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Factors that influence traditional-age, high-achieving students to enroll at a research-extensive university in the Southern region of the United States

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FACTORS THAT INFLUENCE
TRADITIONAL-AGE, HIGH-ACHIEVING STUDENTS
TO ENROLL AT
A RESEARCH-EXTENSIVE UNIVERSITY
IN THE SOUTHERN REGION
OF THE UNITED STATES

A Dissertation

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

in

The School of Human Resource Education
And Workforce Development

by
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May 2006

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DEDICATION

This work is dedicated to the memory of my dear parents, Roy Cleveland Brooks, Sr. and Louise Ford Rinehart Brooks, who ingrained in me the love of learning, the value of hard work, the concept of setting goals and the persistence to complete them, the respect for others, and the importance to do the best in all that I do. Their eternal love, pride, encouragement, and confidence in me provided the stimuli and determination to follow my dreams and the strength and self-discipline to accomplish them. Their support and personal sacrifices, along with the moral standards for which they lived their lives, have made an everlasting impression on me for which I am forever thankful. Having taught school more than 40 years, my Mother's commitment to education has served as a testimony to me as to just how important it is for our young people to be prepared for tomorrow's world and for all of us to continue learning throughout our lives. My Dad believed strongly in education and demonstrated this by serving as a school board member on the Ouachita Parish School Board for many years and being involved in many civic and community organizations that promoted educational programs and lifelong learning opportunities for everyone. I am who I am today because of them. This dissertation stands as a tribute to them for everything that they instilled in me. I hope they are smiling down on me from Heaven as I have always wanted to make them proud of me. Mom and Dad, Thank You, and I Love You!

This dissertation is also dedicated to my devoted wife, Gail, and our three children, Christopher, Elizabeth, and Connor, who are the loves of my life. There is absolutely no way that this achievement could have been possible had it not been for their support, confidence, and understanding that they gave to me throughout this educational experience. Being an educator

For more than 30 years, Gail understands the importance and value of learning. She has served as a source of inspiration and encouragement, especially during the times when I felt like quitting because things had become difficult and when my health issues surfaced as obstacles. She is one of the primary reasons that I persisted because I wanted her to be proud of me considering all that she has given to me and our family during these past years. It is important to me to show my children, as their Dad and as a testimony for what I had witnessed from my parents, the value of setting goals and completing them. I sincerely hope that my Ph.D. will serve as an example that hard work has its rewards. Hopefully, this educational accomplishment will also be an inspiration to them that they can achieve anything they desire through commitment, discipline, and hard work. Gail, Christopher, Elizabeth, and Connor, Thank You, and I Love You!

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There are absolutely no words in the English language that can adequately express the deepest appreciation, admiration, and respect that I have for Dr. Michael F. Burnett, my major professor. I will forever be indebted to him for his insightful guidance, knowledge, and inspiration through every stage of this project and for the belief and confidence that he had in my abilities to complete this work. There is no doubt in my mind that it was Dr. Burnett's knowledge, expertise, patience, and persistence that were the catalysts that sustained me through all of the many obstacles that I faced during this program of study. He challenged me to do my best and provided unparalleled opportunities for learning, thinking, writing, research, and personal growth. He has served as my mentor, professor, scholar, researcher, role-model, colleague, and friend. His unrelenting support and confidence in me provided the motivation and determination that I needed to accomplish this degree. I will never forget our countless sessions, visits, phone calls, and emails during these past years with my course work and research. You are truly an inspiration to all who know you, and I am so very thankful for the opportunity that I had to learn from the best. Thank You, Dr. Burnett, for everything that you have done for me!

My committee members, Dr. Krisanna Machtmes, Dr. Satish Verma, Dr. Earl Johnson, and Dr. Ronald Garay, deserve my deepest thanks and appreciation for their time and willingness to endure this long journey with me. Each one has shared with me their special talents and knowledge for which I am forever grateful.

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ABSTRACT

The primary purpose of this study was to determine if a model existed that significantly increased the researcher's ability to accurately explain the enrollment status of high-achieving freshmen based on the influence of selected demographic and academic characteristics.

Since World War II, the need for students to obtain an outstanding postsecondary education in order to compete for the best positions in today's job market has become increasingly important. Thus, the need exists for higher education institutions to offer competitive academic programs that will attract top students and faculty. Since the number of graduating high school students is predicted to decline during the next decade, competition for students is fierce among institutions as enrollment managers strive to enroll outstanding students.

This study's population was defined as all high-achieving freshmen ($ACT \geq 28$ and academic $GPA \geq 3.00$) who were admitted to one selected research-extensive university for the fall 2005 semester. There were 13 independent variables that were collected from the admissions and student aid databases and then transferred to a computerized, recording form, which served as the research instrument.

Using stepwise multiple discriminant analysis, the researcher identified a substantively and statistically significant model that increased the researcher's ability to accurately explain the enrollment status of high-achieving freshman. The model correctly classified 65.0% of the cases, which was a 30.1% improvement over chance that was obtained on these subjects using this model. The variable that had the greatest impact on enrollment was whether or not the student's parent graduated from the institution. Other variables that contributed significantly were: student's residency status, college entrance examination score (ACT), gender, offer of admission

to the Honors College, academic high school GPA, whether or not the student's race was Hispanic, and whether the student graduated from a public or private high school.

The researcher recommended additional studies that would increase the percentage of correctly classified students by integrating these variables with others that could further explain future freshman classes. Variables suggested were: the institution's image, student's academic major, high school counselor influence, student's relationship with enrollment management offices, communication with students, and the campus visit program.

CHAPTER 1.

INTRODUCTION

Rationale

The desire to learn is something inherent in everyone. The process of learning continues from birth to death barring any disease that would cause a person to be unable to learn. Formal education is typically defined as learning in a structured setting. This includes the normal progression of learning from pre-kindergarten through the elementary, middle, and high school settings. It has become increasingly important for students to obtain a higher degree of education in order to compete for positions in virtually every employment field. As the 21st century begins, more and more American families, corporations, industries, and businesses are being convinced that everyone in today's society should aspire to attain some form of postsecondary education and training. In many cases, multiple degrees from a college or university are required for the better, higher-paying professions and careers. Therefore, it is vitally important for higher education institutions to develop and offer quality academic programs of study in order to produce highly prepared graduates to meet the demands of today's job market.

A four-year degree from a United States college or university continues to be valued as the most assured path to economic success and personal satisfaction. Studies during the last 30 years have clearly proven that the completion of a postsecondary education results in higher salaries, successful careers, and a better quality of life (Bowen, 1977; Leslie & Brinkman, 1988; Wellman, 1999). As an example, Leslie and Brinkman (1988) concluded from their meta-analysis of individual rates of return on higher education, that college graduates earn from 12% to 15% more than the average high school graduate when comparing the average earnings of

high school and college graduates of similar ability. In addition, the college graduate is less prone to miss work for prolonged periods of time because of health reasons, less likely to be unemployed for extended periods, and reports being more satisfied and happier with life (Bowen, 1977).

Benefits of higher education extend beyond those seen for the individual. A more educated citizenry is beneficial to society and to the economic progress of the states and nation. These benefits include higher levels of productivity, enhanced government revenues, improved economic competitiveness, and greater social equality (Wellman, 1999). Furthermore, research studies on societal benefits resulting from higher levels of education by Bowen (1997) and Pascarella and Terenzini (1991) concluded that university graduates are more likely to assume local and state leadership positions, make better citizens who are more inclined to vote regularly, engage in community and volunteer opportunities, use more technologies in their everyday lives, and support advanced educational opportunities for their children and communities. Results of their research also showed that graduates from higher education institutions are less likely to be involved in criminal activities (Pascarella & Terenzini, 1991; Wellman, 1999).

Because of this surge in the importance of attaining postsecondary education over the last several decades, higher education opportunities have expanded significantly. Students can now select from public or private four-year institutions, two-year community or junior colleges, technical, proprietary or vocational schools, or virtual universities that offer online courses. Because of the varied options available to potential students when selecting an institution to further their education, competition for these prospective students has escalated among these

institutions. Thus, the desire to be considered the best institution has intensified (McDonough, Antonio, Walpole, & Perez, 1998).

It is well known that there was a surge of high school students entering colleges and universities between the 1960s and 1970s because of the baby-boom generation following World War II (Bonner, 1986). Universities experienced a significant growth in their enrollments between 1960 and 1970, from 3.6 million students in 1960 to 8 million in 1970 (Brubacher & Rudy, 1997). To further emphasize the continued movement of more high school graduates into higher education, the following enrollment data were reported in *Trends in College Admission 2000, A Report of a Survey of Undergraduate Admissions Policies, Practices, and Procedures* by Breland, Maxey, Gernand, Cumming, and Trapani (2002):

- Between 1979 and 1999, the annual number of high school graduates in the United States decreased by over a quarter million students, but total and undergraduate enrollment in higher education increased substantially.
- Between 1985 and 1999, the average number of applications per enrolled first-time, first-year student increased dramatically, and thus, yield rates – the proportion of accepted applicants who enroll at any given institution – decreased dramatically (p. vii).

This report further noted that in 1979 there were nearly 3.2 million high school graduates and only about half of these (nearly 1.6 million) graduates enrolled in college immediately following their high school graduation. However, this percentage had increased to more than 65% by the late 1990s (Breland et al., 2002).

More recent statistics from the *2005 Annual Report* by the National Association for College Admission Counseling (NACAC) in 2006 found that there were 3 million high school students who graduated in 2004. Slightly more than 60% of these graduates (slightly more than 2

million) enrolled in postsecondary education. In addition, an all-time high of 15 million students was enrolled in a college or university in 2004 (National Association for College Admission Counseling, 2006).

However, this surge of students is beginning to level off in the United States, and in some states, including Iowa, Kentucky, Louisiana, Maine, Mississippi, and West Virginia, a decline is expected over the next 10 years (Carnevale & Fry, 2000). According to the January/February 2005 *NACAC Bulletin*, “for the first time since 1997, the percent of colleges that reported a decrease in applications from the previous year topped 20 percent” (p. 1). The article further stated that this percentage of decrease in applications to higher education institutions is likely to continue to rise (Bogart, 2005). For instance, the Board of Regents in Louisiana project the number of high school graduates to decline 6% by 2007 (Board of Regents State of Louisiana Master Plan, 2001, p. 10). This decline of students could be attributed to the fact that many families since the 1960s have found it necessary for both parents to work in order to keep up with their financial responsibilities. These families have also practiced planned parenthood due to the rising costs of raising children (Bonner, 1986).

With the plateau and decline in the number of high school students, institutions are having to rely upon the importance of their role of providing excellent educational programs to attract students whose numbers have nearly stabilized. In addition, this drop in students has seen a progressive rise in the importance of national rankings and selective admission and has caused heightened competition among all colleges and universities for students. Competition for students, especially the high-achievers, is a fairly new arena to many major universities, since

historically, students came to them without any significant recruitment efforts (Kinzie, Palmer, Hayek, Hossler, Jacob, & Cummings, 2004).

Not only is the competition for students getting more intense among universities, the desire to enroll more high-achieving students is even greater because of the recognition these students bring to the institution. Annually, the *U.S. News and World Report* ranks the major universities in their “America’s Best Colleges” report. This report ranks the 248 institutions into three tiers based on a number of indicators including peer assessment, graduation and retention rate, faculty resources, student selectivity, and average alumni giving rate. This document is of primary importance to the universities because it has been widely accepted as a benchmark of success. High-achieving students and their parents want to know where the university is in this ranking as prestige and respect are considered important when considering a particular college or university.

As higher education institutions increase their recruitment efforts in an attempt to attract good students, it has become increasingly important to understand why students select one institution over another. The answer to this question is the key to how universities should proceed in the recruitment process. After all, in order for an institution of higher learning to continue to exist, it must have students, and they must become successful in the job force so the school's reputation can be steadily enhanced. Without them, professors, administrators, and support staff are not needed and will be added to the rolls of unemployment.

Another critical factor that needs to be considered by colleges and universities is the amount of money that is needed to keep their doors open. In the early years of higher education, funding for these institutions was traditionally provided completely or nearly completely by the

states for public schools, and by private foundations and organizations for the non-public schools. Tuition was not a major issue for students since the colleges and universities were not dependent on this source of income to remain open.

However, “the 1990s saw significant increases in tuition and fees at public and private institutions and greater demands for financial aid” (Kinzie et al., p. 2). This occurred because the monies to institutions from the states and federal government began to steadily decline in the 1980s. As an example, the mean comprehensive tuition rate (comprehensive tuition includes admission, fees, books, supplies, room and board) for the 2000-2001 academic year for public (\$11,210) and private colleges (\$21,915) was significantly higher than the mean federal grant of \$2,719 per student that was distributed to the institutions. This same academic year saw 55% of the undergraduate students receiving some form of financial aid to attend college. The mean disbursement was \$6,265 per student (Hawkins & Lautz, 2005). “Thirty-nine percent of students received aid from federal sources, such as the Pell Grant, subsidized student loans, Veteran’s grants, and work-study” [Hawkins & Lautz, 2005, p. 96 as cited in U.S. Department of Education Statistics, Office of Educational Research and Improvement, (July 2001), *National Postsecondary Student Aid Study: Student Financial Aid Estimates for 1999 to 2000*, NCES 2001-209, Washington, D.C.].

As a result of this increase in tuition dollars by institutions, the availability of financial aid in the form of scholarships, grants, and loans is a very important factor for students when considering their choice of college. A survey by the Higher Education Research Institute reported by Geraghty (1997) in the *Chronicle of Higher Education*, found that an increasing percentage of first-year students reported that they made their college-choice decision based on

financial reasons. In 1996, 33% of first-year students indicated financial assistance as a very important factor in their college choice, while the number of freshmen who stated they had selected an institution based on low tuition was 31% (Geraghty, 1997). Because federal and state funding to public institutions have steadily declined, coupled with the response by these schools to steadily increase their tuition and fees, many colleges and universities have crafted complex financial aid packages and strategies to persuade students to enroll. In addition, more institutions are offering academic scholarships, including room and board, to attract the high-achieving students (Kinzie et al., 2004).

Some of the monies received by institutions must be allocated to their admission offices in order to recruit students. Many universities use a wide variety of means to accomplish this task. Therefore, it is extremely important for the university admission office to determine exactly what, if any, factors influence students to attend its particular institution. There are a number of general factors that students consider as important while making their choice among schools to attend. Some of these factors are: scholarships, financial aid, grants, reputation, image, programs of study, admission requirements, employment, campus housing, location, traditions, activities, parents, relatives, and friends. But if all the schools in which the student is interested in attending offer the same level of service, then the final decision-making factors will be those that are unique to that university.

Though it is extremely important for higher education institutions to recruit students from varied backgrounds, nationalities, locations, and experiences to make the school attractive to all types of students, it is of particular importance to attract high-achieving students. The recruitment of these students is fierce and competitive among the major research-extensive

universities because they bring state, regional, national and international recognition to the school, thus strengthening the institution's reputation and image. These top students also help attract outstanding faculty and researchers to the institution. These faculty scholars bring monies to the university in the form of grants, endowments, and research programs. Examples include donations by corporations, companies, and foundations to fund academic and research initiatives performed by these recognized faculty members. Federal and state grant programs are also opportunities for institutions to obtain additional funding because of these scholars. As these top professors are lured to schools that have outstanding students, these same students are attracted to schools that have outstanding faculty. Because these top faculty and high-achieving students create a win-win for the institution, it is imperative that these schools do all they can to attract both populations to their campuses.

Therefore, in order for higher education institutions to remain open and competitive in attracting high-achieving students, outstanding faculty, and financial support, in addition to offering academic programs of study that will prepare students for employment in today's market, thus creating a better society and world for all, it was critical to study the influence of selected demographic and academic characteristics on the decision of traditional-age, high-achieving freshman students who enrolled at a research-extensive university in the Southern region of the United States. A high-achieving student was defined by the researcher as one who had at least a 3.00 academic high school grade point average as calculated on a 4.00 scale on all completed high school academic courses (English, mathematics, natural sciences, social sciences, foreign languages, computer studies, and visual and performing arts) and at least a 28 composite ACT score or 1240 SAT score, which are college entrance examinations. The outcome of this

study will be of profound importance to offices of undergraduate admissions, offices of recruiting services, offices of student aid and scholarships, and honors colleges as they strive to attract and enroll high-achieving students using the most effective and efficient means possible.

Purpose of Study

The primary purpose of this study was to determine the influence of selected demographic and academic characteristics on the decision of traditional-age, high-achieving freshman students to enroll at a research-extensive university in the Southern region of the United States.

Dependent Variable

The dependent variable of this study was whether or not the traditional-age, high-achieving freshman students who applied and were admitted, subsequently enrolled at a research-extensive university in the Southern region of the United States for the fall 2005 semester as defined by their payment of fees and inclusion in the 14th class-day statistics.

Specific Objectives

The following specific objectives were formulated to guide this research study:

1. To describe traditional-age, high-achieving freshman students who were admitted and enrolled for the fall 2005 semester as defined by their payment of fees and inclusion in the 14th class-day statistics at a research-extensive university in the Southern region of the United States on the following demographic and academic characteristics:

- (a) Gender;
- (b) Race;
- (c) Whether or not the student was classified as a resident of the state;
- (d) Whether or not the student received a major academic scholarship;

- (e) Whether or not the student was offered admission to the Honors College;
- (f) Whether the student graduated from a public or private high school or was home-schooled;
- (g) Whether or not the student's parent graduated from the institution;
- (h) Whether or not the student lived within 100 miles of the university;
- (i) Overall high school grade point average;
- (j) Academic high school grade point average;
- (k) Required high school grade point average;
- (l) College entrance examination (ACT) composite score; and
- (m) Rank-in-high school class.

2. To describe traditional-age, high-achieving freshman students who were admitted but did not enroll for the fall 2005 semester as defined by their nonpayment of fees and non-inclusion in the 14th class-day statistics at a research-extensive university in the Southern region of the United States on the following demographic and academic characteristics:

- (a) Gender;
- (b) Race;
- (c) Whether or not the student was classified as a resident of the state;
- (d) Whether or not the student was offered a major academic scholarship;
- (e) Whether or not the student was offered admission to the Honors College;
- (f) Whether the student graduated from a public or private high school or was home-schooled;
- (g) Whether or not the student's parent graduated from the institution;
- (h) Whether or not the student lived within 100 miles of the university;

- (i) Overall high school grade point average;
- (j) Academic high school grade point average;
- (k) Required high school grade point average;
- (l) College entrance examination (ACT) composite score; and
- (m) Rank-in-high school class.

3. To compare the traditional-age, high-achieving freshman students who were admitted and enrolled for the fall 2005 semester as defined by their payment of fees and inclusion in the 14th class-day statistics at a research-extensive university in the Southern region of the United States to those traditional-age, high-achieving freshman students who were admitted but did not enroll for the fall 2005 semester as defined by their nonpayment of fees and non-inclusion in the 14th class-day statistics at the same institution on the following demographic and academic characteristics:

- (a) Gender;
- (b) Race;
- (c) Whether or not the student was classified as a resident of the state;
- (d) Whether or not the student received or was offered a major academic scholarship;
- (e) Whether or not the student was offered admission to the Honors College;
- (f) Whether the student graduated from a public or private high school or was home-schooled;
- (g) Whether or not the student's parent graduated from the institution;
- (h) Whether or not the student lived within 100 miles of the university;
- (i) Overall high school grade point average;

- (j) Academic high school grade point average;
- (k) Required high school grade point average;
- (l) College entrance examination (ACT) composite score; and
- (m) Rank-in-high school class.

4. To determine if a model existed that significantly increased the researcher's ability to accurately explain the enrollment status of traditional-age, high-achieving freshman students who applied and were admitted at a research-extensive university in the Southern region of the United States for the fall 2005 semester as defined by their payment of fees and inclusion in the 14th class-day statistics.

Definition of Terms

Demographic information, as reported to the study institution's Office of Undergraduate Admissions at a research-extensive university in the Southern region of the United States by each student on the undergraduate admission application or as determined by this office from the information reported by each student on this application, was as follows:

1. Gender - as reported by the student as female or male.
2. Race - as indicated by students from the following: African American, Asian, Caucasian, Native American, and Hispanic.
3. Residency Status - as defined by the Office of Undergraduate Admissions as to whether the student was a resident or nonresident of the state in which the study institution was located.
4. High School - as identified by the Office of Undergraduate Admissions as a public, private, or home-school.

5. Parent's Alumni Status - as reported by the student and verified by the registrar at the study institution as to whether or not the student's parent graduated from the institution or one of the institution's system schools.
6. Distance From Home - as defined by the student's permanent home address as to whether it was within a 100-mile radius from the institution or further than a 100-mile radius from the institution.

Academic information and measures, as reported to the Office of Undergraduate Admissions at a research-extensive university in the Southern region of the United States or calculated by this office from the information that was submitted, were as follows:

1. High-Achieving Student - as defined by the researcher as a student who had at least a 3.00 academic high school grade point average as calculated on a 4.00 scale by the Office of Undergraduate Admissions on all completed high school academic courses (English, mathematics, natural sciences, social sciences, foreign languages, computer studies, and visual and performing arts) and at least a 28 composite ACT score or 1240 SAT score, which are college entrance examinations.
2. College Entrance Examination Scores - as reported directly to the Office of Undergraduate Admissions from ACT and The College Board (SAT scores). SAT scores were converted to the ACT equivalent value using the "Concordance Between SAT I Recentered V + M (Verbal + Math) Score and ACT Composite Score Table" (see Appendix) by the Office of Undergraduate Admissions. For students who submit both ACT and SAT scores, the Office of Undergraduate

Admissions uses the highest score when making admission decisions. Therefore, this study used the student's highest ACT composite score or highest SAT score that was converted to its equivalent ACT composite score.

3. Overall High School Grade Point Average (GPA) - as defined as the grade point average for all courses completed in high school. For students who graduated from one of the state's high schools, this overall high school GPA was submitted by the state's education department to the study institution. For students who graduated from an out-of-state high school, this overall high school GPA was stated on the student's high school transcript that was submitted to the study institution by the student's high school.
4. Academic High School Grade Point Average - as calculated on a 4.00 scale by the Office of Undergraduate Admissions on the grades earned from all completed high school academic courses (English, mathematics, natural sciences, social sciences, foreign languages, computer studies, and visual and performing arts). For example, courses such as physical education and keyboarding were not included in this calculation.
5. Required High School Grade Point Average - as calculated on a 4.00 scale by the Office of Undergraduate Admissions on the grades earned from the 18 specific units required for admission to this research-intensive university in the Southern region of the United States. These units are as follows:
 - 4 units - English Composition and Literature (English I, II, III, IV)
 - 3 units - College Preparatory Mathematics (Algebra I, Algebra II, and

- 3 units - one additional unit consisting of courses such as geometry, trigonometry, advanced mathematics, or calculus)
- 3 units - Natural Sciences (biology, chemistry, and physics)
- 3 units - Social Studies (one unit in American history; one unit in world history, world geography, or history of western civilization; and one unit consisting of civics, free enterprise, economics or American government)
- 2 units - Foreign Language (two units in a single language)
- ½ unit - Computer Studies (such as computer science, computer literacy, or substitute ½ unit from among the subjects listed above)
- 2½ units - Additional Academic Courses (2½ additional units from among the subjects listed above. Two units may be from advanced course work in the visual and performing arts).

6. Scholastic Grade Point Average - as calculated by the study institution's Office of Student Aid and Scholarships on the grades earned from all completed high school academic courses (English, mathematics, natural sciences, social sciences, foreign languages, computer studies, and visual and performing arts) taken prior to the student's senior year. The office uses this average as one of the criteria when considering students for one of the institution's major scholarships. Weighted grades, as reported to the Office of Undergraduate Admissions from the state's department of education for resident students or from the high school for out-of-state students, are also factored into this grade point average.

7. Major Academic Scholarship - as to whether or not the student received or was offered one of the University's five major academic four-year scholarships, and if so, which one(s) as reported by the institution's Office of Student Aid and Scholarships. Brief descriptions of each of these five scholarships are:

- (a) Chancellor's Alumni Scholarship - most prestigious award offered to the top 10 students who have at least a 3.50 scholastic grade point average and at least a 33 ACT or 1460 SAT.

- (b) Alumni Association Top 100 Scholarship - award that is offered to the next 100 top students who have at least a 3.50 scholastic grade point average and at least a 32 ACT or 1410 SAT.
 - (c) Distinguished Freshman Award - award that is offered to students who have been designated as National Merit Finalists (college-sponsored) and have indicated this institution as their first-choice institution.
 - (d) Centennial Award - award that is offered to the state's residents who have been designated as National Merit Semifinalists or have a 3.00 scholastic grade point average and a 30 ACT or 1320 SAT.
 - (e) Golden Oaks Award - award that is offered to nonresident students who were selected as recipients of the Chancellor's Alumni Scholarship, the Alumni Association Top 100 Scholarship, or Distinguished Freshman Award or have been designated as a National Merit Semifinalist. In addition, nonresident students who have at least a 3.00 scholastic grade point average and at least a 30 ACT or 1320 SAT are considered for this award.
8. Honors College Status - as determined by the Honors College as to whether the student was offered admission to the Honors College and was recorded on the database of the Office of Undergraduate Admissions.
9. Rank-In-High School Class - for students who graduated from one of the state's high schools, this rank was submitted by the state's education department to the study institution. For students who graduated from an out-of-state high school, this rank was stated on the student's high school transcript that was submitted by the student's high school to the study institution. For the purpose of this study, the rank-in-high school class measurements were converted to a percentile score since a raw score rank of 5 would be very different in a class of 350 students than it would be in a class of 20 students.

Significance of the Study

The results of this study contributed to the rather limited research and body of knowledge regarding the recruitment and enrollment of traditional-age, high-achieving freshman students to research-extensive institutions in the United States. By comparing the demographic and academic characteristics of students who were admitted and enrolled, to those students who were admitted but did not enroll at this research-extensive university in the Southern region of the United States for the fall 2005 semester, the researcher was able to identify the highest frequencies of these characteristics.

From these findings, the researcher was then able to establish and suggest specific recruitment recommendations and institutional strategies to enrollment management professionals in recruiting offices, admission offices, student aid and scholarship offices, diversity offices, and honors colleges in an effort to attract and enroll more high-achieving students to their institutions. Recruiting offices at these institutions will be able to refine their recruitment strategies and programs for high-achieving students so that more of them will apply. Admission offices will be able to better identify high-achieving students who apply and are admitted in an effort to enhance their current recruiting efforts so that more of these admitted students actually enroll. Offices of student aid and scholarships will be able to better craft scholarship and financial aid packages and incentives to attract these top students to apply and enroll. Offices of diversity will be able to enhance their programs and activities for all minority students in their efforts to help recruit and enroll a more diversified freshman class. Honors colleges will also be in a position to evaluate their recruitment strategies that will help increase the enrollment of these high-achieving students. As more of these outstanding students enroll,

the universities will be able to attract outstanding professors and researchers, thus strengthening academic programs and research initiatives which will better prepare students who will graduate and take their place in society.

The model that resulted from this study should be useful to other research-extensive institutions of higher education as they plan and implement their own recruitment strategies, and as they evaluate their admission, scholarship, diversity, and academic programs. This study also added to the limited research and to the body of knowledge on the recruitment and enrollment of traditional-age, high-achieving freshman students to higher education institutions.

CHAPTER 2.

REVIEW OF RELATED LITERATURE

Introduction

The recruitment of students by colleges and universities coupled with the college-choice process by students are complex and affect: high school students, parents, high school counselors, institutions of higher learning, public policy makers, and local, state and federal governments and agencies. Strategies on both sides of the admission decision have involved numerous factors with significant changes being seen since the early 1900s when the history of recruitment began in America. In the early part of the 20th century, families recognized the value of an advanced education and its importance to better jobs and financial stability.

The college attended had a great impact on one's future, thus the pressure to select the right institution was great, since choosing a college was not only about selecting where one would spend four years, it was about selecting one's life path (Comfort, 1925). Clearly, things have not changed since those early years as the college choice by students and the demand to recruit the best and brightest students continue to be extremely important to both students and institutions. Research studies have been conducted since the beginning of the 20th century in an effort to understand the importance of higher education and to identify the various factors that students consider when selecting an institution of higher learning.

In order to appreciate and understand the complexity of this topic, various components must be examined. Though some of the components have been consistently important throughout the history of recruitment and college choice, marketing techniques and strategies by institutions have continued to change in an effort to be competitive and attractive to potential

students. These components include research on the following: college choice, admission issues, marketing, image, communication with students, the campus visit program, students, high school counselors, parents, and financial aid.

College Choice

There is heightened competition among universities for the enrollment of traditional-age freshman students entering college directly from high school. Sanders (1990) reported that the marketplace will become even more competitive in the years to come as demographic projections indicate a significant decline in the number of high school graduates in the nation. Colleges and universities will need “to better understand the diversity of opinions that influence high school seniors’ college choices” (Sanders, 1990, p. 3). His study concluded with three observations.

First, there exists a high degree of correlation between parent and student expectations that the college experience is essentially a four-year experience to acquire the skills to prepare the student for employment and subsequent upward economic mobility after graduation (p. 3).

Second, high school counselors’ opinions as to what their seniors expect from universities vary significantly from those of parents and students. Finally, given these divergent views, colleges need to market themselves in different ways to the parents, students, and high school counselors (p. 3).

His research cited several reasons regarding the disparity between the expectations of guidance counselors to those of students and their parents. Guidance counselors interact with a wide variety of students and colleges, and thus understand the complexities of the application process and the varied influences that affect the college decision. Another reason is the appreciation of the institution’s location. Counselors understand the differences in campus lifestyles that exist on large metropolitan campuses versus small campuses in more rural areas. The last reason is

that of understanding financial aid that may or may not be available to the student (Sanders, 1990).

Annually, colleges and universities compete for outstanding students, academic prestige and resources. According to Brown and Hoyt (2003), institutions need to know their competition, establish a respected image, develop a marketing plan, and identify the needs of various marketing segments. In an effort to accomplish these needs, it is important to know why students choose a particular institution over another one. From their review of the literature concerning the identification of college-choice factors, these researchers revealed an understanding of the marketing framework and analytical methods, but the review raised concerns about the limited number of choice factors used by many institutions when surveying students. They found 27 studies with less than 10 college-choice factors and 22 studies using 10 or more factors. They discovered that research studies using standardized instruments had a limited number of factors. The most popular survey instrument programs noted were the American College Testing Program Student Profile (ACT Profile), Admitted Student Questionnaire Plus (ASQ Plus), National Center for Education Statistics' National Educational Longitudinal Study (NCES), Cooperative Institutional Research Program Freshman Survey (CIRP), and the Student Perceptions of Institutional Quality (SPIQ) developed by Hadley and Matthews (1993) (Brown & Hoyt, 2003). These programs, the number of choice factors each program has, and their survey limitations are listed in Table 1.

The more comprehensive the set of factors that are used in a student survey, the more improved is the prediction of student college choice. This would result in a more accurate report

of those institutional characteristics students believe are important in the college selection process. (Brown & Hoyt, 2003).

Table 1.
College-Choice Survey Instrument Programs

Survey Programs	Number of Factors	Survey Limitations
ACT Student Profile	6	Has an "other" category
Admitted Student Questionnaire Plus	13	One individual entry category
National Center for Educational Statistics	15	Excludes parents' prior attendance
Cooperative Institutional Research	17	Excludes influences of relatives, teachers, counselors and the Web
Student Perceptions of Institutional Quality	18	One question about quality of faculty

The researchers found that course offering times and delivery methods (night, weekend, and Web-based) affect student college choice. This is interesting because their review of the literature did not find any study that considered this factor. Campus safety was an influential consideration, particularly for females. High school concurrent enrollment credit also appears to encourage selection of the institution, especially by the high-achieving student. Their study confirms what they found in the literature that there is relevance in the quality of faculty and instruction, location, costs, scholarship offers, academic reputation, financial aid, and student employment opportunities. The Web was singled out as a major source of information about colleges and affected college choice (Brown & Hoyt, 2003).

Social and personal factors have been identified in several studies as influential in the college decision-making process (Cabrera, Hagedorn, Nora, Pascarella, & Terenzini, 1999; Dixon & Martin, 1991; Smith & Matthews, 1990). These studies focused on the role that campus climate (Cabrera et al., 1999; Grossman, 1992), counselors and peers (Grossman, 1992; Sanders, 1990), and parental and other family members (Grossman, 1992; Smith & Matthews, 1990; Sanders, 1990) have on the college decision-making process.

Gallagher and Hossler (1987) developed a model for the college-choice process for students considering college. Their model identifies three distinct phases in the process of college selection: predisposition, search, and selection. In the initial predisposition phase, students decide if they will attend college. Those who decide to pursue higher education then enter the second phase, the search. During this time, the student seeks information about various institutions. The final stage, selection, involves the student making the final decision as to where he or she will attend (Gallagher & Hossler, 1987). Though their model has been significant in rationalizing the college-choice process for high school students, subsequent models and research have attempted to further their efforts (Bateman & Kennedy, 1999; Cabrera et al., 1999; Dixon & Martin, 1991; Smith & Matthews, 1990).

However, these models and research have failed to evaluate the impact of financial support for students by individuals or institutions on whether students will attend college (Fermin & Pope, 2003). These researchers found that their respondents' primary reason for attending college was to achieve personal and career goals. They further reported that parents and friends play a significant role in their decision to attend college. Students did not rate the efforts by college representatives and their recruitment materials as highly in terms of their decision to

further their education beyond high school. The researchers concluded that the institution's personnel should focus more on how a college education from their institution can impact the achievement of personal and career goals. In an effort to accomplish this emphasis on helping students reach their career goals, their recommendation to college professionals was to market the school's specific academic majors to potential students that would prepare them for the careers they seek. They further suggested that the institution promote how they can help students obtain these jobs (Fermin & Pope, 2003).

The choice factors more important to academically-gifted students include the institution's academic reputation, the quality of the student body, the availability of honors programs, and financial aid and scholarships (Baksh & Hoyt, 2001; Litten, 1982a; Litten & Brodigan, 1982b). This is of significant interest because Manski and Wise (1983) found that students tend to choose a college with an average SAT score within 100 points (approximately three points on the ACT) of their own scores, when controlling for outside factors.

Chapman (1981) described student characteristics such as demographics, socioeconomic status, and college preparation, along with external influences that include counseling, costs, and location of the institution as things that affect a student's choice to attend a particular college. This is in line with the research studies of Dixon and Martin (1991). They discovered four types of influences that affect college choice. These include academic reputation, social climate, costs and location, and influences of parents, friends, counselors, and recruiters. They suggested that colleges and universities need to understand the importance of these college-choice influences if these institutions want to effectively influence college-choice decisions. Chapman (1981) described student characteristics such as demographics, socioeconomic status, and college

preparation along with external influences that include counseling, costs, and location of the institution as things that affect a student's choice to attend college.

A survey by Moogan and Baron (2003) indicated that males were more likely to be introduced to higher education by their parents than were females. Those students who chose to further their education following high school relied more on the influence from their parents than from their teachers. The majority responded that they researched colleges at least three months before making a decision with females taking longer to gather their data than males. Another interesting result of this survey was that females felt that course content was important in their decision of a particular school, whereas males relied more on a school's reputation. Females were found to be more anxious about moving away from home than were males (Moogan & Baron, 2003).

In summary of the college-choice decisions by students, it was no surprise that the review of the literature found that students attend college to achieve personal and career goals. It is of noted interest that the review found the influence of parents and friends on a student's choice more significant than the collegiate institution and its enrollment management personnel. Colleges and universities must realize that perceptions of college selection by parents and students differ significantly from those of guidance counselors. Academic reputation, quality of faculty and instruction, costs, location, scholarship offerings, financial aid and student employment opportunities were proven in the literature to have major influences on students' college choice.

In regards to this researcher's study, it was interesting to note that there were only three studies regarding college choice by academically-gifted students. The review found that these

students consider the academic reputation, quality of the student body, availability of honors programs, and scholarship awards as the most significant factors in their college decision.

Admission Issues

MacGowan (1999) stated that the college admission process is becoming more and more stressful for students and parents to the point of being unpredictable and confusing. They are responding with anxiety, guessing, and getting information from any source, including poor ones. Students and parents are applying to more colleges, requesting early decisions from the colleges, taking SAT/ACT prep courses, consulting with private counselors, and investigating scholarship search services. The perception is that the admission process has changed and continues to change due to rising costs, rankings, media, technology, good economy, and the proliferation of strategic marketing by higher education institutions (MacGowan, 1999). Listed below are some of the possible changes that MacGowan (1999) feels might improve the process:

High school counselors:

- Directly confront the admission myths that exist in your schools
- Make as much up-to-date and accurate information available to students and parents as possible
- Discourage use of rankings in college decision making
- Discourage the use of the PSAT by sophomores (p. 11).

Admission counselors:

- Reject rather than defer students if they will clearly not be admitted later on
- Boycott the reputational survey and do not send data to *U.S. News & World Report* and don't use *U.S. News & World Report* rankings in promotional materials
- Make previous admission data and current admission policies available on the Web and in print
- Waive the PROFILE fee for needy students, or encourage the College Board to allow more fee waivers (p. 11).

High school counselors and admission counselors together:

- Find alternatives to counselor recommendations, so counselors can spend

- more time doing college counseling
- Find more efficient ways to get information to students and counselors other than the high school visit
- Encourage The College Board to look at ways to make the SAT less ‘coachable’
- Work together to develop time-lines that work for all constituencies: families, colleges, and high schools (p. 12).

MacGowan (1999) stated “the current college admission environment is fueling a ‘survival of the fittest’ mentality that may lead to a strict hierarchy in higher education” (p. 12). He mentioned that “this could create an increasingly large gulf between the ‘haves’ and ‘have nots’ in society” (p. 12). He further noted by saying:

Two of the most profound influences on these trends are the *U.S. News & World Report* rankings (contributing to the hierarchy) and the College Board (the ‘haves’ already have advantages on the SAT and, in addition, are more able to afford SAT prep) (p. 12).

MacGowan (1999) felt that higher education must intercede by making the process clearer for all, because if they continue to ignore what is happening around them, the “special interests, self-perpetuating bureaucracies, and other carpetbaggers will dominate and set the agenda” (p. 12). This researcher summarized by stating that the complexity of the ever-changing admission process continues to cause undue financial hardships and emotional stress on families of college-seeking students (MacGowan, 1999).

Ott (1991) studied differences in the admission process by those who had accepted and declined admission. Her two valued-variables were: acceptance status (accepted vs. declined); race (black vs. white); residence status (in-state vs. out-of-state); and achievement level (high vs. other). She found that acceptors rated the friendliness of the admission staff better than the decliners. In contrast, the decliners rated the quality of the mailings from the admission staff and the clarity of the admission requirements better than the acceptors did. Logit analysis indicated

that experiences with the admission office had more of a positive effect than a negative effect on the decisions of admitted applicants who actually attended the university (Ott, 1991).

Speyer (2004) noted that “SAT scores are going up because college admission makes them a more important factor each year” (p. 10). He stated that because of the time required to process applications, read essays, and evaluate student profiles in light of inadequate staffs, the institutions must rely more on numerical factors such as the SAT. This new hurried processing has been counterproductive in regards to the quality of students desired. This obsession with numbers is making for a less educated student who is less thoughtful, more cynical, and more boring. Higher SAT scores do not always mean better students. The emphasis on numbers has been spurred by the ever-growing power of the *U.S. News & World Report* rankings of colleges. The emphasis on numbers is caused by the lack of a clear definition of what constitutes a good pre-college education.

As a nation, the United States, for various historical and political reasons, has been unwilling to adapt the state-developed school curricula and state-administered university entrance examinations France has in its Baccalaureat, Germany in its Abitur, and the United Kingdom in its A-Levels. In America, the definition of what constitutes a good preparation for college is literally a free-for-all: colleges, high schools, journalists, religious leaders, politicians, parents, students – we can all put in our two cents (Speyer, 2004, p. 12).

Speyer (2004) further felt that the most influential of all groups in defining curricula and standards for America is our selective colleges and universities. Unfortunately, these people carry their academic position lightly and continue to promote the rankings developed by *U.S. News* and to the tests developed by ETS in their recruiting materials. Ironically, the consumers of this ridiculously expensive higher education system demand rankings and, unless a new

professional body proposes another strategy, the strength of the *U.S. News* rankings simply continues to rise (Speyer, 2004).

Friedemann (1989) believed that colleges tend to send mixed or incongruent messages to students, sometimes causing enough confusion to overwhelm students, parents, and counselors. Colleges need to communicate openly with students so they will understand why they desire and how they use the information they seek. Institutions should tell students their philosophy and their practices (Friedemann, 1989).

Rickard (1991) stressed the importance of the admission office as he stated, “When one examines the truly great universities in this country a common characteristic emerges: they all have outstanding admission programs marked by an abundance of talented, diverse, and academically strong applicants” (p. 2). To have such an admission program, a university or college must have an important strategic plan that includes a vigorous recruitment program (Rickard, 1991). These great universities are few in number. Of the more than 3,000 institutions of higher learning in the U.S., only about 6% admit half or fewer of their applicants (McPherson, & Schapiro, 1991).

Miller, Rivell, and Walker (1991) conducted a study that surveyed the 105 members of the Association of Chief Admissions Officers of Public Universities to determine the extent to which weighted or un-weighted grade point average (GPA) and rank-in-high school class standards are used to assist in the admission of most freshmen to public flagship universities. The results of this study revealed that the use of GPA and rank-in-high school class in the admission decision at public flagship institutions was extensive. Ninety-seven percent of schools used either GPA or rank-in-high school class or both as a standard of admission. The results also

showed that these institutions are much more likely to recalculate a high school GPA for use in the admission decision process rather than use the one provided on the high school transcript. Sixty-four percent of the universities that use a high school GPA, recalculated their own GPA with AP and honors-designated courses being the ones that were the most likely to receive extra weight (Miller et al., 1991).

A similar study was conducted by Barrett and Young (1992) who calculated a GPA using just the student's academic courses with extra weight added to advanced placement and honor courses. This modified GPA improved the correlation of cumulative college GPA and high school GPA from .41 for the total high school GPA to .52 for the modified GPA.

Further review of the literature found that the high school GPA, standardized tests, such as the ACT and SAT, and the student's rank-in-high school class are valuable tools for admission offices to use as they has been shown to help predict how their students would preform at their institution. A study by Linn (1990) supported standardized testing as an effective predictor of college grade point averages. Though questions have been raised regarding gender and race biases that limit the ability to predict college success, he reported that test developers have continually reevaluated test questions to remove racial, gender, and cultural biases.

At the University of Northern Colorado, Mathiasen (1984) conducted a study where he found the ACT and rank-in-high school class to be the best predictors of whether a student would graduate from college within the traditional four-year period. Following this research, studies by Linn (1990) and Mouw and Khanna (1993) found the high school grade point average to be the best predictor of college performance. Mouw and Khanna (1993) further stated in their research

that the best set of predictors were the standardized tests combined with a measure of high school performance being the high school grade point average.

Ezeze (1994) said, “The path to and through college is exciting, enriching, taxing, and nerve-racking, but one of the greatest experiences of our lives” (p. 2). An important aspect of this journey is socialization. Ezeze (1994) felt that students must be integrated into the environment in which they find themselves in order to have a successful undergraduate career. Institutions must emphasize a collaborative effort between academic demands and extracurricular activities so that students’ personal and social needs, and those devoted to their intellectual development will result in a more generally wholesome and rewarding environment for the students (Ezeze, 1994).

Ezeze (1994) discussed ways to bring socialization to the campus. Student support services can provide programs for first-year students together with a resident advisor. A feedback system should be in place to help with problems of adjusting to campus life. Small campuses are intimate, but could be suffocating, thus forcing students to feel they must conform, thereby losing some of their privacy. Large campuses are seen as lonely and impersonal, even to the point of alienation among students. Student-run organizations are important to help students get involved. Pre-freshman and mentoring programs are good examples of ways to bring students together early in the students’ collegiate career (Ezeze, 1994).

The literature review of admission issues revealed that students and parents find the admission process to be confusing and unpredictable mainly because institutions do not clearly explain why and how admission offices use the information and data that they seek from students. A number of studies found that institutions are under pressure to distance themselves

from the others in an effort to become more attractive to the best and brightest students. In order to accomplish this, the number of higher education institutions using recalculated and weighted grade point averages and rank-in-high school class is growing each year. Noted in several studies was the influence of rankings as reported annually in the *U.S. News and World Report*. Colleges and universities are striving for annual profiles that indicate higher mean ACT or SAT scores and mean high school grade point average for their freshman class, as well as reporting higher percentages of enrolled students by rank-in-high school class. Studies were found that support the use of the high school GPA, standardized tests, such as the ACT and SAT, and the student's rank-in-high school class as valuable tools for admission offices to use not only for admission consideration, but also as indicators in predicting how their students would perform at their institution.

However, the literature review further found that high school counselors and parents suggest admission offices should discourage the use of national rankings and the influences made by the *U.S. News and World Report*. This suggestion has been supported by the research of McDonough et al. (1998) who showed that most students pay little attention to college rankings in the college-choice process. Socialization on campus was also found to be an admission issue that needs to be stressed in conjunction with the academic climate of an institution.

Marketing

The research on this complex issue has escalated in recent years as higher education has taken the form of an industry that is subject to market forces. Sjogren (2004) defined markets as “social/economic mechanisms that determine what gets produced, how it gets produced, and who gets what is produced” (p. 46). Markets determine how much of something gets produced and

sold. In order for any market to accomplish these functions, there need to be both sellers (higher education institutions) and buyers (potential students). Price (2002) stated that higher education, once an elite system, has become inclusive and diverse, and this has affected admissions to the extent of being a market. This admission process has become considerably more interesting to the media. Degrees of competition for particular institutions are functions of social and demographic demands that affect the institution's prestige which varies from year to year (Price, 2002). Marketing in higher education today includes image, direct mail, media, special events, campus programs, telemarketing, alumni involvement, and customer service.

Sevier (2000) stressed the importance of the recruitment funnel, the series of contacts to potential students that include the use of direct mail, the World Wide Web, campus visit programs, telemarketing, and special events, that moves a prospective student from initial contact to matriculation. Colleges must have a clear understanding of who make up the target markets, their interests, their levels of financial need, and how they weigh different college-choice variables. Students today expect almost instantaneous answers to their questions, and they want to be treated uniquely. The relationship between recruitment and financial aid is becoming stronger. Sevier (2000) offered four steps to an effective recruitment funnel: "define the students desired, clarify your recruiting geography, build awareness, implement your recruiting strategies" (p. 12).

To accomplish these steps in the recruitment funnel, Sevier (2000) suggested enrollment managers use a rich, sustainable media mix that is supported and incorporated campus wide. Samples of media are: "magazine and newspaper advertising, radio/TV/cable advertising, Web/Internet, special events, direct mail, donor relations, alumni relations, telemarketing, and

high school relations” (Sevier, 2000, p. 15). The researcher outlined three basic distinct funnel stages that are different in their approach because students need and will desire change during the recruitment process:

Stage 1 - Students are just beginning to look at colleges. They are involved emotionally, but easily overwhelmed by volumes of information. They are looking for name recognition, location, availability of academic majors. The World Wide Web is important at this stage.

Stage 2 - Students become more insightful and begin asking better questions. They are looking for detailed information including benefits and financial aid options. They are more receptive to customized information.

Stage 3 - Students have applied to and been accepted by a handful of schools. They will base their final decision on these three variables: fit, financial aid, and the “cool” quotient: When they tell their friends where they are going to college, do their friends say, “cool”? (p. 17).

By understanding this recruitment funnel and the factors that influence potential students to be attracted to an institution that cause them to move them from a suspect to an enrolled student, enrollment management personnel can effectively market their institution (Sevier, 2000).

Brown and Hoyt (2003) stated the following means that colleges and universities use to market their services to students:

- American College Testing Program Student Profile (ACT Profile) when the student lists the institution on his/her college-choice set
- College visit days at high schools
- Contact with high school counselors
- College web site as one of the most helpful sources of information
- Campus visits as an influential factor in student college choice
- College guides, brochures and college catalogs sent in the mail
- Campus activities and programs
- Advertisements in newspapers and on the radio and television
- Student telemarketing
- Interviews
- Orientation programs
- Alumni networks

They may also contact students who applied but failed to enroll at the institution using data from the initial application. Institutions must understand their student market and its position relative to its competitors in order to effectively publicize their services. The researchers stressed the importance of marketing segmentation. This involves the identifying of distinct groups of students based on their attitudes and perceptions of the institution. Once this has been accomplished, the institution will either emphasize those aspects that are most attractive to a particular group or adjust the college characteristics so that they become more attractive to a group. Several types of market segments include demographic (student characteristics), geographic (location of the student from the institution), and behavioral (student knowledge or attitudes) (Brown & Hoyt, 2003).

Black (2004) stated that successful enrollment management strategies in the decade ahead will focus on speed of delivery, customization, personalization, and convenience. These include automated e-mail responses, e-brochures, dynamic web portals, electronic confirmations, and real time degree audits. He mentioned two rules of effective communication to potential students:

1. Incorporate permission marketing (seek the permission to send communications with an option to be removed).
2. Customize the communication so that it is relevant to the individual.

It is important for the institution to include the student's name and the name of the admission counselor, academic advisor, or student services advocate in all correspondence as this information adds a degree of personalization that is important to the student. This is especially important at large institutions as it humanizes the experience by letting the students know that they are people and not just numbers to the school. "Matriculating into and through an

institution should be intuitive, seamless, and hassle free. They enroll to receive an education, not to master your bureaucracy” (Black, 2004, p. 37).

Kuh (1991) pointed out that it is important to an institution’s advantage to describe clearly to prospective students what they can expect from college. He discussed five distinct categories to achieve this advantage in recruiting students:

- “A clear, coherent mission and philosophy that communicate high but reasonable challenges for students buttressed by ethics of care” (p. 76).
- “Campus environments that used the physical setting to educational advantage” (p. 76).
- “A complicated web of cultural artifacts that communicate to the students ‘how the institution works’ ” (p. 76).
- “Policies and practices that clearly and consistently communicate expectations for students’ behavior, hold students responsible for their own behavior and learning” (p. 76).
- “Faculty, staff, and other institutional agents who promote student participation in educationally purposeful, out-of-class learning activities” (p. 77).

He recommended the following:

1. “Examine whether the publications sent to new students clearly and consistently articulate the institution’s mission and educational purposes and what the institution expects of students” (p. 81).
2. “Discover the special language of the institution and determine if publications and other media accurately and adequately communicate the meaning of institution-specific language to newcomers” (p. 81).
3. “Make the campus visit an introduction to the culture of the institution” (p. 81).
4. “Conduct an audit of the institution’s orientation events and activities to determine whether the messages students receive prior to matriculation are consistently reinforced and clarified” (Kuh, 1991, p. 81).

According to the review on marketing, all aspects of our society today are affected by marketing strategies. The higher education arena is no different. The admission's process has become a vital piece of this marketplace. For colleges and universities to participate in this market, they must understand: who makes up their market; what their interests are; and how they view their college-choice variables. In today's world that incorporates a high technological venue, the student wants instant information, communication and answers, thus institutions of higher education need to focus on personalization, customization, delivery, and convenience.

Additionally, they must look globally at marketing segments: demographically, geographically, and behaviorally, in order to effectively market their institutions. The research did confirm what many educators realize, and that is the rapidly growing influence of the World Wide Web (WWW) on college-choice decisions. As computer technology continues to expand in services and speed, the computer and the WWW will continue to be attractive to students and will remain the major source of information when investigating higher education institutions.

Image

Sevier (1994) defined an image as “a set of attitudes or beliefs that a person or audience holds about an institution” (p. 62). He stated that image and reputation are the most powerful and precious marketing tools an institution has, and they are the institution's most significant assets. This has been substantiated by several studies (Bowles & Wanat, 1992; Goenner & Snaith, 2004; Rickard, 1991; Seneca & Taussig, 1987; Tierney, 1983) that support the importance of a school's image and reputation as influential factors on college choice.

Sevier (1994) presented five observations about image. “First, people are more influenced by prior knowledge than new knowledge” (p. 60). “Second, image has a tremendous

and often underappreciated effect on college choice” (p. 61). “Third, institutions with strong images are able to recruit better faculty and faculty are more likely to stay longer” (p. 61). “Fourth, institutions with strong images tend to have a greater percentage of annual fund participation” (p. 61). “And finally, image-building is seen as a legitimate pre-recruiting function at a handful, but growing number of market-oriented institutions” (p. 61). In order to improve an institution’s image, Sevier (1994) suggested four parts to his “image formula” (p. 65). These are accuracy, clarity, consistency, and continuity (Sevier, 1994).

Goenner and Snaith (2004) found that better prepared students are attracted to institutions with better academic reputation. Thus, without the better students, an institution is hampered in its efforts to improve its reputation. They noted, “Institutions of postsecondary education are increasingly operating in an environment in which they are expected to do more with less” (p. 29). These institutions can only do so much toward improving their academic environment considering that they are faced with fewer and fewer resources. Their solution is to raise admission standards. “States including Louisiana, Nevada, North Dakota, and Oregon are either considering or have already implemented higher admission standards” (p. 29).

The Goenner and Snaith (2004) study found that academic reputation is the most important factor influencing students’ decision to attend the University of North Dakota (UND). Increasing their admission standards at UND did attract better prepared students as measured by achievement scores and high school GPAs. This increased the academic reputation of UND. They further reported that rankings in national magazines at first glance seemed less important to enrollment, as only 7.59% of the freshmen surveyed indicated that it was a very important influence in their decision to attend UND. Analysis of their data using ordered logit to control

for region revealed that national rankings were significantly more important to students coming from outside North Dakota and Minnesota. These students were drawn to UND because of the academic quality of the institution (Goenner & Snaith, 2004).

The second largest factor drawing students to UND was the social activities. This was significantly less important to out-of-state students. Therefore, they concluded that by increasing admission standards, UND will improve the reputation of UND nationally, and it will enhance its ability to attract better prepared students with an increase to be seen in students attending from outside the region. Furthermore, nearly one-third of the factors that *U.S. News and World Report* uses to rank colleges will be improved. From their research, they did conclude that the changes in admission standards would not have an overnight impact (Goenner & Snaith, 2004).

Rickard (1991) stated that an outstanding admission program will help to enhance institutional image which is a key benefit in strengthening the university. Rickard stressed the importance of strategic planning in the admission office. Strategic planning places emphasis on change rather than stability, and external factors rather than internal ones. The researcher said:

It is the goal of every great university to recruit outstanding faculty members. The stronger the academic profile of the student body, the better opportunity institutions have to recruit outstanding professors. This reciprocal relationship creates a natural marriage in that: good students bring good faculty, and good faculty bring good students. The institution's position in higher education is enhanced through a vigorous student recruitment program (p. 3).

The faculty contributes significantly to the strength for the institution, as they play a vital role in maintaining the competitive position of the university in higher education circles. When an admission program effectively communicates internally with the university community (e.g., faculty and staff) and externally with the public (e.g., secondary school guidance personnel,

parents and students), it has enhanced the university's overall mission, advanced the institution, attracted outstanding students and faculty, and improved its image, thus making the university strong (Rickard, 1991).

The review of the literature on an institution's image as a factor on admission substantiates what most educators already know. Reputation and image have been proven in numerous studies to be the most significant assets an institution has. Schools with strong images not only attract more high-achieving students, but they also lure a better faculty and more financial support from alumni, public and private corporations, and foundations. Of interest to this researcher was the study by Rickard (1991) who found that an institution's image is strengthened if it has an outstanding admission program.

Communication with Students

Institutions incorporate various means to communicate with potential students by using direct mail, telemarketing, videos, DVDs, the Internet, and the World Wide Web. Research studies on the effectiveness of these modes of communication were found in the review of the literature. Colleges and universities inform students about their institutions via college guides, brochures, and college catalogs sent in the mail (Eberly, Johnson, & Stewart, 1991). Cain and McClintock (1984) described the recruitment publications and campus visits as the most important factors that shape a student's opinion to attend a specific institution.

A study by Apel and Esteban (1992) concluded that higher education institutions are responding to prospective students' requests, but their finding as to what information was sent to them was of considerable interest. As was predicted, the most common item sent was the admission application. Though this document is the most important to the institution during the

recruitment process, it is not the piece that attracts the student's attention. The researchers felt that the schools should deliver a nicely packaged, well-conceived, well-written and designed viewbook. They found that this piece was key to keeping an institution on potential students' active lists (Apel & Estaban, 1992).

According to a research study by Canterbury (1989), too many institutions are using the viewbook as an all-inclusive document stating that they have everything for everyone. He found that students preferred viewbooks that presented a considerate and effective introduction to the institution, not a book that covered everything. Schools that had smaller, specific viewbooks targeted toward a type of student (high-achieving, minority, specific interest, geographic location from the school), made a much stronger impression than those institutions that had the all-in-one viewbooks. The report did state that these more specialized publications do take more time and costs to produce, but their effectiveness pays off (Canterbury, 1989). Chapman's (1981) study revealed that high school visits, attendance at college fairs, and personalized post-admission contacts were more effective recruiting tools than direct mail.

Young (1991) defined telemarketing in terms of enrollment management as the "planned use of the telephone as a recruitment, follow-up, and retention medium in conjunction with traditional recruitment programs to increase the yield rates from inquiries to admits to enrolled students in the most cost efficient and timely manner" (p. 28). He added that this recruitment tool should be used to enhance and supplement the various other recruitment activities. It can also yield valuable information during conversations with potential students, especially if students inform the school that they have decided not to enroll. The admission personnel can gain insight into what, if anything, the institution could have done to alter the outcome of their

decisions. Conversely, when speaking to those students who indicate that they are going to enroll, the institution could learn which recruitment strategies or initiatives were most effective (Young, 1991).

Colleges and universities are finding that they must continue to adopt more sophisticated marketing and recruiting strategies to attract the students of today. The new marketing media and associated forms of communication technologies, such as the Internet, World Wide Web (WWW), electronic mail, and chat rooms, are desired and reliable ways for colleges and universities to offer instant access to needed information as students maneuver through the various phases of the recruitment and selection process (Williams, 2000).

A study by Swann and Henderson (1998) reported that in 1992 only 12% of institutions reported having online services and only 19% offered computer services. But in 1996, just four years later, the report by these researchers stated that 75% of colleges in the United States were on the WWW.

Williams (2000) argued that today's technologically-astute prospective students demand that colleges provide individualized electronic communications to aid them in selecting an institution. Early Web sites contained a great deal of overwhelming information without any guidance or continuity. Current technologies allow students to build their own Web pages on college sites as more information about the student is learned each time the student visits the site (Williams, 2000).

Poock and Lefond (2001) discovered that little is known about how students use the Web in the college selection process. They found the reason to be that computer specialists who design Web sites concern themselves with implementing the newest technologies available rather

than performing empirical research. Their exploratory study, using surveys from college-bound junior and senior students, revealed eight categories for considering the effectiveness of Web sites: content, enjoyable experience, organization of the site, limited impact of graphics, ease of navigation, uniqueness of the site, focus on the target audience, and the speed of connection. Of these eight, the site's content was most important; organization of the site was a close second; and finally, students wanted Web sites to focus on their own needs (Poock & Lefond, 2001).

Abrahamson (2000) stated in his study that a majority of potential students have grown up with computers and, subsequently, spend a great deal of time on the Internet. He found that traditional methods of communication are too slow for this generation and that higher education needs to shift its culture from the print to the Web in order to reach these students in the way they like to communicate. Abrahamson (2000) further stated that many institutions have been unable to coordinate the dissemination of a consistent image and message in printed materials. This is especially seen when individual departments send out mailings that are inconsistent with the look and content of the mailings from the admission's office. Web pages can be easily monitored and maintained for image, information, and accuracy (Abrahamson, 2000).

In their research on this subject, Davidson, McConnell, and Middleton (1999) stated, "What is placed on the WWW is visible to the outside world and thus represents the university to a market potentially greater than any other medium" (p. 220). They believed prospective students see an institution's Web site as one that supports, not replaces, traditional forms of recruitment advertising and promotion. These researchers stressed the importance of designing Web pages to attract their audience's attention as soon as possible and to hold it by maintaining current and relevant information.

It is also important for colleges and universities to recognize and address the different reasons potential students visit their Web sites. Davidson, Christiansen, Roper, Sprinkles, and Thomas (2003) found their study with junior and senior students confirms previous research concerning phases of the college selection process, extending its application to the student's use of the Web in this process. Juniors were clearly in the search phase as they placed more importance on general information, admission requirements, and degree options than the seniors. These juniors also considered the ability to apply, view their application status, and take virtual tours online more than the seniors. They appeared to be establishing a list of general criteria with which to judge an institution. Senior students were involved in the choice phase of their college selection process. Having completed their applications, they were less interested in applying and checking their status online, but more interested in financial aid options, residence hall information, and academic majors. They were gathering information to transition to college life. These seniors valued the personal contact by the institution more than the junior students did (Davidson et al., 2003).

One major benefit of Web technology to the institution and the student is the ability to apply online. According to the *State of College Admission* report by the National Association for College Admission Counseling (NACAC), March 2005, by Hawkins and Lautz, colleges and universities reported for 2004 that they received "an average of 57% of their applications online – a significant increase from 35% in 2003. Ninety-three percent of colleges reported that online applications had increased from 2004" (p. 23). This document further stated that all colleges that had at least 15,000 enrolled students "reported an increase in the number of online applications from 2004" (p. 23).

Table 2, submitted by NACAC Admission Trends 2004 Survey on page 23 (Bogart, 2005), illustrates the importance of the Web to higher education institutions in their recruitment of students as indicated by the high percentages of colleges using various admission features.

Table 2.
Admission Features Found on College Web Sites, 2004

Admission Features	Percent of Colleges Including Features on Web Site
Online applications	97.5
Information about campus tours	95.6
College cost information	95.1
Detailed admission information (requirements, deadlines)	94.7
Online course catalog	94.1
Online forms for requesting application via mail	91.3
Online course registration	58.6
School profile/freshman class academic qualifications	56.8
Information for parents	55.0
Information for counselors	37.2
E-mail newsletters	30.4
Online admission chat room	26.2
Other	14.8

Source: NACAC Admission Trends Survey, 2004

Items that were included in the “other” category in Table 2 include “information about financial aid and scholarships, virtual campus tours, campus housing information and forms, student testimonials and message boards, personalized portals, campus bookstores, athletics, and transfer information” (Bogart, 2005, p. 23).

Other marketing tools that some college campuses use are direct mail pieces, telemarketing, videos, the Internet, the World Wide Web, DVDs, CD-ROMs, USB drives, Blogs, and Blu-Rays. This researcher only found one significant study on the use of the video as a

recruitment tool with no study found on the use of these other technologies. The assumption is that these media are fairly new pieces of technology in the higher education arena with limited use, although they are growing in popularity as the expense to produce them declines. In the 1991 report by Ariail, he stressed the importance of the video because it can present your institution's information – statistically, visually, and experientially. Videos should leave the viewer with an impression that has the feel of truth. He believes that the ultimate goal of the video should be “to capture the spirit of the place, to create an assemblage of details and experiences whose sum conveys the unique character of your school” (p. 28). The report concluded with the notion that a great video should lead to the next step in the recruitment process – the campus visit (Ariail, III, 1991).

The various methods that are used by colleges and universities to communicate with potential students will always be an important topic that is evaluated and studied by admission offices in an effort to make the best use of their limited recruitment budgets. From this review of the literature, as one might suspect, the research studies indicated that the computer and the World Wide Web are the most desired and consistent way for colleges and universities to communicate with their students. This is primarily due to the fact that the students today have grown up with this technology and rely on it to do most of their research on higher education institutions because of the instant access to information that it offers.

Campus Visit Program

Student visits to campus have been shown to be an influential factor in student college choice (Cain & McClintock, 1984; Chapman, 1981; Kellaris & Kellaris, 1988; Sevier, 2000). These researchers further found in their studies that the campus visit was the most important

contact that a student had with an institution. Students used this as a way to validate everything they have heard and read about an institution. Hodges and Barbuto (2002) reported from their studies that a campus visit may be more a factor in the college-choice decision of rural students than for urban students.

Robinson (1991) conducted a case study where a campus visit program was restructured in an effort to improve the potential students' evaluations of the program. Three types of campus visits were developed – “Super Saver, Economy, and Deluxe” (p. 31). The Super Saver visit was a short presentation of the basic information about the campus for potential freshmen or transfer students. The Economy visit was simply an expanded version of the Super Saver visit that includes meetings with academic representatives from the students' interested majors. The Deluxe visit expanded the experience further by adding an overnight stay, discussions with campus leaders, and interaction with current students. The Deluxe visit was held during special recruitment days on campus such as homecoming. The study proved to be very effective for this studied institution (Robinson, 1991).

Grossman (1992), who investigated the importance of the counselor's visit to campus, noted that most counselors were more likely to recommend an institution to a student after they had seen it firsthand. Research by Hawkins and Lautz (2005) for the National Association of College Admission Counseling (NACAC) annual report stated that “forty-seven percent of colleges considered the campus visit by a prospective student as a ‘plus factor’ in the admission process” (p. 27). In addition, 74% of these institutions saw an increase of students participating in a campus visit in 2004 from the previous year. In addition, 89% of the colleges with more than 20,000 students, 83% of the colleges in the Southwest region of the United States, and 86%

of the most selective institutions saw increases in students at their campus tours in 2004 from the previous year (Hawkins & Lautz, 2005).

Since colleges and universities are marketing their education and services to potential students who are the consumers, it is understandable that these institutions use the campus visit as an opportunity to “sell” their services to them. All the mailings, phone calls, and Web information cannot replace the first-hand look at a school which is experienced on a campus visit. This research review further substantiated the fact that higher education institutions have recognized this factor and consider the campus visit as a vital component in the recruitment of students.

Students

High-Achieving Students

Colleges and universities use various means to market their services to high-achieving students. Although the junior year is typically when students become familiar with the various differences that exist among colleges and universities, Bradshaw, Espinosa, and Hausman (2001) found that students may begin receiving information in their sophomore year of high school. Studies by Hearn (1984) and Jackson (1978) found that high-ability students are more likely to attend selective institutions and are more likely to select out-of-state schools.

Research by Mulvenon, Stegman, Thomas, and Thorn (1999) involved the evaluation of academic success of low-income students who were recipients of a corporation scholarship. Academic success was defined as the ability to maintain the minimum 3.00 college grade point average (GPA) necessary to keep the scholarship. Their results indicated that students with a 3.50 high school GPA on academic courses and a 20 or higher composite score on the ACT are

more likely to succeed in college and keep their scholarship. Though this may seem obvious, the researchers noted that there was a significant increase in the ability to predict success in college when using a high school GPA based on academic courses versus the overall high school GPA (Mulvenon et al., 1999).

DeSalvo and Ritchey (1996) conducted a case study of high-achieving students and the creation of a university scholars program at Youngstown State University. The Office of New Student Relations was responsible for identifying 40 students annually with at least a 3.50 high school GPA, a composite ACT of at least 30/SAT 1300, and a rank-in-high school class in the top 15%. Once the students were selected as University Scholars, a signing ceremony, similar to the well-known athletic signing ceremonies, was held at each student's high school. A president's luncheon followed on campus as a way for the recipients and their families to meet each other. The University Scholars program consisted of academics, community service, and co-curricular activities (DeSalvo & Ritchey, 1996).

Due to its popularity, this University Scholars program merged with their Honors Degree program that already existed on campus. This merger allowed for an expansion in the student-selection process to include diversity, selected major of applicant, and overall scholar quality. Personal involvement by faculty, staff, and current scholars did much to ensure that the new classes of Honors scholars were balanced in terms of major, race and geographical location. This program exceeded all expectations with the biggest surprise being the revitalization of the Honors Degree program (DeSalvo & Ritchey, 1996).

Hawthorne and Malaney (1992) stated that "the most common feature of all honors programs is selectivity" (p. 258). Most honors programs use a certain ACT or SAT score along

with a minimum high school GPA. Though selection is most often quantitative, some institutions will admit students as exceptions using qualitative assessments. Their study focused on the importance of an honors orientation program for a small honors program that existed at a large institution. Their research demonstrated that the special orientation program was very beneficial as it “helped integrate the new students into the social and academic life of both the honors program and the institution” (p. 261). They further reported that this honors program has led to better retention rates that have countered the perception that a student is only a number at a large institution (Hawthorne & Malaney, 1992).

The research by Litten (1982a) demonstrated that the process of selecting an institution differs for the academically-talented students. High-achieving students begin the application process much sooner than other students, and they consider and apply to more schools. His study showed that these students were more concerned with academic programs than the appearance of the campus when compared to the lower-ability students (Litten, 1982a).

Studies by Seneca and Taussig (1987) and Tierney (1983) concluded that the academically-talented students considered prestigious schools, especially if the students were from high-income families. Chapman (1981) found in his studies that students who had more extensive educational goals had more parental involvement in the college-selection process. Though the distance an institution was from a student’s home, the size of the campus, and the community environment were influential factors considered by high-achieving students when deciding on a particular institution, these factors ranked below the academic quality of specific academic programs the institutions had to offer the applicants (Choroszy, Douglas, & Powers, 1983; Cook & Zallocco, 1983; Erdmann, 1983).

Bowles and Wanat (1992) found in their studies that academically-talented students “generally came from middle-class, socially conservative, traditional nuclear families” (p. 24). They respected the family’s advice regarding the college decision, and considered institutions that were close enough to come home on the weekends. These students also enrolled in advanced placement courses and took courses at local colleges. Their studies also discovered that the academically-talented students researched colleges early in their high school career to the extent of eliminating some institutions early in their junior years. These scholar students were more attracted to institutions that gave them consistent, personal attention which was an important factor in their college selection (Bowles & Wanat, 1992).

It is interesting to note that the Bowles and Wanat (1992) study indicated that the size of the campus was fairly even in these students’ preferences of college. Though the size of the school was not a factor, students did want small and personalized classes, especially in their major field of study. The most important issues of college choice by these high-achievers were that of total cost to attend coupled with the school’s reputation. Though these students were offered scholarships and some forms of financial aid, the final costs that the students and their parents were left to pay prohibited some of them from attending certain prestigious institutions. Bowles and Wanat (1992) concluded their study with four recommendations as part of an active recruitment program that would help keep the academically-talented students from leaving a state. “A recruitment program should be built upon the beliefs that the state university (a) has an excellent reputation, (b) provides a wide range of majors, (c) supplies a good education at relatively low cost, and (d) offers a cosmopolitan environment” (p. 27).

Minority Students

Several research studies have concluded that African American and Hispanic students are more responsive to grants and scholarships and are more cost-conscious in their college selection than Caucasian students (Eberly, Johnson, & Stewart, 1991; Litten, 1982a; Smith & Matthews, 1990). In a study by Hearn (1984), African Americans were less likely to attend more selective institutions, opting to enroll at local community or junior colleges. He also found a substantial difference in the income levels of African American and Caucasian students.

A study by Britt, Canale, Donahue, and Dunlap (1996) determined that the most influential factors affecting a student's decision to attend college or not were economic and financial issues based on the family's support. The studies by these researchers and Sevier (1992) concluded that many students from minority backgrounds tended to avoid college due to financial hardships that could occur for their family if they chose to attend college. Cibik (1981) reported that, "Black, Mexican American, and American Indian groups all indicated that the percentage and kinds of minority students at the college were more important to them" (p. 101).

The findings from Fermin and Pope (2003) indicated that admissions personnel and public relations material influenced the college choice of African American students, and in some cases, Hispanic students. In addition, the interactions with the admission staff and the literature that they distributed were important in these students' decision-making process. They also found that the visibility of a college's publications in the African American and Hispanic high schools was important to these students (Fermin & Pope, 2003).

These same researchers reported that African American students stated that churches, religious organizations, and civic associations were very influential in their college choice, and

they suggested that recruiters make efforts to establish stronger relationships with these organizations. Asian students reported that the financial support they received from churches and religious organizations was significantly influential in their decision to attend college. Asian and African American students rated community and civic organizations as important influences on their decision to attend college because these sources provided information, financial support, and encouragement to them (Fermin & Pope, 2003).

Ott's (1991) study of the admission process of applicants who accepted or declined admission discovered that African Americans rated the efficiency of the admission process and the quality of mailings from the admission office better than Caucasians did. The logit analysis used indicated that experiences with the admission office had an effect on a larger proportion of the African Americans who accepted admission than of the Caucasians who accepted admission. She further stated however, that this could be due to the special recruitment strategies of the admission office (programming, personal contacts, campus visitation) that were used to encourage African American students to enroll at the university (Ott, 1991).

Freed (1990) stated that "the colleges that are unable to attract minority students will risk losing their legitimacy, as society will increasingly demand that minority students be given greater access to a college education" (p. 18). With the predicted decline in the number of college-eligible students in the future, colleges will have to seek students from other sources or be destined to accept a decline in their enrollment. Colleges and universities should seriously consider improving their recruitment strategies toward minority students since their graduation rates from high school are continuing to rise each year. Thus, colleges that increase enrollment of minorities are assured of a continuing supply of students (Freed, 1990).

A study by Freeman (1999) found that African American students were very much aware of the job market that they face, and they perceived that economic expectations played a significant role in choosing to invest or not invest in higher education. They were more focused on having wealth and comfort than on a particular occupation. Freeman believed that this indication will lead researchers and educators in higher education to interpret that African Americans are not as serious about the college decision process as Caucasians. Therefore, college and university recruiting offices need to seek ways to motivate and stimulate African American students' desire to participate in higher education, and then to help these students understand the process of entering the job market following their graduation from college. Freeman recommended more help for African Americans in understanding the linkages between higher education and transition to the job market due to their perceived limitations in these arenas (Freeman, 1999).

DeGarcia, Dorsey-Gaines, and Lewis (1989) stressed the importance of using personal contact as the most effective recruiting strategy to attract African American students to higher education. The researchers found that these students needed the encouragement and the means to overcome obstacles that can be provided by direct contact from college personnel. Other aspects of the personal touch to recruitment of African Americans should come from community leaders, including religious and political figures. Meetings and receptions with academic staff and administrators would demonstrate to these minority students that they are wanted at the institution. During these events, these professionals should reassure the students that there is support available for them, if needed, once they are on campus (DeGarcia et al., 1989).

Fraire (1996) in his article, *Recruiting Minority Students in Postmodern America*, emphasized that the most effective recruitment programs are:

. . . those that recognize the leadership role that the African American and Latino communities have played as a progressive social force in the history of this country and those that address the changing definition of what it means to be a Chicano or an African American (p. 14).

Effective recruitment programs should be both cultural and political, and should involve current students and community leaders. Colleges and universities must recognize the African American and Latino histories that have been ones of constant political and social struggles against poverty, racism, and injustice. The gains that these people have made have benefitted all people because their struggles have been for democracy. By incorporating these understandings in the recruitment of minorities, colleges and universities will be effectively contributing to individual human development and, at the same time, improving an institution's image and enrollment yields (Fraire, 1996).

In the Enrollment Management Report (2005), Mesa reported that "Hispanics are the fastest growing minority group in the nation" (p. 8). Because of this fact, Texas Southern University has increased its recruitment of these students. One major event was the annual *Dia del Tigre* (Tiger Day) for Hispanic students and prospects. They included Hispanic professors, local politicians and alumni who promoted why the potential students should attend college. Several other area schools had recently joined in on the event. The school has learned from its research that the parents were the keys to attracting Hispanic students. The study stated that most Hispanic students in Texas are first-generation college students and lack the support that their

peers have. Texas Southern University currently uses the following three strategies to help recruit Hispanic students:

- “Printing a brochure in Spanish specifically aimed at parents who speak or read Spanish” (p. 8).
- “Inviting parents of Latino students who attended TSU to speak with Latino parents” (p. 8).
- “Getting alumni involved” (p. 8).

These same strategies are being used by this institution to attract other minorities including African Americans (Mesa, 2005).

Numerous studies have demonstrated that race, parental education, and income play major roles in influencing students in their college selection process (Bateman & Hossler, 1996; Kelp Kern, 2000; McDonough et al., 1998). McDonough, et al. (1998) found that African Americans consulted a greater number of sources when researching colleges and universities than Caucasian students. In addition, African American students will tend to choose historically black colleges and universities (HBCUs) because of such strong influential factors as the school’s social reputation, geography, religion, and family preference (McDonough et al., 1998).

Another important issue that has affected higher education and the recruitment of African Americans is that of affirmative action decisions, including *Bakke v Regents of University of California* in 1978, *Hopwood v Texas* in 1996, *Grutter v Bollinger* in 2003, and *Gratz v Bollinger* in 2003. In *Bakke v Regents*, the U.S. Supreme Court’s decision stated that higher education institutions could use race in admissions to help diversify enrollment. The *Hopwood v Texas* decision saw the 5th U.S. Circuit Court of Appeals rule that any consideration of race in the admission of students is unconstitutional, even as one factor among many. This decision ended

all affirmative action in the admission to public institutions in Texas (Laycock, 2001). Decisions by the U.S. Supreme Court in 2003 on the University of Michigan affirmative action cases, *Grutter v Bollinger* and *Gratz v Bollinger*, have made a major impact in the admission of students. In *Grutter v Bollinger*, the court upheld the raced-based admission policies in the Michigan Law School, but in *Gratz v Bollinger*, the court struck down the University of Michigan's undergraduate racial admission preferences. These issues have and will continue to be of importance in the admission of minority students at colleges and universities (Levey, 2003).

Students with Disabilities

Malakpa (1997) researched problems disabled students face in college admission and retention. The number of students with disabilities (SWD) in higher education has dramatically increased since the passage of the Rehabilitation Act of 1973 (Malakpa, 1997).

The two most important problems SWDs face in higher education, as overwhelmingly indicated from the literature, are a lack of accessibility and a lack of sufficient support services (Getzel et al., 1993; Hill, 1992; McLoughlin, 1982; Moran & Weatherby, 1989). Malakpa (1997) found that the leading inaccessibility at most institutions studied was “architectural barriers (stairs, dangerous slopes, etc.) and rough terrain” (p. 16). In addition to the physical issues campuses must address, he found that there was an unenthusiastic attitude by university administrations regarding the admission, retention, and active participation of SWDs. This attitude was often the result of the administration's lack of effort to understand the laws and regulations regarding accommodation, accessibility, and modification services (Malakpa, 1997). As an example, McLoughlin (1982) stated that colleges and universities did not understand the types and extent of disabilities and the differences in interest and educational needs of SWDs.

Due to the numerous myths, misconceptions, stereotypes, and poor generalizations by higher education, Hill (1992) reported that SWDs have found it difficult to have consistent and meaningful contacts with others on campus. This lack of contact has led to the exclusion of SWDs and it has been so pronounced on four-year colleges and large universities that these students have tended to select community colleges or smaller institutions where they found closer contacts. When SWDs felt no sense of belonging, they felt frustrated, followed by having to defend themselves by justifying their presence. In many situations, the problem escalated to the point that many of these students failed to continue their academic pursuit (Hill, 1992).

Spillane (1992) researched students with learning disabilities and admission criteria. His study found that grade point average, rank-in-high school class, and pattern of high school course work were the most common academic criteria that were used by admission personnel to determine the eligibility of applicants with learning disabilities. He reported that admission test scores were not emphasized as much as the other academic factors. Non-academic criteria used included interviews, letters of recommendation, and the applicant's personal statement. He summarized his study by stating, "the accurate assessment and representation of individual criteria of particular institutions are critical components of any plan to assist students with learning disabilities to set appropriate postsecondary goals" (Spillane, 1992, p. 10).

Home-Schooled Students

In a study of first-year college performance by students who were home-schooled, Gloeckner and Jones (2004) found that the home-schooled graduates were just as ready for college as the traditional high school graduates. They reported that these students performed as well on national college assessment tests as the traditional high school graduates. Following

their first-year of college, “the average GPAs, credits earned in the first year, ACT Composite test scores, and ACT English, Mathematics, Reading, and Science and Reasoning subtests for home-schooled graduates were all higher than traditional high school graduates” (p. 20). These researchers reported that their findings were consistent with other studies on the academic performance of home-schooled students compared to traditional high school graduates. They further stated that a home-schooled education does not have a negative effect on a student’s college success (Gloeckner & Jones, 2004).

Research by Mason (2004) at Ball State University found that home-schooled students had above-average SAT and ACT scores (1210 and 29 respectively) and that they performed better academically at the university with a combined cumulative grade point average of 3.47, compared to the 2.91 from the general student population. He discovered that these students did lack the assistance from a guidance counselor who could have helped them research colleges and financial aid programs. Because these home-schooled students were coming from intimate environments, the report recommended using personalized recruitment techniques and small campus visit days in their efforts to attract them to institutions (Mason, 2004).

First-Generation Students

Research studies have found that first-generation students have not been provided the educational support as second-generation students have (Billson & Terry, 1982; Terenzini, Springer, Yaeger, Pascarella, & Nora, 1996; York-Anderson & Bowman, 1991). These studies concluded that these students have had to rely on motivational factors in order for them to achieve academic success.

Naumann, Bandalos, and Gutkin (2003) research found that the relationship between ACT and grade point average (GPA) was much stronger for the first-generation students than for the second-generation students. They concluded that the self-regulated learning variables, including study strategies, goal setting, time management, and seeking assistance from others, and ACT were better able to predict the GPA for the first-generation students than the second-generation students. Their study further suggested that “first-generation students may need to rely more heavily on motivational factors to achieve academically unlike second-generation students who receive different types of and a different amount of support for their educational attainment” (p. 8). They recommended the use of the ACT as a valid predictor of GPA for first-generation students (Naumann et al., 2003). This recommendation was supported by a study conducted by Riehl (1994). He found that first-generation students’ SAT scores were lower than those of second-generation students and, following their first semester, they lacked persistence and had lower GPAs than the second-generation students (Riehl, 1994).

This review of the literature on students indicates that institutions are aggressively recruiting them and doing it earlier in their high school years. High-achieving students begin the application process earlier and apply to more selective institutions that are primarily out-of-state. As one would expect, these outstanding students are lured to schools with strong honors programs and they appreciate special attention during the application period. Studies have shown that high-income parents are more involved with their student’s college choice than lower-income parents. It was found that the academically-talented students generally come from middle-class conservative parents. Though the institution’s image and prestige are highly valued by these students, it is the financial package, including scholarship offers and the final costs that

would be incurred by the student and parents, that is the major factor when selecting the institution.

Studies on race found that African Americans are less likely to attend selective institutions, as they opt to enroll in historically black institutions, thus making this population more difficult to recruit to predominantly white institutions. These students, along with Hispanics, are more attracted by grants, scholarships, and ability to afford the college or university than Caucasian students. Minority students are more inclined to attend community or junior colleges than four-year institutions. Furthermore, these students are influenced by their families, churches, and religious and civic organizations. Finally, federal and district court decisions have had a major impact on the recruitment strategies since the 1970s and will continue to influence the way colleges and universities strive to attract minorities to their campuses.

In addition to minorities, students with disabilities, home-schooled students, and first-generation students are also special populations that higher education institutions must understand and consider their individual, unique backgrounds in order for them to be effectively recruited. These students bring diversity and perspectives of society and the world that enhance the learning communities on a campus. It is important that institutions recognize their special needs, whether the need is accessibility, educational support services, or respect for their culture and history. The review of literature indicates that those colleges and universities that welcome these students and provide the attention and support that they need will be the institutions that most likely will see these students enroll, bringing not only diversity to their campuses, but also more students.

High School Counselors

Johnson (1994) stressed the importance of the high school counselor in helping students learn important life skills. These counselors are in a unique position to work with students as they make their first major life decision – that of “Where do I go from here?” (p. 22). Parents, friends, and higher education institutions exert their opinions which create stress and anxiety for the potential college student. The counselor is the expert in empowering the students to making their decisions informed ones. “The world is ambiguous, complex, and unpredictable that high school counseling is necessary. Learning to deal with this process provides an arena for educating students to deal with life” (Johnson, 1994, p. 23).

Research by Grossman (1991) found several key points that admission offices need to consider in an effort to help counselors assist their students with the admission process. These are as follows:

- “Understand the resentment that high school advisors may harbor about the admission game. Don’t change the rules in midstream” (p. 26).
- “Train representatives better” (p. 26).
- “Provide for continuity in the admission office” (p. 27).
- “Check gatekeepers to make sure they’re being cordial. Answer calls and letters promptly. Add 800 number information lines” (p. 27).
- “Write personal letters to advisors on a regular basis” (p. 27).
- “Provide advisors with more information about how your institution handles student orientation and adjustment to college life” (p. 27).
- “Tell advisors how their students fare after they have been admitted” (p. 27).
- “Make faculty available to talk with advisors, students and parents” (p. 27).

- “Produce a professional video” (p. 27).
- “Set up advisory councils” (p. 28).
- “Develop new strategies to get college advisors on campus” (p. 28).
- “Develop strategies to get parents to your campus and target programs especially for them” (p. 28).
- “Provide advisors with timely and meaningful feedback about their letters of reference” (p. 28).
- “Involve non-admission people in appropriate follow-up activities in tandem with admission reps” (p. 28).
- “Sponsor Big Brother/Big Sister events” (p. 28).
- “Avoid the overkill syndrome – don’t provide too much literature” (p. 29).

Grossman (1991) stated the importance of these points because college advisors are constantly pressured to produce outcomes over which they have very little control. They are the first people to get the blame if a student gets a denial letter from a college. He concluded by stressing how important their role is in helping the student and the college meet their goals (Grossman, 1991).

In 1992, Grossman contributed another study that offered his findings of counselor observations regarding the admission process. Counselors ranked themselves and parents as the top two influences on students’ college decision choice with the students’ peers being identified as the third most significant influence. Counselors did not give much credit to alumni involvement in the decision-making process, and they feared that colleges and universities placed too much emphasis on alumni visits, telephoning, and participation. In addition, they did not rate college professors as having much influence in the admission decision process. Grossman’s research discovered that counselors ranked effective recruitment materials in the following order

of importance: admission letter, viewbooks, faculty letter, catalogs, educational supplement, posters, and news advertisements. Counselors identified location, reputation, social life, costs, and financial aid as the primary factors that influenced students in determining where to apply. Finally, counselors reported that most students chose to remain within a 100-mile radius of their home when selecting a college or university (Grossman, 1992).

In conclusion, the impact of the high school counselor is paramount in the college decision-making process for the student. In many situations, the high school counselor is the first to be blamed for a student's rejection by a college or university. Since the counselor has played a huge role in the process, admission offices need to initiate, reinforce, and implement basic public relations techniques and strategies to have a successful working relationship with the counselors. Among these strategies are well-trained representatives, compliance to established rules and standards, available faculty for the potential students, parental involvement, personal letters and communication to counselors, and avoidance of the overkill syndrome. Therefore, by making the job easier and professional for the counselor, the benefits will and should be the attraction of good students to apply and enroll at the selected college or university.

Parents

Hossler and Stage (1992) identified parents as critical influences in their children's college-choice decision. According to the study by Bateman and Kennedy (1999), there were more similarities than differences in the ways in which children from two-parent, single-parent, and female-headed families formulated their plans for attending a college or university following high school. As one would suspect, they found the respondents from the single-parent, female-headed families were less well-off financially than those from two-parent homes. The

conclusion here indicated a potential need for financial assistance to be addressed early during the recruitment of these students (Bateman & Kennedy, 1999).

As a college counselor for more than 20 years, Sachs (2000) noted the need in the late 70s and early 80s to begin regular parent information programs to assist their children in the college admission process. The “evolution of parent education in the college counseling process” (p. 4) has expanded to include various programs, newsletters, and events for parents, during each year of high school (Sachs, 2000).

Glass (2004) offered some interesting questions from a parent’s perspective that all colleges and universities should consider in their recruitment efforts. These questions are:

Will this place love and nurture my child?
Will this school be an acceptable substitute for my parenting?
Is this college worthy of the gifts my child will bring? (p. 2).

He stressed the idea that all the money invested in the recruitment of students is wasted unless the college and university has recognized the importance of the student’s and parents’ first impression of the institution. During his 30 years in admission marketing, Glass has observed that most higher education administrations have failed to invest adequate time and money in the front line of admission (Glass, 2004).

Krugman (1990) outlined four techniques to help parents assist their child in the college admission process. These are to: “encourage parental self-assessment,” (p. 25) “assist parent to assess student,” (p. 26) “give parents some special tips,” (p. 26) and “maintain open and ethical communication” (p. 27). The researcher summed his observations by informing colleges and universities to convey their admission guidelines with clarity and ethical considerations to students and parents, so that the integrity of the admission process will be upheld. He urged

school counselors to provide opportunities for students and parents to explore all of their options in the higher education process and to ensure that this process is ethical (Krugman, 1990).

Bowles and Wanat (1992) studied the influence of individuals, including family, friends, and school personnel, on high-achievers' choice of college. They found that no specific group was consistently more influential than any other. Most students felt they made their decision independently. Some parents were more influential in areas involving finances, types of school, and specific fields of study (Bowles & Wanat, 1992).

Parental opinion on the college choice is a tremendous influence on the student's decision. Many parents are concerned with financial aid, particularly in single parent-homes, but they want to be assured that the college or university will embrace their child, serve as a surrogate parent, and appreciate what their child has to offer. It is also most important that admission offices are ethical, clear, concise, and open in their communication with the family in the decision-making process. In other words, college admission personnel must develop marketing strategies to ease the minds of the parents. This will lead to positive decision-making for the college-bound student.

Financial Aid

Farelle (2003) reported that in the 2003-2004 academic year, tuition at four-year, public colleges escalated by the highest percentage in more than 30 years, and this cost is rising faster than inflation. Since the acquisition of a college degree is becoming more and more essential in order to obtain the best jobs with higher salaries, a paradox has been created. Students need money to make money. Therefore, many students must rely on scholarships or financial aid in order to further their education following high school (Farelle, 2003).

Gibbs (1995) found that the understanding and knowledge of federal financial aid opportunities had a major impact on a student's decision to attend college. This impact was disproportionately negative for students from economically deprived backgrounds (Gibbs, 1995). High-ability students were more interested in net cost to them than in the total cost to attend the institution (Litten, 1982a). Tierney (1983) found that the academically stronger students were more sophisticated regarding financial issues in choosing a college than students with lesser academic ability.

The study by Bowles and Wanat (1992) of high-achieving students found that great attention should be given to scholarships for this group. They suggested a central source of scholarship information be made available and easily found by students seeking financial assistance. "Colleges and universities should publicize no-need-based scholarships to recognize academically successful students" (p. 28). They stressed the importance of multi-year awards at public institutions that cover a greater proportion of expenses in order to remain competitive with those offered by private institutions. These researchers recommended that scholarship offers should be made during the first semester of the applicants' senior year of high school (Bowles & Wanat, 1992).

The types and amounts of financial aid began to change in the 1990s due to the reported increase in the importance of financial aid by students. Funding to institutions from states and the federal government began to steadily decline in the 1980s. This caused the institutions to significantly raise their tuition charged to students during these same years, and this trend continues today. Kinzie et al. (2004), reported that 52% of all federal aid in 1992 was in the form of loans. Financial aid has a major influence on the student's college decision choice. It is

interesting to note that high-achieving students are more savvy in their ability to get aid and scholarships. Research has found that public colleges and universities should publish no-need scholarships and give more multi-year awards in order to be more competitive with the private schools. By offering scholarships and/or financial aid in the fall of a student's senior year, the higher education institution will motivate the student to make a commitment to attend the school (Kinzie et al., 2004).

Review of Related Literature Summary

This review of the literature demonstrated that there is significant importance for students to obtain some form of postsecondary education in order to be prepared for the challenging workforce that is present in today's world. It is imperative for students to complete postsecondary education in order to be in the position to obtain higher salaries, successful careers, and a better quality of life. Because of this importance in attaining a postsecondary education, higher education opportunities have drastically expanded with changes seen in the way colleges and universities develop enrollment strategies and programs to attract outstanding students to their institutions. Due to the forecasted leveling, and even decline in some areas of the nation, in the number of students entering higher education, these postsecondary schools are striving to improve their marketing, image, prestige, and national rankings in an effort to be competitive in this arena. In addition, it has been increasingly important to understand why students select one institution over another. Financial issues facing both the institution and the student are other areas that have seen massive changes and have impacted the recruitment and enrollment of students.

Though it is extremely important for higher education institutions to recruit students from varied backgrounds, nationalities, locations, and experiences in an effort to make the school attractive to all types of students, it is of particular importance to attract high-achieving students. These students bring recognition to the institution and attract prominent faculty.

Therefore, in order for higher education institutions to remain open and competitive in recruiting outstanding students, faculty, and financial support, in addition to offering academic programs of study that will prepare students for employment in today's market, thus creating a better society and world for all, it is beneficial to study the influences of selected demographic and academic characteristics on the decision of traditional-age, high-achieving freshman students to enroll at a research-extensive university in the Southern region of the United States. This review examined various components that affect enrollment strategies in an effort to lay the foundation for this research study. These components were college choice, admission issues, marketing, image, communication with students, the campus visit program, students, high school counselors, parents, and financial aid.

The review of the literature discovered that students realize the importance of attaining postsecondary education. A number of factors have been found that influence the students on their college-choice decision. These are: academic reputation, quality of faculty and instruction, costs, location, scholarship offerings, financial aid, parents, high school counselors, and recruitment programs. From the literature review, the influences of the Web and computer technologies have made a major impact on the recruitment and admission of students. However, the research has shown that the application process continues to be confusing and unpredictable,

mainly because the institutions do not clearly explain why and how admission offices use the information and data that they seek from students.

An institution's reputation and image have been proven in numerous studies to be the most significant assets an institution has. Studies have substantiated that schools with strong images not only attract more high-achieving students, but they also lure better faculty and more financial support from alumni, public and private corporations, and foundations. Though students are attracted to institutions that have a strong reputation, the financial aid package, including the final costs that would be incurred by the student and parents, is the major factor when selecting the institution. Special populations of students, including minorities, students with disabilities, home-schooled students, and first-generation students, have been researched as to their recruitment and enrollment in higher education institutions. Conclusions from these studies have shown that institutions that recognize the student's individual, unique background, culture, and needs are the ones that are successful in enrolling a diverse student body. Federal and district court decisions have had a major impact on recruiting and admission strategies and will continue to influence the way colleges and universities attract students to their campuses. Research has proven, what many have known, that high school counselors and parents play a tremendous role in students' college choice.

Though there are numerous studies regarding the enrollment of students to universities, in addition to studies that examine factors and characteristics that affect college-choice, this researcher found very little research that has been performed to ascertain which influences are significant in the college-choice decision by high-achieving students. Thus, this study had merit, and the findings contributed significantly to the body of knowledge.

CHAPTER 3.

METHODOLOGY

Purpose of Study

The primary purpose of this study was to determine the influence of selected demographic and academic characteristics on the decision of traditional-age, high-achieving freshman students to enroll at a research-extensive university in the Southern region of the United States.

Dependent Variable

The dependent variable of this study was whether or not the traditional-age, high-achieving freshman students who applied and were admitted, subsequently enrolled at a research-extensive university in the Southern region of the United States for the fall 2005 semester as defined by their payment of fees and inclusion in the 14th class-day statistics.

Specific Objectives

The following specific objectives were formulated to guide this research study:

1. To describe traditional-age, high-achieving freshman students who were admitted and enrolled for the fall 2005 semester as defined by their payment of fees and inclusion in the 14th class-day statistics at a research-extensive university in the Southern region of the United States on the following demographic and academic characteristics:

- (a) Gender;
- (b) Race;
- (c) Whether or not the student was classified as a resident of the state;
- (d) Whether or not the student received a major academic scholarship;
- (e) Whether or not the student was offered admission to the Honors College;

- (f) Whether the student graduated from a public or private high school or was home-schooled;
- (g) Whether or not the student's parent graduated from the institution;
- (h) Whether or not the student lived within 100 miles of the university;
- (i) Overall high school grade point average;
- (j) Academic high school grade point average;
- (k) Required high school grade point average;
- (l) College entrance examination (ACT) composite score; and
- (m) Rank-in-high school class.

2. To describe traditional-age, high-achieving freshman students who were admitted but did not enroll for the fall 2005 semester as defined by their nonpayment of fees and non-inclusion in the 14th class-day statistics at a research-extensive university in the Southern region of the United States on the following demographic and academic characteristics:

- (a) Gender;
- (b) Race;
- (c) Whether or not the student was classified as a resident of the state;
- (d) Whether or not the student was offered a major academic scholarship;
- (e) Whether or not the student was offered admission to the Honors College;
- (f) Whether the student graduated from a public or private high school or was home-schooled;
- (g) Whether or not the student's parent graduated from the institution;
- (h) Whether or not the student lived within 100 miles of the university;
- (i) Overall high school grade point average;

- (j) Academic high school grade point average;
- (k) Required high school grade point average;
- (l) College entrance examination (ACT) composite score; and
- (m) Rank-in-high school class.

3. To compare the traditional-age, high-achieving freshman students who were admitted and enrolled for the fall 2005 semester as defined by their payment of fees and inclusion in the 14th class-day statistics at a research-extensive university in the Southern region of the United States to those traditional-age, high-achieving freshman students who were admitted but did not enroll for the fall 2005 semester as defined by their nonpayment of fees and non-inclusion in the 14th class-day statistics at the same institution on the following demographic and academic characteristics:

- (a) Gender;
- (b) Race;
- (c) Whether or not the student was classified as a resident of the state;
- (d) Whether or not the student received or was offered a major academic scholarship;
- (e) Whether or not the student was offered admission to the Honors College;
- (f) Whether the student graduated from a public or private high school or was home-schooled;
- (g) Whether or not the student's parent graduated from the institution;
- (h) Whether or not the student lived within 100 miles of the university;
- (i) Overall high school grade point average;
- (j) Academic high school grade point average;

- (k) Required high school grade point average;
- (l) College entrance examination (ACT) composite score; and
- (m) Rank-in-high school class.

4. To determine if a model existed that significantly increased the researcher's ability to accurately explain the enrollment status of traditional-age, high-achieving freshman students who applied and were admitted at a research-extensive university in the Southern region of the United States for the fall 2005 semester as defined by their payment of fees and inclusion in the 14th class-day statistics.

Population and Sample

The target population for this study was defined as all traditional-age, high-achieving freshman students who applied to and were admitted to attend a research-extensive university. The researcher defined a "high-achieving student" as one who had at least a 3.00 academic high school grade point average as calculated on a 4.00 scale on all completed high school academic courses and at least a 28 composite ACT score or 1240 SAT score. The accessible population was defined as all traditional-age, high-achieving freshman students who applied to and were admitted to attend one selected research-extensive university in the Southern region of the United States for the fall 2005 semester. The sampling plan for this study consisted of the following steps:

1. All traditional-age, high-achieving freshman students who applied to and were admitted to attend this selected university for the fall 2005 semester were initially identified following the 14th class-day from the database of the study institution's Office of Undergraduate Admissions. This accessible population was 1,733 admitted students.

2. The sample was defined as 100% of the accessible population. Thus, there were 1,733 traditional-age, high-achieving freshman students who were selected as the sample for this study. Of these 1,733 admitted students, there were 1,030 students who enrolled for the fall 2005 semester as defined by their payment of fees and inclusion in the 14th class-day statistics. The remaining 703 students were those who did not enroll for the fall 2005 semester as defined by their nonpayment of fees and non-inclusion in the 14th class-day statistics.

Instrumentation

The instrument used to collect data for this study consisted of a researcher-designed, computerized, recording form. The specific variables measured were selected based on the review of related literature and the information that was obtainable from the study institution's Office of Undergraduate Admissions and Office of Student Aid and Scholarships databases. The information from the databases was downloaded into a file which served as the research instrument. The variables recorded included:

1. Gender- as reported by the student as female or male;
2. Race - as indicated by the students from the following: African American, Asian, Caucasian, Native American, and Hispanic;
3. Whether or not the student was classified as a resident of the state - as defined by the Office of Undergraduate Admissions as to whether the student was a resident or nonresident of the state in which the study institution was located;
4. Whether or not the student received or was offered a major academic scholarship.

These five scholarships included:

- (a) Chancellor's Alumni Scholarship - most prestigious award offered to the top

10 students who have at least a 3.50 scholastic grade point average and at least a 33 ACT or 1460 SAT.

- (b) Alumni Association Top 100 Scholarship - award that is offered to the next 100 top students who have at least a 3.50 scholastic grade point average and at least a 32 ACT or 1410 SAT.
- (c) Distinguished Freshman Award - award that is offered to students who have been designated as National Merit Finalists (college-sponsored) and have indicated this study institution as their first-choice institution.
- (d) Centennial Award - award that is offered to the state's residents who have been designated as National Merit Semifinalists or have a 3.00 scholastic grade point average and a 30 ACT or 1320 SAT.
- (e) Golden Oaks Award - award that is offered to nonresident students who were selected as recipients of the Chancellor's Alumni Scholarship, the Alumni Association Top 100 Scholarship, or Distinguished Freshman Award or have been designated as a National Merit Semifinalist. In addition, nonresident students who have at least a 3.00 scholastic grade point average and at least a 30 ACT or 1320 SAT are considered;

- 5. Whether or not the student was offered admission to the Honors College - as determined by the Honors College and recorded on the database of the Office of Undergraduate Admissions;
- 6. Whether the student graduated from a public or private high school or was home-schooled - as identified by the Office of Undergraduate Admissions as public, private, or home-school;
- 7. Whether or not the student's parent graduated from the institution - as reported by the student and verified by the registrar at the study institution as to whether or not the student's parent graduated from the institution or one of the institution's system schools;

8. Whether or not the student lived within 100 miles of the university - as defined by the student's permanent home address as to whether it was within a 100-mile radius from the institution or further than a 100-mile radius from the institution;
9. Overall high school grade point average - as stated on the student's high school transcript for all courses completed that was submitted by the state's education department for the state's residents, and as stated on the student's high school transcript for all courses completed for nonresident students that was submitted by the student's high school;
10. Academic high school grade point average - as calculated on a 4.00 scale by the Office of Undergraduate Admissions on the grades earned from all completed high school academic courses (English, mathematics, natural sciences, social sciences, foreign languages, computer studies, and visual and performing arts);
11. Required high school grade point average - as calculated on a 4.00 scale by the Office of Undergraduate Admissions on the grades earned from the 18 specific units required for admission to this research-extensive university in the Southern region of the United States. These units are as follows:
 - 4 units - English Composition and Literature (English I, II, III, IV)
 - 3 units - College Preparatory Mathematics (Algebra I, Algebra II, and one additional unit consisting of courses such as geometry, trigonometry, advanced mathematics, or calculus)
 - 3 units - Natural Sciences (biology, chemistry, and physics)
 - 3 units - Social Studies (one unit in American history; one unit in world history, world geography, or history of western civilization; and one unit consisting of civics, free enterprise, economics or American government)
 - 2 units - Foreign Language (two units in a single language)

- ½ unit - Computer Studies (such as computer science, computer literacy, or substitute ½ unit from among the subjects listed above)
- 2½ units - Additional Academic Courses (2½ additional units from among the subjects listed above. Two units may be from advanced course work in the visual and performing arts);

12. College entrance examination (ACT) composite score - as reported directly to the Office of Undergraduate Admissions from ACT and College Board (SAT scores). SAT scores were converted to the ACT equivalent value using the “Concordance Between SAT I Recentered V + M (Verbal + Math) Score and ACT Composite Score Table” (see Appendix) by the Office of Undergraduate Admissions. For students who submit both ACT and SAT scores, the Office of Undergraduate Admissions uses the highest score when making admission decisions. Therefore, this study used the student’s highest ACT composite score or highest SAT score that was converted to its equivalent ACT composite score; and
13. Rank-in-high school class - for students who graduated from one of the state’s high schools, this rank was submitted by the state’s education department to the study institution. For students who graduated from an out-of-state high school, this rank was stated on the student’s high school transcript that was submitted to the study institution by the student’s high school. For the purpose of this study, the rank-in-high school class measurements were converted to a percentile score since a raw score rank of 5 would be very different in a class of 350 students than it would be in a class of 20 students.

Data Collection

Transferring information from the databases of the study institution's Office of Undergraduate Admissions and Office of Student Aid and Scholarships onto a computerized recording form designed by the researcher was the method that was used to collect the data. Permission for this study was requested and granted from University administrators; permission to access the necessary data and approval for conducting the study was obtained from the Institutional Review Board (IRB). Computer assistance was requested from and approved by the study institution's Office of Undergraduate Admissions and Office of Student Aid and Scholarships.

Specific demographic and academic variables were selected according to the research questions presented in this study. Variables were systematically retrieved from the mainframe computer, and a file was established.

Data Analysis

The first objective of this study was to describe traditional-age, high-achieving freshman students who were admitted and enrolled for the fall 2005 semester as defined by their payment of fees and inclusion in the 14th class-day statistics at a research-extensive university in the Southern region of the United States on the following demographic and academic characteristics:

- (a) Gender;
- (b) Race;
- (c) Whether or not the student was classified as a resident of the state;
- (d) Whether or not the student received a major academic scholarship;
- (e) Whether or not the student was offered admission to the Honors College;

- (f) Whether the student graduated from a public or private high school or was home-schooled;
- (g) Whether or not the student's parent graduated from the institution;
- (h) Whether or not the student lived within 100 miles of the university;
- (i) Overall high school grade point average;
- (j) Academic high school grade point average;
- (k) Required high school grade point average;
- (l) College entrance examination (ACT) composite score; and
- (m) Rank-in-high school class.

This objective was descriptive and was analyzed using descriptive statistics. Frequencies and percentages were used for variables that were measured on a categorical scale (nominal or ordinal). These specific variables were:

- Gender;
- Race;
- Whether or not the student was classified as a resident of the state;
- Whether or not the student received a major academic scholarship;
- Whether or not the student was offered admission to the Honors College;
- Whether the student graduated from a public or private high school or was home-schooled;
- Whether or not the student's parent graduated from the institution; and
- Whether or not the student lived within 100 miles of the university.

Means and standard deviations were used for variables that were measured on interval or higher scales. These specific variables were:

- Overall high school grade point average;
- Academic high school grade point average;
- Required high school grade point average;
- College entrance examination (ACT) composite score; and
- Rank-in-high school class.

The second objective of this study was to describe traditional-age, high-achieving freshman students who were admitted but did not enroll for the fall 2005 semester as defined by their nonpayment of fees and non-inclusion in the 14th class-day statistics at a research-extensive university in the Southern region of the United States on the following demographic and academic characteristics:

- (a) Gender;
- (b) Race;
- (c) Whether or not the student was classified as a resident of the state;
- (d) Whether or not the student was offered a major academic scholarship;
- (e) Whether or not the student was offered admission to the Honors College;
- (f) Whether the student graduated from a public or private high school or was home-schooled;
- (g) Whether or not the student's parent graduated from the institution;
- (h) Whether or not the student lived within 100 miles of the university;
- (i) Overall high school grade point average;
- (j) Academic high school grade point average;
- (k) Required high school grade point average;
- (l) College entrance examination (ACT) composite score; and
- (m) Rank-in-high school class.

This objective was descriptive and was analyzed using descriptive statistics. Frequencies and percentages were used for variables that were measured on a categorical scale (nominal or ordinal). These specific variables were:

- Gender;
- Race;
- Whether or not the student was classified as a resident of the state;
- Whether or not the student was offered a major academic scholarship;
- Whether or not the student was offered admission to the Honors College;
- Whether the student graduated from a public or private high school or was home-schooled;
- Whether or not the student's parent graduated from the institution; and
- Whether or not the student lived within 100 miles of the university.

Means and standard deviations were used for variables that were measured on interval or higher scales. These specific variables were:

- Overall high school grade point average;
- Academic high school grade point average;
- Required high school grade point average;
- College entrance examination (ACT) composite score; and
- Rank-in-high school class.

The third objective of this study was to compare the traditional-age, high-achieving freshman students who were admitted and enrolled for the fall 2005 semester as defined by their payment of fees and inclusion in the 14th class-day statistics at a research-extensive university in the Southern region of the United States to those traditional-age, high-achieving freshman students who were admitted but did not enroll for the fall 2005 semester as defined by their nonpayment of fees and non-inclusion in the 14th class-day statistics at the same institution on the following demographic and academic characteristics:

- (a) Gender;
- (b) Race;
- (c) Whether or not the student was classified as a resident of the state;
- (d) Whether or not the student received or was offered a major academic scholarship;
- (e) Whether or not the student was offered admission to the Honors College;

- (f) Whether the student graduated from a public or private high school or was home-schooled;
- (g) Whether or not the student's parent graduated from the institution;
- (h) Whether or not the student lived within 100 miles of the university;
- (i) Overall high school grade point average;
- (j) Academic high school grade point average;
- (k) Required high school grade point average;
- (l) College entrance examination (ACT) composite score; and
- (m) Rank-in-high school class.

To accomplish this objective, the chi-square test of independence and the independent t test procedure were used to analyze the data. For variables that were measured on a categorical scale of measurement (nominal or ordinal), the chi-square test of independence was used to determine if each of the measures were independent of the variable, whether or not the admitted student enrolled at the institution. These specific variables were:

- Gender;
- Race;
- Whether or not the student was classified as a resident of the state;
- Whether or not the student received or was offered a major academic scholarship;
- Whether or not the student was offered admission to the Honors College;
- Whether the student graduated from a public or private high school or was home-schooled;
- Whether or not the student's parent graduated from the institution; and
- Whether or not the student lived within 100 miles of the university.

For variables that were measured on an interval or higher scale of measurement, the independent t test procedure was used to compare the enrolled students with those who were admitted but did not enroll. These specific variables were:

- Overall high school grade point average;
- Academic high school grade point average;
- Required high school grade point average;
- College entrance examination (ACT) composite score; and
- Rank-in-high school class.

An a priori significance level $< .05$ was used to determine if the independent variables were statistically significant.

The fourth objective of this study was to determine if a model existed that significantly increased the researcher's ability to accurately explain the enrollment status of traditional-age, high-achieving freshman students who applied and were admitted at a research-extensive university in the Southern region of the United States for the fall 2005 semester as defined by their payment of fees and inclusion in the 14th class-day statistics.

The researcher used discriminant analysis as the statistical technique to accomplish this objective. This procedure requires that all independent variables entered in the model must be measured on a continuous scale of measurement (interval or ratio) or must be coded as a dichotomous variable. Enrollment status, measured as a dichotomous variable, was the dependent variable in the analysis, and the independent variables were entered as either continuous variables or as binary-coded variables as appropriate. The independent variables and their coding for the analysis were as follows:

- (a) Gender (These were coded as female = 1 and male = 2.);
- (b) Race (For this analysis, the American Indian category of race was eliminated since the number of students in this group was insufficient to include in the chi-square analysis. Each of the other racial categories was coded as a binary variable with each subject classified as either possessing the trait or not possessing the trait. For example, a variable was created for the African American race in which all of the study subjects were classified as either possessing the trait of being African American, coded as 1, or not possessing the trait of being African American,

coded as 0. This was repeated for each of the racial categories of Asian, Caucasian, and Hispanic. Therefore, a total of four binary-coded race variables were entered into the analysis.);

- (c) Whether or not the student was classified as a resident of the state (These were coded as nonresident = 0 and resident = 1.);
- (d) Whether or not the student received or was offered a major academic scholarship (These were defined as not receiving or not being offered one of the five major academic scholarships = 0 and receiving or being offered one of the five major scholarships = 1.);
- (e) Whether or not the student was offered admission to the Honors College (These were coded as not offered admission = 0 and offered admission = 1.);
- (f) Whether the student graduated from a public or private high school or was home-schooled (This variable was treated as two separate variables with whether the student attended a public or private high school as one variable, and whether or not the student was home-schooled treated as the other variable. However, it should be noted that the variable, whether or not the student was home-schooled, was subsequently eliminated from the analysis due to the small number of subjects who possessed this trait and the fact that none of these students had a measurement on the variable, rank-in-high school class. Operationally, the variable, public or private high school, was treated for the discriminant analysis as whether or not the student graduated from a private high school. These were coded as graduate of a public high school = 0 and graduate of a private high school = 1.);
- (g) Whether or not the student's parent graduated from the institution (These were coded as parent was not a graduate = 0 and parent was a graduate = 1.);
- (h) Whether or not the student lived within 100 miles of the university (These were coded as did not live within 100 miles = 0 and lived within 100 miles = 1.);
- (i) Overall high school grade point average (This was measured as a continuous variable.);
- (j) Academic high school grade point average (This was measured as a continuous variable.);
- (k) Required high school grade point average (This was measured as a continuous variable.);

- (l) College entrance examination (ACT) composite score (This was measured as a continuous variable.); and
- (m) Rank-in-high school class (This was measured as a continuous variable.).

Due to the nature of this study, the researcher used stepwise multiple discriminant analysis as the computational method. Because this was designed as an exploratory study, the variables were considered equally for entry into the model. An a priori significance level of $< .05$ was used to determine if the independent variables were statistically significant.

CHAPTER 4.

RESULTS

The primary purpose of this study was to determine the influence of selected demographic and academic characteristics on the decision of traditional-age, high-achieving freshman students to enroll at a research-extensive university in the Southern region of the United States. The dependent variable of this study was whether or not the traditional-age, high-achieving freshman students who applied and were admitted, subsequently enrolled at a research-extensive university in the Southern region of the United States for the fall 2005 semester as defined by their payment of fees and inclusion in the 14th class-day statistics.

The following specific objectives were formulated to guide this research:

1. To describe traditional-age, high-achieving freshman students who were admitted and enrolled for the fall 2005 semester as defined by their payment of fees and inclusion in the 14th class-day statistics at a research-extensive university in the Southern region of the United States on the following demographic and academic characteristics:

- (a) Gender;
- (b) Race;
- (c) Whether or not the student was classified as a resident of the state;
- (d) Whether or not the student received a major academic scholarship;
- (e) Whether or not the student was offered admission to the Honors College;
- (f) Whether the student graduated from a public or private high school or was home-schooled;
- (g) Whether or not the student's parent graduated from the institution;

- (h) Whether or not the student lived within 100 miles of the university;
- (i) Overall high school grade point average;
- (j) Academic high school grade point average;
- (k) Required high school grade point average;
- (l) College entrance examination (ACT) composite score; and
- (m) Rank-in-high school class.

2. To describe traditional-age, high-achieving freshman students who were admitted but did not enroll for the fall 2005 semester as defined by their nonpayment of fees and non-inclusion in the 14th class-day statistics at a research-extensive university in the Southern region of the United States on the following demographic and academic characteristics:

- (a) Gender;
- (b) Race;
- (c) Whether or not the student was classified as a resident of the state;
- (d) Whether or not the student was offered a major academic scholarship;
- (e) Whether or not the student was offered admission to the Honors College;
- (f) Whether the student graduated from a public or private high school or was home-schooled;
- (g) Whether or not the student's parent graduated from the institution;
- (h) Whether or not the student lived within 100 miles of the university;
- (i) Overall high school grade point average;
- (j) Academic high school grade point average;
- (k) Required high school grade point average;

- (l) College entrance examination (ACT) composite score; and
- (m) Rank-in-high school class.

3. To compare the traditional-age, high-achieving freshman students who were admitted and enrolled for the fall 2005 semester as defined by their payment of fees and inclusion in the 14th class-day statistics at a research-extensive university in the Southern region of the United States to those traditional-age, high-achieving freshman students who were admitted but did not enroll for the fall 2005 semester as defined by their nonpayment of fees and non-inclusion in the 14th class-day statistics at the same institution on the following demographic and academic characteristics:

- (a) Gender;
- (b) Race;
- (c) Whether or not the student was classified as a resident of the state;
- (d) Whether or not the student received or was offered a major academic scholarship;
- (e) Whether or not the student was offered admission to the Honors College;
- (f) Whether the student graduated from a public or private high school or was home-schooled;
- (g) Whether or not the student's parent graduated from the institution;
- (h) Whether or not the student lived within 100 miles of the university;
- (i) Overall high school grade point average;
- (j) Academic high school grade point average;
- (k) Required high school grade point average;

- (l) College entrance examination (ACT) composite score; and
- (m) Rank-in-high school class.

4. To determine if a model existed that significantly increased the researcher's ability to accurately explain the enrollment status of traditional-age, high-achieving freshman students who applied and were admitted at a research-extensive university in the Southern region of the United States for the fall 2005 semester as defined by their payment of fees and inclusion in the 14th class-day statistics.

Following the 14th class-day of the fall 2005 semester at this research-extensive university, the enrollment data for the traditional-age, high-achieving freshman students who had applied and had been admitted were collected from the database of the Office of Undergraduate Admissions. The researcher defined a "high-achieving student" as one who had at least a 3.00 academic high school grade point average as calculated on a 4.00 scale on all completed high school academic courses and at least a 28 composite ACT score or 1240 SAT score. This set of 1,733 students served as the accessible population. The sample was defined as 100% of the accessible population. Thus, there were 1,733 traditional-age, high-achieving freshman students who were selected as the sample for this study. Of these 1,733 admitted students, there were 1,030 students who enrolled for the fall 2005 semester as defined by their payment of fees and inclusion in the 14th class-day statistics. The remaining 703 students were those who did not enroll for the fall 2005 semester as defined by their nonpayment of fees and non-inclusion in the 14th class-day statistics. This chapter presents the results of the study by objective.

Objective One Results

The first objective of this study was to describe traditional-age, high-achieving freshman students who were admitted and enrolled for the fall 2005 semester as defined by their payment of fees and inclusion in the 14th class-day statistics at a research-extensive university in the Southern region of the United States on the following demographic and academic characteristics:

- (a) Gender;
- (b) Race;
- (c) Whether or not the student was classified as a resident of the state;
- (d) Whether or not the student received a major academic scholarship;
- (e) Whether or not the student was offered admission to the Honors College;
- (f) Whether the student graduated from a public or private high school or was home-schooled;
- (g) Whether or not the student's parent graduated from the institution;
- (h) Whether or not the student lived within 100 miles of the university;
- (i) Overall high school grade point average;
- (j) Academic high school grade point average;
- (k) Required high school grade point average;
- (l) College entrance examination (ACT) composite score; and
- (m) Rank-in-high school class.

There were 1,030 high-achieving students who met the criteria of this objective. The results for each of these variables are as follows:

Gender

The first variable on which the students were described was gender. Of the 1,030 high-achieving students who were admitted and enrolled, 549 students (53.3%) were identified as male and 481 students (46.7%) were identified as female.

Race

Another variable on which the subjects were described was their race. Of the 1,030 high-achieving students, 1,020 identified themselves as either: African American, American Indian, Asian, Caucasian, or Hispanic. The remaining 10 individuals (1.0%) refused to provide information regarding their race. Of the 1,020 students who identified their race, the largest group of students was Caucasian ($n = 933$, 91.5%). Asian was the race identified by the second largest group of students ($n = 36$, 3.5%) (see Table 3).

Table 3.
Reported Race of High-Achieving Students Who Were Admitted and Enrolled at a Research-Extensive University in the Southern Region of the United States

Race	Frequency	Percent
Caucasian	933	91.5
Asian	36	3.5
Hispanic	28	2.7
African American	21	2.1
American Indian	2	0.2
Total	1,020 ^a	100.0

^a10 of the study subjects (1.0%) refused to provide information on their race.

Whether or Not the Student Was Classified as a Resident of the State

When students were described on whether or not they were classified as residents of the state in which the university was located, the majority ($n = 833$, 80.9%) were in-state residents. Additionally, 196 students (19.0%) were classified as nonresidents, and 1 student (0.1%) was classified as a military resident of the state. For subsequent analyses, this individual was treated as an in-state resident since the study institution treats individuals in this classification as in-state residents for fee purposes.

Whether or Not the Student Received a Major Academic Scholarship

Another variable on which the students were described was whether or not the student received a major academic scholarship. The five major academic scholarships included in this category and a brief description of each are as follows:

- (1) Chancellor's Alumni Scholarship - most prestigious award offered to the top 10 students who have at least a 3.50 scholastic grade point average and at least a 33 ACT or 1460 SAT.
- (2) Alumni Association Top 100 Scholarship - award that is offered to the next 100 top students who have at least a 3.50 scholastic grade point average and at least a 32 ACT or 1410 SAT.
- (3) Distinguished Freshman Award - award that is offered to students who have been designated as National Merit Finalists (college-sponsored) and have indicated this institution as their first-choice institution.
- (4) Centennial Award - award that is offered to the state's residents who have been designated as National Merit Semifinalists or have a 3.00 scholastic grade point average and a 30 ACT or 1320 SAT.
- (5) Golden Oaks Award - award that is offered to nonresident students who were selected as recipients of the Chancellor's Alumni Scholarship, the Alumni Association Top 100 Scholarship, or Distinguished Freshman Award or have been designated as a National Merit Semifinalist. In addition, nonresident students who have at least a

3.00 scholastic grade point average and at least a 30 ACT or 1320 SAT are considered for this award.

Of the 1,030 high-achieving students who were admitted and enrolled, 488 students (47.4%) received at least one of these five major academic scholarships. There were 12 students who received more than one of these awards. Thus, the total number of actual scholarships awarded was 500. The remaining 542 students (52.6%) did not receive one of these awards.

Of the 500 major academic scholarships that were received by these high-achieving students who were admitted and enrolled, the scholarship that was awarded to the largest number of students was the Centennial Award with 286 students (57.2%). The award that had the fewest recipients was the Chancellor’s Alumni Scholarship with 10 students (2.0%) receiving this award. The distribution of these five major scholarships is presented in Table 4.

Table 4.
Scholarship Distribution for High-Achieving Students Who Were Admitted, Enrolled and Received at Least One Major Academic Scholarship at a Research-Extensive University in the Southern Region of the United States

Scholarship	Frequency	Percent
Centennial	286	57.2
Golden Oaks	102	20.4
Alumni Association’s Top 100	90	18.0
Distinguished Freshman	12	2.4
Chancellor Alumni	10	2.0
Total	500 ^a	100.0

^aTotal includes 12 students who received more than one of these awards.

When analyzing each of these awards in reference to all of the 1,030 students who were admitted and enrolled, the Centennial Award was offered to the largest number and percentage of students ($\underline{n} = 286$, 27.8%) with 744 students (72.2%) who were not offered this award.

Conversely, the Chancellor’s Alumni Scholarship was offered to the fewest number and percentage of students ($\underline{n} = 10$, 1.0%) with 1,020 students (99.9%) who were not offered this scholarship. The results regarding whether or not the subjects were offered each of these five scholarships are presented in Table 5.

Table 5.
Scholarship Distribution for High-Achieving Students Who Were Admitted and Enrolled at a Research-Extensive University in the Southern Region of the United States

Scholarship	Received the Award				Total	
	<u>n</u>	<u>%^a</u>	<u>n</u>	<u>%^a</u>	<u>N</u>	<u>%</u>
Chancellor’s Alumni	10	1.0	1,020	99.9	1,030	100.0
Alumni Top 100	90	8.7	940	91.3	1,030	100.0
Distinguished Freshman	12	1.2	1,018	98.8	1,030	100.0
Centennial	286	27.8	744	72.2	1,030	100.0
Golden Oaks	102	9.9	928	90.1	1,030	100.0
Total	500					

^aPercent of total number of high-achieving students who were admitted and enrolled ($\underline{N} = 1,030$).

Whether or Not the Student Was Offered Admission to the Honors College

Another variable on which students were described was whether or not the student was offered admission to the Honors College. Of the 1,030 high-achieving students who were

admitted and enrolled, the Honors College offered admission to 399 students (38.7%). The remaining 631 students (61.3%) were not offered admission to the Honors College.

Whether the Student Graduated from a Public or Private High School or Was Home-Schooled

The type of high school a student attended was another variable that was used to describe these high-achieving students who were admitted and enrolled. Two aspects of the type of school attended were used to describe the subjects. The first was whether they attended a public or private high school. The majority of students had attended a public high school ($n = 563$, 54.7%). The remaining 467 students (45.3%) attended a private high school. The second aspect of this measure was whether or not the students were home-schooled. For purposes of the previous measurement, these students were considered to have attended a private high school. However, the variable, whether or not the student was home-schooled, was treated as a separate variable since home-schooling has some unique characteristics. On this second aspect of type of high school attended, of the 1,030 high-achieving students who were admitted and enrolled, there were only 7 students (0.7%) who identified themselves as being home-schooled.

Whether or Not the Student's Parent Graduated from the Institution

Legacy was one of the variables studied to see whether or not the parents who graduated from the institution had any influence on their son or daughter attending the institution. There were 334 high-achieving students (32.4%) who reported that at least one of their parents graduated from the institution, while 696 high-achieving students (67.6%) did not indicate that they had a parent who graduated from the institution.

Whether or Not the Student Lived Within 100 Miles of the University

The proximity of the student's home to the university was another variable investigated in this study. This proximity was defined as to whether or not the individual's permanent home was located within 100 miles of the institution. Of these 1,030 high-achieving students who were admitted and enrolled, 672 students (65.2%) lived within 100 miles of the university, while the remaining 358 students (34.8%) lived more than 100 miles from the university.

Overall High School Grade Point Average

The overall high school grade point average (GPA) was another variable that was used to describe these high-achieving students who were admitted and enrolled. Overall high school GPA was defined as the grade point average for all courses completed in high school. For students who graduated from one of the state's high schools, this overall high school GPA was submitted by the state's education department to the study institution. For students who graduated from an out-of-state high school, this overall high school GPA was stated on the student's high school transcript that was submitted to the study institution by the student's high school. The mean overall high school GPA was 3.73 ($SD = 0.23$) for these students. The overall high school GPAs ranged from a low of 3.05 to a high of 4.00 for this group.

When the overall high school GPA data were examined in ranges of measurements, the range of scores that had the largest number of students was 3.75 to 3.99 ($n = 394$, 38.3%). The ranges used in this study were selected because of their importance in the evaluation of the student's admission to the university, scholarship consideration, and admission to the Honor's College. The distribution of all of these ranges can be found in Table 6.

Table 6.
 Distribution of Overall High School Grade Point Averages (GPA) for High-Achieving Students Who Were Admitted and Enrolled at a Research-Extensive University in the Southern Region of the United States

Overall GPA Range	Frequency	Percent
4.00	152	14.8
3.75 - 3.99	394	38.3
3.50 - 3.74	292	8.3
3.25 - 3.49	165	6.0
3.00 - 3.24	27	2.6
Less than 3.00	0	0.0
Total	1,030	100.0

Academic High School Grade Point Average

Another high school grade point average (GPA) that was used to describe the high-achieving students who were admitted and enrolled was the academic high school GPA. This GPA was defined as the grade point average that is calculated on a 4.00 scale by the Office of Undergraduate Admissions on the grades earned from all completed high school academic courses (English, mathematics, natural sciences, social sciences, foreign languages, computer studies, and visual and performing arts). For example, courses such as physical education and keyboarding were not included in this calculation. The mean academic high school GPA was 3.64 (SD = 0.30) for these high-achieving students who were admitted and enrolled. Academic high school GPAs ranged from a low of 3.00 to a high of 4.00 for this group of students.

When the academic high school GPA data were examined in ranges of measurements, the range of scores that had the largest number of students was 3.75 to 3.99 ($n = 291$, 28.3%). The ranges used in this study were selected because of their importance in the evaluation of the student's admission to the university, scholarship consideration, and admission to the Honor's College and were the same as those used to examine the overall high school GPAs. The distribution of all of these ranges is presented in Table 7.

Table 7.
Distribution of Academic High School Grade Point Averages (GPA) for High-Achieving Students Who Were Admitted and Enrolled at a Research-Extensive University in the Southern Region of the United States

Academic GPA Range	Frequency	Percent
4.00	156	15.1
3.75 - 3.99	291	28.3
3.50 - 3.74	236	22.9
3.25 - 3.49	214	20.8
3.00 - 3.24	133	12.9
Less than 3.00	0	0.0
Total	1,030	100.0

Required High School Grade Point Average

A third high school grade point average (GPA) that was a variable to describe these high-achieving students who were admitted and enrolled was the required high school GPA. For

admission consideration, the university requires 18 specific high school units to be completed upon graduation from high school. These units are as follows:

- 4 units - English Composition and Literature (English I, II, III, IV)
- 3 units - College Preparatory Mathematics (Algebra I, Algebra II, and one additional unit consisting of courses such as geometry, trigonometry, advanced mathematics, or calculus)
- 3 units - Natural Sciences (biology, chemistry, and physics)
- 3 units - Social Studies (one unit in American history; one unit in world history, world geography, or history of western civilization; and one unit consisting of civics, free enterprise, economics or American government)
- 2 units - Foreign Language (two units in a single language)
- ½ unit - Computer Studies (such as computer science, computer literacy, or substitute ½ unit from among the subjects listed above)
- 2½ units - Additional Academic Courses (2½ additional units from among the subjects listed above. Two units may be from advanced course work in the visual and performing arts).

The University's Office of Undergraduate Admissions calculates the required high school GPA using a 4.00 scale for each student using only the grades from these 18 high school units. The mean required high school GPA was 3.69 (SD = 0.27) for these high-achieving students who were admitted and enrolled. The required high school GPAs for this group of students ranged from a low of 2.97 to a high of 4.00.

When the required high school GPA data were examined in ranges of measurements like the previous high school GPAs, the range of scores that had the largest number of students was 3.75 to 3.99 (n = 322, 31.3%). There were two students who had a required GPA below 3.00. This occurred because these two students had lower grades in their required courses. The ranges used in this study were selected because of their importance in the evaluation of the student's admission to the university, scholarship consideration, and admission to the Honor's College. (see Table 8).

Table 8.

Distribution of Required High School Grade Point Averages (GPA) for High-Achieving Students Who Were Admitted and Enrolled at a Research-Extensive University in the Southern Region of the United States

Required GPA Range	Frequency	Percent
4.00	190	18.4
3.75 - 3.99	322	31.3
3.50 - 3.74	237	23.0
3.25 - 3.49	202	19.6
3.00 - 3.24	77	7.5
Less than 3.00	2	0.2
Total	1,030	100.0

College Entrance Examination (ACT) Composite Score

One of the admission requirements to the study institution states that applicants must submit a college entrance examination score report. The Office of Undergraduate Admissions accepts both the ACT and SAT to fulfill this requirement. For this study, submitted SAT scores were converted to the ACT equivalent value using the “Concordance Between SAT I Recentered V + M (Verbal + Math) Score and ACT Composite Score Table” (see Appendix) by the Office of Undergraduate Admissions. Since this examination score is considered for university admission, scholarship consideration, and Honor’s College admission, this composite score was another variable that was used to describe these high-achieving students who were admitted and enrolled. For students who submitted more than one score report to the University’s Office of

Undergraduate Admissions, the institution uses the student’s highest score report for admission, scholarship, and Honor’s College consideration. Therefore, this study reflects the highest composite ACT score or SAT converted score to ACT equivalent score for students who submitted more than one score report. The mean composite score on the ACT was 29.7 (SD = 1.61) for these high-achieving students who were admitted and enrolled. The composite scores ranged from a low of 28 to a high of 36 for this group of students.

Table 9.
Composite Scores on the College Entrance Examination (ACT) for High-Achieving Students Who Were Admitted and Enrolled at a Research-Extensive University in the Southern Region of the United States

ACT Score	Frequency	Percent
36	1	0.1
35	6	0.6
34	17	1.7
33	43	4.2
32	71	6.9
31	145	14.1
30	191	18.5
29	238	23.1
28	318	30.9
Total	1,030	100.0

The most frequent composite ACT score from this group of 1,030 high-achieving students was 28 ($\underline{n} = 318$, 30.9%). There was only one student (0.1%) who submitted an ACT composite score of 36 (the highest possible score). The distribution of these composite scores is presented in Table 9.

Rank-in-High School Class

The final variable that was used to describe these high-achieving students who were admitted and enrolled was the student's rank-in-high school class. For students who graduated from one of the state's high schools, this rank was submitted by the state's education department to the study institution. For students who graduated from an out-of-state high school, this rank was stated on the student's high school transcript that was submitted to the study institution by the student's high school. For the purpose of this study, the rank-in-high school class measurements were converted to a percentile score since a raw score rank of 5 would be very different in a class of 350 students than it would be in a class of 20 students. Of the 1,030 high-achieving students who were admitted and enrolled, high schools reported rank-in-high school class for 963 students. This is 93.5% of this group being studied. The high school rank reported for the study subjects ranged from a low of .08 to a high of .99. The mean rank-in-high school class for these students for which rank data was available was .83 ($\underline{SD} = 0.16$).

The rank-in-high school class data were also examined in ranges of measurements. The ranges used in this study were selected because of their importance in the evaluation of the student's admission to the university, scholarship consideration, and admission to the Honor's College. These ranges represent the top 5%, top 10%, top 20%, top 50%, and the third and fourth quartiles. The category of high school rank that had the largest number of students was

.95 to .99 ($n = 289$, 30.0%) which is the top 5% of the high school class. The distribution of all of these ranges can be found in Table 10.

Table 10.
Distribution of the Rank-in-High School Class for High-Achieving Students Who Were Admitted and Enrolled at a Research-Extensive University in the Southern Region of the United States

Rank-in-High School Class	Frequency	Percent
.95 - .99	289	30.0
.90 - .94	157	16.3
.80 - .89	212	22.0
.50 - .79	264	27.4
.25 - .49	36	3.7
.00 - .24	5	0.5
Total	963	100.0

Objective Two Results

The second objective of this study was to describe traditional-age, high-achieving freshman students who were admitted but did not enroll for the fall 2005 semester as defined by their nonpayment of fees and non-inclusion in the 14th class-day statistics at a research-extensive university in the Southern region of the United States on the following demographic and academic characteristics:

- (a) Gender;
- (b) Race;

- (c) Whether or not the student was classified as a resident of the state;
- (d) Whether or not the student was offered a major academic scholarship;
- (e) Whether or not the student was offered admission to the Honors College;
- (f) Whether the student graduated from a public or private high school or was home-schooled;
- (g) Whether or not the student's parent graduated from the institution;
- (h) Whether or not the student lived within 100 miles of the university;
- (i) Overall high school grade point average;
- (j) Academic high school grade point average;
- (k) Required high school grade point average;
- (l) College entrance examination (ACT) composite score; and
- (m) Rank-in-high school class.

There were 703 high-achieving students who met the criteria of this objective. The results for each of these variables are as follows:

Gender

The first variable on which these students were described was gender. Of the 703 high-achieving students who were admitted but did not enroll, 390 students (55.5%) were identified as female and 313 students (44.5%) were identified as male.

Race

Another variable on which the subjects were described was their race. Of the 703 high-achieving students, 690 identified themselves as either: African American, American Indian, Asian, Caucasian, or Hispanic. The remaining 13 individuals (1.8%) refused to provide information regarding their race. Of the 690 students who identified their race, the largest group

of students was Caucasian ($\underline{n} = 625, 90.6\%$). Asian was the race identified by the second largest group of students ($\underline{n} = 34, 4.9\%$) (see Table 11).

Table 11.
Reported Race of High-Achieving Students Who Were Admitted but Did Not Enroll at a Research-Extensive University in the Southern Region of the United States

Race	Frequency	Percent
Caucasian	625	90.6
Asian	34	4.9
African American	18	2.6
Hispanic	10	1.5
American Indian	3	0.4
Total	690 ^a	100.0

^a13 of the study subjects (1.8%) refused to provide information on their race.

Whether or Not the Student Was Classified as a Resident of the State

When students were described on whether or not they were classified as residents of the state in which the university was located, the majority ($\underline{n} = 403, 57.3\%$) were in-state residents. The remaining 300 students (42.7%) were classified as nonresidents.

Whether or Not the Student Was Offered a Major Academic Scholarship

Another variable on which the students were described was whether or not the student was offered a major academic scholarship. The five major scholarships included in this category and a brief description of each are as follows:

- (1) Chancellor's Alumni Scholarship - most prestigious award offered to the top 10 students who have at least a 3.50 scholastic grade point average and at least a 33 ACT or 1460 SAT.
- (2) Alumni Association Top 100 Scholarship - award that is offered to the next 100 top students who have at least a 3.50 scholastic grade point average and at least a 32 ACT or 1410 SAT.
- (3) Distinguished Freshman Award - award that is offered to students who have been designated as National Merit Finalists (college-sponsored) and have indicated this study institution as their first-choice institution.
- (4) Centennial Award - award that is offered to the state's residents who have been designated as National Merit Semifinalists or have a 3.00 scholastic grade point average and a 30 ACT or 1320 SAT.
- (5) Golden Oaks Award - award that is offered to nonresident students who were selected as recipients of the Chancellor's Alumni Scholarship, the Alumni Association Top 100 Scholarship, or Distinguished Freshman Award or have been designated as a National Merit Semifinalist. In addition, nonresident students who have at least a 3.00 scholastic grade point average and at least a 30 ACT or 1320 SAT are considered for this award.

Of the 703 high-achieving students who were admitted but did not enroll, 365 students (51.9%) were offered at least one of these five major academic scholarships. There was 1 student who was offered more than one of these awards. Thus, the total number of actual scholarships offered was 366. The remaining 338 students (48.1%) were not offered one of these awards.

Of the 366 scholarships that were offered to these high-achieving students who were admitted but did not enroll, the scholarship that was offered to the largest number of students was the Centennial Award with 150 students (41.0%). The award with the fewest number of offers was the Distinguished Freshman Award with 1 (0.2%) of the students being offered this award (see Table 12).

Table 12.
Scholarship Distribution for High-Achieving Students Who Were Admitted and Offered at Least One Major Academic Scholarship but Did Not Enroll at a Research-Extensive University in the Southern Region of the United States

Scholarship	Frequency	Percent
Centennial	150	41.0
Golden Oaks	117	32.0
Alumni Top 100	95	26.0
Chancellor Alumni	3	0.8
Distinguished Freshman	1	0.2
Total	366 ^a	100.0

^aTotal includes one student who was offered more than one of these awards.

When analyzing each of these awards in reference to all of the 703 students who were admitted but did not enroll, the Centennial Award was offered to the largest number and percentage of students ($n = 150$, 21.3%) with 553 students (78.7%) who were not offered this award. Conversely, the Distinguished Freshman Award was offered to only 1 student (0.1%). Thus, 702 students (99.9%) were not offered this scholarship. The results regarding whether or not the subjects were offered each of these five major scholarships are presented in Table 13.

Whether or Not the Student Was Offered Admission to the Honors College

Another variable on which students were described was whether or not the student was offered admission to the Honors College. Of the 703 high-achieving students who were admitted but did not enroll, the Honors College offered admission to 242 students (34.4%). The remaining 461 students (65.6%) were not offered admission to the Honors College.

Table 13.
Scholarship Distribution for High-Achieving Students Who Were Admitted but Did Not Enroll
at a Research-Extensive University in the Southern Region of the United States

Scholarship	Received the Award					
	Yes		No		Total	
	<u>n</u>	% ^a	<u>n</u>	% ^a	<u>N</u>	%
Chancellor's Alumni	3	0.4	700	99.6	703	100.0
Alumni Top 100	95	13.5	608	86.5	703	100.0
Distinguished Freshman	1	0.1	702	99.9	703	100.0
Centennial	150	21.3	553	78.7	703	100.0
Golden Oaks	117	16.6	586	83.4	703	100.0
Total	366					

^aPercent of total number of admitted, high-achieving students who did not enroll (N = 703).

Whether the Student Graduated from a Public or Private High School or Was Home-Schooled

The type of high school a student attended was another variable that was used to describe these high-achieving students who were admitted but did not enroll. Two aspects of the type of school attended were used to describe the subjects. The first was whether they attended a public or private high school. The majority of students had attended a public high school (n = 464, 66.0%). The remaining 239 students (34.0%) attended a private high school. The second aspect of this measure was whether or not the students were home-schooled. For purposes of the previous measurement, these home-schooled students were considered to have attended a private high school. However, the variable, whether or not the student was home-schooled, was treated

as a separate variable since home-schooling has some unique characteristics. On this second aspect of type of high school attended, of the 703 high-achieving students who were admitted but did not enroll, there were only 6 students (0.9%) who identified themselves as being home-schooled.

Whether or Not the Student's Parent Graduated from the Institution

Legacy was one of the variables studied to see whether or not the parents who graduated from the institution had any influence on their son or daughter attending the institution. There were 126 high-achieving students (17.9%) who reported that at least one of their parents graduated from the institution, while 577 high-achieving students (82.1%) did not indicate that they had a parent who graduated from the institution.

Whether or Not the Student Lived Within 100 Miles of the University

The proximity of the student's home to the university was another variable investigated in this study. This proximity was defined as to whether or not the individual's permanent home was located within 100 miles of the institution. Of these 703 high-achieving students who were admitted but did not enroll, 298 students (42.4%) lived within 100 miles of the university, while the remaining 405 students (57.6%) lived more than 100 miles from the university.

Overall High School Grade Point Average

The overall high school grade point average (GPA) was another variable that was used to describe these high-achieving students who were admitted but did not enroll. Overall high school GPA was defined as the grade point average for all courses completed in high school. For students who graduated from one of the state's high schools, this overall high school GPA was submitted by the state's education department to the study institution. For students who

graduated from an out-of-state high school, this overall high school GPA was stated on the student's high school transcript that was submitted to the study institution by the student's high school. The mean overall high school GPA was 3.75 ($SD = 0.23$) for these high-achieving students. The overall high school GPAs ranged from a low of 3.12 to a high of 4.00 for this group.

When the overall high school GPA data were examined in ranges of measurements, the range of scores that had the largest number of students was 3.75 to 3.99 ($n = 278, 39.5\%$). The ranges used in this study were selected because of their importance in the evaluation of the student's admission to the university, scholarship consideration, and admission to the Honor's College. The distribution of all of these ranges can be found in Table 14.

Table 14.
Distribution of Overall High School Grade Point Averages (GPA) for High-Achieving Students Who Were Admitted but Did Not Enroll at a Research-Extensive University in the Southern Region of the United States

Overall GPA Range	Frequency	Percent
4.00	138	19.6
3.75 - 3.99	278	39.5
3.50 - 3.74	166	23.6
3.25 - 3.49	104	14.8
3.00 - 3.24	17	2.4
Less than 3.00	0	0.0
Total	703	100.0

Academic High School Grade Point Average

Another high school grade point average (GPA) that was used to describe the high-achieving students who were admitted but did not enroll was the academic high school GPA. This GPA was defined as the grade point average that is calculated on a 4.00 scale by the Office of Undergraduate Admissions on the grades earned from all completed high school academic courses (English, mathematics, natural sciences, social sciences, foreign languages, computer studies, and visual and performing arts). For example, courses such as physical education and keyboarding were not included in this calculation. The mean academic high school GPA was 3.68 ($SD = 0.30$) for these students who were admitted but did not enroll. Academic high school GPAs ranged from a low of 3.00 to a high of 4.00 for this group of students.

Table 15.
Distribution of Academic High School Grade Point Averages (GPA) for High-Achieving Students Who Were Admitted but Did Not Enroll at a Research-Extensive University in the Southern Region of the United States

Average GPA Range	Frequency	Percent
4.00	143	20.3
3.75 - 3.99	212	30.2
3.50 - 3.74	151	21.5
3.25 - 3.49	126	17.9
3.00 - 3.24	71	10.1
Less than 3.00	0	0.0
Total	703	100.0

When the academic high school GPA data were examined in ranges of measurements, the range of scores that had the largest number of students was 3.75 to 3.99 ($n = 212$, 30.2%). The ranges used in this study were selected because of their importance in the evaluation of the student's admission to the university, scholarship consideration, and admission to the Honor's College and were the same as those used to examine the overall high school GPAs. The distribution of all of these ranges is presented in Table 15.

Required High School Grade Point Average

A third high school grade point average (GPA) that was a variable to describe these high-achieving students who were admitted but did not enroll was the required high school GPA. For admission consideration, the university requires 18 specific high school units to be completed upon graduation from high school. These units are as follows:

- 4 units - English Composition and Literature (English I, II, III, IV)
- 3 units - College Preparatory Mathematics (Algebra I, Algebra II, and one additional unit consisting of courses such as geometry, trigonometry, advanced mathematics, or calculus)
- 3 units - Natural Sciences (biology, chemistry, and physics)
- 3 units - Social Studies (one unit in American history; one unit in world history, world geography, or history of western civilization; and one unit consisting of civics, free enterprise, economics or American government)
- 2 units - Foreign Language (two units in a single language)
- ½ unit - Computer Studies (such as computer science, computer literacy, or substitute ½ unit from among the subjects listed above)
- 2½ units - Additional Academic Courses (2½ additional units from among the subjects listed above. Two units may be from advanced course work in the visual and performing arts).

The University's Office of Undergraduate Admissions calculates the required high school GPA using a 4.00 scale for each student using only the grades from these 18 high school units. The mean required high school GPA was 3.71 ($SD = 0.28$) for these high-achieving students who

were admitted but did not enroll. The required high school GPAs for this group of students ranged from a low of 3.00 to a high of 4.00.

When the required high school GPA data were examined in ranges of measurements like the previous high school GPAs, the range of scores that had the largest number of students was 3.75 to 3.99 ($n = 214$, 30.4%). The ranges used in this study were selected because of their importance in the evaluation of the student’s admission to the university, scholarship consideration, and admission to the Honor’s College. The distribution of all of these ranges is presented in Table 16.

Table 16.
Distribution of Required High School Grade Point Averages (GPA) for High-Achieving Students Who Were Admitted but Did Not Enroll at a Research-Extensive University in the Southern Region of the United States

Required GPA Range	Frequency	Percent
4.00	168	23.9
3.75 - 3.99	214	30.4
3.50 - 3.74	149	21.2
3.25 - 3.49	111	15.8
3.00 - 3.24	61	8.7
Less than 3.00	0	0.0
Total	703	100.0

College Entrance Examination (ACT) Composite Score

One of the admission requirements to the study institution states that applicants must submit a college entrance examination score report. The Office of Undergraduate Admissions accepts both the ACT and SAT to fulfill this requirement. For this study, submitted SAT scores were converted to the ACT equivalent value using the “Concordance Between SAT I Recentered V + M (Verbal + Math) Score and ACT Composite Score Table” (see Appendix) by the Office of Undergraduate Admissions. Since this examination score is considered for university admission, scholarship consideration, and Honor’s College admission, this composite score was another variable that was used to describe these high-achieving students who were admitted but did not enroll. For students who submitted more than one score report to the University’s Office of Undergraduate Admissions, the institution uses each student’s highest score report for admission, scholarship, and Honor’s College consideration. Therefore, this study reflects the highest composite ACT score or SAT converted score to ACT equivalent score for students who submitted more than one score report. The mean composite score on the ACT was 29.8 ($SD = 1.71$) for these high-achieving students who were admitted but did not enroll. The composite scores ranged from a low of 28 to a high of 36 for this group of students. The most frequent composite ACT score from this group of 703 high-achieving students was 28 ($n = 210, 29.9\%$). There was only 1 student (0.1%) who submitted an ACT composite score of 36 (the highest possible score). The distribution of these composite scores is presented in Table 17.

Rank-in-High School Class

The final variable that was used to describe these high-achieving students who were admitted but did not enroll was the rank-in-high school class. For students who graduated from

Table 17.
 Composite Scores on the College Entrance Examination (ACT) for High-Achieving Students Who Were Admitted but Did Not Enroll at a Research-Extensive University in the Southern Region of the United States

ACT Score	Frequency	Percent
36	1	0.1
35	5	0.7
34	20	2.8
33	38	5.4
32	46	6.5
31	93	13.2
30	144	20.5
29	146	20.8
28	210	29.9
Total	703	100.0

one of the state's high schools, this rank was submitted by the state's education department to the study institution. For students who graduated from an out-of-state high school, this rank was stated on the student's high school transcript that was submitted to the study institution by the student's high school. For the purpose of this study, the rank-in-high school class measurements were converted to a percentile score since a raw score rank of 5 would be very different in a class of 350 students than it would be in a class of 20 students. Of the 703 high-achieving students who were admitted but did not enroll, high schools reported rank-in-high school class for 529

students. This is 75.3% of this group being studied. The high school rank reported for the study subjects ranged from a low of .13 to a high of .99. The mean rank-in-high school class for these students for which rank data was available was .85 (SD = 0.15).

The rank-in-high school class data were also examined in ranges of measurements. The ranges used in this study were selected because of their importance in the evaluation of the student's admission to the university, scholarship consideration, and admission to the Honor's College. These ranges represent the top 5%, top 10%, top 20%, top 50%, and the third and fourth quartiles. The category of high school rank that had the largest number of students was .95 to .99 (n = 198, 37.4%) which is the top 5% of the high school class. The distribution of all of these ranges can be found in Table 18.

Table 18.
Distribution of the Rank-in-High School Class for High-Achieving Students Who Were Admitted but Did Not Enroll at a Research-Extensive University in the Southern Region of the United States

Rank-in-High School Class	Frequency	Percent
.95 - .99	198	37.4
.90 - .94	77	14.6
.80 - .89	113	21.4
.50 - .79	128	24.2
.25 - .49	12	2.3
.00 - .24	1	0.2
Total	529	100.0

Objective Three Results

The third objective of this study was to compare the traditional-age, high-achieving freshman students who were admitted and enrolled for the fall 2005 semester as defined by their payment of fees and inclusion in the 14th class-day statistics at a research-extensive university in the Southern region of the United States to those traditional-age, high-achieving freshman students who were admitted but did not enroll for the fall 2005 semester as defined by their nonpayment of fees and non-inclusion in the 14th class-day statistics at the same institution on the following demographic and academic characteristics:

- (a) Gender;
- (b) Race (For this analysis, the American Indian category of race was eliminated since the number of students in this group was insufficient to include in the chi-square analysis.);
- (c) Whether or not the student was classified as a resident of the state;
- (d) Whether or not the student received or was offered a major academic scholarship;
- (e) Whether or not the student was offered admission to the Honors College;
- (f) Whether the student graduated from a public or private high school or was home-schooled (This variable was treated as two separate variables with whether the student attended a public or private high school as one variable, and whether or not the student was home-schooled treated as the other variable.);
- (g) Whether or not the student's parent graduated from the institution;
- (h) Whether or not the student lived within 100 miles of the university;
- (i) Overall high school grade point average;
- (j) Academic high school grade point average;
- (k) Required high school grade point average;

- (l) College entrance examination (ACT) composite score; and
- (m) Rank-in-high school class.

An a priori significance level of $< .05$ was used to determine if the independent variables were statistically significant. Of the 14 specific variables that were compared, 8 variables were found to be statistically significant as they were not independent of the variable, enrollment status.

These were as follows:

1. Gender;
2. Whether or not the student was classified as a resident of the state;
3. Whether the student graduated from a public or private high school;
4. Whether or not the student's parent graduated from the institution;
5. Whether or not the student lived within 100 miles of the university;
6. Academic high school grade point average;
7. Overall high school grade point average; and
8. Rank-in-high school class.

These findings for this objective were accomplished by analyzing the data using the chi-square test of independence and the independent t test procedure. For the variables measured on a categorical scale, the researcher used the chi-square procedure to determine if each of the variables were independent of the variable, enrollment status. Using an a priori significance level of $< .05$, five of the nine categorical variables had chi-square values that were statistically significant, indicating that these five variables were not independent of the enrollment status variable. These five variables were: (1) whether or not the student was classified as a resident of the state; (2) whether or not the student lived within 100 miles of the university; (3) whether or not the student's parent graduated from the institution; (4) whether the student graduated from a public or private high school; and (5) gender. The results of the chi-square analysis for the other four variables examined were not significant, indicating that these variables were independent of

the variable, enrollment status (see Table 19). Each of the five variables for which a significant chi-square value was found will be further examined with appropriate contingency tables.

Table 19.
Comparison of Enrolled versus Non-Enrolled High-Achieving Students at a Research-Extensive University in the Southern Region of the United States on Selected Personal and Demographic Characteristics

Variable	<u>N</u>	df	χ^2	p
Residency Classification	1,733	1	114.35	< .001
Lived Within 100 miles	1,733	1	88.55	< .001
Parent Graduate Status	1,733	1	45.08	< .001
Public/Private High School	1,733	1	22.27	< .001
Gender	1,733	1	12.88	< .001
Race	1,705	3	5.66	.130
Major Scholarship Offered	1,733	1	3.45	.063
Honors College Admission	1,733	1	3.34	.068
Home-schooled	1,733	1	0.17	.680

Whether or Not the Student Was a Resident of the State

The variable for which the highest chi-square value $\chi^2 (1, \underline{N} = 1,733) = 114.35, p < .001$ was found was residency status, which was defined in this study as whether the student was classified as a resident or nonresident of the state in which the university was located. The one individual that was classified as a military resident was included with the resident students since he or she was classified by the university as a resident for fee purposes. This result indicated that the variables, residency status and enrollment status, were not independent. The nature of the

relationship between these two variables is such that the majority of the resident students ($\underline{n} = 834, 67.4\%$) enrolled in the institution, while the majority of the nonresident students ($\underline{n} = 300, 60.5\%$) did not enroll in the institution (see Table 20).

Table 20.

Cross-Classification of Student Enrollment Status and Residency Status for High-Achieving Students Who Were Admitted to a Research-Extensive University in the Southern Region of the United States

		Residency Classification		Total $\frac{\underline{N}}{\%}$
		<u>Resident</u> $\frac{\underline{n}}{\%}$	<u>Nonresident</u> $\frac{\underline{n}}{\%}$	
Enrolled	\underline{n}	834	196	1,030
	$\%a$	67.4	39.5	59.4
Non-Enrolled	\underline{n}	403	300	703
	$\%a$	32.6	60.5	40.6
Total	\underline{n}	1,237	496	1,733
	$\%a$	100.0	100.0	100.0

Note. $\chi^2 (1), (\underline{N} = 1,733) = 114.35, p < .001$

^a % within residency classification

Whether or Not the Student Lived Within 100 Miles of the University

When the variable, whether or not the student lived within 100 miles of the university, was tested for independence from the variable, enrollment status, the chi-square result $\chi^2 (1, \underline{N} = 1,733) = 88.55, p < .001$ was significant, meaning that these variables were not independent. The nature of the relationship between the two variables is such that the majority of the admitted

students who lived within 100 miles of the university ($\underline{n} = 672$, 69.3%) enrolled in the institution, while the majority of the students who did not live within 100 miles of the university ($\underline{n} = 405$, 53.1%) did not enroll in the institution (see Table 21).

Table 21.
Cross-Classification of Student Enrollment Status and Whether or Not the Student Lived Within 100 Miles of the University for High-Achieving Students Who Were Admitted to a Research-Extensive University in the Southern Region of the United States

		Distance Student Lived from the University		Total $\frac{\underline{N}}{\%}$
		<u>Within 100 miles</u>	<u>Not Within 100 miles</u>	
		$\frac{\underline{n}}{\%}$	$\frac{\underline{n}}{\%}$	
Enrolled	\underline{n}	672	358	1,030
	$\%^a$	69.3	46.9	59.4
Non-Enrolled	\underline{n}	298	405	703
	$\%^a$	30.7	53.1	40.6
Total	\underline{n}	970	763	1,733
	$\%^a$	100.0	100.0	100.0

Note. $\chi^2 (1), (\underline{N} = 1,733) = 88.55, p < .001$

^a % within distance to the university

Whether or Not the Student's Parent Graduated from the Institution

The third variable in this research study for which a significant chi-square value $\chi^2 (1, \underline{N} = 1,733) = 45.08, p < .001$ was found was whether or not at least one of the student's parents graduated from the institution. This indicates that the variables, whether or not a parent graduated from the institution and enrollment status, were not independent. The nature of the

relationship between these two variables is such that there was a higher percentage of the enrolled students who reported that at least one of their parents graduated ($\underline{n} = 334, 72.6\%$) from the institution than for the enrolled students who reported that they did not have a parent who graduated ($\underline{n} = 696, 54.7\%$) from the institution (see Table 22).

Table 22.
Cross-Classification of Student Enrollment Status and Whether or Not the Student's Parent Graduated from the Institution for High-Achieving Students Who Were Admitted to a Research-Extensive University in the Southern Region of the United States

		Graduation Status of Parent		Total \underline{N} %
		<u>Parent Graduated</u>	<u>Parent Did Not Graduate</u>	
		\underline{n} %	\underline{n} %	
Enrolled	\underline{n}	334	696	1,030
	% ^a	72.6	54.7	59.4
Non-Enrolled	\underline{n}	126	577	703
	% ^a	27.4	45.3	40.6
Total	\underline{n}	460	1,273	1,733
	% ^a	100.0	100.0	100.0

Note. $\chi^2 (1), (\underline{N} = 1,733) = 45.08, p < .001$

^a % within graduation status of parent

Whether the Student Graduated from a Public or Private High School

When the variable, whether the student graduated from a public or private high school, was tested for independence from the variable, enrollment status, the computed chi-square value $\chi^2 (1, \underline{N} = 1,733) = 22.27, p < .001$ was statistically significant, indicating that these variables

were not independent. The nature of the relationship between these two variables is such that a higher proportion of the admitted high-achieving students who had graduated from a private high school enrolled ($\underline{n} = 467, 66.1\%$) in the institution than the proportion of admitted high-achieving students who had attended a public high school who enrolled ($\underline{n} = 563, 54.8\%$) in the institution (see Table 23).

Table 23.
Cross-Classification of Student Enrollment Status and Whether the Student Graduated from a Public or Private High School for High-Achieving Students Who Were Admitted to a Research-Extensive University in the Southern Region of the United States

		Type of High School Attended		Total
		<u>Public School</u>	<u>Private School</u>	<u>N</u>
		<u>\underline{n}</u>	<u>\underline{n}</u>	<u>%</u>
		<u>%</u>	<u>%</u>	
Enrolled	<u>\underline{n}</u>	563	467	1,030
	<u>%^a</u>	54.8	66.1	59.4
Non-Enrolled	<u>\underline{n}</u>	464	239	703
	<u>%^a</u>	45.2	33.9	40.6
Total	<u>\underline{n}</u>	1,027	706	1,733
	<u>%^a</u>	100.0	100.0	100.0

Note. $\chi^2 (1), (N = 1,733) = 22.27, p < .001$

^a % within type of high school

Gender

Another variable examined in this objective that was found to be related to the enrollment status (whether or not the high-achieving students who were admitted subsequently enrolled) was

gender $\chi^2 (1, N = 1,733) = 12.88, p < .001$. The nature of the relationship between the two variables is such that a higher percentage of admitted males enrolled ($n = 549, 63.7\%$) in the institution than the percentage of admitted females who enrolled ($n = 481, 55.2\%$) in the institution(see Table 24).

Table 24.
Cross-Classification of Student Enrollment Status and Gender for High-Achieving Students Who Were Admitted to a Research-Extensive University in the Southern Region of the United States

		Gender		Total
		Female	Male	$\frac{N}{\%}$
		$\frac{n}{\%}$	$\frac{n}{\%}$	
Enrolled	\underline{n}	481	549	1,030
	$\%^a$	55.2	63.7	59.4
Non-Enrolled	\underline{n}	390	313	703
	$\%^a$	44.8	36.3	40.6
Total	\underline{n}	871	862	1,733
	$\%^a$	100.0	100.0	100.0

Note. $\chi^2 (1), (N = 1,733) = 12.88, p < .001$

^a % within gender

To accomplish this objective for variables measured on an interval or higher scale of measurement, the researcher used the independent t test procedure to determine if a difference existed in each of the variables examined by the enrollment status of the admitted students.

Using an a priori significance level of $< .05$, significant differences were found in three of the

five variables. The remaining two variables were found to be similar for enrolled and non-enrolled students.

Academic High School Grade Point Average

The variable for which the greatest difference was found by enrollment status was academic high school grade point average (GPA) ($t_{1731} = 2.920, p = .004$). Academic high school GPA was defined as the grade point average that is calculated on a 4.00 scale by the Office of Undergraduate Admissions on the grades earned from all completed high school academic courses (English, mathematics, natural sciences, social sciences, foreign languages, computer studies, and visual and performing arts). For example, courses such as physical education and keyboarding were not included in this calculation. The nature of the difference in this variable was such that the non-enrolled students had a significantly higher academic high school GPA ($M = 3.68, SD = 0.30$) than the enrolled students ($M = 3.64, SD = 0.30$). Table 25 presents the academic GPA data.

Overall High School Grade Point Average

Another variable for which a significant difference was found between the enrolled and non-enrolled high-achieving students was the overall high school grade point average (GPA) ($t_{1731} = 2.529, p = .012$). The overall high school GPA was defined as the grade point average for all courses completed in high school. For students who graduated from one of the state's high schools, this overall high school GPA was submitted by the state's education department to the study institution. For students who graduated from an out-of-state high school, this overall high school GPA was stated on the student's high school transcript that was submitted to the study institution by the student's high school. The nature of the difference was such that the non-

enrolled students ($M = 3.75$, $SD = 0.23$) had a significantly higher overall high school GPA than the enrolled students ($M = 3.73$, $SD = 0.23$). The overall GPA data is presented in Table 25.

Table 25.
Comparison of Enrolled and Non-Enrolled High-Achieving Students at a Research-Extensive University in the Southern Region of the United States on Selected Academic Characteristics

Variable	<u>N</u>	<u>M</u>	<u>SD</u>	<u>t</u>	df	<u>p</u>
Academic GPA	Enrolled	1,030	3.64	2.920	1,731	.004
	Non-Enrolled	703	3.68			
Overall GPA	Enrolled	1,030	3.73	2.529	1,731	.012
	Non-Enrolled	703	3.75			
Rank-in-Class	Enrolled	963	0.83	2.438	1,490	.015
	Non-Enrolled	529	0.85			
Required GPA	Enrolled	1,030	3.69	1.862	1,731	.063
	Non-Enrolled	703	3.71			
ACT	Enrolled	1,030	29.66	1.509	1,731	.132
	Non-Enrolled	703	29.78			

Rank-in-High School Class

The last variable that had a significant difference found between the enrolled and non-enrolled students was rank-in-high school class ($t_{1490} = 2.438$, $p = .015$) which was converted to a percentile rank. For students who graduated from one of the state's high schools, this rank was

submitted by the state's education department to the study institution. For students who graduated from an out-of-state high school, this rank was stated on the student's high school transcript that was submitted to the study institution by the student's high school. The nature of the difference was such that the non-enrolled students ($\underline{M} = .85$, $\underline{SD} = 0.15$) had a significantly higher rank-in-high school class than the enrolled students ($\underline{M} = .83$, $\underline{SD} = 0.16$). Table 25 presents the data for rank-in-high school class.

The other two variables, required high school grade point average ($t_{1731} = 1.862$, $p = .063$), and composite ACT score ($t_{1731} = 1.509$, $p = .132$), were not found to be significantly different when examined by the enrollment status of the admitted high-achieving students (see Table 25).

Objective Four Results

The fourth objective of this study was to determine if a model existed that significantly increased the researcher's ability to accurately explain the enrollment status of traditional-age, high-achieving freshman students who applied and were admitted at a research-extensive university in the Southern region of the United States for the fall 2005 semester as defined by their payment of fees and inclusion in the 14th class-day statistics.

The researcher used discriminant analysis as the statistical technique to accomplish this objective. This procedure requires that all independent variables entered in the model must be measured on a continuous scale of measurement (interval or ratio) or must be coded as a dichotomous variable. Thus, all variables were examined for their level of measurement. Enrollment status, measured as a dichotomous variable, was the dependent variable in the analysis, and the independent variables were entered as either continuous variables or as binary-

coded variables as appropriate. The independent variables and their coding for the analysis were as follows:

- (a) Gender (These were coded as female = 1 and male = 2.);
- (b) Race (For this analysis, the American Indian category of race was eliminated since the number of students in this group was insufficient to include in the chi-square analysis. Each of the other racial categories was coded as a binary variable with each subject classified as either possessing the trait or not possessing the trait. For example, a variable was created for the African American race in which all of the study subjects were classified as either possessing the trait of being African American, coded as 1, or not possessing the trait of being African American, coded as 0. This was repeated for each of the racial categories of Asian, Caucasian, and Hispanic. Therefore, a total of four binary-coded race variables were entered into the analysis.);
- (c) Whether or not the student was classified as a resident of the state (These were coded as nonresident = 0 and resident = 1.);
- (d) Whether or not the student received or was offered a major academic scholarship (These were defined as not receiving or not being offered one of the five major academic scholarships = 0 and receiving or being offered one of the five major scholarships = 1.);
- (e) Whether or not the student was offered admission to the Honors College (These were coded as not offered admission = 0 and offered admission = 1.);
- (f) Whether the student graduated from a public or private high school or was home-schooled (This variable was treated as two separate variables with whether the student attended a public or private high school as one variable, and whether or not the student was home-schooled treated as the other variable. However, it should be noted that the variable, whether or not the student was home-schooled, was subsequently eliminated from the analysis due to the small number of subjects who possessed this trait and the fact that none of these students had a measurement on the variable, rank-in-high school class. Operationally, the variable, public or private high school, was treated for the discriminant analysis as whether or not the student graduated from a private high school (These were coded as graduate of a public high school = 0 and graduate of a private high school = 1.);
- (g) Whether or not the student's parent graduated from the institution (These were coded as parent was not a graduate = 0 and parent was a graduate = 1.);

- (h) Whether or not the student lived within 100 miles of the university (These were coded as did not live within 100 miles = 0 and lived within 100 miles = 1.);
- (i) Overall high school grade point average (This was measured as a continuous variable.);
- (j) Academic high school grade point average (This was measured as a continuous variable.);
- (k) Required high school grade point average (This was measured as a continuous variable.);
- (l) College entrance examination (ACT) composite score (This was measured as a continuous variable.); and
- (m) Rank-in-high school class (This was measured as a continuous variable.).

Due to the nature of this study, the researcher used stepwise multiple discriminant analysis as the computational method. Because this was designed as an exploratory study, the variables were considered equally for entry into the model.

Step One of Discriminant Analysis

The first step in conducting a discriminant analysis was to examine the independent variables that were to be included in the analysis for the presence of multicollinearity. There are several techniques available for conducting this procedure to check for the presence of excessive multicollinearity. The assessment that provides the most conclusive test for this analysis, according to Lewis-Beck (1980), is to “Regress each independent variable on all the other independent variables” (p. 60). The effectiveness of this method is such that this procedure takes into account the relationship of each independent variable with all of the other independent variables. High multicollinearity exists if any of the cumulative \underline{R}^2 values approach 1.00. The cumulative \underline{R}^2 values for all of the independent variables were checked to ensure that there were no cases of multicollinearity between the independent variables. The results from this series of

tests found high levels of multicollinearity among the three high school grade point average (GPA) measurements included in the study. These three measurements included the overall high school GPA ($R^2 = .97$), the academic high school GPA ($R^2 = .98$), and the required high school GPA ($R^2 = .97$). The level of collinearity among these variables was such that each variable was very near a singularity with the combination of the other two high school GPA measures. Since no appreciable difference existed in the relationship between each of these GPA measures and enrollment status, the dependent variable, the researcher chose to include one of the three measures in the analysis. The high school GPA measurement that was chosen for inclusion was the academic GPA since the University's Office of Undergraduate Admissions views this measurement as the one that is most relevant when making admission decisions.

Step Two of Discriminant Analysis

The next step in determining if a model existed, using discriminant analysis, was to compare the groups (enrolled verse non-enrolled) on each of the independent variables. This was accomplished by comparing the means of each independent variable (including those created through a binary-coding procedure) by each category of the dependent variable, enrollment status (enrolled and non-enrolled).

Using an a priori significance level of $< .05$, seven of the independent variables had statistically significant group means. These were:

1. Whether or not the student's parent graduated from the institution;
2. Whether or not the student lived within 100 miles of the university;
3. Whether or not the student was classified as a resident of the state;
4. Whether or not the student graduated from a private high school;
5. Gender;
6. Academic high school GPA; and
7. Rank-in-high school class.

Among these seven variables for which statistically significant means were identified, four variables (whether or not the student’s parent graduated from the institution; whether or not the student lived within 100 miles of the university; whether or not the student graduated from a private high school; and whether or not the student was classified as a resident of the state) were found to have higher means for the enrolled group while two variables (academic high school GPA and rank-in-high school class) were found to have higher means for the non-enrolled group. Additionally, a significant difference was found for the variable, gender, such that the enrolled group had more males (indicated by a higher score since females were coded as 1 and males were coded as 2) than the male group that did not enroll. The means of the groups for the remaining seven variables showed no statistically significant differences. The means and standard deviations for all groups including the F-ratio values and their respective probability values are presented in Table 26.

Table 26.
Comparison of Discriminating Variable Means, Standard Deviations, and F-ratios in the Derived Exploratory Discriminant Model by Enrollment Status for High-Achieving Students Who Were Admitted to a Research-Extensive University in the Southern Region of the United States

Discriminating Variable	Group		F - Ratio	p
	<u>Enrolled</u> N = 956	<u>Non-Enrolled</u> N = 523		
	<u>M</u>	<u>M</u>		
	<u>SD</u>	<u>SD</u>		
Parent Graduate Status	.33 .47	.19 .40	31.729	< .001
Lived Within 100 Miles	.69 .46	.55 .50	27.640	< .001

(Table continued)

Residency Classification	.86 .35	.75 .43	27.501	< .001
Public/Private High School	.45 .50	.33 .47	22.511	< .001
Gender	1.54 .50	1.44 .50	13.524	< .001
Academic High School GPA	3.64 .29	3.69 .29	9.449	.002
Rank-In-High School Class	.84 .16	.86 .15	5.523	.019
Major Scholarship Offered	.47 .50	.52 .50	3.832	.050
Race - Asian	.04 .19	.06 .23	3.468	.063
ACT Composite Score	29.65 1.60	29.82 1.73	3.371	.067
Race - Hispanic	.03 .17	.01 .12	3.326	.068
Honors College Admission	.39 .49	.36 .48	1.117	.291
Race - Caucasian	.92 .28	.90 .30	1.030	.310
Race - African American	.02 .13	.02 .15	0.701	.403
Home-Schooled	.00 .00	.00 .00	0.000	.000

Step Three of Discriminant Analysis

In the third step of this discriminant analysis, the researcher examined the computed standardized canonical discriminant function coefficients. As can be seen in Table 27, the centroids for the groups were determined to be .189 for the high-achieving students who were admitted and enrolled and -.346 for the high-achieving students who were admitted but did not enroll. A total of eight independent variables entered the discriminant model producing an overall canonical correlation of $R_c = .248$. These eight variables were:

1. Whether or not the student's parent graduated from the institution;
2. Whether or not the student was classified as a resident of the state;
3. College entrance examination (ACT) composite score;
4. Gender;
5. Whether or not the student was offered admission to the Honors College;
6. Academic high school grade point average;
7. Race - Hispanic; and
8. Whether the student graduated from a public or private high school.

The variable that entered the discriminant model first and had the greatest influence on the dependent variable, enrollment status, as shown by the highest standardized discriminant function coefficient ($\beta = .523$) was whether or not the student's parent graduated from the institution (parent was not a graduate coded as 0 and parent was a graduate coded as 1). The nature of the influence of parent graduate status on student enrollment status (the dependent variable) was such that having a parent who was a graduate increased the likelihood that the student enrolled.

The variable that entered the discriminant model second was student residence status (defined as whether or not the student was classified as a resident of the state in which the university was located). The standardized discriminant function coefficient for this variable was

.464, and the nature of the influence on student enrollment status was such that being a state resident increased the likelihood that the admitted student enrolled in the institution.

The third variable that entered the discriminant model was the student's composite score on the ACT ($\beta = -.392$). The nature of the influence of this variable was such that students with lower scores on the ACT tended to enroll while those with higher scores tended to not enroll.

The variable, gender, (females coded as 1 and males coded as 2) entered the discriminant model next ($\beta = .350$). The nature of the influence of this variable was such that males tended to be more likely to enroll than females.

Whether or not the student was offered admission to the Honors College (not offered admission coded as 0 and offered admission coded as 1) was another variable that made a significant contribution to the discriminant model ($\beta = .294$). The influence of this variable was such that students who were offered admission to the Honors College were more likely to enroll than those who were not offered admission to the Honors College.

The sixth variable that entered the discriminant model was the academic high school GPA ($\beta = -.234$). The negative coefficient is indicative that students with lower academic high school GPAs tended to be more likely to enroll.

Whether or not students identified their race as Hispanic (non-Hispanic coded as 0 and Hispanic coded as 1) was the seventh variable entered in the discriminant model ($\beta = .225$). The nature of the influence of this variable was such that students who identified their race as Hispanic tended to be more likely to enroll than those who did not identify their race as Hispanic.

Finally, the variable, whether or not the student graduated from a public or private high school, (public high school coded as 0 and private high school coded as 1) entered the

discriminant model as the eighth significant contributor to the model ($\beta = .212$). The nature of the influence of this variable was such that students who graduated from private high schools were more likely to enroll than those who had graduated from public high schools.

In addition to examining the standardized discriminant function coefficients, the researcher also examined the within-group structure correlations. The structure correlations provide the reader with a bivariate measure of the relationship between each of the independent variables and discriminant score computed for each subject from the variables that entered the significant discriminant model. A substantively significant structure correlation is considered to be any coefficient that is half or greater than the magnitude of the highest structure correlation. Therefore, any structure correlation of .286 (half the value of .573 which was the highest structure correlation in this study) or higher would be considered to be substantively meaningful in this analysis.

There were seven independent variables that were found to have structure correlations that met this criterion in the current analysis. These variables were:

1. Whether or not the student's parent graduated from the institution;
2. Whether or not the student was classified as a resident of the state;
3. Whether the student graduated from a public or private high school;
4. Whether or not the student lived within 100 miles of the university;
5. Gender;
6. Rank-in-high school class; and
7. Academic high school grade point average.

Two of these seven variables met the criteria for structure correlations but did not enter the discriminant model. These two variables were whether or not the student lived within 100 miles of the university ($s = .452$) and rank-in-high school class ($s = -.314$).

Table 27.

Summary Data for Stepwise Multiple Discriminant Analysis of the Exploratory Model for Enrollment Status of Admitted High-Achieving Students at a Research-Extensive University in the Southern Region of the United States

Discriminating Variables	β	s	Discriminant Functions	
			Group	Centroids
Parent Graduate Status	.523	.573	Enrolled	.189
Residence Status	.464	.534	Non-Enrolled	-.346
ACT Composite Score	-.392	-.187		
Gender	.350	.374		
Honor College Admission	.294	.108		
Academic High School GPA	-.234	-.313		
Race - Hispanic	.225	.186		
Public/Private High School	.212	.483		
Lived Within 100 Miles	^a	.452		
Rank-In-High School Class	^a	-.314		

^aDid not enter the discriminant model as a significant predictor

<u>Eigen Value</u>	<u>Rc</u>	<u>Wilk's Lambda</u>	<u>p</u>
.065	.248	.939	< .001

β = standardized discriminant function coefficient

s = within group structure correlation

Rc = canonical correlation coefficient

Note. N = 1,479

In addition, three variables did not meet the criteria for a substantively significant structure correlation but entered the discriminant model. These three variables were: college entrance examination (ACT) composite score ($s = -.187$; $\beta = -.392$); race - Hispanic ($s = .186$; $\beta = .225$); and whether or not the student was offered admission to the Honors College ($s = .108$; $\beta = .294$). Table 27 presents the summary data for the discriminant analysis of the derived model.

Step Four of Discriminant Analysis

Finally, the researcher examined the correctly classified cases. The data found in Table 28 show that the derived model correctly classified 65.0% of the original grouped cases. This researcher used the Tau statistic as presented by Barrick and Warmbrod (1988) to measure the substantive significance of the percentage of correctly classified cases in this study. The result of this procedure identifies the amount of improvement over chance regarding the proportion of correctly classified cases. In this study, the researcher found a 30.1% improvement over chance that could be obtained on these subjects using this predictive formula (see Equation 1).

Table 28.
Enrollment Status Classification of Admitted High-Achieving Students at a Research-Extensive University in the Southern Region of the United States

<u>Actual Group</u>	<u>Number of Cases</u>	<u>Predicted Group</u>	
		Enrolled $\frac{n}{\%}$	Non-Enrolled $\frac{n}{\%}$
Enrolled	956	916 89.8%	104 10.2%
Non-Enrolled	523	494 71.6%	196 28.4%

Note. Percent of cases correctly classified: 65.0%.

Note. $N = 1,479$

Equation 1

$$\text{Tau} = \frac{\underline{n}_c - E p_i \underline{n}_i}{\underline{N} - E p_i \underline{n}_i}$$

\underline{n}_c = number correctly classified

p_i = probability of being classified into a group by chance

\underline{n}_i = number in a group

\underline{N} = total number of cases (Barrick & Warmbrod, 1988)

$$\text{Tau for all variables} = \frac{112 - (.5) + (.5)(1,020)}{1,710 - (.5)(690) + (.5)(1,020)} = \frac{257}{855} = 30.1\%$$

CHAPTER 5.

SUMMARY

Summary of Purpose and Specific Objectives

The primary purpose of this study was to determine the influence of selected demographic and academic characteristics on the decision of traditional-age, high-achieving freshman students to enroll at a research-extensive university in the Southern region of the United States. The dependent variable of this study was whether or not the traditional-age, high-achieving freshman students who applied and were admitted, subsequently enrolled at a research-extensive university in the Southern region of the United States for the fall 2005 semester as defined by their payment of fees and inclusion in the 14th class-day statistics.

With this stated, the following specific objectives were formulated to guide this research study:

1. To describe traditional-age, high-achieving freshman students who were admitted and enrolled for the fall 2005 semester as defined by their payment of fees and inclusion in the 14th class-day statistics at a research-extensive university in the Southern region of the United States on the following demographic and academic characteristics:

- (a) Gender;
- (b) Race;
- (c) Whether or not the student was classified as a resident of the state;
- (d) Whether or not the student received a major academic scholarship;
- (e) Whether or not the student was offered admission to the Honors College;
- (f) Whether the student graduated from a public or private high school or was home-schooled;

- (g) Whether or not the student's parent graduated from the institution;
- (h) Whether or not the student lived within 100 miles of the university;
- (i) Overall high school grade point average;
- (j) Academic high school grade point average;
- (k) Required high school grade point average;
- (l) College entrance examination (ACT) composite score; and
- (m) Rank-in-high school class.

2. To describe traditional-age, high-achieving freshman students who were admitted but did not enroll for the fall 2005 semester as defined by their nonpayment of fees and non-inclusion in the 14th class-day statistics at a research-extensive university in the Southern region of the United States on the following demographic and academic characteristics:

- (a) Gender;
- (b) Race;
- (c) Whether or not the student was classified as a resident of the state;
- (d) Whether or not the student was offered a major academic scholarship;
- (e) Whether or not the student was offered admission to the Honors College;
- (f) Whether the student graduated from a public or private high school or was home-schooled;
- (g) Whether or not the student's parent graduated from the institution;
- (h) Whether or not the student lived within 100 miles of the university;
- (i) Overall high school grade point average;
- (j) Academic high school grade point average;
- (k) Required high school grade point average;

- (l) College entrance examination (ACT) composite score; and
- (m) Rank-in-high school class.

3. To compare the traditional-age, high-achieving freshman students who were admitted and enrolled for the fall 2005 semester as defined by their payment of fees and inclusion in the 14th class-day statistics at a research-extensive university in the Southern region of the United States to those traditional-age, high-achieving freshman students who were admitted but did not enroll for the fall 2005 semester as defined by their nonpayment of fees and non-inclusion in the 14th class-day statistics at the same institution on the following demographic and academic characteristics:

- (a) Gender;
- (b) Race (For this analysis, the American Indian category of race was eliminated since the number of students in this group was insufficient to include in the chi-square analysis.);
- (c) Whether or not the student was classified as a resident of the state;
- (d) Whether or not the student received or was offered a major academic scholarship;
- (e) Whether or not the student was offered admission to the Honors College;
- (f) Whether the student graduated from a public or private high school or was home-schooled (This variable was treated as two separate variables with whether the student attended a public or private high school as one variable, and whether or not the student was home-schooled treated as the other variable.);
- (g) Whether or not the student's parent graduated from the institution;
- (h) Whether or not the student lived within 100 miles of the university;
- (i) Overall high school grade point average;
- (j) Academic high school grade point average;
- (k) Required high school grade point average;

- (l) College entrance examination (ACT) composite score; and
- (m) Rank-in-high school class.

4. To determine if a model existed that significantly increased the researcher's ability to accurately explain the enrollment status of traditional-age, high-achieving freshman students who applied and were admitted at a research-extensive university in the Southern region of the United States for the fall 2005 semester as defined by their payment of fees and inclusion in the 14th class-day statistics.

Summary of Methodology

The target population for this study was defined as all traditional-age, high-achieving freshman students who applied to and were admitted to attend a research-extensive university. The accessible population was defined as all traditional-age freshman students who applied to and were admitted to attend one selected research-extensive university in the Southern region of the United States for the fall 2005 semester. Initially, the researcher identified all the traditional-age, high-achieving freshman students who applied to and were admitted to attend the selected university for the fall 2005 semester from the database of the study institution's Office of Undergraduate Admissions. The researcher defined a "high-achieving student" as one who had at least a 3.00 academic high school grade point average as calculated on a 4.00 scale on all completed high school academic courses and at least a 28 composite ACT score or 1240 SAT score. This accessible population was 1,733 admitted students. The sample population was defined as 100% of the accessible population. Thus, there were 1,733 traditional-age, high-achieving freshman students who were selected as the sample for this study. Of these 1,733 admitted students, there were 1,030 students who enrolled as defined by their payment of fees

and inclusion in the 14th class-day statistics. The remaining 703 students were those who did not enroll as defined by their nonpayment of fees and non-inclusion in the 14th class-day statistics.

The instrument that was used to collect data for this study consisted of a researcher-designed, computerized, recording form. The specific variables that were measured were selected based on the review of the related literature and the information that was obtained from the University's Office of Undergraduate Admissions and Office of Student Aid and Scholarships databases. All variable information needed for this study was downloaded from these databases into a file which served as the research instrument.

Permission for this study was requested and granted from University administrators; permission to access the necessary data and approval for conducting the study was requested and approved from the Institutional Review Board (IRB). Computer assistance was requested from and approved by the University's Office of Undergraduate Admissions and Office of Student Aid and Scholarships.

The first and second objectives were descriptive and were analyzed using descriptive statistics. Frequencies and percentages were used for variables that were measured on a categorical scale (nominal or ordinal). Means and standard deviations were used for variables that were measured on interval or higher measurement scales.

Data analysis used to accomplish the third objective included the chi-square test of independence and the independent t test. For the variables that were measured on a categorical scale of measurement (nominal or ordinal), the chi-square test of independence was used to determine if each of the measures were independent of the dependent variable, whether or not the admitted student enrolled at the institution. For variables that were measured on an interval or

higher scale of measurement, the independent t test procedure was used to compare the enrolled students with those who were admitted but did not enroll. An a priori significance level of $< .05$ was used to determine if the independent variables were statistically significant.

Discriminant analysis was used to accomplish the fourth objective of this study. Enrollment status, measured as a dichotomous variable, was the dependent variable in the analysis. The independent variables were entered as either continuous variables or as binary-coded variables as appropriate. An a priori significance level of $< .05$ was used to determine if the independent variables were statistically significant.

Summary of Major Findings

The major findings of this study are discussed by objective.

Objective One

This objective was to describe the traditional-age, high-achieving freshman students who were admitted and subsequently enrolled for the fall 2005 semester at the study institution on certain demographic and academic variables.

Demographic and Personal Information

Of the 1,030 high-achieving students who were admitted and subsequently enrolled, there were more males ($\underline{n} = 549, 53.3\%$) than females ($\underline{n} = 481, 46.7\%$). Caucasians ($\underline{n} = 933, 91.5\%$) accounted for the vast majority in this population with Asians ($\underline{n} = 36, 3.5\%$) a distant second among the race groups. The overwhelming majority of enrolled students were residents of the state ($\underline{n} = 834, 81.0\%$). Of the high-achieving students who received at least one of the five major scholarships ($\underline{n} = 488, 47.4\%$), the majority of these students ($\underline{n} = 286, 57.2\%$) received the Centennial Award. The Honors College offered admission to 38.7% ($\underline{n} = 399$) of the students.

For those who enrolled, 563 students (54.7%) attended a public high school while 467 students (45.3%) attended a private school. Only 7 students (0.7%) reported that they were home-schooled. For purposes of the previous measurement, these home-schooled students were considered to have attended a private high school. Nearly one-third of these enrolled students ($n = 334$, 32.4%) had a parent who graduated from the institution, while nearly two-thirds of them ($n = 672$, 65.2%) lived within 100 miles of the university.

Academic Information

The high school grade point averages (GPA) that were examined in this objective resulted in the following means (M) and standard deviations (SD):

- Overall high school GPA: 3.73 M; 0.23 SD
- Academic high school GPA: 3.64 M; 0.30 SD
- Required high school GPA: 3.69 M; 0.27 SD

When observed by range of scores, the 3.75-3.99 range contained the largest number of scores for each of the three GPAs (overall GPA: $n = 394$, 38.3%; academic GPA: $n = 291$, 28.3%; required GPA: $n = 322$, 31.3%). The mean composite ACT score for these high-achieving students was 29.7 (SD = 1.61). The ACT composite score of 28 was found to be the most frequent score ($n = 318$, 30.9%). Of the 1,030 students who met the criteria for this objective, 963 students (93.5%) had a high school rank-in-class reported. The mean rank for this group was .83 (SD = 0.16). When these ranks were reviewed in ranges, the largest number of students ranked in the top 5% (.95 - .99) of their class ($n = 289$, 30.0%).

Objective Two

This objective was to describe the traditional-age, high-achieving freshman students who were admitted but did not enroll for the fall 2005 semester at the study institution on certain demographic and academic variables.

Demographic and Personal Information

Of the 703 high-achieving students who were admitted but did not enroll in the university, there were more females ($\underline{n} = 390$, 55.5%) than males ($\underline{n} = 313$, 44.5%). Caucasians ($\underline{n} = 625$, 90.6%) accounted for the vast majority in this population with Asians ($\underline{n} = 34$, 4.9%) a distant second among the race groups. Residents of the state made up 57.3% ($\underline{n} = 403$) of the students who did not enroll. The majority of these students were offered at least one of the five major scholarships ($\underline{n} = 365$, 51.9%), with the Centennial Award accounting for the scholarship with the most offers to these non-enrolled students ($\underline{n} = 150$, 41.0%). The Honors College offered admission to 34.4% ($\underline{n} = 242$) of the students. For those who did not enroll, 464 students (66.0%) attended a public high school while 239 students (34.0%) attended a private school. Only 6 students (0.9%) reported that they were home-schooled. For purposes of the previous measurement, these home-schooled students were considered to have attended a private high school. Only 17.9% ($\underline{n} = 126$) of the high-achieving students reported that at least one of their parents had graduated from the institution. A majority of these students who did not enroll lived more than 100 miles from the university ($\underline{n} = 405$, 57.6%).

Academic Information

The high school grade point averages (GPA) that were examined in this objective resulted in the following means (M) and standard deviations (SD):

- Overall high school GPA: 3.75 M; 0.23 SD
- Academic high school GPA: 3.68 M; 0.30 SD
- Required high school GPA: 3.71 M; 0.28 SD

When observed by range of scores, the 3.75 - 3.99 range contained the largest number of scores for each of the three high school GPAs (overall GPA: $\underline{n} = 278$, 39.5%; academic GPA: $\underline{n} = 212$, 30.2%; required GPA: $\underline{n} = 214$, 30.4%). The mean composite ACT score for these high-achieving students was 29.8 (SD = 1.71). The composite score of 28 was found to be the most frequent score ($\underline{n} = 210$, 29.9%). Of the 703 students who met the criteria for this objective, 529 students (75.3%) had a high school rank-in-class reported. The mean rank for this group was .85 (SD = 0.15). When these ranks were reviewed in ranges, the largest number of students ranked in the top 5% (.95 - .99) of their class ($\underline{n} = 198$, 37.4%).

Objective Three

This objective sought to compare the high-achieving students who were admitted and enrolled to the high-achieving students who were admitted but did not enroll for the fall 2005 semester at the study institution on certain demographic and academic variables. Of the 14 specific variables that were compared, 8 variables were found to be statistically significant as they were not independent of the variable, enrollment status, using an a priori significance level < .05. These 8 variables were as follows:

1. Whether or not the student was classified as a resident of the state;
2. Whether or not the student lived within 100 miles of the university;
3. Whether or not the student's parent graduated from the institution;
4. Whether the student graduated from a public or private high school;
5. Gender;
6. Academic high school grade point average;
7. Overall high school grade point average; and
8. Rank-in-high school class.

The majority of resident students who were admitted to the university ($\underline{n} = 834, 67.4\%$) enrolled in the institution, while the majority of the nonresident students ($\underline{n} = 300, 60.5\%$) did not enroll in the institution $\chi^2 (1, \underline{N} = 1,733) = 114.35, p < .001$. When the variable, whether or not the student lived within 100 miles, was tested for independence $\chi^2 (1, \underline{N} = 1,733) = 88.55, p < .001$, the majority of the admitted students who lived within 100 miles of the university ($\underline{n} = 672, 69.3\%$) enrolled, while the majority of the students who did not live within 100 miles of the university ($\underline{n} = 405, 53.1\%$) did not enroll.

The results from the chi-square analysis $\chi^2 (1, \underline{N} = 1,733) = 45.08, p < .001$ of the variable, whether or not the student's parent graduated from the institution, found a higher proportion of students ($\underline{n} = 334, 72.6\%$) who reported at least one of their parents graduated from the institution enrolled than for those students who indicated that they did not have a parent who graduated from the institution ($\underline{n} = 696, 54.7\%$) and enrolled. The variable, whether the student graduated from a public or private high school, was not found to be independent of the variable, enrollment status, and thus was statistically significant $\chi^2 (1, \underline{N} = 1,733) = 22.27, p < .001$. A higher proportion of the admitted high-achieving students who had attended a private high school ($\underline{n} = 467, 66.1\%$) enrolled than the proportion of admitted high-achieving students who had attended a public high school ($\underline{n} = 563, 54.8\%$) and enrolled. When gender was examined for a relationship with enrollment status $\chi^2 (1, \underline{N} = 1,733) = 12.88, p < .001$, the results were statistically significant with a higher proportion of admitted males enrolled ($\underline{n} = 549, 63.7\%$) than the proportion of admitted females who enrolled ($\underline{n} = 481, 55.2\%$).

Academic high school grade point average (GPA) was another variable that the researcher found to be statistically significant ($t_{1731} = 2.920, p = .004$) when compared to the variable,

enrollment status. The nature of the difference in this variable was such that the non-enrolled students had a significantly higher academic high school GPA ($\underline{M} = 3.68$) than the enrolled students ($\underline{M} = 3.64$). Another variable for which a significant difference was found between the enrolled and non-enrolled students was the overall high school GPA ($\underline{t}_{1731} = 2.529, p = .012$). The non-enrolled students had a significantly higher overall high school GPA ($\underline{M} = 3.75$) than the enrolled students ($\underline{M} = 3.73$). The last variable that demonstrated a significant difference between enrolled and non-enrolled students was rank-in-high school class ($\underline{t}_{1490} = 2.438, p = .015$). It was found that the non-enrolled students had a significantly higher rank-in-high school class ($\underline{M} = .85$) than the enrolled students ($\underline{M} = .83$).

The following variables were not found to be significantly different when compared to the variable, enrollment status:

- Major scholarship offered: $\chi^2 (1, \underline{N} = 1,733) = 3.45, p = .063$
- Honors College admission: $\chi^2 (1, \underline{N} = 1,733) = 3.34, p = .068$
- Home-schooled: $\chi^2 (1, \underline{N} = 1,733) = 0.17, p = .680$
- Race: $\chi^2 (3, \underline{N} = 1,705) = 5.66, p = .130$
- Required High School GPA: $\underline{t}_{1731} = 1.862, p = .063$
- ACT Composite Score: $\underline{t}_{1731} = 1.509, p = .132$

Objective Four

The fourth and final objective of this study was to determine if a model existed that would statistically increase the researcher's ability to accurately explain the enrollment status of high-achieving students who were admitted at a research-extensive university in the Southern region of the United States for the fall 2005 semester. There were eight independent variables that entered the model producing an overall canonical correlation of $\underline{R}_c = .248$. These eight variables were:

1. Whether or not the student's parent graduated from the institution;
2. Whether or not the student was classified as a resident of the state;
3. College entrance examination (ACT) composite score;
4. Gender;
5. Whether or not the student was offered admission to the Honors College;
6. Academic high school grade point average;
7. Race - Hispanic; and
8. Whether the student graduated from a public or private high school.

Therefore, the combination of the eight variables in the exploratory model correctly classified 65.0% of the original grouped cases.

Conclusions, Implications, and Recommendations

Based on the findings from this study, the researcher has derived the following conclusions, implications, and recommendations:

Conclusion One

1. The majority of the high-achieving students who enrolled were not only residents of the state, but also lived within 100 miles of the university.

This conclusion is based on the findings that 67.4% of the high-achieving students who were admitted and enrolled were residents and 69.3% of the high-achieving students who were admitted and enrolled lived within 100 miles of the university. It is clear in this study that a student's residency status and distance to the campus played a major factor in whether the student enrolled in the study institution.

This is consistent with findings of other studies in the literature. Brown and Hoyt (2003), Canterbury (1989), Chapman (1981), Choroszy, et al. (1983), Cook and Zallocco (1983), and Erdmann (1983) found that the location of the institution was one of the influences that affected a student's college choice. Dixon and Martin (1991) also discovered four types of influences that affected college choice with one of them being the location of the school. Grossman (1992)

found that the high school counselors in his study reported that most students chose to remain within a 100-mile radius of their home when selecting an institution to further their education. However, this researcher found two findings that were in conflict with this conclusion. Studies by Hearn (1984) and Jackson (1978) examined high-ability students' college choice. Both found that high-ability students are more likely to attend very selective institutions and are more likely to select out-of-state schools. Very selective schools are those whose admission offices do not publish admission requirements for assured admission. These institutions use a holistic review of their applicants by considering such things as essays, interviews, and recommendation letters in addition to the high school transcript and scores on the college entrance examinations. The institution in this study is not considered very selective because it publishes minimum admission requirements that assure a student's acceptance. It is however, considered to be a selective institution because the minimum requirements for assured admission are higher than the state's profile of an average high school student.

Carnevale and Fry (2000) have reported that a decline of high school students in this country is expected over the next 10 years, including several states in the Southern region of the United States. Because of this anticipated decline in high school graduates, and since this study demonstrated that the majority of the students who were classified as residents, especially those who lived close to the institution, enrolled in this major university, higher education institutions must conduct and/or rely on relevant research in order to implement the most effective recruitment and enrollment model(s) that would increase, or at least maintain, the number of students who enroll at their institutions. In addition, institutions in states such as Louisiana and Florida that have cluster populations as a result of their topography, ethnicity distributions, and

urban-versus-rural areas, would especially benefit from these types of research studies. The researcher recommends that these research studies include surveying enrolled and non-enrolled resident students along with conducting student interviews and focus-groups according to the distance their home is in reference to the location of the university. The results would be beneficial to enrollment managers in an effort to learn what factors, if any, have been and/or would be effective in recruiting students to attend colleges further from their home. To complement these research initiatives, the researcher suggests the use of the same types of instruments with nonresident enrolled and non-enrolled students.

Conclusion Two

2. The majority of high-achieving students who enrolled were Caucasian.

This conclusion is based on the finding that 91.5% of those that were admitted and subsequently enrolled identified themselves as Caucasians.

This conclusion is consistent with the finding of Cibik (1981) who reported that the percentage and kinds of minority students at a college were more important to minority groups when selecting a higher education institution. Two other findings in this researcher's review of the literature were found that are consistent with this conclusion. McDonough et al. (1998) stated that African American students tend to choose historically black colleges and universities. Hearn (1984) reported that African Americans were more likely to attend a local community or junior college than four-year institutions. These findings are relevant because the institution in this study is located in a metropolitan city that not only has a major historically black university, but there is also a fast-growing accredited community college in the city and another community college in a neighboring parish that serves as a bedroom community to the city.

This researcher believes that this high percentage of enrolled Caucasians at this study institution should be a concern for not only this university but also for any institution of higher education. Since the United States is composed of many races and nationalities, it is imperative that the student body of each institution strives to mirror the ethnic composition of this country or at least the region in which the institution is located.

In light of this finding, it is imperative for institutions to carefully examine the relationship between the office of diversity or minority affairs and the recruitment office. The opportunities that promote campus diversity and the involvement of minority groups through organizations and programs for these students should be consistently promoted in recruitment materials and at programs and events for potential students. Prominent minority faculty and outstanding minority students should be showcased at recruitment programs. If it is determined that an effective relationship does not exist between these two offices and/or the promotion of campus diversity and minority participation at recruitment functions is limited or nonexistent, then the administration of the institution should take immediate steps to bring these offices together in order to establish an effective marketing plan that includes the positive aspects of the diversity that exists on campus and the accomplishments and recognitions contributed by minority faculty, staff, and students.

Therefore, this researcher recommends further study regarding the racial compositions of higher education institutions. Since the university in this study enrolled less than 10% minority students, this researcher recommends further studies with both enrolled and non-enrolled minority students, particularly the African American students, to see what factors were primary in their enrollment or non-enrollment decision. A qualitative research study could be conducted

using personal interviews and surveys to obtain information from minority students as to their perceptions of the institution, recruitment initiatives, admission procedures, orientation opportunities, and the academic and social climates present on the campus. In addition, this researcher suggests a qualitative study be conducted with minority faculty and staff to obtain their perceptions on these same areas. From these results, recruitment offices could determine what enrollment strategies to incorporate in an effort to increase the number of enrolled minority students. The admission and orientation offices could evaluate their policies and programs for possible enhancements that would make the application process and orientation activities more welcoming to the students that would result in more positive experiences. The diversity or minority affairs office would also benefit from these studies as they would have a better realization of the importance of their roles on campus and in the recruitment of more minority students.

Conclusion Three

3. Having a parent who graduated from this institution was an important factor in the enrollment of admitted students at this university.

This conclusion is based on the finding that a higher proportion of students who reported at least one of their parents graduated from the institution enrolled (72.6%) than for those students who indicated that they did not have a parent who graduated from the institution and enrolled (54.7%).

Studies by Bowles and Wanat (1992), Dixon and Martin (1991), Fermin and Pope (2003), and Moogan and Baron (2003) corroborated this conclusion by reporting that parents play a significant role in their child's college choice. The fact that a higher proportion of students in

this study who had at least one parent who graduated from the institution did enroll further strengthens the influence that these parents had on their children's college choice.

This researcher recommends further study with parents whose children have been admitted to or are currently attending the college or university where they graduated to determine the influences these parents had or have on their children's interest in attending their alma mater. It is imperative for institutions to carefully examine the relationship between the recruitment personnel and the alumni and foundation offices. This research could be accomplished through surveys to alumni, focus groups, and interviews. If the institution has alumni chapter programs, these same research instruments could be used with these alumni in an effort to learn what factors have been effective in attracting the local alumni to participate in their chapter events. Information could also be obtained regarding possible chapter participation in recruitment activities for their alumni and potential students who live in their area.

An effective alumni organization that establishes and maintains positive relationships with graduates may prove invaluable to recruitment efforts, especially in light of this finding. Thus, it is important to determine if recruitment opportunities are regularly included as part of alumni programs and events. If it is determined that an effective relationship does not exist between the recruitment staff and the alumni office, then the administration of the institution should take immediate steps to move to this relationship.

In addition, the relationships these alumni parents have with their institutions could also be investigated in an effort to learn what factors have positively or negatively affected their involvement with their alma mater. From these results, recruitment and enrollment personnel could determine the strategies that would incorporate more parental involvement activities for

these alumni in an effort to increase the enrollment yield. University foundations and alumni organizations could also benefit from these research studies. Alumni programs and activities could be enhanced or developed that would improve the perceptions of the institution and increase participation through contributions and attendance at alumni events. Academic departments would also be benefactors of these studies. Each academic unit could investigate initiatives, including any recent accomplishments, awards, and recognitions, that could promote the department to alumni, especially those who graduated from their discipline. In addition to these studies regarding alumni parents, these research strategies could easily be expanded to include parents who are not alumni of the institution.

Conclusion Four

4. Having graduated from a private high school had a positive impact on the student's decision to enroll at this research-intensive university.

This conclusion is based on the finding that a higher proportion of enrolled students had attended a private school (66.1%) than for those enrolled students who had attended a public school (54.8%).

Based on these findings and conclusion the researcher recommends that university administrators should examine current recruitment efforts in public and private schools to determine if these existing practices are related to this higher success rate with private schools than with public schools. If recruitment practices are found to be different between private and public high schools, then the institutions should examine these differences and make the necessary revisions and enhancements accordingly. If no differences exist in the recruitment practices at private and public high schools, then this researcher suggests studies to determine

what factors have caused the enrollment of a higher proportion of high-achieving students from private high schools to enroll. Interviews and focus groups with enrolled and non-enrolled students who graduated from both private and public schools could discover these factors.

From the review of the related literature, studies by Grossman (1991 & 1992) and Johnson (1994) have found that the high school counselor plays a significant role in the student's college-choice decision. Therefore, the researcher suggests that surveys, interviews, and focus groups could be conducted with guidance counselors from public and private high schools to obtain their perceptions as to the enrollment or non-enrollment of their students to an institution and to determine what factors they believe are important to the students who enroll at an institution.

Conclusion Five

5. Non-enrolled high-achieving students had higher academic credentials than the enrolled high-achieving students.

These conclusions are based on the findings that the non-enrolled high-achieving students had a significantly higher means in rank-in-high school class ($\underline{M} = .85$) and academic high school grade point average ($M = 3.68$) than the enrolled high-achieving students' means in rank-in-high school class ($\underline{M} = .83$) and academic high school grade point average ($\underline{M} = 3.64$).

Though not directly related to this conclusion, it is of interest to note that this researcher found only one study regarding rank-in-high school class and a recalculated high school grade point average that is similar to the academic high school grade point average used by this study institution. Miller et al. (1991) reported from a survey of 105 members of the Association of Chief Admission Officers of Public Universities that the use of a recalculated high school grade

point average and rank-in-high school class were used extensively by these institutions in making admission decisions.

Obviously, institutions, including this university that was studied, want to report that more admitted students with higher class ranks and high school grade point averages enroll in their schools than students with lower credentials. Since the study institution is a major public research-extensive university, collects the rank-in-high school class from applicants, and calculates not only an academic high school grade point average, but also a required high school grade point average, this researcher suggests further study especially in light of this conclusion. Qualitative studies, conducted with non-enrolled high-achieving students, could be used to determine what factors caused them to choose another institution. In addition, learning what institutions these outstanding students are attending would be beneficial. Research on these competitors could then be initiated in order to discover leveraging information that would help in the recruitment of these students. In concert with these studies, the researcher further suggests studies with the enrolled high-achieving students to determine what factors caused them to enroll. From these findings, the institution should expand the promotion of these factors in recruitment literature and activities.

Conclusion Six

6. Whether or not the student was offered a major academic scholarship did not positively influence the admitted high-achieving students' decision to enroll at this study institution.

This conclusion is based on the findings that the majority of the high-achieving students who did not enroll were offered a major academic scholarship (51.9%) while the majority of the high-achieving students who did enroll were not offered a major scholarship (52.6%). In

addition, the discriminant variable mean was higher for the non-enrolled students ($\underline{M} = .52$) than for the enrolled students ($\underline{M} = -.47$).

This conclusion is in contradiction to the findings in the literature. Studies have found that scholarship offers and the amount of money awarded in the scholarships are significant in the recruitment and enrollment of all students, not just the high-achievers (Baksh and Hoyt, 2001; Bowles and Wanat, 1992; Brown and Hoyt, 2003; Campaigne and Hossler, 1998; Gibbs, 1995; Litten, 1982a; Litten and Brodigan, 1982b; Tierney, 1983). Farelle (2003) reported that in the 2003-2004 academic year, tuition at four-year, public colleges escalated by the highest percentage in more than 30 years and this cost is rising faster than inflation. Since the acquisition of a college degree is becoming more and more essential in order to obtain the best jobs with higher salaries, a paradox has been created. Students need money in order to make money. Thus, many students must rely on scholarships or financial aid in order to further their education following high school. A study by Britt et al. (1996) found that the most influential factors affecting a student's decision to attend college or not are economic and financial issues based on the family's support. In addition, these researchers along with Sevier (1992) concluded that many students from minority backgrounds tend to avoid college due to financial hardships for their family if they chose to attend college. Research by Eberly et al. (1991), Litten, (1982a), and Smith and Matthews, (1990) found that minority students, African Americans in particular, are more cost-conscious in their college selection, and thus are more likely to enroll at institutions that are sensitive to their financial needs by offering them scholarships, grants, and other financial aid packages. Farelle (2003) also found that the availability of need-based

financial aid is decreasing in relationship to merit-based aid which has seen a steady increase over the years.

Based on these findings and the conclusions from this study, the researcher recommends further research in the financial support that is available to students with a major emphasis on need-based aid. An assessment of all financial aid offerings should be performed in order to determine the threshold that exists at the institution. The enrollment management professionals should also investigate the financial support for students at peer institutions and make any appropriate adjustments and enhancements so that their financial aid and scholarship packages are attractive to students and competitive with their peers.

It should also be noted that the fastest growing minority group in the nation is Hispanic (Mesa, 2005). These students, like other minorities, are primarily first-generation college students and lack financial support and experience in the college admission process. Mesa (2005) also found that parents are the keys to attracting Latino students. Therefore, the researcher recommends that enrollment managers and financial aid personnel incorporate strategies to help recruit and educate Latino students and their parents regarding the importance of a higher education and the opportunities that are available to help finance their education. The institution should make sure that all pertinent literature and information about the school, including admission, academic programs, and financial aid and scholarships, are available in Spanish.

It must be emphasized that a component of this study involved the influence of being offered one of the five major academic scholarships to high-achieving students on their enrollment decision at this study institution. The researcher did not analyze all scholarships

offered to these select students. In addition, the institution is located in a state that provides four-year tuition scholarships to high school graduates who are residents, have a 2.5 overall grade point average and at least a 20 ACT composite score. Since this study institution's admission requirements are higher than these state requirements, 93.8% (3,889 of 4,147, Office of Budget and Planning, Fall 2005) of the state's freshman students who were enrolled for the fall 2005 semester received this scholarship. In addition, the five academic scholarships that were studied were offered to 488 of 1,030 enrolled students and to 365 of 703 non-enrolled students. These issues could be major factors in why this scholarship variable was not found to be statistically significant in this study.

This researcher recommends that enrollment managers at this institution build on this research by investigating and analyzing the influences of all scholarship and financial packages offered to admitted freshman students on their enrollment status. These professionals should examine the overall award process from the recruitment of students who are in the scholarship/financial pool through admission, orientation, and enrollment stages. To complement this review, qualitative studies should be conducted with both enrolled and non-enrolled students who were offered scholarships and/or financial aid to determine the influence that these monies contributed to their enrollment decision. From this research, models could be created that would ensure that the best financial aid packages are awarded to the most students. It is economically important and critical to the enrollment yield that administrators know what award values and number of awards are needed in order to increase the enrollment of students.

In order to publicize the scholarships and financial aid opportunities that are available to potential students, it is imperative for institutions to carefully examine the relationship between

the student aid and scholarship office and the recruitment office, especially in light of these findings. Thus, it is important to determine if this financial assistance information is regularly included as part of recruitment programs and events. If it is determined that an effective relationship does not exist between these two offices, then the administration of the institution should take immediate steps to move to this relationship.

Conclusion Seven

7. Whether or not the student was offered admission to the Honors College had a positive influence on the enrollment of admitted high-achieving students.

This conclusion is based on the findings that this variable did make a contribution to the discriminant model ($\beta = .294$). It is also important to note that a higher proportion of the high-achieving students who were offered admission to the Honors College subsequently enrolled (38.7%) than the proportion of students who were offered admission to the Honors College and did not enroll (34.4%). In addition, the discriminant variable mean was higher for the enrolled students ($\underline{M} = .39$) than for the non-enrolled students ($\underline{M} = .36$).

Since Hawthorne and Malaney (1992) found that selectivity is the most common attribute of all honors programs, it is important for academic personnel responsible for selection and recruitment of these students to know what factors are significant to them in their enrollment decision. Therefore, this researcher recommends further study to determine what these factors are that influence students to enroll in honor colleges. An initial review and evaluation of current practices and strategies in the selection and recruitment of students to honors colleges should be performed. This should be followed by qualitative studies with students who enrolled in the honors program and with students who were offered admission to the honors program but did not

enroll. From the information obtained through interviews, focus groups and/or surveys, academic personnel would be able to ascertain how to effectively recruit and improve the enrollment yield of these honor students.

An effective honors college program that establishes and maintains positive relationships with their graduates may prove invaluable to recruitment efforts, especially in light of these findings. It is also imperative for institutions to carefully examine the relationship between the recruitment personnel and the honors college because the honors college program must be highly visible and promoted in an effort to attract outstanding students to the institution. Thus, it is important to determine if honors college opportunities are regularly included as part of the university's recruitment programs and events. If it is determined that an effective relationship does not exist between the honors college and the recruitment office, then the administration of the institution should take immediate steps to move to this relationship.

The researcher also suggests that Honors colleges need to examine their academic course offerings to ensure that their programs are attractive to students in any academic discipline. The more diverse the honors curricula are, the more interest there will be to more potential students.

Conclusion Eight

8. A model existed that increased the ability to correctly explain whether or not admitted high-achieving students enroll at a research-extensive university in the Southern region of the United States.

This conclusion is based on the finding that the combination of the 8 variables in the discriminant model enabled the researcher to correctly classify 65% of the participants on their enrollment status. These 8 variables were: whether or not the student's parent graduated from

the institution; whether or not the student was classified as a resident of the state; college entrance examination (ACT) composite score; gender; whether or not the student was offered admission to the Honors College; academic high school grade point average; race - Hispanic; and whether the student graduated from a public or private high school. The variables included in this model were a combination of factors which were both anticipated and not anticipated to contribute to the model based on previous studies.

The variable, whether or not the student was classified as a resident of the state, is an example of one factor that was anticipated to contribute to the model due to research studies by Brown and Hoyt (2003), Canterbury (1989), Chapman (1981), Choroszy et al. (1983), Cook and Zallocco (1983), and Erdmann (1983).

An example of a variable that was not anticipated to contribute to the model is race - Hispanic since the researcher found that the majority of high-achieving students who enrolled at this study institution were Caucasian. As previously reported in this study, however, the fastest growing race in the United States is Hispanic (Mesa, 2005).

Although this discriminant model correctly classified 65% of the participants on their enrollment status, 35% were not correctly classified. Therefore, based on this finding and conclusion, and in order to enhance the effectiveness of this model, the researcher recommends further research in an effort to increase the percentage of correctly classified students who are admitted and subsequently enroll at this research-extensive university in the Southern region of the United States. The researcher suggests building on this model by integrating these same variables with other variables that could further explain and predict future freshman classes.

One major variable that should be considered is the institution's image as perceived by potential students. Sevier (1994) found that image and reputation are the most powerful and precious marketing tools an institution has, and these are the institution's most significant assets. This researcher found a number of other studies (Bowles & Wanat, 1992; Brown & Hoyt, 2003; Goenner & Snaith, 2004; Price, 2002; Rickard, 1991; Seneca & Taussig, 1987; Tierney, 1983) that support the importance of a school's image and reputation as influential factors on college choice. In line with this current research, additional studies (Baksh & Hoyt, 2001; Litten, 1982a; Litten & Brodigan, 1982b) have reported that the institution's academic reputation is one of the most important college-choice factors influencing academically-gifted students. An institution's image and reputation could be measured through survey instruments and personal interviews with both enrolled and non-enrolled students as to their perception of the university.

The student's declared academic major or field of study is another variable that could be considered as contributing to a student's college choice. At this study institution, 88.3% of admitted students (6,643 of 7,526 declared a major) indicated at least one declared major from the 71 majors offered by this study institution. Studies by Litten, (1982a), Choroszy, et al. (1983), Cook and Zallocco, (1983), and Erdmann, (1983) discovered that academic programs offered by institutions play a major factor in students' college-choice selection. Thus, this variable could possibly help to increase the model's ability to correctly explain enrollment status of students. This variable could be measured in a quantitative study by examining which academic majors indicated the highest success rates of admitted students who enrolled. Then the researcher could study what factors contribute to the successful yield of these academic majors.

These findings could then be shared with the academic units which demonstrated lower success rates in an effort to effectively promote these disciplines and increase their success rates.

The influence of the high school counselor on a student's decision to enroll at a particular institution is another factor to consider as a variable that could contribute in future research concerning this model. One study by Johnson (1994) and two by Grossman (1991 & 1992) concluded that high school counselors provide significant influence on their students' college selection. Grossman (1992) further emphasized the high school counselors' importance by reporting that the counselors rank themselves and parents as the top two influences on students' college decision choice. Since these professionals have been proven to play a major role in this issue, the researcher recommends a qualitative study with high school counselors to determine their perceptions of the study institution. Counselors from major feeder high schools, both public and private, should be considered for focus groups and individual interviews. In addition, surveys could be administered to high school counselors in an effort to obtain additional information for this study.

The relationships an applicant has with the recruitment, admission, orientation, and financial aid offices are other variables that might be found as significant contributors to improving the model's ability to correctly explain whether or not admitted students enroll at a study institution. McGowen (1999), Ott (1991), and Rickard (1991) concluded from their studies that the students' interactions with these offices can positively or negatively influence their enrollment at the institution. To emphasize this influence, Rickard (1991) stated, "When one examines the truly great universities in this country a common characteristic emerges: they all have outstanding admission programs" (p. 2). He further reported that institutions must have an

important strategic plan that includes a vigorous recruitment program that will effectively attract students who subsequently enroll. To conduct this research, satisfaction inventories could be administered to enrolled and non-enrolled students to determine if their interactions with these offices affected their enrollment decision. It would also be helpful to evaluate the perceptions of the enrollment management personnel in these offices regarding their influence on admitted students. Surveys, focus groups and individual interviews could be used to collect this information.

Communication with students throughout the entire recruitment and admission funnel is another component that should be examined as a variable that could contribute to this model in future studies. Direct mail pieces, telemarketing, videos, the Internet, the World Wide Web (WWW), DVDs, CD-ROMs, USB drives, Blogs, and Blu-Rays are examples of communication strategies and initiatives that institutions use to recruit students through as many different media as possible. Studies by Apel and Estaban (1992), Canterbury (1989), Cain and McClintock (1984), and Eberly et al. (1991), found that recruitment publications, especially the college viewbook, were important factors that form a student's opinion to attend a specific institution. Young (1991) discovered that a "planned use of the telephone as a recruitment, follow-up, and retention medium" (p. 28) increased yield rates from inquiries to enrolled students and that this tool is both a cost efficient and timely device for enrollment management offices.

Research studies by Abrahamson (2000), Bogart (2005), Davidson et al. (2003), Hawkins and Lautz (2005), Poock and Lefond (2001), Swann and Henderson (1998), and Williams (2000) have all indicated that the Internet, WWW, and associated forms of communication technologies, such as electronic mail, DVDs, and chat rooms, are very important to the recruitment, admission

and enrollment of students and provide desired and reliable ways for colleges and universities to offer instant access to their information. The importance of the recruitment video was presented in a study by Ariail (1991). This product is being gradually replaced by institutions with such technologies as the DVDs, CD-ROMs, USB drives, Blogs, and Blu-Rays. As these continue to grow in popularity and as the expense to produce them continues to decline, more and more higher education institutions will use them in concert with the WWW to showcase themselves to potential students.

Abrahamson (2000) summed up the importance of these new technologies to higher education in his study by stating that today's youth have grown up with computers and, subsequently, spend a great deal of time on the Internet surfing the WWW. He found that traditional methods of communication are too slow for this generation and that higher education must shift its culture from the printed word to the WWW in order to reach these students in the way they like to communicate.

Therefore, the researcher suggests including an institution's communication with students as a variable that could help improve this enrollment prediction model. To do this, an assessment tool could be created that would obtain quantitative data on how effective the computer technologies are in the recruitment process as perceived by potential, applied, admitted, and enrolled students. One option is to put this instrument on the Web where the students are when they are using these resources. Otherwise, it could be distributed as a survey to students through avenues such as student focus groups or in classroom settings.

As a final suggestion, the researcher recommends examining the effectiveness of the institution's campus visit program as a variable that could influence the predictability of the

model. Research studies by Cain and McClintock (1984), Chapman (1981), Hawkins and Lautz (2005), Kellaris and Kellaris (1988), and Sevier (2000) have proven that a student's visit to campus is an influential factor in student college choice. These researchers further found in their studies that the campus visit is the most important contact that students have with an institution as it is the way to validate everything they have heard and read about it. The research review further substantiated the fact that higher education institutions have recognized the campus visit as a vital component for the recruitment of students. Enrollment management personnel know that all the mailings, telephone calls, college night programs, and WWW information cannot replace the first-hand look at a school that is offered to students during the campus visit. To evaluate this program for inclusion in future studies regarding the enrollment model, this researcher suggests collecting evaluations from potential students and parents immediately following their participation in the campus visit. To complement this quantitative data, the researcher recommends randomly interviewing students and parents to obtain qualitative information regarding their experiences during the tour. From these collaborative research initiatives, the effectiveness of the program could be analyzed and included as a variable.

To summarize this discussion of the researcher's recommendations for further study that could increase the percentage of correctly classified students who are admitted and subsequently enroll at a research-extensive university in the Southern region of the United States, thereby enhancing the effectiveness of this enrollment model, the researcher suggests the following variables that could be integrated into this current model:

1. Perceived Image of the Institution;
2. Student's Academic Major or Field of Study;

3. Influence of the Student's High School Counselor;
4. Student's Relationship with the Recruitment, Admission, Orientation, and Student Aid and Scholarships Offices;
5. Effectiveness of the Institution's Communication with Students; and the
6. Campus Visit Program.

By building these suggested variables into the enrollment model, the researcher believes that they could further explain and predict future freshman classes, and thus the institution will experience higher yield rates between admitted and enrolled students.

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APPENDIX

CONCORDANCE BETWEEN SAT I RECENTERED V + M (VERBAL + MATH) SCORE AND ACT COMPOSITE SCORE TABLE

Table C-2
Concordance Between SAT I Recentered V+M Score and ACT Composite Score

SATI V+M	ACT Composite	SATI V+M	ACT Composite	SATI V+M	ACT Composite	SATI V+M	ACT Composite	SATI V+M	ACT Composite	SATI V+M	ACT Composite	SATI V+M	ACT Composite
1600	35-36	1370	31	1140	25	910	19	680	14				
1590	35	1360	31	1130	25	900	19	670	14				
1580	35	1350	30	1120	24	890	18	660	14				
1570	35	1340	30	1110	24	880	18	650	13				
1560	35	1330	30	1100	24	870	18	640	13				
1550	34	1320	30	1090	24	860	18	630	13				
1540	34	1310	29	1080	23	850	17	620	13				
1530	34	1300	29	1070	23	840	17	610	13				
1520	34	1290	29	1060	23	830	17	600	13				
1510	34	1280	29	1050	22	820	17	590	13				
1500	33	1270	28	1040	22	810	17	580	12				
1490	33	1260	28	1030	22	800	16	570	12				
1480	33	1250	28	1020	22	790	16	560	12				
1470	33	1240	28	1010	21	780	16	550	12				
1460	33	1230	27	1000	21	770	16	540	12				
1450	32	1220	27	990	21	760	16	530	12				
1440	32	1210	27	980	21	750	15	520	12				
1430	32	1200	26	970	20	740	15	510	11				
1420	32	1190	26	960	20	730	15	500	11				
1410	32	1180	26	950	20	720	15						
1400	31	1170	26	940	20	710	15						
1390	31	1160	25	930	19	700	14						
1380	31	1150	25	920	19	690	14						

This table can be used to relate SAT I V+M scores to ACT Composite scores.

The estimates are based on the test scores of 103,525 students from 14 universities and two states who took both the ACT and the SAT I between October 1994 and December 1996. Because the ACT and the SAT I have different content, students' actual scores on the ACT could differ significantly from the concordance estimates in the table.

Source: ACT, Inc. Questions about the concordance study may be directed to ACT's Research Division (319/337-1471).

January 1998

VITA

Roy Cleveland Brooks, Jr.(Cleve) was born in Monroe, Louisiana, on October 24, 1950, to the late Roy Cleveland and Louise Ford Rinehart Brooks. He graduated from West Monroe High School in 1968 and received a Bachelor of Science degree, majoring in zoology and chemistry, in 1972, from then Northeast Louisiana University (University of Louisiana - Monroe). While working as a laboratory technician at E. A. Conway Hospital in Monroe, Mr. Brooks returned to his alma mater and took education courses where he received his teaching certification in 1974 from the State of Louisiana. He moved to Baton Rouge and began his master's degree at Louisiana State University (LSU) while teaching sixth grade at Red Oaks Elementary School in East Baton Rouge Parish. Mr. Brooks earned a Master of Education in Administration and Supervision in 1976 and the Educational Specialist degree in Educational Media in 1980 from Louisiana State University.

From 1983-1986 he served as Director of Education at Glenwood Hospital in West Monroe, Mr. Brooks accepted a position as Coordinator of LSU Alumni Relations in February 1986 which was the beginning of his career at LSU. During his 20 years he held several positions with the LSU Alumni Association before taking the position as Assistant Director of Undergraduate Admissions in 1996. In 1999, he became the Associate Registrar. After only a few months there, he was asked to serve as Interim Director of Undergraduate Admissions until April 2001 when he accepted his current position as the Director of Undergraduate Admissions.

His goal of earning his doctoral degree from LSU began while he was serving as Assistant Director of Undergraduate Admissions under the guidance of Dr. Michael F. Burnett, Director of the School of Human Resource Education and Workforce Development.

He has guided the admissions office in the implementation of three increases in admission standards (2000, 2002, and 2005). Under his leadership, the office has experienced numerous changes, enhancements, initiatives and improvements to the recruitment and admission of students, and the work flow in the application process. As a member of state, regional, and national professional organizations, Cleve has presented several of these innovations with fellow staff members at annual conferences including the conversion of the admission application from paper to Web-based. Following the aftermath of Hurricane Katrina in August 2005, the campus responded immediately in many capacities with a major one being the admission of over 3,500 displaced college students from the New Orleans area within nine days. Cleve is scheduled to present these admission and registration experiences with Robert Doolos, University Registrar, at the national conference of the American Association of Collegiate Registrars and Admission Officers (AACRAO) in April 2006.

In addition to his professional memberships in AACRAO, SACRAO (Southern Association of Collegiate Registrars and Admission Officers), and LACRAO (Louisiana Association of Collegiate Registrars and Admission Officers), he also holds memberships in NACAC (National Association of College Admission Counselors), SACAC (Southern Association of College Admission Counselors), Phi Delta Kappa, Omicron Delta Kappa, and the University United Methodist Church. He serves on several university committees and is active in campus and community activities. He and his wife, Gail Goings Brooks, have three children, Christopher Roy Brooks, Elizabeth Rinehart Brooks, and Connor Nelson Brooks. They all live in Baton Rouge, Louisiana.