-------------------------------------|-------------------------------------|
| <input type="radio"/> 90% or higher | <input type="radio"/> 50 - 59.9% |
| <input type="radio"/> 80 - 89.9% | <input type="radio"/> 40 - 49.9% |
| <input type="radio"/> 70 - 79.9% | <input type="radio"/> Less than 40% |
| <input type="radio"/> 60 - 69.9% | |

24. Please indicate your institution's four-year graduation rate immediately prior to initial implementation of Mandatory Welcome Week Transitioning Programs for New Freshmen

- | | |
|-------------------------------------|-------------------------------------|
| <input type="radio"/> 90% or higher | <input type="radio"/> 50 - 59.9% |
| <input type="radio"/> 80 - 89.9% | <input type="radio"/> 40 - 49.9% |
| <input type="radio"/> 70 - 79.9% | <input type="radio"/> Less than 40% |
| <input type="radio"/> 60 - 69.9% | |

25. Please indicate your institution's four-year graduation rate four years after implementation of Mandatory Welcome Week Transitioning Programs for New Freshmen.

- | | |
|-------------------------------------|-------------------------------------|
| <input type="radio"/> 90% or higher | <input type="radio"/> 50 - 59.9% |
| <input type="radio"/> 80 - 89.9% | <input type="radio"/> 40 - 49.9% |
| <input type="radio"/> 70 - 79.9% | <input type="radio"/> Less than 40% |
| <input type="radio"/> 60 - 69.9% | |

Final EMSSSQ

26. Please indicate your institution's six-year graduation rate immediately prior to implementation of Mandatory Welcome Week Transitioning Programs for New Freshmen.

- | | |
|-------------------------------------|-------------------------------------|
| <input type="radio"/> 90% or higher | <input type="radio"/> 50 - 59.9% |
| <input type="radio"/> 80 - 89.9% | <input type="radio"/> 40 - 49.9% |
| <input type="radio"/> 70 - 79.9% | <input type="radio"/> Less than 40% |
| <input type="radio"/> 60 - 69.9% | |

27. Please indicate your institution's six-year graduation rate six years after implementation of Mandatory Welcome Week Transitioning Programs for New Freshmen.

- | | |
|-------------------------------------|-------------------------------------|
| <input type="radio"/> 90% or higher | <input type="radio"/> 50 - 59.9% |
| <input type="radio"/> 80 - 89.9% | <input type="radio"/> 40 - 49.9% |
| <input type="radio"/> 70 - 79.9% | <input type="radio"/> Less than 40% |
| <input type="radio"/> 60 - 69.9% | |

Voluntary Freshman Learning Communities

28. Please provide the following information regarding voluntary learning communities for new freshmen at your institution.

- My institution does not currently provide this program for new freshmen but plans are in progress for such a program.
- My institution has previously provided this (or a similar) program but we no longer offer such a program.
- Unsure whether program has ever existed and whether there are plans to implement such a program.
- My institution does not provide this programming for new freshmen.
- My institution provides this program for new freshmen, and we have been doing so since

29. Please check the length of time your institution has utilized Voluntary Freshman Learning Communities

- | | |
|-----------------------------------|--|
| <input type="radio"/> One Year | <input type="radio"/> 8 - 10 Years |
| <input type="radio"/> 2 - 4 Years | <input type="radio"/> Information Not Known or Not Available |
| <input type="radio"/> 5 - 7 Years | |

Final EMSSSQ

30. Please indicate your institution's freshman to sophomore fall retention rate for the fall term immediately prior to implementation of Voluntary Freshman Learning Communities

- | | |
|-------------------------------------|-------------------------------------|
| <input type="radio"/> 90% or higher | <input type="radio"/> 50 - 59.9% |
| <input type="radio"/> 80 - 89.9% | <input type="radio"/> 40 - 49.9% |
| <input type="radio"/> 70 - 79.9% | <input type="radio"/> Less than 40% |
| <input type="radio"/> 60 - 69.9% | |

31. Please indicate your institution's freshman to sophomore fall retention rate for the fall term immediately following implementation of Voluntary Freshman Learning Communities

- | | |
|-------------------------------------|-------------------------------------|
| <input type="radio"/> 90% or higher | <input type="radio"/> 50 - 59.9% |
| <input type="radio"/> 80 - 89.9% | <input type="radio"/> 40 - 49.9% |
| <input type="radio"/> 70 - 79.9% | <input type="radio"/> Less than 40% |
| <input type="radio"/> 60 - 69.9% | |

32. Please indicate your institution's four-year graduation rate immediately prior to initial implementation of Voluntary Freshman Learning Communities.

- | | |
|-------------------------------------|-------------------------------------|
| <input type="radio"/> 90% or higher | <input type="radio"/> 50 - 59.9% |
| <input type="radio"/> 80 - 89.9% | <input type="radio"/> 40 - 49.9% |
| <input type="radio"/> 70 - 79.9% | <input type="radio"/> Less than 40% |
| <input type="radio"/> 60 - 69.9% | |

33. Please indicate your institution's four-year graduation rate four years after implementation of Voluntary Freshman Learning Communities.

- | | |
|-------------------------------------|-------------------------------------|
| <input type="radio"/> 90% or higher | <input type="radio"/> 50 - 59.9% |
| <input type="radio"/> 80 - 89.9% | <input type="radio"/> 40 - 49.9% |
| <input type="radio"/> 70 - 79.9% | <input type="radio"/> Less than 40% |
| <input type="radio"/> 60 - 69.9% | |

34. Please indicate your institution's six-year graduation rate immediately prior to implementation of Voluntary Freshman Learning Communities.

- | | |
|-------------------------------------|-------------------------------------|
| <input type="radio"/> 90% or higher | <input type="radio"/> 50 - 59.9% |
| <input type="radio"/> 80 - 89.9% | <input type="radio"/> 40 - 49.9% |
| <input type="radio"/> 70 - 79.9% | <input type="radio"/> Less than 40% |
| <input type="radio"/> 60 - 69.9% | |

Final EMSSSQ

35. Please indicate your institution's six-year graduation rate six years after implementation of Voluntary Freshman Learning Communities.

- 90% or higher

 50 - 59.9%
 80 - 89.9%

 40 - 49.9%
 70 - 79.9%

 Less than 40%
 60 - 69.9%

Mandatory Freshman Learning Communities**36. Please provide the following information regarding mandatory learning communities for new freshmen at your institution.**

- My institution does not currently provide this program for new freshmen but plans are in progress for such a program.
 My institution has previously provided this (or a similar) program but we no longer offer such a program.
 Unsure whether program has ever existed and whether there are plans to implement such a program.
 My institution does not provide this programming for new freshmen.
 My institution provides this program for new freshmen, and we have been doing so since

37. Please check the length of time your institution has utilized Mandatory Freshman Learning Communities.

- One Year

 8 - 10 Years
 2 - 4 Years

 Information Not Known or Not Available
 5 - 7 Years

38. Please indicate your institution's freshman to sophomore fall retention rate for the fall term immediately prior to implementation of Mandatory Freshman Learning Communities.

- 90% or higher

 50 - 59.9%
 80 - 89.9%

 40 - 49.9%
 70 - 79.9%

 Less than 40%
 60 - 69.9%

Final EMSSSQ

39. Please indicate your institution's freshman to sophomore fall retention rate for the fall term immediately following implementation of Mandatory Freshman Learning Communities.

- | | |
|-------------------------------------|-------------------------------------|
| <input type="radio"/> 90% or higher | <input type="radio"/> 50 - 59.9% |
| <input type="radio"/> 80 - 89.9% | <input type="radio"/> 40 - 49.9% |
| <input type="radio"/> 70 - 79.9% | <input type="radio"/> Less than 40% |
| <input type="radio"/> 60 - 69.9% | |

40. Please indicate your institution's four-year graduation rate immediately prior to initial implementation of Mandatory Freshman Learning Communities.

- | | |
|-------------------------------------|-------------------------------------|
| <input type="radio"/> 90% or higher | <input type="radio"/> 50 - 59.9% |
| <input type="radio"/> 80 - 89.9% | <input type="radio"/> 40 - 49.9% |
| <input type="radio"/> 70 - 79.9% | <input type="radio"/> Less than 40% |
| <input type="radio"/> 60 - 69.9% | |

41. Please indicate your institution's four-year graduation rate four years after implementation of Mandatory Freshman Learning Communities.

- | | |
|-------------------------------------|-------------------------------------|
| <input type="radio"/> 90% or higher | <input type="radio"/> 50 - 59.9% |
| <input type="radio"/> 80 - 89.9% | <input type="radio"/> 40 - 49.9% |
| <input type="radio"/> 70 - 79.9% | <input type="radio"/> Less than 40% |
| <input type="radio"/> 60 - 69.9% | |

42. Please indicate your institution's six-year graduation rate immediately prior to implementation of Mandatory Freshman Learning Communities.

- | | |
|-------------------------------------|-------------------------------------|
| <input type="radio"/> 90% or higher | <input type="radio"/> 50 - 59.9% |
| <input type="radio"/> 80 - 89.9% | <input type="radio"/> 40 - 49.9% |
| <input type="radio"/> 70 - 79.9% | <input type="radio"/> Less than 40% |
| <input type="radio"/> 60 - 69.9% | |

Final EMSSSQ

43. Please indicate your institution's six-year graduation rate six years after implementation of Mandatory Freshman Learning Communities.

- | | |
|-------------------------------------|-------------------------------------|
| <input type="radio"/> 90% or higher | <input type="radio"/> 50 - 59.9% |
| <input type="radio"/> 80 - 89.9% | <input type="radio"/> 40 - 49.9% |
| <input type="radio"/> 70 - 79.9% | <input type="radio"/> Less than 40% |
| <input type="radio"/> 60 - 69.9% | |

Registration Assistance and Calibrated Class Scheduling

44. Please provide the following information regarding registration assistance and calibrated class scheduling for new freshmen at your institution.

- My institution does not currently provide this program for new freshmen but plans are in progress for such a program.
- My institution has previously provided this (or a similar) program but we no longer offer such a program.
- Unsure whether program has ever existed and whether there are plans to implement such a program.
- My institution does not provide this programming for new freshmen.
- My institution provides this program for new freshmen, and we have been doing so since

45. Please check the length of time your institution has utilized Registration Assistance and Calibrated Class Scheduling.

- | | |
|-----------------------------------|--|
| <input type="radio"/> One Year | <input type="radio"/> 8 - 10 Years |
| <input type="radio"/> 2 - 4 Years | <input type="radio"/> Information Not Known or Not Available |
| <input type="radio"/> 5 - 7 Years | |

46. Please indicate your institution's freshman to sophomore fall retention rate for the fall term immediately prior to implementation of Registration Assistance and Calibrated Class Scheduling.

- | | |
|-------------------------------------|-------------------------------------|
| <input type="radio"/> 90% or higher | <input type="radio"/> 50 - 59.9% |
| <input type="radio"/> 80 - 89.9% | <input type="radio"/> 40 - 49.9% |
| <input type="radio"/> 70 - 79.9% | <input type="radio"/> Less than 40% |
| <input type="radio"/> 60 - 69.9% | |

Final EMSSSQ

47. Please indicate your institution's freshman to sophomore fall retention rate for the fall term immediately following implementation of Registration Assistance and Calibrated Class Scheduling.

- | | |
|-------------------------------------|-------------------------------------|
| <input type="radio"/> 90% or higher | <input type="radio"/> 50 - 59.9% |
| <input type="radio"/> 80 - 89.9% | <input type="radio"/> 40 - 49.9% |
| <input type="radio"/> 70 - 79.9% | <input type="radio"/> Less than 40% |
| <input type="radio"/> 60 - 69.9% | |

48. Please indicate your institution's four-year graduation rate immediately prior to initial implementation of Registration Assistance and Calibrated Class Scheduling.

- | | |
|-------------------------------------|-------------------------------------|
| <input type="radio"/> 90% or higher | <input type="radio"/> 50 - 59.9% |
| <input type="radio"/> 80 - 89.9% | <input type="radio"/> 40 - 49.9% |
| <input type="radio"/> 70 - 79.9% | <input type="radio"/> Less than 40% |
| <input type="radio"/> 60 - 69.9% | |

49. Please indicate your institution's four-year graduation rate four years after implementation of Registration Assistance and Calibrated Class Scheduling.

- | | |
|-------------------------------------|-------------------------------------|
| <input type="radio"/> 90% or higher | <input type="radio"/> 50 - 59.9% |
| <input type="radio"/> 80 - 89.9% | <input type="radio"/> 40 - 49.9% |
| <input type="radio"/> 70 - 79.9% | <input type="radio"/> Less than 40% |
| <input type="radio"/> 60 - 69.9% | |

50. Please indicate your institution's six-year graduation rate immediately prior to implementation of Registration Assistance and Calibrated Class Scheduling.

- | | |
|-------------------------------------|-------------------------------------|
| <input type="radio"/> 90% or higher | <input type="radio"/> 50 - 59.9% |
| <input type="radio"/> 80 - 89.9% | <input type="radio"/> 40 - 49.9% |
| <input type="radio"/> 70 - 79.9% | <input type="radio"/> Less than 40% |
| <input type="radio"/> 60 - 69.9% | |

Final EMSSSQ

51. Please indicate your institution's six-year graduation rate six years after implementation of Registration Assistance and Calibrated Class Scheduling

- | | |
|-------------------------------------|-------------------------------------|
| <input type="radio"/> 90% or higher | <input type="radio"/> 50 - 59.9% |
| <input type="radio"/> 80 - 89.9% | <input type="radio"/> 40 - 49.9% |
| <input type="radio"/> 70 - 79.9% | <input type="radio"/> Less than 40% |
| <input type="radio"/> 60 - 69.9% | |

Mandatory First Year Seminar

52. Please provide the following information regarding Mandatory First Year Seminar

- My institution does not currently provide this program for new freshmen but plans are in progress for such a program.
- My institution has previously provided this (or a similar) program but we no longer offer such a program.
- Unsure whether program has ever existed and whether there are plans to implement such a program.
- My institution does not provide this programming for new freshmen.
- My institution provides this program for new freshmen, and we have been doing so since

53. Please check the length of time your institution has utilized Mandatory First Year Seminar

- | | |
|-----------------------------------|--|
| <input type="radio"/> One Year | <input type="radio"/> 8 - 10 Years |
| <input type="radio"/> 2 - 4 Years | <input type="radio"/> Information Not Known or Not Available |
| <input type="radio"/> 5 - 7 Years | |

54. Please indicate your institution's freshman to sophomore fall retention rate for the fall term immediately prior to implementation of Mandatory First Year Seminar.

- | | |
|-------------------------------------|-------------------------------------|
| <input type="radio"/> 90% or higher | <input type="radio"/> 50 - 59.9% |
| <input type="radio"/> 80 - 89.9% | <input type="radio"/> 40 - 49.9% |
| <input type="radio"/> 70 - 79.9% | <input type="radio"/> Less than 40% |
| <input type="radio"/> 60 - 69.9% | |

Final EMSSSQ

55. Please indicate your institution's freshman to sophomore fall retention rate for the fall term immediately following implementation of Mandatory First Year Seminar.

- | | |
|-------------------------------------|-------------------------------------|
| <input type="radio"/> 90% or higher | <input type="radio"/> 50 - 59.9% |
| <input type="radio"/> 80 - 89.9% | <input type="radio"/> 40 - 49.9% |
| <input type="radio"/> 70 - 79.9% | <input type="radio"/> Less than 40% |
| <input type="radio"/> 60 - 69.9% | |

56. Please indicate your institution's four-year graduation rate immediately prior to initial implementation of Mandatory First Year Seminar.

- | | |
|-------------------------------------|-------------------------------------|
| <input type="radio"/> 90% or higher | <input type="radio"/> 50 - 59.9% |
| <input type="radio"/> 80 - 89.9% | <input type="radio"/> 40 - 49.9% |
| <input type="radio"/> 70 - 79.9% | <input type="radio"/> Less than 40% |
| <input type="radio"/> 60 - 69.9% | |

57. Please indicate your institution's four-year graduation rate four years after implementation of Mandatory First Year Seminar.

- | | |
|-------------------------------------|-------------------------------------|
| <input type="radio"/> 90% or higher | <input type="radio"/> 50 - 59.9% |
| <input type="radio"/> 80 - 89.9% | <input type="radio"/> 40 - 49.9% |
| <input type="radio"/> 70 - 79.9% | <input type="radio"/> Less than 40% |
| <input type="radio"/> 60 - 69.9% | |

58. Please indicate your institution's six-year graduation rate immediately prior to implementation of Mandatory First Year Seminar.

- | | |
|-------------------------------------|-------------------------------------|
| <input type="radio"/> 90% or higher | <input type="radio"/> 50 - 59.9% |
| <input type="radio"/> 80 - 89.9% | <input type="radio"/> 40 - 49.9% |
| <input type="radio"/> 70 - 79.9% | <input type="radio"/> Less than 40% |
| <input type="radio"/> 60 - 69.9% | |

59. Please indicate your institution's six-year graduation rate six years after implementation of Mandatory First Year Seminar.

- | | |
|-------------------------------------|-------------------------------------|
| <input type="radio"/> 90% or higher | <input type="radio"/> 50 - 59.9% |
| <input type="radio"/> 80 - 89.9% | <input type="radio"/> 40 - 49.9% |
| <input type="radio"/> 70 - 79.9% | <input type="radio"/> Less than 40% |
| <input type="radio"/> 60 - 69.9% | |

Final EMSSSQ

Mandatory Common Reading

60. Please provide the following information regarding the Mandatory Common Reading for new freshmen at your institution.

- My institution does not currently provide this program for new freshmen but plans are in progress for such a program.
- My institution has previously provided this (or a similar) program but we no longer offer such a program.
- Unsure whether program has ever existed and whether there are plans to implement such a program.
- My institution does not provide this programming for new freshmen.
- My institution provides this program for new freshmen, and we have been doing so since

61. Please check the length of time your institution has utilized Mandatory Common Reading.

- One Year
- 2 - 4 Years
- 5 - 7 Years
- 8 - 10 Years
- Information Not Known or Not Available

62. Please indicate your institution's freshman to sophomore fall retention rate for the fall term immediately prior to implementation of Mandatory Common Reading.

- 90% or higher
- 80 - 89.9%
- 70 - 79.9%
- 60 - 69.9%
- 50 - 59.9%
- 40 - 49.9%
- Less than 40%

63. Please indicate your institution's freshman to sophomore fall retention rate for the fall term immediately following implementation of Mandatory Common Reading.

- 90% or higher
- 80 - 89.9%
- 70 - 79.9%
- 60 - 69.9%
- 50 - 59.9%
- 40 - 49.9%
- Less than 40%

Final EMSSSQ

64. Please indicate your institution's four-year graduation rate immediately prior to initial implementation of Mandatory Common Reading.

- | | |
|-------------------------------------|-------------------------------------|
| <input type="radio"/> 90% or higher | <input type="radio"/> 50 - 59.9% |
| <input type="radio"/> 80 - 89.9% | <input type="radio"/> 40 - 49.9% |
| <input type="radio"/> 70 - 79.9% | <input type="radio"/> Less than 40% |
| <input type="radio"/> 60 - 69.9% | |

65. Please indicate your institution's four-year graduation rate four years after implementation of Mandatory Common Reading.

- | | |
|-------------------------------------|-------------------------------------|
| <input type="radio"/> 90% or higher | <input type="radio"/> 50 - 59.9% |
| <input type="radio"/> 80 - 89.9% | <input type="radio"/> 40 - 49.9% |
| <input type="radio"/> 70 - 79.9% | <input type="radio"/> Less than 40% |
| <input type="radio"/> 60 - 69.9% | |

66. Please indicate your institution's six-year graduation rate immediately prior to implementation of Mandatory Common Reading.

- | | |
|-------------------------------------|-------------------------------------|
| <input type="radio"/> 90% or higher | <input type="radio"/> 50 - 59.9% |
| <input type="radio"/> 80 - 89.9% | <input type="radio"/> 40 - 49.9% |
| <input type="radio"/> 70 - 79.9% | <input type="radio"/> Less than 40% |
| <input type="radio"/> 60 - 69.9% | |

67. Please indicate your institution's six-year graduation rate six years after implementation of Mandatory Common Reading.

- | | |
|-------------------------------------|-------------------------------------|
| <input type="radio"/> 90% or higher | <input type="radio"/> 50 - 59.9% |
| <input type="radio"/> 80 - 89.9% | <input type="radio"/> 40 - 49.9% |
| <input type="radio"/> 70 - 79.9% | <input type="radio"/> Less than 40% |
| <input type="radio"/> 60 - 69.9% | |

Section IV: Perceptions of the Influence of Transition Strategies on Studen...

Final EMSSSQ

68. Which of the following enrollment management transition strategies do you perceive as most beneficial to student success at your institution? Please check one.

- Mandatory Summer New Freshman Orientation
- Mandatory Welcome Week Transitioning Programs for New Freshmen
- Voluntary Freshman Learning Communities
- Mandatory Freshman Learning Communities
- Registration Assistance and Calibrated Class Scheduling
- Mandatory First Year Seminar
- Mandatory Common Reading

69. Which of the following enrollment management transition strategies do you perceive as least beneficial to student success at your institution? Please check one.

- Mandatory Summer New Freshman Orientation
- Mandatory Welcome Week Transitioning Programs for New Freshmen
- Voluntary Freshman Learning Communities
- Mandatory Freshman Learning Communities
- Registration Assistance and Calibrated Class Scheduling
- Mandatory First Year Seminar
- Mandatory Common Reading

70. Please indicate which of the following applies to the influence of enrollment management strategies on students and/or success measures at your institution.

- Increases the quality of new freshmen
- Increases freshman to sophomore year retention
- Improves the four-year graduation rate
- Improves the six-year graduation rate
- Increases student satisfaction
- Improves student engagement with the institution
- No perceived influence on student success

Final EMSSSQ

71. Describe the Impact of the Enrollment Management Strategies employed by your institution on student success and retention?

72. Describe the most valued benefit of the enrollment management transition strategies at your institution.

73. Please briefly explain any other enrollment management transition strategies employed by your institution that have not already been listed.

**** Thank you for taking your time in completing this questionnaire. ****

Appendix M: First Reminder Email to Participants

I hope your semester is going well. I wanted to take this opportunity to remind you about the benefits of this research on college student success. If you have not already done so, please help with this effort by completing the survey at the attached link:

<https://www.surveymonkey.com/s/EMSSS>

If you have already participated in this survey, please accept my thanks and disregard this email.

Thank you in advance for your contribution to this research.

Best regards,

Lisa

Appendix N: Final Reminder Email to Participants

Dear Colleague,

I recently wrote to you regarding a survey which is part of my requirements for the Doctor of Philosophy in Higher Education at Old Dominion University. If you have not already done so, please take a few minutes to complete this questionnaire, which can be accessed via the following link:

<https://www.surveymonkey.com/s/EMSSS>

If you have already completed this questionnaire, please disregard this email and accept my thanks for your contribution to this important research.

Results from the survey will be used to assist enrollment professionals in understanding the influence of enrollment management concepts on whether their institution has achieved their desired retention and graduation goals. Ultimately, a better understanding of the influence of transition strategies on college student success will help colleges and universities provide better service to students and improve overall student success.

Please direct any questions or comments about this research study to me at the following:

Voice: 757.660.7733

Email: LDUNC003@odu.edu

Again, thank you very much for your contribution to this important research.

Best,

Lisa Duncan Raines

Appendix O: Hierarchy of Positions Initially Contacted at Each of the 195

Institutions

71	University Registrar
46	Registrar
6	Associate Registrar
5	Vice President for Enrollment Management
4	Vice President for Student Affairs & Enrollment Management
3	Interim University Registrar
3	University Registrar and Director Records & Registration
2	Associate Vice President for Enrollment Management
2	Associate Vice President, Enrollment Services
2	Vice Provost for Enrollment Services
1	Acting Associate Vice President for Enrollment Services
1	Acting Director, Registration and Records
1	Acting University Registrar
1	Assistant Provost for Enrollment Services and University Registrar
1	Assistant Registrar
1	Assistant Registrar for Enrollment Services
1	Assistant Vice Chancellor Enrollment Management
1	Assistant Vice Chancellor for Enrollment Management
1	Assistant Vice Chancellor/ Director, Admissions & Enrollment Services
1	Assistant Vice President for Academic Affairs and University Registrar
1	Assistant Vice President for Academic Services and Director of Admissions
1	Assistant Vice President, Planning & Enrollment Management
1	Associate Dean
1	Associate Dean and University Registrar
1	Associate Dean for Student Affairs and Registrar
1	Associate Provost for Enrollment Management
1	Associate Vice President and Dean of Admissions & Enrollment Services
1	Associate Vice President and University Registrar
1	Associate Vice President for Admissions & Enrollment Management
1	Associate Vice President for Enrollment Management
1	Associate Vice President for Enrollment Planning
1	Associate Vice President for Enrollment Services
1	Associate Vice President for Student Affairs and University Registrar
1	Associate Vice President of Undergraduate Admissions and Registrar
1	Associate Vice Provost and Registrar

1 Associate Vice Provost for Enrollment Services
 1 Associate Vice Provost of Enrollment Management
 1 Dean of Enrollment Services/University Registrar
 1 Dean of Student Academic Affairs and Advising
 1 Director
 1 Director of Academic Support Resources and University Registrar
 1 Director of Enrollment Services
 1 Director of Financial Aid and Student Records
 1 Director of Records and Registration
 1 Director of Registration and Records
 1 Director, Office of the Registrar
 1 Executive Director of Enrollment Management
 1 Executive Director of Enrollment Services
 1 Interim Registrar
 1 Registrar & Associate Vice President for Academic Affairs
 1 Registrar & Director of Admissions
 1 Registrar & Director of Student Financial Services
 1 Registrar and Associate Vice President, Enrollment & Student Financial
 1 Services
 1 Registrar and Director of Registration & Academic Processing
 1 Registrar and Director of Student Financial Aid
 1 Registrar and FERPA Compliance Officer
 1 Senior Associate Vice President, Student Enrollment Services
 1 University Registrar & Director of Enrollment Services
 1 University Registrar and Director of Admissions
 1 University Registrar and Interim Director of Financial Aid
 1 Worldwide University Registrar

Appendix P: Data Collection Timetable and Results

	Begin	End	# Email Surveys Sent	# Responses Received	% Response Rate
Phase I (Initial Email Survey)	2/13/2012	2/20/2012	195	37	19%
Phase II (First Email Reminder)	2/20/2012	2/27/2012	195	72	37%
Phase III (Final Email Reminder)	2/27/2012	3/05/2012	195	87	45%

Appendix Q: Responses to Closed-Ended Survey Questions

Question 1: Please indicate your consent below.

Response
86 Responses: I agree to the terms outlined above.
1 Response: I do not wish to participate.

Question 2: What is the title of the chief enrollment officer at your institution?

Title	Frequency	Percent	Valid Percent	Cumulative Percent
Assistant or Associate Vice President for Enrollment, Enrollment Management, or Enrollment Services	22	25.6	25.6	31.4
Dean of Enrollment Management or Enrollment Services	3	3.5	3.5	34.9
Dean or Director of Admissions	3	3.5	3.5	38.4
Other (please specify)	23	26.7	26.7	65.1
Provost	3	3.5	3.5	68.6
University Registrar	4	4.7	4.7	73.3
Vice President for Enrollment, Enrollment Management, or Enrollment Services	23	26.7	26.7	100.0
Total	86	100.0	100.0	

Question 3: To which organizational unit does your institution's chief enrollment officer report?

Organizational Unit	Frequency	Percent	Valid Percent	Cumulative Percent
Academic Affairs	33	37.9	37.9	44.8
Enrollment and Student Services or Student Services	5	5.7	5.7	50.6
Other (please specify)	23	26.4	26.4	77.0
Student Affairs	20	23.0	23.0	100.0
Total	87	100.0	100.0	

Question 4: Please indicate the area of the country which most appropriately describes your institution's location.

Geographic Area	Frequency	Percent	Valid Percent	Cumulative Percent
Mid-Atlantic States	9	10.3	10.3	17.2
Midwestern States	20	23.0	23.0	40.2
Northeastern States	5	5.7	5.7	46.0
Northwestern States	3	3.4	3.4	49.4
Other (please specify)	3	3.4	3.4	52.9
Southeastern States	25	28.7	28.7	81.6
Southwestern States	16	18.4	18.4	100.0
Total	87	100.0	100.0	

Question 5: Under which regional higher education accrediting organization is your institution accredited?

Regional Higher Education Accrediting Organization	Frequency	Percent	Valid Percent	Cumulative Percent
Middle States Association of Colleges and Schools	6	6.9	6.9	13.8
New England Association of Schools and Colleges	2	2.3	2.3	16.1
North Central Association of Colleges and Schools	30	34.5	34.5	50.6
Northwest Commission on Colleges and Universities	3	3.4	3.4	54.0
Southern Association of Colleges and Schools	35	40.2	40.2	94.3
Western Association of Schools and Colleges	5	5.7	5.7	100.0
Total	87	100.0	100.0	

Question 6: Please indicate your institution's undergraduate student population (FTE).

Institution's Undergraduate Student Population (FTE)	Frequency	Percent	Valid Percent	Cumulative Percent
10,000-14,999	19	21.8	21.8	28.7
15,000-19,999	22	25.3	25.3	54.0
20,000-24,999	15	17.2	17.2	71.3
25,000-29,999	13	14.9	14.9	86.2
30,000-34,999	6	6.9	6.9	93.1
35,000 or more	5	5.7	5.7	98.9
Not sure or information unavailable	1	1.1	1.1	100.0
Total	87	100.0	100.0	

Question 7: Please indicate the best description of your institution.

Description of Institution	Frequency	Percent	Valid Percent	Cumulative Percent
Undergraduate population is completely residential.	2	2.3	2.3	9.2
Undergraduate population is marginally (25%) residential.	25	28.7	28.7	37.9
Undergraduate population is mostly (75% or more) residential.	20	23.0	23.0	60.9
Undergraduate population is not residential.	7	8.0	8.0	69.0
Undergraduate population is partially (50%) residential.	27	31.0	31.0	100.0
Total	87	100.0	100.0	

Question 8: Which of the following enrollment management transition strategies does your institution employ?

Enrollment Management Transition Strategy	Frequency	Percent	Valid Percent	Cumulative Percent
Mandatory Summer New Freshman Orientation	65	74.7	74.7	100.0
Mandatory Welcome Week	17	19.5	19.5	100.0
Transitioning Programs for New Freshmen	55	63.2	63.2	100.0
Voluntary Freshman Learning Communities	2	2.3	2.3	100.0
Mandatory Freshman Learning Communities	30	34.5	34.5	100.0
Registration Assistance and Calibrated Class Scheduling	16	18.4	18.4	100.0
Mandatory First Year Seminar	33	37.9	37.9	100.0
Common Reading				

Question 9: Please check the type of program that most closely describes your institution's mandatory summer orientation program for new freshmen.

Program	Frequency	Percent	Valid Percent	Cumulative Percent
My institution has no summer orientation program for new freshmen.	1	1.1	1.1	16.1
One Day On-campus Program	30	34.5	34.5	50.6
Two Day On-campus Program	21	24.1	24.1	74.7
Two Day On-campus Program with Overnight Stay	22	25.3	25.3	100.0
Total	87	100.0	100.0	

Question 10: Please check the type of registration process that most closely represents what your institution utilizes with freshman registration.

Program	Frequency	Percent	Valid Percent	Cumulative Percent
Calibrated schedule chosen for students based on student's intended major, standardized test scores, high school GPA, interests, and/or other pre-college characteristics	5	5.7	5.7	20.7
Learning community that they choose with set courses that fit the community theme	3	3.4	3.4	24.1
Student is advised but then registers for classes independently	25	28.7	28.7	52.9
Student registers for classes with the help of an advisor present	29	33.3	33.3	86.2
Students choose some courses and are given some courses based on major and scores	12	13.8	13.8	100.0
Total	87	100.0	100.0	

Question 11: Which of the following enrollment management transition strategies do you perceive as benefitting student success the most at your institution?

Program	Frequency	Percent	Valid Percent	Cumulative Percent
Mandatory First Year Seminar	8	9.2	9.2	24.1
Mandatory Freshman Learning Communities	2	2.3	2.3	26.4
Mandatory Summer New Freshman Orientation	39	44.8	44.8	71.3
Mandatory Welcome Week Transitioning Programs for New Freshmen	5	5.7	5.7	77.0
Registration Assistance and Calibrated Class Scheduling	9	10.3	10.3	87.4
Voluntary Freshman Learning Communities	11	12.6	12.6	100.0
Total	87	100.0	100.0	

Question 12a: Please provide the following information regarding mandatory summer new freshmen orientation at your institution.

Availability of Program	Frequency	Percent	Valid Percent	Cumulative Percent
My institution does not currently provide this program for new freshmen but plans are in progress for such a program.	2	2.3	2.3	20.7
My institution does not provide this programming for new freshmen.	3	3.4	3.4	24.1
My institution provides this program for new freshmen, and we have been doing so since.	65	74.7	74.7	98.9
Unsure whether program has ever existed and whether there are plans to implement such a program.	1	1.1	1.1	100.0
Total	87	100.0	100.0	

Question 12b: Please provide the following information regarding mandatory summer new freshmen orientation at your institution. My institution provides this program for new freshmen, and we have been doing so since:

Period of Mandatory Summer New Freshman Orientation	Frequency	Percent	Valid Percent	Cumulative Percent
?	1	1.1	1.1	26.4
15+ years	1	1.1	1.1	27.6
1911	1	1.1	1.1	28.7
1960s or earlier	1	1.1	1.1	29.9
1966	1	1.1	1.1	31.0
1970	2	2.3	2.3	33.3
1974	1	1.1	1.1	34.5
1975	2	2.3	2.3	36.8
1981	1	1.1	1.1	37.9
1983	1	1.1	1.1	39.1
1985	3	3.4	3.4	42.5
1988 (?)	1	1.1	1.1	43.7
1990	4	4.6	4.6	48.3
1990's	1	1.1	1.1	49.4
1990s	3	3.4	3.4	52.9
1993	1	1.1	1.1	54.0
1995	2	2.3	2.3	56.3
1998	1	1.1	1.1	57.5
1999	1	1.1	1.1	58.6
2000	3	3.4	3.4	62.1
2001	1	1.1	1.1	63.2
2003	1	1.1	1.1	64.4
2004	1	1.1	1.1	65.5
2005	2	2.3	2.3	67.8
2006	2	2.3	2.3	70.1

Period of Mandatory Summer New Freshman Orientation	Frequency	Percent	Valid Percent	Cumulative Percent
2007	1	1.1	1.1	71.3
2008	2	2.3	2.3	73.6
2010	1	1.1	1.1	74.7
approx. 10 years	1	1.1	1.1	75.9
before 1990	1	1.1	1.1	77.0
before 2005	1	1.1	1.1	78.2
early 1970s	1	1.1	1.1	79.3
forever	1	1.1	1.1	80.5
I don't know	1	1.1	1.1	81.6
I dont know, but a long time	1	1.1	1.1	82.8
I dont know. Ever since I came to the institution in 1983 ...	1	1.1	1.1	83.9
n/a	1	1.1	1.1	85.1
N/A	1	1.1	1.1	86.2
not familiar with exact data significant period of time	1	1.1	1.1	87.4
not sure	2	2.3	2.3	89.7
Not sure	1	1.1	1.1	90.8
over 20 years	1	1.1	1.1	92.0
prior to 1960	1	1.1	1.1	93.1
several years	1	1.1	1.1	94.3
the 1990's	1	1.1	1.1	95.4
the early 1990s	1	1.1	1.1	96.6
Unavailable	1	1.1	1.1	97.7
unknown	1	1.1	1.1	98.9
unsure	1	1.1	1.1	100.0
Total	87	100.0	100.0	

Question 13: Please check the length of time your institution has utilized a mandatory summer new freshman orientation program.

Span of Time Mandatory Summer New Freshman Orientation in Place	Frequency	Percent	Valid Percent	Cumulative Percent
2 - 4 Years	2	2.3	2.3	49.4
5 - 7 Years	5	5.7	5.7	55.2
8 - 10 Years	24	27.6	27.6	82.8
Information Not Known or Not Available	15	17.2	17.2	100.0
Total	87	100.0	100.0	

Question 14: Please indicate your institution's freshman to sophomore fall retention rate for the fall term immediately prior to implementation of Mandatory Summer New Freshman Orientation.

Freshman to Sophomore Fall Retention Rate Immediately Prior to Implementation of Mandatory New Freshman Orientation	Frequency	Percent	Valid Percent	Cumulative Percent
40 - 49.9%	3	3.4	3.4	73.6
50 - 59.9%	1	1.1	1.1	74.7
60 - 69.9%	4	4.6	4.6	79.3
70 - 79.9%	7	8.0	8.0	87.4
80 - 89.9%	4	4.6	4.6	92.0
90% or higher	5	5.7	5.7	97.7
Less than 40%	2	2.3	2.3	100.0
Total	87	100.0	100.0	

Question 15: Please indicate your institution's freshman to sophomore fall retention rate for the fall term immediately following implementation of Mandatory Summer New Freshman Orientation.

Freshman to Sophomore Fall Retention Rate Immediately Following Implementation of Mandatory New Freshman Orientation	Frequency	Percent	Valid Percent	Cumulative Percent
50 - 59.9%	1	1.1	1.1	70.1
60 - 69.9%	6	6.9	6.9	77.0
70 - 79.9%	8	9.2	9.2	86.2
80 - 89.9%	7	8.0	8.0	94.3
90% or higher	4	4.6	4.6	98.9
Less than 40%	1	1.1	1.1	100.0
Total	87	100.0	100.0	

Question 16: Please indicate your institution's four-year graduation rate immediately prior to initial implementation of Mandatory Summer New Freshman Orientation.

Four-Year Graduation Rate Immediately Prior to Implementation of Mandatory New Freshman Orientation	Frequency	Percent	Valid Percent	Cumulative Percent
40 - 49.9%	4	4.6	4.6	77.0
50 - 59.9%	2	2.3	2.3	79.3
60 - 69.9%	1	1.1	1.1	80.5
70 - 79.9%	4	4.6	4.6	85.1
80 - 89.9%	1	1.1	1.1	86.2
90% or higher	1	1.1	1.1	87.4
Less than 40%	11	12.6	12.6	100.0
Total	87	100.0	100.0	

Question 17: Please indicate your institution's four-year graduation rate immediately after initial implementation of Mandatory Summer New Freshman Orientation.

Four-Year Graduation Rate Immediately After Implementation of Mandatory New Freshman Orientation	Frequency	Percent	Valid Percent	Cumulative Percent
40 - 49.9%	5	5.7	5.7	77.0
50 - 59.9%	4	4.6	4.6	81.6
60 - 69.9%	2	2.3	2.3	83.9
70 - 79.9%	2	2.3	2.3	86.2
90% or higher	2	2.3	2.3	88.5
Less than 40%	10	11.5	11.5	100.0
Total	87	100.0	100.0	

Question 18: Please indicate your institution's six-year graduation rate immediately prior to implementation of Mandatory Summer New Freshman Orientation.

Six-Year Graduation Rate Immediately Prior to Implementation of Mandatory New Freshman Orientation	Frequency	Percent	Valid Percent	Cumulative Percent
40 - 49.9%	2	2.3	2.3	75.9
50 - 59.9%	6	6.9	6.9	82.8
60 - 69.9%	5	5.7	5.7	88.5
70 - 79.9%	1	1.1	1.1	89.7
80 - 89.9%	3	3.4	3.4	93.1
90% or higher	1	1.1	1.1	94.3
Less than 40%	5	5.7	5.7	100.0
Total	87	100.0	100.0	

Question 19: Please indicate your institution's six-year graduation rate six years after implementation of Mandatory Summer New Freshman Orientation.

Six-Year Graduation Rate Immediately After Implementation of Mandatory New Freshman Orientation	Frequency	Percent	Valid Percent	Cumulative Percent
40 - 49.9%	3	3.4	3.4	74.7
50 - 59.9%	6	6.9	6.9	81.6
60 - 69.9%	7	8.0	8.0	89.7
70 - 79.9%	3	3.4	3.4	93.1
80 - 89.9%	2	2.3	2.3	95.4
90% or higher	1	1.1	1.1	96.6
Less than 40%	3	3.4	3.4	100.0
Total	87	100.0	100.0	

Question 20a: Please provide the following information regarding Mandatory Welcome Week (immediately prior to the start of fall term) programming for new freshmen at your institution.

Availability of Program	Frequency	Percent	Valid Percent	Cumulative Percent
My institution does not provide this programming for new freshmen.	21	24.1	24.1	73.6
My institution provides this program for new freshmen, and we have been doing so since.	22	25.3	25.3	98.9
Unsure whether program has ever existed and whether there are plans to implement such a program.	1	1.1	1.1	100.0
Total	87	100.0	100.0	

Question 20b: Please provide the following information regarding Mandatory Welcome Week (immediately prior to the start of fall term) programming for new freshmen at your institution. My institution provides this program for new freshmen, and we have been doing so since:

Beginning of Mandatory Welcome Week	Frequency	Percent	Valid Percent	Cumulative Percent
?	1	1.1	1.1	75.9
1985	1	1.1	1.1	77.0
1990	1	1.1	1.1	78.2
1990s	1	1.1	1.1	79.3
1999	1	1.1	1.1	80.5
2000	1	1.1	1.1	81.6
2008	3	3.4	3.4	85.1
2009	2	2.3	2.3	87.4
2011	1	1.1	1.1	88.5
40755	1	1.1	1.1	89.7
approx 10 years	1	1.1	1.1	90.8
Don't know	1	1.1	1.1	92.0
I dont know	1	1.1	1.1	93.1
n/a	1	1.1	1.1	94.3
NA	1	1.1	1.1	95.4
not sure	1	1.1	1.1	96.6
Not sure	1	1.1	1.1	97.7
T	1	1.1	1.1	98.9
we offer this, but it is not mandatory	1	1.1	1.1	100.0
Total	87	100.0	100.0	

Question 21: Please check the length of time your institution has utilized Mandatory Welcome Week Transitioning Programs for New Freshmen.

Span of Time Mandatory Welcome Week for New Freshmen in Place	Frequency	Percent	Valid Percent	Cumulative Percent
2 - 4 Years	5	5.7	5.7	81.6
5 - 7 Years	1	1.1	1.1	82.8
8 - 10 Years	7	8.0	8.0	90.8
Information Not Known or Not Available	6	6.9	6.9	97.7
One Year	2	2.3	2.3	100.0
Total	87	100.0	100.0	

Question 22: Please indicate your institution's freshman to sophomore fall retention rate for the fall term immediately prior to implementation of Mandatory Welcome Week Transitioning Programs for New Freshmen.

Freshman to Sophomore Fall Retention Rate Immediately Prior to Implementation of Mandatory New Freshman Orientation	Frequency	Percent	Valid Percent	Cumulative Percent
50 - 59.9%	1	1.1	1.1	85.1
60 - 69.9%	1	1.1	1.1	86.2
70 - 79.9%	4	4.6	4.6	90.8
80 - 89.9%	3	3.4	3.4	94.3
90% or higher	4	4.6	4.6	98.9
Less than 40%	1	1.1	1.1	100.0
Total	87	100.0	100.0	

Question 23: Please indicate your institution's freshman to sophomore fall retention rate for the fall term immediately following implementation of Mandatory Welcome Week Transitioning Programs for New Freshmen.

Freshman to Sophomore Fall Retention Rate Immediately Following Implementation of Mandatory New Freshman Orientation	Frequency	Percent	Valid Percent	Cumulative Percent
50 - 59.9%	1	1.1	1.1	85.1
60 - 69.9%	2	2.3	2.3	87.4
70 - 79.9%	4	4.6	4.6	92.0
80 - 89.9%	3	3.4	3.4	95.4
90% or higher	4	4.6	4.6	100.0
Total	87	100.0	100.0	

Question 24: Please indicate your institution's four-year graduation rate immediately prior to initial implementation of Mandatory Welcome Week Transitioning Programs for New Freshmen.

Four-Year Graduation Rate Immediately Prior to Implementation of Mandatory New Freshman Orientation	Frequency	Percent	Valid Percent	Cumulative Percent
40 - 49.9%	3	3.4	3.4	87.4
50 - 59.9%	2	2.3	2.3	89.7
60 - 69.9%	1	1.1	1.1	90.8
70 - 79.9%	1	1.1	1.1	92.0
80 - 89.9%	1	1.1	1.1	93.1
90% or higher	1	1.1	1.1	94.3
Less than 40%	5	5.7	5.7	100.0
Total	87	100.0	100.0	

Question 25: Please indicate your institution's four-year graduation rate immediately after implementation of Mandatory Welcome Week Transitioning Programs for New Freshmen.

Four-Year Graduation Rate Immediately After Implementation of Mandatory New Freshman Orientation	Frequency	Percent	Valid Percent	Cumulative Percent
40 - 49.9%	4	4.6	4.6	88.5
50 - 59.9%	3	3.4	3.4	92.0
70 - 79.9%	2	2.3	2.3	94.3
90% or higher	1	1.1	1.1	95.4
Less than 40%	4	4.6	4.6	100.0
Total	87	100.0	100.0	

Question 26: Please indicate your institution's six-year graduation rate immediately prior to implementation of Mandatory Welcome Week Transitioning Programs for New Freshmen.

Six-Year Graduation Rate Immediately Prior to Implementation of Mandatory New Freshman Orientation	Frequency	Percent	Valid Percent	Cumulative Percent
40 - 49.9%	2	2.3	2.3	86.2
50 - 59.9%	3	3.4	3.4	89.7
60 - 69.9%	3	3.4	3.4	93.1
70 - 79.9%	2	2.3	2.3	95.4
80 - 89.9%	1	1.1	1.1	96.6
90% or higher	1	1.1	1.1	97.7
Less than 40%	2	2.3	2.3	100.0
Total	87	100.0	100.0	

Question 27: Please indicate your institution's six-year graduation rate immediately after implementation of Mandatory Welcome Week Transitioning Programs for New Freshmen.

Six-Year Graduation Rate Immediately After Implementation of Mandatory New Freshman Orientation	Frequency	Percent	Valid Percent	Cumulative Percent
40 - 49.9%	1	1.1	1.1	85.1
50 - 59.9%	4	4.6	4.6	89.7
60 - 69.9%	2	2.3	2.3	92.0
70 - 79.9%	2	2.3	2.3	94.3
80 - 89.9%	2	2.3	2.3	96.6
90% or higher	1	1.1	1.1	97.7
Less than 40%	2	2.3	2.3	100.0
Total	87	100.0	100.0	

Question 28a: Please provide the following information regarding voluntary learning communities for new freshmen at your institution.

Availability of Program	Frequency	Percent	Valid Percent	Cumulative Percent
My institution does not currently provide this program for new freshmen but plans are in progress for such a program.	10	11.5	11.5	63.2
My institution does not provide this programming for new freshmen.	1	1.1	1.1	64.4
My institution provides this program for new freshmen, and we have been doing so since.	27	31.0	31.0	95.4
Unsure whether program has ever existed and whether there are plans to implement such a program.	4	4.6	4.6	100.0
Total	87	100.0	100.0	

Question 28b: Please provide the following information regarding voluntary learning communities for new freshmen at your institution. My institution provides this program for new freshmen, and we have been doing so since.

Beginning of Voluntary Learning Communities	Frequency	Percent	Valid Percent	Cumulative Percent
1985	1	1.1	1.1	70.1
1995	1	1.1	1.1	71.3
1998	1	1.1	1.1	72.4
2000	3	3.4	3.4	75.9
2001	1	1.1	1.1	77.0
2002	2	2.3	2.3	79.3
2003	1	1.1	1.1	80.5
2004	1	1.1	1.1	81.6
2005	3	3.4	3.4	85.1
2006	3	3.4	3.4	88.5
2007	2	2.3	2.3	90.8
2009	2	2.3	2.3	93.1
2010	1	1.1	1.1	94.3
2011	1	1.1	1.1	95.4
mid 1990s	1	1.1	1.1	96.6
not sure	1	1.1	1.1	97.7
unknown	1	1.1	1.1	98.9
Y	1	1.1	1.1	100.0
Total	87	100.0	100.0	

Question 29: Please check the length of time your institution has utilized Voluntary Freshman Learning Communities.

Span of Time Mandatory Welcome Week for New Freshmen in Place	Frequency	Percent	Valid Percent	Cumulative Percent
2 - 4 Years	4	4.6	4.6	75.9
5 - 7 Years	6	6.9	6.9	82.8
8 - 10 Years	12	13.8	13.8	96.6
Information Not Known or Not Available	2	2.3	2.3	98.9
One Year	1	1.1	1.1	100.0
Total	87	100.0	100.0	

Question 30: Please indicate your institution's freshman to sophomore fall retention rate for the fall term immediately prior to implementation of Voluntary Freshman Learning Communities.

Freshman to Sophomore Fall Retention Rate Immediately Prior to Implementation of Voluntary Freshman Learning Communities	Frequency	Percent	Valid Percent	Cumulative Percent
50 - 59.9%	1	1.1	1.1	79.3
60 - 69.9%	2	2.3	2.3	81.6
70 - 79.9%	9	10.3	10.3	92.0
80 - 89.9%	5	5.7	5.7	97.7
90% or higher	2	2.3	2.3	100.0
Total	87	100.0	100.0	

Question 31: Please indicate your institution's freshman to sophomore fall retention rate for the fall term immediately following implementation of Voluntary Freshman Learning Communities.

Freshman to Sophomore Fall Retention Rate Immediately After Implementation of Voluntary Freshman Learning Communities	Frequency	Percent	Valid Percent	Cumulative Percent
60 - 69.9%	1	1.1	1.1	79.3
70 - 79.9%	10	11.5	11.5	90.8
80 - 89.9%	5	5.7	5.7	96.6
90% or higher	3	3.4	3.4	100.0
Total	87	100.0	100.0	

Question 32: Please indicate your institution's four-year graduation rate immediately prior to initial implementation of Voluntary Freshman Learning Communities.

Four-Year Graduation Rate Immediately Prior to Implementation of Mandatory New Freshman Orientation	Frequency	Percent	Valid Percent	Cumulative Percent
40 - 49.9%	5	5.7	5.7	85.1
60 - 69.9%	3	3.4	3.4	88.5
70 - 79.9%	3	3.4	3.4	92.0
Less than 40%	7	8.0	8.0	100.0
Total	87	100.0	100.0	

Question 33: Please indicate your institution's four-year graduation rate immediately after implementation of Voluntary Freshman Learning Communities.

Four-Year Graduation Rate Immediately After Implementation of Mandatory New Freshman Orientation	Frequency	Percent	Valid Percent	Cumulative Percent
40 - 49.9%	6	6.9	6.9	86.2
50 - 59.9%	2	2.3	2.3	88.5
60 - 69.9%	2	2.3	2.3	90.8
70 - 79.9%	2	2.3	2.3	93.1
Less than 40%	6	6.9	6.9	100.0
Total	87	100.0	100.0	

Question 34: Please indicate your institution's six-year graduation rate immediately prior to initial implementation of Voluntary Freshman Learning Communities.

Six-Year Graduation Rate Immediately Prior to Implementation of Mandatory New Freshman Orientation	Frequency	Percent	Valid Percent	Cumulative Percent
40 - 49.9%	4	4.6	4.6	85.1
50 - 59.9%	3	3.4	3.4	88.5
60 - 69.9%	2	2.3	2.3	90.8
70 - 79.9%	4	4.6	4.6	95.4
80 - 89.9%	1	1.1	1.1	96.6
Less than 40%	3	3.4	3.4	100.0
Total	87	100.0	100.0	

Question 35: Please indicate your institution's six-year graduation rate immediately after implementation of Voluntary Freshman Learning Communities.

Six-Year Graduation Rate Immediately After Implementation of Mandatory New Freshman Orientation	Frequency	Percent	Valid Percent	Cumulative Percent
40 - 49.9%	2	2.3	2.3	83.9
50 - 59.9%	4	4.6	4.6	88.5
60 - 69.9%	2	2.3	2.3	90.8
70 - 79.9%	4	4.6	4.6	95.4
80 - 89.9%	2	2.3	2.3	97.7
Less than 40%	2	2.3	2.3	100.0
Total	87	100.0	100.0	

Question 36a: Please provide the following information regarding mandatory learning communities for new freshmen at your institution.

Availability of Program	Frequency	Percent	Valid Percent	Cumulative Percent
My institution does not currently provide this program for new freshmen but plans are in progress for such a program.	15	17.2	17.2	73.6
My institution does not provide this programming for new freshmen.	14	16.1	16.1	89.7
My institution provides this program for new freshmen, and we have been doing so since	6	6.9	6.9	96.6
Unsure whether program has ever existed and whether there are plans to implement such a program.	3	3.4	3.4	100.0
Total	87	100.0	100.0	

Question 36b: Please provide the following information regarding mandatory learning communities for new freshmen at your institution. My institution provides this program for new freshmen, and we have been doing so since:

Beginning of Mandatory Learning Communities	Frequency	Percent	Valid Percent	Cumulative Percent
1995	1	1.1	1.1	94.3
2005	2	2.3	2.3	96.6
2008	1	1.1	1.1	97.7
2011	1	1.1	1.1	98.9
unknown	1	1.1	1.1	100.0
Total	87	100.0	100.0	

Question 37: Please check the length of time your institution has utilized Mandatory Freshman Learning Communities.

Span of Time Mandatory Freshman Learning Communities in Place	Frequency	Percent	Valid Percent	Cumulative Percent
5 - 7 Years	1	1.1	1.1	96.6
8 - 10 Years	1	1.1	1.1	97.7
Information Not Known or Not Available	1	1.1	1.1	98.9
One Year	1	1.1	1.1	100.0
Total	87	100.0	100.0	

Question 38: Please indicate your institution's freshman to sophomore fall retention rate for the fall term immediately prior to implementation of Mandatory Freshman Learning Communities.

Freshman to Sophomore Fall Retention Rate Immediately Prior to Implementation of Mandatory Freshman Learning Communities	Frequency	Percent	Valid Percent	Cumulative Percent
70 - 79.9%	1	1.1	1.1	98.9
80 - 89.9%	1	1.1	1.1	100.0
Total	87	100.0	100.0	

Question 39: Please indicate your institution's freshman to sophomore fall retention rate for the fall term immediately following implementation of Mandatory Freshman Learning Communities.

Freshman to Sophomore Fall Retention Rate Immediately Following Implementation of Mandatory Freshman Learning Communities	Frequency	Percent	Valid Percent	Cumulative Percent
70 - 79.9%	1	1.1	1.1	98.9
80 - 89.9%	1	1.1	1.1	100.0
Total	87	100.0	100.0	

Question 40: Please indicate your institution's four-year graduation rate immediately prior to initial implementation of Mandatory Freshman Learning Communities.

Four-Year Graduation Rate Immediately Prior to Implementation of Mandatory New Freshman Orientation	Frequency	Percent	Valid Percent	Cumulative Percent
70 - 79.9%	1	1.1	1.1	98.9
Less than 40%	1	1.1	1.1	100.0
Total	87	100.0	100.0	

Question 41: Please indicate your institution's four-year graduation rate four years after implementation of Mandatory Freshman Learning Communities.

Four-Year Graduation Rate Four Years After Implementation of Mandatory New Freshman Orientation	Frequency	Percent	Valid Percent	Cumulative Percent
70 - 79.9%	1	1.1	1.1	98.9
Less than 40%	1	1.1	1.1	100.0
Total	87	100.0	100.0	

Question 42: Please indicate your institution's six-year graduation rate immediately prior to implementation of mandatory Freshman Learning Communities.

Six-Year Graduation Rate Immediately Prior to Implementation of Mandatory New Freshman Orientation	Frequency	Percent	Valid Percent	Cumulative Percent
50 - 59.9%	1	1.1	1.1	98.9
70 - 79.9%	1	1.1	1.1	100.0
Total	87	100.0	100.0	

Question 43: Please indicate your institution's six-year graduation rate six years after implementation of mandatory Freshman Learning Communities.

Six-Year Graduation Rate Six Years After Implementation of Mandatory New Freshman Orientation	Frequency	Percent	Valid Percent	Cumulative Percent
50 – 59.9%	1	1.1	1.1	98.9
Total	87	100.0	100.0	

Question 44a: Please provide the following information regarding registration assistance and calibrated class scheduling for new freshmen at your institution.

Availability of Program	Frequency	Percent	Valid Percent	Cumulative Percent
My institution does not currently provide this program for new freshmen but plans are in progress for such a program.	8	9.2	9.2	64.4
My institution does not provide this programming for new freshmen.	14	16.1	16.1	80.5
My institution has previously provided this (or a similar) program but we no longer offer such a program.	1	1.1	1.1	81.6
My institution provides this program for new freshmen, and we have been doing so since.	13	14.9	14.9	96.6
Unsure whether program has ever existed and whether there are plans to implement such a program.	3	3.4	3.4	100.0
Total	87	100.0	100.0	

Question 44b: Please check the length of time your institution has utilized Registration Assistance and Calibrated Class Scheduling:

Beginning of Registration Assistance and Calibrated Class Scheduling	Frequency	Percent	Valid Percent	Cumulative Percent
1985	1	1.1	1.1	86.2
1994	1	1.1	1.1	87.4
2005	1	1.1	1.1	88.5
2006	1	1.1	1.1	89.7
2009	3	3.4	3.4	93.1
2010	1	1.1	1.1	94.3
approx 10 years	1	1.1	1.1	95.4
before 1980	1	1.1	1.1	96.6
prior to 2000	1	1.1	1.1	97.7
the early 1990s	1	1.1	1.1	98.9
Unsure	1	1.1	1.1	100.0
Total	87	100.0	100.0	

Question 45: Please check the length of time your institution has utilized Registration Assistance and Calibrated Class Scheduling.

Span of Time Registration Assistance and/or Calibrated Class Scheduling in Place	Frequency	Percent	Valid Percent	Cumulative Percent
2 - 4 Years	4	4.6	4.6	90.8
5 - 7 Years	2	2.3	2.3	93.1
8 - 10 Years	5	5.7	5.7	98.9
Information Not Known or Not Available	1	1.1	1.1	100.0
Total	87	100.0	100.0	

Question 46: Please indicate your institution's freshman to sophomore fall retention rate for the fall term immediately prior to implementation of Registration Assistance and Calibrated Class Scheduling.

Freshman to Sophomore Fall Retention Rate Immediately Prior to Implementation of Mandatory Freshman Learning Communities	Frequency	Percent	Valid Percent	Cumulative Percent
50 - 59.9%	1	1.1	1.1	88.5
60 - 69.9%	2	2.3	2.3	90.8
70 - 79.9%	4	4.6	4.6	95.4
80 - 89.9%	2	2.3	2.3	97.7
90% or higher	1	1.1	1.1	98.9
Less than 40%	1	1.1	1.1	100.0
Total	87	100.0	100.0	

Question 47: Please indicate your institution's freshman to sophomore fall retention rate for the fall term immediately following implementation of Registration Assistance and Calibrated Class Scheduling.

Freshman to Sophomore Fall Retention Rate Immediately Following Implementation of Mandatory Freshman Learning Communities	Frequency	Percent	Valid Percent	Cumulative Percent
50 - 59.9%	1	1.1	1.1	88.5
60 - 69.9%	2	2.3	2.3	90.8
70 - 79.9%	5	5.7	5.7	96.6
80 - 89.9%	2	2.3	2.3	98.9
90% or higher	1	1.1	1.1	98.9
Less than 40%	1	1.1	1.1	100.0
Total	87	100.0	100.0	

Question 48: Please indicate your institution's four-year graduation rate immediately prior to initial implementation of Registration Assistance and Calibrated Scheduling.

Four-Year Graduation Rate Immediately Prior to Implementation of Registration Assistance and/or Calibrated Scheduling	Frequency	Percent	Valid Percent	Cumulative Percent
40 - 49.9%	2	2.3	2.3	90.8
50 - 59.9%	1	1.1	1.1	92.0
70 - 79.9%	2	2.3	2.3	94.3
Less than 40%	5	5.7	5.7	100.0
Total	87	100.0	100.0	

Question 49: Please indicate your institution's four-year graduation rate four years after implementation of Registration Assistance and Calibrated Class Scheduling.

Four-Year Graduation Rate Four Years After Implementation of Registration Assistance and/or Calibrated Scheduling	Frequency	Percent	Valid Percent	Cumulative Percent
40 - 49.9%	5	5.7	5.7	93.1
50 - 59.9%	1	1.1	1.1	94.3
70 - 79.9%	1	1.1	1.1	95.4
Less than 40%	4	4.6	4.6	100.0
Total	87	100.0	100.0	

Question 50: Please indicate your institution's six-year graduation rate immediately prior to initial implementation of Registration Assistance and Calibrated Scheduling.

Six-Year Graduation Rate Immediately Prior to Implementation of Registration Assistance and/or Calibrated Scheduling	Frequency	Percent	Valid Percent	Cumulative Percent
40 - 49.9%	2	2.3	2.3	92.0
50 - 59.9%	1	1.1	1.1	93.1
60 - 69.9%	2	2.3	2.3	95.4
90% or higher	1	1.1	1.1	96.6
Less than 40%	3	3.4	3.4	100.0
Total	87	100.0	100.0	

Question 51: Please indicate your institution's six-year graduation rate immediately after implementation of Registration Assistance and Calibrated Scheduling.

Six-Year Graduation Rate Immediately After Implementation of Registration Assistance and/or Calibrated Scheduling	Frequency	Percent	Valid Percent	Cumulative Percent
40 - 49.9%	4	4.6	4.6	92.0
50 - 59.9%	2	2.3	2.3	94.3
60 - 69.9%	1	1.1	1.1	95.4
70 - 79.9%	2	2.3	2.3	97.7
90% or higher	1	1.1	1.1	98.9
Less than 40%	1	1.1	1.1	100.0
Total	87	100.0	100.0	

Question 52a: Please provide the following information regarding Mandatory First Year Seminars.

Availability of Program	Frequency	Percent	Valid Percent	Cumulative Percent
My institution does not currently provide this program for new freshmen but plans are in progress for such a program.	14	16.1	16.1	72.4
My institution does not provide this programming for new freshmen.	11	12.6	12.6	85.1
My institution has previously provided this (or a similar) program but we no longer offer such a program.	2	2.3	2.3	87.4
My institution provides this program for new freshmen, and we have been doing so since	8	9.2	9.2	96.6
Unsure whether program has ever existed and whether there are plans to implement such a program.	3	3.4	3.4	100.0
Total	87	100.0	100.0	

Question 52b: Please provide the following information regarding Mandatory First Year Seminars. My institution provides this program for new freshmen, and we have been doing so since.

Beginning of Utilization of Mandatory First Year Seminars	Frequency	Percent	Valid Percent	Cumulative Percent
1991	1	1.1	1.1	92.0
1995	1	1.1	1.1	93.1
1999	1	1.1	1.1	94.3
2002	1	1.1	1.1	95.4
2003	1	1.1	1.1	96.6
2004	1	1.1	1.1	97.7
unknown	1	1.1	1.1	98.9
unsure	1	1.1	1.1	100.0
Total	87	100.0	100.0	

Question 53: Please check the length of time your institution has utilized Mandatory First Year Seminars.

Span of Time Mandatory First Year Seminars Utilized	Frequency	Percent	Valid Percent	Cumulative Percent
5 - 7 Years	1	1.1	1.1	94.3
8 - 10 Years	4	4.6	4.6	98.9
Information Not Known or Not Available	1	1.1	1.1	100.0
Total	87	100.0	100.0	

Question 54: Please indicate your institution's freshman to sophomore fall retention rate for the fall term immediately prior to implementation of Mandatory First Year Seminars.

Freshman to Sophomore Fall Retention Rate Immediately Prior to Implementation of Mandatory First Year Seminars	Frequency	Percent	Valid Percent	Cumulative Percent
50 - 59.9%	1	1.1	1.1	97.7
70 - 79.9%	1	1.1	1.1	98.9
80 - 89.9%	1	1.1	1.1	100.0
Total	87	100.0	100.0	

Question 55: Please indicate your institution's freshman to sophomore fall retention rate for the fall term immediately following implementation of Mandatory First Year Seminars.

Freshman to Sophomore Fall Retention Rate Immediately Following Implementation of Mandatory First Year Seminars	Frequency	Percent	Valid Percent	Cumulative Percent
50 - 59.9%	1	1.1	1.1	97.7
70 - 79.9%	1	1.1	1.1	98.9
80 - 89.9%	1	1.1	1.1	100.0
Total	87	100.0	100.0	

Question 56: Please indicate your institution's four-year graduation rate immediately prior to initial implementation of Mandatory First Year Seminars.

Four-Year Graduation Rate Immediately Prior to Implementation of Mandatory First Year Seminars	Frequency	Percent	Valid Percent	Cumulative Percent
50 - 59.9%	1	1.1	1.1	97.7
Less than 40%	2	2.3	2.3	100.0
Total	87	100.0	100.0	

Question 57: Please indicate your institution's four-year graduation rate four years after implementation of Mandatory First Year Seminars.

Four-Year Graduation Rate Four Years After Implementation of Mandatory First Year Seminars	Frequency	Percent	Valid Percent	Cumulative Percent
50 - 59.9%	1	1.1	1.1	97.7
Less than 40%	2	2.3	2.3	100.0
Total	87	100.0	100.0	

Question 58: Please indicate your institution's six-year graduation rate immediately prior to initial implementation of Mandatory First Year Seminars.

Six-Year Graduation Rate Immediately Prior to Implementation of Mandatory First Year Seminars	Frequency	Percent	Valid Percent	Cumulative Percent
50 - 59.9%	3	3.4	3.4	100.0
Total	87	100.0	100.0	

Question 59: Please indicate your institution's six-year graduation rate immediately after implementation of Mandatory First Year Seminars.

Six-Year Graduation Rate Immediately After Implementation of Mandatory First Year Seminars	Frequency	Percent	Valid Percent	Cumulative Percent
50 - 59.9%	3	3.4	3.4	100.0
Total	87	100.0	100.0	

Question 60a: Please provide the following information regarding the Mandatory Common Reading for new freshmen at your institution.

Availability of Program	Frequency	Percent	Valid Percent	Cumulative Percent
My institution does not currently provide this program for new freshmen but plans are in progress for such a program.	13	14.9	14.9	71.3
My institution does not provide this programming for new freshmen.	11	12.6	12.6	83.9
My institution has previously provided this (or a similar) program but we no longer offer such a program.	2	2.3	2.3	86.2
My institution provides this program for new freshmen, and we have been doing so since	10	11.5	11.5	97.7
Unsure whether program has ever existed and whether there are plans to implement such a program.	2	2.3	2.3	100.0
Total	87	100.0	100.0	

Question 60b: Please provide the following information regarding Mandatory Common Reading. My institution provides this program for new freshmen, and we have been doing so since.

Beginning of Utilization of Mandatory Common Reading	Frequency	Percent	Valid Percent	Cumulative Percent
1999	1	1.1	1.1	89.7
2004	1	1.1	1.1	90.8
2006	1	1.1	1.1	92.0
2008	2	2.3	2.3	94.3
2009	1	1.1	1.1	95.4
2010	1	1.1	1.1	96.6
n/a	1	1.1	1.1	98.9
unknown	1	1.1	1.1	98.9
Total	87	100.0	100.0	

Question 61: Please check the length of time your institution has utilized a Mandatory Common Reading.

Span of Time for Mandatory Common Reading	Frequency	Percent	Valid Percent	Cumulative Percent
2 - 4 Years	3	3.4	3.4	93.1
5 - 7 Years	2	2.3	2.3	95.4
8 - 10 Years	1	1.1	1.1	96.6
Information Not Known or Not Available	2	2.3	2.3	98.9
Total	87	100.0	100.0	

Question 62: Please indicate your institution's freshman to sophomore fall retention rate for the fall term immediately prior to implementation of the Mandatory Common Reading.

Freshman to Sophomore Fall Retention Rate Immediately Prior to Implementation of the Mandatory Common Reading	Frequency	Percent	Valid Percent	Cumulative Percent
40 - 49.9%	1	1.1	1.1	94.3
50 - 59.9%	1	1.1	1.1	95.4
70 - 79.9%	2	2.3	2.3	97.7
80 - 89.9%	1	1.1	1.1	98.9
90% or higher	1	1.1	1.1	100.0
Total	87	100.0	100.0	

Question 63: Please indicate your institution's freshman to sophomore fall retention rate for the fall term immediately following implementation of the Mandatory Common Reading.

Freshman to Sophomore Fall Retention Rate Immediately Following Implementation of the Mandatory Common Reading	Frequency	Percent	Valid Percent	Cumulative Percent
50 - 59.9%	1	1.1	1.1	94.3
60 - 69.9%	1	1.1	1.1	95.4
70 - 79.9%	2	2.3	2.3	97.7
80 - 89.9%	1	1.1	1.1	98.9
90% or higher	1	1.1	1.1	100.0
Total	87	100.0	100.0	

Question 64: Please indicate your institution's four-year graduation rate immediately prior to initial implementation of the Mandatory Common Reading.

Four-Year Graduation Rate Immediately Prior to Implementation of the Mandatory Common Reading	Frequency	Percent	Valid Percent	Cumulative Percent
90% or higher	1	1.1	1.1	95.4
50 - 59.9%	1	1.1	1.1	94.3
Less than 40%	4	4.6	4.6	100.0
Total	87	100.0	100.0	

Question 65: Please indicate your institution's four-year graduation rate four years after implementation of the Mandatory Common Reading.

Four-Year Graduation Rate Immediately After Implementation of the Mandatory Common Reading	Frequency	Percent	Valid Percent	Cumulative Percent
90% or higher	1	1.1	1.1	95.4
50 - 59.9%	1	1.1	1.1	94.3
Less than 40%	4	4.6	4.6	100.0
Total	87	100.0	100.0	

Question 66: Please indicate your institution's six-year graduation rate immediately prior to initial implementation of the Mandatory Common Reading.

Six-Year Graduation Rate Immediately Prior to Implementation of the Mandatory Common Reading	Frequency	Percent	Valid Percent	Cumulative Percent
90% or higher	1	1.1	1.1	97.7
50 - 59.9%	3	3.4	3.4	96.6
Less than 40%	2	2.3	2.3	100.0
Total	87	100.0	100.0	

Question 67: Please indicate your institution's six-year graduation rate immediately after implementation of the Mandatory Common Reading.

Six-Year Graduation Rate Immediately After Implementation of the Mandatory Common Reading	Frequency	Percent	Valid Percent	Cumulative Percent
Less than 40%	1	1.1	1.1	100.0
40 - 49.9%	1	1.1	1.1	94.3
50 - 59.9%	3	3.4	3.4	100.0
90% or higher	1	1.1	1.1	98.9
Total	87	100.0	100.0	

Question 68: Which of the following enrollment management transition strategies do you perceive as most beneficial to student success at your institution?

Type of Enrollment Management Transition Strategy	Frequency	Percent	Valid Percent	Cumulative Percent
Mandatory First Year Seminar	4	4.6	4.6	69.0
Mandatory Freshman Learning Communities	1	1.1	1.1	70.1
Mandatory Summer New Freshman Orientation	13	14.9	14.9	85.1
Mandatory Welcome Week	3	3.4	3.4	88.5
Transitioning Programs for New Freshmen				
Registration Assistance and Calibrated Class Scheduling	3	3.4	3.4	92.0
Voluntary Freshman Learning Communities	7	8.0	8.0	100.0
Total	87	100.0	100.0	

Question 69: Which of the following enrollment management transition strategies do you perceive as least beneficial to student success at your institution?

Type of Enrollment Management Transition Strategy	Frequency	Percent	Valid Percent	Cumulative Percent
Mandatory Common Reading	17	19.5	19.5	88.5
Mandatory First Year Seminar	2	2.3	2.3	90.8
Mandatory Freshman Learning Communities	1	1.1	1.1	92.0
Mandatory Summer New Freshman Orientation	1	1.1	1.1	93.1
Mandatory Welcome Week Transitioning Programs for New Freshmen	1	1.1	1.1	94.3
Registration Assistance and Calibrated Class Scheduling	2	2.3	2.3	96.6
Voluntary Freshman Learning Communities	3	3.4	3.4	100.0
Total	87	100.0	100.0	

Question 70: Please indicate which of the following applies to the influence of enrollment management strategies on students and/or success measures at your institution.

Influence on Student Success	Frequency	Percent	Valid Percent	Cumulative Percent
Increases the quality of new freshmen	9	10.3	10.3	100.0
Increases freshman to sophomore year retention	19	21.8	21.8	100.0
Improves the four-year graduation rate	13	14.9	14.9	100.0
Improves the six-year graduation rate	17	19.5	19.5	100.0
Increases student satisfaction	16	18.4	18.4	100.0
Improves student engagement with the institution	18	20.7	20.7	100.0
No perceived influence on student success	1	1.1	1.1	100.0
Total	87	100.0	100.0	

Appendix S: Written Comments in Response to Open-Ended Survey Question #71

Question 71: Describe the impact of the enrollment management strategies employed by your institution on student success and retention.

- Enrollment Management provides the student a one stop shopping experience.
- We make a huge effort to insure that all first-year students get the courses they need both first and second semester. We believe that getting them registered in these courses has a huge influence on retention and success.
- Our strategies are designed to enhance communication, whereby admitted students are more readily engaged and likely to come to Orientation. This increase in the rate of admits who attend Orientation and enroll also has enhanced the quality (i.e. average standardized test scores) of entering freshmen. We predict that this will increase the four-year and six year graduation rates at Florida A&M University
- we collaborate with academic advising and freshmen programs to ensure that our strategies are implemented and we monitor student success.
- Currently we walk through the registration process at the end of orientation. The process used at orientation is not the same as the student will complete for subsequent terms. This is an issue we would like to address as it significantly impacts student perceptions of the organization as they progress.
- The freshman-to-sophomore retention rate has increased from @ 69% to @ 79% in the past 5-10 years.
- student success rates have been increasing but in small proportions

- Dramatic increases in graduation rate over the past several years. Little change in freshman retention.
- Course scheduling and changes in freshman orientation have increased retention and student engagement.
- Retention rates were the highest this year
- Increased retention and awareness of freshman year support services.
- We have not seen huge impacts to student retention. Our focus of late has been trying to decrease the number of freshmen on academic probation after their first semester.
- Unfortunately to date, the majority of retention initiatives have been goal free and data averse. The need to document effectiveness is often not top of mind. As the variety of services and personnel associated with retention management, sit outside the direct authority and responsibility of the enrollment management division, EM"s influences the retention agenda through the intentional and purposeful use of data to frame the debate, elevate teh dialog, uncover reality. In essence, the critical role of EM is in helping the institution learn more about itself and the enrollment dynamics and characteristics of students at alll stages of the life cycle.
- We do not have mandatory freshman orientation but are considering it and how to accommodate larger numbers of out of state and international students.
- Based on the data there has not been significant improvement; however, there has not been a decline
- test 1

Appendix R: Written Comments in Response to Open-Ended Survey Question #72

Question 72: Describe the most valued benefit of the enrollment management transition strategies at your institution.

- Collaboration among all units included in the enrollment management.
- Enhanced communication through mandatory freshman orientation has yielded us a better quality of students who are more informed about the college experience
- freshmen to sophomore retention
- Introduces the students to the organization setting.
- Student success, as measured by retention and graduation rates.
- being aware of basic success policies
- Student/Alumni successes.
- Retention.
- Center for First Year Studies was implemented three years ago
- Increased student quality.
- Assisting freshmen in the adjustment phase prior to their first academic evaluation (midterm grades). If we wait until midterm it is often too late. Freshmen need to know what is expected of them and how it differs from high school.
- Retention should not be the goal but rather the by-product of an increase in student learning, student growth and student development. Focus on those key processes should lead to increase in student satisfaction, engagement and ultimately retention

- Student satisfaction - and only having to recruit one student one time (because they stay)
- Cross training of different departments
- test 2

Appendix T: Written Comments in Response to Open-Ended Survey Question #73

Question 73: Please briefly explain any other enrollment management transition strategies employed by your institution that have not already been listed.

- n/a
- None
- we are about to start a coaching initiative as well as early warning system
- na
- Increasing the residential opportunities for students by building new housing. Residential students typically persist at higher rates than commuters. Promoting and offering financial incentives for students who choose full-time enrollment over part-time enrollment. We have increased the number of full-time students by 5-10% in recent years. Full-time students typically persist at higher rates than part-time students. Raising admission standards and reducing the number of higher risk students admitted. Committing greater resources to the higher risk students who are admitted.
- optional fye course participation mandatory course for students on probation
- Centralized freshman advising, Centralized academic services, Graduation coaches, Freshman seminars for at-risk students, Second year "academic strategies" course to help students who had a rough start.
- None
- 5th week assessment of new freshmen; faculty in each of the students' courses complete a brief questionnaire about the students (e.g. attendance, passing grades)

- Summer transition programming the targets historically underrepresented students.
- We are looking into a Sophomore program. We feel that the sophomore slump is a real issue that affects our 4 and 6 year graduation rates just as much as the freshman transition does.
- Predictive Modeling Supplemental Instruction One-Stop Centers Tutoring and Academic Support Services targeted to high-risk populations Technology and Service Improvements Honors Programs and associated programming for high ability students On-Line Orientations
- none
- test 3
- Questions did not fit our situation well. We do not have much that is mandatory, but we have very high participation rates in learning communities, summer orientation, and fall welcome to campus event. i did not answer many of the questions because the answers would have been misleading for your research.