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Assessing Admission Criteria (High School Grade Point Average and SAT) as a Means to Understand the Influence on Retention at a North East University

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ASSESSING ADMISSION CRITERIA (HIGH SCHOOL GRADE POINT AVERAGE
AND SAT) AS A MEANS TO UNDERSTAND THE INFLUENCE ON RETENTION
AT A NORTH EAST UNIVERSITY

BY

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Abstract

Assessing Admission Criteria (High School Grade Point Average and SAT) As A Means to Understand The Influence On Retention At A North East University

The purpose of this study was to identify influential variables for retention at a mid-sized private university in the Northeast. In an effort to understand more clearly why students leave Seton Hall University, more specifically, how admission policies and requirements affect this decision, research has been conducted focusing on admission requirements (High School GPA and SAT scores) at Seton Hall University, focusing on first-time full-time freshmen and their transition to sophomore year. The ability to assess students-at-risk would allow more intense scrutiny and assistance for those students while, at the same time, increasing the University's retention rate. This is also important to assist in guiding the University's efforts to improve retention through marketing, recruitment, and the development of orientation and other programs (Murtaugh, Burns, & Schuster, 1999). A discriminant analysis was performed using chi square goodness of fit statistical analysis.

The data from the HS GPA suggested that the University is retaining students at a national-average level in the two middle quartiles; however, for the lowest quartile an applicant is more likely to leave Seton Hall University. On the other hand, the University seems to be doing an above average job retaining students at the upper end of the HS GPA.

It was also found that the SAT, when divided in four quartiles, provided a more precise picture. When articulated in this way, it can be seen that the higher two quartiles return for their sophomore year at a rate higher than expected, whereas for the lower two

quartiles, the students are not. This indicates that the higher the test score, the more inclined a student is to remain at SHU.

Furthermore, the results suggested that having a declared major on an application is statistically significant, suggesting that there is indeed a relationship with having a declared major on an application and persistence into the second year. The findings indicated that those undeclared students who started at SHU are leaving at a greater rate than expected.

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DEDICATION

To my dearest wife Maureen for her constant guidance and loving support, my parents for believing in me even when I did not and my mentor, Dr. Colella, for his understanding and perseverance. Lastly I would like to thank Jerry Trombella for his strong friendship and direction. Without all of you this important research would not be complete. Thank you.

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Chapter I

Introduction

As Tierney wrote in *Reworking the Student Departure Puzzle*, one of the most studied areas in higher education literature is college student departure, before completing a degree (2000). This is a phenomenon that occurs in every university nationwide (Morse & Flanigan, 2003). In an effort to understand more clearly why students leave Seton Hall University after their first year, more specifically, how admission policies and requirements may affect this decision, research has been conducted focusing on admission requirements. At Seton Hall University these requirements consist of a nexus of high school Grade point average and SAT scores, with first-time freshmen and their transition to sophomore year. This research was conducted to assess Seton Hall's admission criteria as a means to understand their influence on retention. This is also important to assist in guiding the university's efforts to improve retention through marketing, recruitment, and the development of orientation and other programs (Murtaugh, Burns, & Schuster, 1999).

Retention and enrollment management, as Marguerite Dennis wrote in *A Practical Guide to Enrollment and Retention Management in Higher Education*, is one of the most important issues facing higher education in our time (1998). She cited that ideally, each year schools enroll 25% of their student population while the retaining students make up the other 75%. Therefore, if attrition is high, then the greater number

of the total population would be new. While retention is a quintessential area to study, there are just as many models to retention management as there are universities in this country (Light, 2001). In reviewing the literature it was also evident that there are as many reasons for students to leave a college as there are universities. I focused on how admission procedures, more specifically what is considered in accepting a student, and how it can influence retention efforts. However, this is not, in any way, an attempt to neglect other serious issues regarding rising attrition rates, such as age, financial shortcomings, family obligations, gender, commuter versus resident status, major, full-time versus part-time students, academic failure, ethnic makeup, to name a few. Rather, this study represents a way to improve upon and enhance the research and retention efforts being put forth at Seton Hall University. In doing so, this can enhance the admission policy in considering more seriously those applicants who will be successfully retained by the university.

Statement of the Problem

In an effort to understand why some students are retained by Seton Hall University and why others are not, research was conducted seeking to discover important variables which influence student achievement at Seton Hall. These variables include standardized test scores and high school grade point average. These two variables have been chosen to research as they are two variables that are most commonly considered in making a decision in the admission process. These two variables alone make up 92% of the acceptance of students at SHU annually. This number represents those students that were admitted based solely on an admission matrix comprised of the accepted SAT score and the accepted GPA. In the past, there has been much research that has included other

variables such as socioeconomic status, ethnicity of the students and geographic location. Although these variables are important to the study of retention overall, they are limiting in looking at the scope in which the admission committee at Seton Hall University reviews applications. As a need-blind institution, admission policies prohibit the use of socioeconomic criteria for admission. Furthermore, as an equal opportunity abiding institution, the admission policy prohibits the use of gender and ethnicity in reviewing one's application for admission. The majority of the studies that have been conducted are limited due to the variances of the institutions in which they were conducted as well as the limited studies that reviewed retention as a problem due to the current class, or while the student was at the university. Few studies have been conducted connecting the use of admission criteria as having an impact on retention.

Retention is a problem for the student and the university. The students who leave one university or college are significantly less likely to obtain a degree according to the National Center for Educational Statistics (NCES, 2003) from higher education. Only 51% of students who began college in 1995-1996 attained a degree or certificate 6 years later; 14% were still enrolled. Sixty percent of those who began college at 4 year public institutions of higher education attained their degree in 6 years, while 17% were still enrolled. At 4 year private institutions, 73% had attained their degree, and 9% were still enrolled. Furthermore, the impact of the loss of students on peers and on institutional budgets is enormous (Greene & Greene, 2003). Fundamentally, what is good for the student can be equally good for the institution. A high retention rate signifies strong campus morale, engagement, and financial well-being for the institution. Higher graduation rates, and happy and engaged alumni, are the ultimate goal for any university.

This is how institutions build their core constituency, reputation, endowment, and quality over time (Greene & Greene, 2003).

While focusing on how standardized test scores and high school grade point average impact retention, this study acknowledges the importance of other serious issues regarding rising attrition rates. Although Pascarella (1985) suggested that high school achievement alone has been found to have a higher relationship to student attrition than any other single predictor, this study addressed both high school achievement and standardized test scores, since these are the criteria currently assessed by Seton Hall. However, lower aptitude test scores such as the SAT are related to a higher attrition and imply that students have to work much harder to succeed in college (Antley, 1999).

Significance of the Study

There is much debate over admission requirements and their impact on retention. Equally strong is the debate in secondary education over how to structure high school transcripts and guide students to the appropriate post-secondary institutions. Strengthening our understanding of how admissions criteria influence student retention at a private university will benefit the leadership at both colleges and universities as well as at secondary institutions.

In “Yes, Student Retention Is an Admissions Issue”, Howard Greene and Matthew Greene stressed the importance of the admission policies in increasing student retention. Attracting, admitting, and enrolling qualified, interested, motivated, and appropriate students who understand the realities of the unique campus culture and its academic social demands will give the university the best odds for retaining successful students through graduation. Conversely, luring underprepared, disinterested, ill-

informed, and inappropriate students who have been marketed a glossy view of campus and academic life will likely lead to a low sophomore retention rate, increasing attrition, and finally a low graduation rate (2003). They also encouraged each institution to evaluate its mission so that proper admission policies are employed to retain the students who were first accepted to ensure admittance of appropriate students sharing institutional values and mission.

In November of 2000, Seton Hall University established a retention committee, who through their meetings, have established several areas of concern focusing on the current unsatisfactory condition of the retention/attrition rate. At first glance, the university freshmen retention rate for 2001 at 78.1% (an attrition rate of 21.9%), representing a loss of 259 students out of 1185, compared to the national average according to National Center for Education Statistics, of 74% (an attrition rate of 26%); this may not seem troubling. The area of concern becomes apparent when comparing the last 6 years, which showed a steady decline in retention from 80% in 1996 (an attrition rate of 20%), while the national average according to according to the National Center for Education Statistics at 74%, + or – 1 % (the national average of attrition was 26%, + or – 1%) during those last 5 years. As one compares attrition further back in time, the numbers reflect even greater cause for concern. As reflected in Table 1, detailing the specific numbers on attrition for Seton Hall University compared to attrition rates for 4-year private institutions and overall 4-year institutions, Seton Hall's retention rate in 1991 was a healthy 86% (an attrition rate of 14%) representing a loss of 138 students out of 984, from freshman year to sophomore year. During the next 10 years (1991-2001) attrition at Seton Hall increased 7.9 percentage points.

Table 1

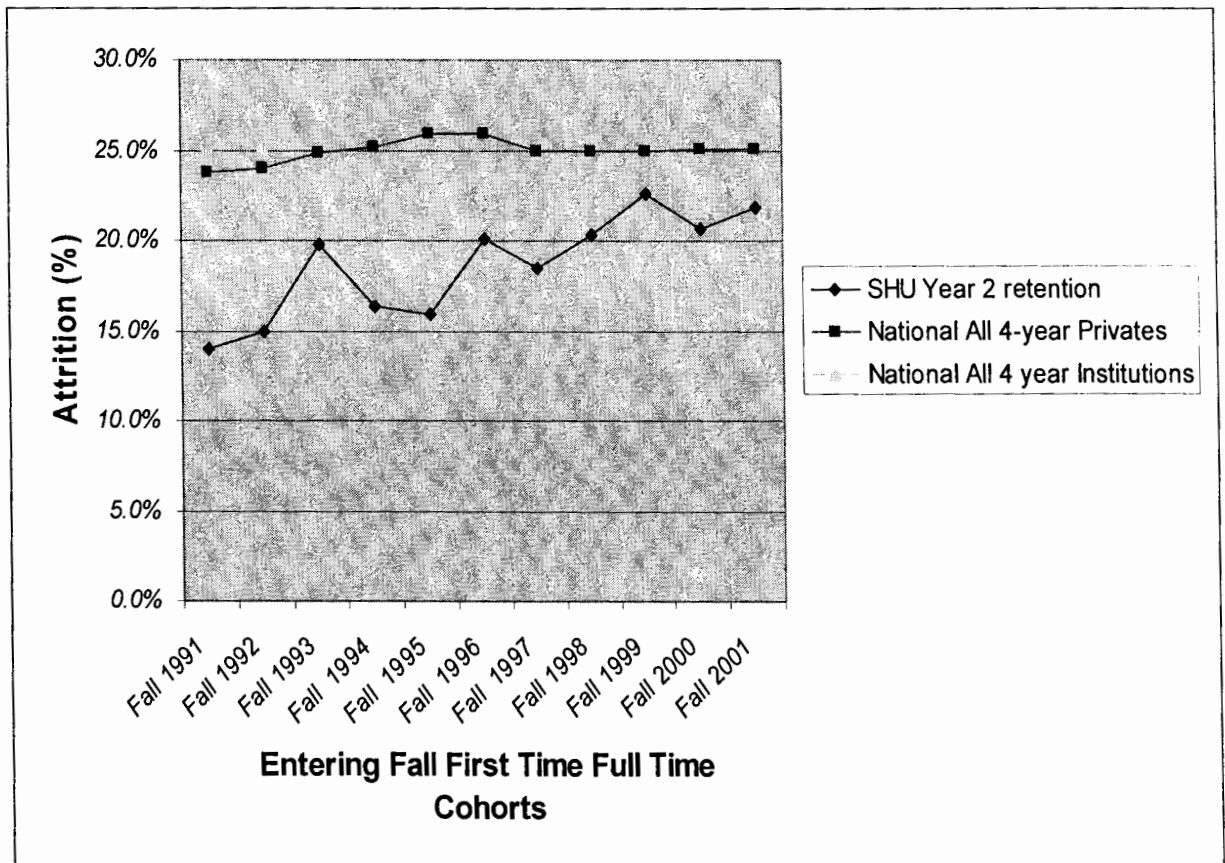
Actual Attrition Numbers and Percentages of Students Comparing Seton Hall University with National 4-Year Private Institutions and National 4-Year Institutions

Entering Year	Number of Entering Freshmen <i>N</i>	Cumulative Left before Fall of Second year		National All 4-Year Privates %	National All 4-Year Institutions %
		<i>N</i>	%		
Fall 1991	984	138	14.0%	23.8%	25.2%
Fall 1992	985	148	15.0%	24.0%	25.2%
Fall 1993	1000	198	19.8%	24.8%	25.9%
Fall 1994	926	151	16.3%	25.2%	26.2%
Fall 1995	962	153	15.9%	25.9%	26.9%
Fall 1996	971	195	20.1%	25.9%	26.7%
Fall 1997	1056	195	18.5%	25.0%	26.4%
Fall 1998	1213	247	20.4%	24.9%	25.9%
Fall 1999	1067	241	22.6%	24.9%	25.8%
Fall 2000	1124	232	20.6%	25.1%	25.9%
Fall 2001	1185	259	21.9%	25.1%	26.0%
Fall 2002	1156	228	19.7%		

Table 1 displays this attrition data in graphical form. This figure vividly displays the rise in attrition over the last 10 years.

Figure 1

National and Seton Hall Attrition Rates for Entering Freshmen for the Last 10 years



This startling fact has given credence to the concern over growing attrition and the incorporation of the retention committee.

While a concern for university administrators, this study should have strong significance on the leadership for K-12 school administrators. Focusing on admission requirements and describing the effect the SAT and HS GPA have on retention at the university level can give guidance to what high schools may view as important to students seeking admission to college. Guidance officers in high school, through this study, may gain insight into Seton Hall University's admission policies and procedures and begin to understand how admission decisions are made. Knowing this will enable high school counselors and administrators to discuss changes in their transcript design and educational policy structures.

Purpose of Study

The purpose of this study is twofold. The first purpose is to examine the relationship between student aptitude and student achievement as related to successful retention in the first year of study at Seton Hall University. This should add to the current debate regarding admission requirements and enable the admission standards committee to better understand admission requirements in assessing student applications. This should also help members of Seton Hall University's admission committee in their evaluation of student applications, and assist them in assessing the value of their admissions criteria as they relate to retention. Secondly, this study should enable the newly established Retention Committee at Seton Hall University to gain more insight in identifying at-risk students for counseling and intervention to help them complete their first year of study successfully, leading to an increase in retention.

Questions

Selecting the most accurate pre-college variables that influence college academic performance is invaluable in assisting admission officers at their task. It is also invaluable in assisting SHU to increase retention and to decrease attrition. There are implications that will be addressed.

Answers will be sought to the following questions:

1. To what extent does SAT influence retention among freshmen at SHU?
2. To what extent does the HS GPA influence retention among freshmen at SHU?
3. To what extent do other pre-college criteria, which are readily available and legal to consider for the admission decision at Seton Hall, have an influence on retention into the second year at SHU? (Declared major on application and whether or not the student is going to be accepted for his or her major).

Limitations

The study is limited to incoming freshman students in the fall of 2000 and 2001 who have completed one academic year (Fall-to-Fall Retention) and at least 30 credits, full-time at Seton Hall University as identified by Student Information Systems database (SIS). The SIS database consists of student and applicant records collected by the institution. This study is also limited to one institution, serving an undergraduate population of approximately 5000 students.

Definitions of Terms

Students who are eligible to participate in this study will be screened to meet the following criteria: full-time matriculation status, registered full-time at Seton Hall with 12 or more credits in their first entering semester, totaling to 30 or more for the year,

regardless of advanced placement courses that may have transferred in from high school or courses from a college that were transferred in from an accelerated program; this study thus focuses on traditional students, starting at SHU in the Fall semester directly after graduating from their high school.

In this study, successful retention will be defined as a student who completes 30 credit hours in the first two semesters of attendance, Fall and Spring, and completes the first year with a 2.0, as stated in 2001-2002 Seton Hall University's Undergraduate Catalogue on page 35. Success, therefore, is defined as Fall-to-Fall retention. The student would also have had to be registered for full-time status for the following semester during their spring semester, completing with the last day of finals. Lastly the students who meet these requirements would be downloaded from the SIS database. These student data were evaluated after extraction from the University's SIS database and masked using a unique alternate identifier.

The following is a list of abbreviations that will be employed throughout this research:

FTFR	Fall-to-Fall Retention
GPA	Grade Point Average
HS	High School or Secondary School
SAT	Scholastic Aptitude Test
SHU	Seton Hall University
SIS	Student Information System
SPSS	Statistical Package for the Social Sciences
TSAT	Total SAT Score (Highest Verbal and Highest Math)

Summary

In an effort to understand more clearly why students leave Seton Hall University, more specifically, how admission policies and requirements may affect this decision, research has been conducted focusing on admission requirements (HS GPA and SAT scores) at Seton Hall University. This research was conducted to assess Seton Hall's admission criteria as a means to understand the influence on retention. Since Seton Hall University's admissions requirements focus almost exclusively on only two variables – HS GPA and SAT, this study limited its assessment to these variables as well. These two variables comprise 92% of all undergraduate admission decisions annually. This figure represents those students who were admitted based solely on an admission matrix comprised of the accepted SAT score and the accepted GPA compared with those students who were not admissible outright. In the remaining circumstances, involving SAT or HS GPA scores considered lower than required, other criteria were considered such as recommendations, personal essay, and involvement in extra curricular activities.

This study was conducted to help understand what influence admission requirements have on retention issues at SHU. Retention is an area of concern for most institutions of higher education in the nation as well as SHU. This concern is elevated by the decrease in retention between 1991 and 2001, from 86% to 78.1, a decrease of 7.9 percentage points.

The first purpose of this study was to examine if a relationship exists between student aptitude and student achievement as variables of successful retention for students moving from their freshman year to their sophomore year of study at Seton Hall. Secondly, this study should enable the newly established retention committee to identify at-risk students for counseling, potentially enabling first-year students who may be

having difficulty completing their first year of study successfully and ultimately increase SHU's retention.

This study will review current literature in the field of education centering on the history of retention and considering historically traditional predictors such as SAT and GPA. This study will also look more closely at the relationship admission requirements have on retention in universities, specifically at Seton Hall University, considering current theories on this topic and research that has been conducted focusing on their outcomes.

The methodology of this study was to evaluate the data retrieved from SIS from a 2-year period for the entering class in 2001 and 2002. These data helped to determine whether HS GPA and SAT are influential in determining students' success in retention.

In closing, answers will be sought to the following questions:

1. To what extent does SAT influence retention among freshmen at SHU?
2. To what extent does the HS GPA influence retention among freshmen at SHU?
3. To what extent do other pre-college criteria, which are readily available and legal to consider for the admission decision at Seton Hall have an influence on retention into the second year at SHU? (Declared major on application and whether or not the student is going to be accepted for his or her major).

Chapter II

Review of Literature

Introduction

The focus of this study was to assess Seton Hall's current admission criteria (high school grade point average and SAT score) as a means to understand the influence these two variables have on retention of a student from the students' first year to their second year.

Recognizing this as an important area of study, Seton Hall University has put forth an initiative in November of 2000 to further this process. This initiative was begun as part of an overall effort by senior administration to address what was perceived as a growing attrition problem. Their overwhelming desire would be to have higher retention as the preferred condition.

The interest for this study grew out of my professional work in admitting prospective applied students to Seton Hall University. Frequently, admissions staff base acceptance decisions solely on SAT and HS GPA criteria, examining personal essays and recommendations only when SAT or HS GPA fall outside predetermined bands.

To provide context, this study examined current theories of retention as well as admissions procedures currently in practice at Seton Hall University. Additionally, this study explored potential alternative policies which could be utilized to improve retention at Seton Hall University. This study assessed the efficiency of utilizing an admissions

policy based solely on SAT and HS GPA by assessing the impact of these variables on retention.

The literature review will consider the study of retention and retention history in university settings. Furthermore, traditional predictors, such as SAT I and HS GPA in college admission at SHU will be addressed.

Study of Retention History

Retention, as described in U.S. News & World Report, America's Best Colleges, 2003 edition, is the proportion of students that return to campus the following year and eventually graduate (Morse & Flanigan). For the purpose of this study, retention will focus on the proportion of students who return to study at Seton Hall University after their freshmen year. Conversely, attrition is defined as the proportion of students who leave a university or college before they graduate. Obviously, retention and attrition are opposite concepts. These concepts examine the university-wide level of student attendance as described by Laura Boyles from the University of North Carolina (2000). Persistence, as opposed to the university-wide terms, retention and attrition, applies to a single individual's continued attendance at an institution. The issue of retention has many components that are evident throughout literature. A host of variables influence retention, from not being able to afford the tuition of a college to failing out of the university or college due to poor academic performance. For the purpose of this study, admission criteria including SAT and HS GPA are being considered to understand retention.

Noel, Levitz, Saluri & Associates wrote in *Increasing Student Retention: Effective programs and practices for reducing the dropout rate*, that the study of retention has progressed over four distinct phases (1985). Although this was written in 1985, we see that these four stages are still current to the research of retention. The first stage focused on the importance of retention being recognized as a key factor in enrollment management. Researchers, such as Astin (1985) and Tinto (1993) turned their attention to the design of conceptual and predictive models of dropouts, focusing on personal, environmental, and social forces contributing to the phenomenon. Next, researchers shifted their attention to more applicable designs on successful outcomes in an attempt to counter the forces of attrition with specific programs, strategies and approaches. Researchers, including Pascarella (1991), Noel, Levitz, Saluri & Associates (1985) and Tinto (1993) were leading the way in this second stage. The third major development centered on principles of organizational development, whereby institutions of higher education began mobilizing campus-wide retention efforts. Some of the leading researches in this field included Noel, Levitz, Saluri & Associates (1985). Noel presumed the fourth stage of retention is going to involve the implementation of the programs at the institutions of higher education and focus on staffing issues (Noel, Levitz, Saluri & Associates, 1985).

A brief historical perspective of retention theories and models is important in understanding the framework for the development of admissions criteria. It is also important in understanding the implications that admission methods, trends, and models have in enhancing retention at an institution of higher education. There have been many researchers who have attempted to understand the reasons why students leave their

college before finishing their degree (e.g., Astin, 1993; Braxton, 2002; Levitz, 1985; Noel, 1985; Pascarella, 1991; Tinto, 1993). Many of the early theories and models, formulated by psychologists, focused on the psychological impact college had on the student. Since they were heavily rooted in the psychological paradigm, these theories neglected admission criteria as an area of concern. Only recently have theories from other fields begun to receive attention, reawakening an interest in the impact of the distinct college's admission criteria (Pascarella & Terenzini, 1991).

Retention as an area of study has continued to grow in importance throughout the higher education community (Nutt, 2003). Early theorists such as Alexander Astin (1975) began to focus on the characteristics of those students who did not persist while other studies continued to focus on the psychological effects college was placing on students. Earlier theories can be categorized in regard to college student change. These categories of theories, as outlined in *How College Affects Students* by Pascarella & Terenzini in 1991, are described as developmental, psychosocial, cognitive-structural, typological and person-environment interaction theories. The commonalities in these theories and models appear to identify both substantive and process themes that appear with consistency in many of the theories (Pascarella & Terenzini, 1991). Although these consistencies are apparent and in great detail explain the impact college has on a student, they do not go into detail in regard to certain models that describe and explain admission criteria.

One of the most notable theorists to emerge in the field of retention is Dr. Vincent Tinto. One of the leading researchers in this field, Tinto, in 1987 postulated a theory based on students' hopes and aspirations to enhance the knowledge in this field to explain

attrition and thus retention at a university (Braxton, 2002). Tinto's interactionist theory of college student departure was created as one of the first to actually explain the college student attrition process (Tinto, 1987, 1993). Since then, Tinto has extended his theory by incorporating psychological and sociological theoretical perspectives to explain student departure both in 1986 and in 1993 as the landscape of colleges change and the students who are attending these colleges change also. Tinto's interactionist theory, as Braxton explained, "enjoys near paradigmatic stature in the study of college student departure" (2002, p.214). In *Reworking the Departure Puzzle*, Braxton goes on to define Tinto's theory as so important that it has manifested itself in more than 400 citations and 170 dissertations pertinent to this theory (Braxton, 2002). Tinto's theory seeks specifically to explain the college student attrition process (Pascarella & Terenzini, 1991). While there are competing theoretical differences or paradigms, the most comprehensive theory to date has been articulated by Tinto (Braxton, 2002).

In his theory, Tinto hypothesized that "students enter a college or university with varying patterns of personal, family, and academic characteristics and skills, including initial dispositions and intentions with respect to college attendance and personal goals" (Pascarella & Terenzini, 1991, p. 51). Simply stated, students are different. They come from varied backgrounds with various skills and desires which affect their college choices. The intentions and commitments that a student has, this theory explains, are subsequently modified and reformulated on a continuous basis through interactions between the individual and the structures and members of the academic and social systems of the institution (Pascarella & Terenzini, 1991).

Tinto (1987) hypothesized that greater integration and retention can be enhanced through satisfying and rewarding encounters with the formal and informal academic and social systems of the institution. While positive interactions in the community can lead to greater integration and ultimately to greater retention, negative interactions, it is presumed, will lead to less integration and further distance the individual from the academic and social communities of the institution, leading ultimately to withdrawal from the institution. Tinto's theory, although sharing components of Astin (1975) and Pascarella (1985), "offers significant opportunities both to researchers who wish to study the college student change process and to administrators who seek to design academic and social programs and experiences intended to promote students' educational growth" in aiding retention (Pascarella & Terenzini, 1991, p. 53).

Tinto's method of exploring issues of retention and attrition studies has become popular with field practitioners because they provide researchers enhanced insight in the effects of both environmental and social components and variables. This is not to say that the other theorists ignored environmental issues; in nearly every case, the environment is acknowledged to have an important influence. "The intra-individual growth dimensions and changes in epistemological structures receive closer attention than do sources of any other changes" (Pascarella & Terenzini, 1991, p.54). However as described and applauded in *Increasing Student Retention*, in 1985, Tinto's model goes "beyond the social and academic dimensions to include individual characteristics and dispositions relevant to persistence as well as educational expectations and the individual's commitment to the institution" (Noel, et al., 1985, p.22). This theory based on the depth in which it explains student behavior, is clearly the most current theory that

is the most closely aligned with the factors affecting retention once a student is already accepted to a university.

The heated discussion of the usefulness of the SAT during the admission process has resurfaced with the proposal by the University of California's (UC) President, Richard Atkinson, to no longer require the aptitude portion of the tests, called the SAT I. Instead, he urged that UC adopts a more holistic approach in the review of applicants into the university system. This approach would include review of, but not be limited to, consideration of activities and grades, as well as scores on AP exams, SAT II and other standardized tests that measure the proficiency of particular subjects (Kantrowitz & Foote, 2001). Since UC has 170,000 students on 10 campuses, this could significantly influence the admissions requirements of other colleges and universities.

Furthermore, an educator and researcher on creativity, Jacob Getzels and one of Getzels co-authors and protégés was quoted as saying, "Most schools, all you learn is solving problems; then you get out in the real world, you feel lost because nobody's telling you what to solve" (Wilgoren, 2001, p. A14). It seems that although Getzels was a proponent of successful testing, he would have agreed with Atkinson in proposing the university system no longer require the SAT, and if the current standards are not predictable then there must be a more valid measure that is necessary to create, as Getzels' work with the IQ indicated.

Recently the SAT has come under criticism. Furthermore, universities are not ready to dissolve the SAT as a useful tool in order to measure the future ability of a prospective applicant. The SAT has been slated for change by the College Board (Earell, 2002). It is said to be changed by 2005, and to help reformers see that students can boost

their scores by taking rigorous classes, honing important life skills, and demanding more from their schools. The Dean of Admission at Harvard University is stated as saying that the pressure will be on the schools to change for the test and enable the schools then be able to evaluate and assess their current level of education (Barnes, 2002). Although there are many foes to the SAT there are also many educators and researchers who feel that this is an important component of the application process, which should be reviewed in association with other indicators. Such indicators have included HS GPA.

Throughout the history of the SAT, since it was first used experimentally in 1926, until today, there have been many arguments for and against its validity as an indicator of academic performance. In recent times, about 280 of the nation's 2,083 four-year colleges and universities actually make the SAT optional for the admission process (Cloud, 2001). This would allow the protagonists against the SAT usefulness to understand its utility as a performance indicator in the university application process. Originally this exam grew in popularity due to its purported ability to gauge the success rate of students in their first year of college, as well as the speed with which applications could be reviewed (Cloud, 2001). This became much more critical after the surge in applications beginning after 1967 and which continues today.

Recently the SAT have come under criticism. In the words of Richard Atkinson (2001, p. 31):

For many years, I have worried about the use of the SAT, but last year my concerns coalesced. I visited an upscale private school and observed a class of 12-year-old students studying verbal analogies in anticipation of the SAT. I learned that they spend hours each month - - directly and indirectly - - preparing

for the SAT, studying long lists of verbal analogies such as “untruthful is to mendaciousness” as “circumspect is to caution.” The time involved was not aimed at developing the students’ reading and writing abilities but rather their test-taking skills.

Given the vehemence of this statement, it is clear that he felt something should be done. Although he has offered resurgence for the antagonists of the SAT, he was not alone. Facing increasing pressure, the College Board began to remarket the SAT, no longer defining it as an “aptitude test.” Critics charge the test is a poor measure of future potential.

Alfie Kohn (2001), a writer for the Chronicle for Higher Education, reflected several years back on the College Board’s announcement that the ‘A’ in SAT no longer stood for ‘Aptitude’. He went on to state that the test never was an appropriate measure of intellectual aptitude. For a time, the test apparently went back to meaning the Scholastic Assessment Test. Although, today the acronym SAT does not stand for anything at all. There are several reasons that Alfie Kohn suggests that the SAT is not a valid measure of future potential. One reason involves the inclusion of the verbal section of the SAT exam. Alfred Kohn suggested this section is merely a vocabulary test and that the SAT is neither a measure of aptitude nor of subject area competency.

A College Board study conducted in 1984 seemed to substantiate these criticisms. The study found that SAT scores could explain only 12 to 16% of the variance in freshman grades, suggesting that they are not particularly useful at predicting how students will fare after their freshman year and even whether they will graduate (Kohn, 2001).

Several other researches have suggested that the student's high school record alone is the best predictor of performance in the first year of college. Further, SAT scores, when combined with the high school grades, adds only modestly to the predictive power of high school grades alone (Barrow, 2000). This research suggests institutions of higher education might consider eliminating the SAT as an admissions requirement due to its limited ability to predict future college success and focus exclusively on a student's high school record. This would be more effective if each school had its own history file to substantiate the SAT's usefulness. In a relatively short amount of time, this task should be accomplished, and the file would be complete and accurate.

Jacques Steinberg (2001), a leading writer and educational researcher, from the New York Times argued against the SAT as well. His criticism focused on the concern that the SAT and other similar standardized tests often reveal more about students' family lives, socioeconomic status, and the quality of school attending, than about their prospects for succeeding in college (Steinberg, 2001). His research has been validated by other reports which suggest that for each additional \$10,000 in a family income, SAT scores increase by 30 points (Barrow, 2000).

A recent study at University of California found that the SAT II, the subject component of the SAT, which is not required for admission at Seton Hall, is less likely to be affected by students' socioeconomic backgrounds and would be better at predicting freshman-year grades for students entering UC (Kim, 2001).

According to a recent report by the U.S. Department of Education (Adelman, 2004), taking difficult courses, more so than grades or class rank in high school, indicates

how successful a student will be in earning a bachelor's degree. This research has furthered debate over the predictive value of the SAT.

Atkinson (2001) from the University of California, discussed several examples of people that had contacted him after hearing of the possibility of the UC system making the SAT scores optional. He heard from a young woman, an honors graduate from UC Berkeley with an advanced degree from Princeton, who was questioned about her 10-year-old below average SAT scores in a job interview; an attorney who, despite decades of success, still remembers the sting of a less-than-brilliant SAT score; an engineer who excelled on the SAT but found it bore no relation to the demands of college and his profession; a science student who scored poorly on the SAT and was not admitted to his college of choice, but was elected to the National Academy of Sciences in later years. Clearly, Richard Atkinson stated that the SAT strikes "a deep chord in the national psyche" also (Atkinson, Winter 2001/2002, p. 32).

Although there are many researchers and professionals who have argued against the predictive capability of the SAT, there are also those who still support the utility of SAT scores to predict college success. Wendy Williams suggested in an article entitled, "The Plus Side of Big Tests," that in order for the standardized tests to change, there needs to be a relook of exit exams, as seen currently in some provinces in Canada (Williams, 2001). This would enable students to increase test scores and enable the administration, inclusive of parents, students and teachers, to focus on content and not test preparation. Williams also suggested that entrance exams will no longer be required in order for the exit exams to be effective. Furthermore, it is understood that success of

high-pressure exams will only prepare one for future success on high-pressure exams, nothing more (Williams, 2001).

Along with the positive and supportive research, Gaston Caperton, president of the College Board, which sponsors the SAT, has defended the SAT, stating that dropping the SAT “makes no more sense than dropping classroom grades” from the admission process. He continued to add “The SAT is a common yardstick in an era of grade inflation” (Marklein, 2001, p. D1). He argued that the SAT is the great equalizer which allows admission offices throughout the country the ability to measure high schools against one another. This point is most inviting to admission officers. For without the national standardized exams, there would be no ability to compare districts, private against public schools, and schools situated in different areas of the country (i.e., rural, urban and suburban). There appears to be a need for a national standard.

Another debate included the argument in support of racial diversity. Bill Bowen, one of the finest applied economists and Derek Bok (1998), who has done brilliant legal scholarship, always at the cutting edge of law and public policy, argued that the cost of not allowing the SAT as a means for evaluating students would be lowering of the intellectual level of the student body as a whole. They continued “if forced to choose, today’s educational leaders will see creating a certain racial mix on campus as more important than maintaining intellectual standards. Intellectual excellence will be sacrificed on the altar of diversity” (Thernstrom & Thernstrom, year, p.42). In light of this new suggestion, one would have to weigh the options very closely regarding standards and diversity. The understanding would have to make clear that in order to

have diversity, standards do not have to decrease. To view it as all encompassing standards and understanding diversity is the overwhelmingly preferred acknowledgement.

The contemporary debate has also rightfully spread to the National Association of Secondary School Principals, whereby Reeves (2001), explained the notations of both Popham and Marzano. They discussed the realization that many states lack descriptive rigor and the proliferation of standards exceeds the capacity of the typical time available in a year.

These two observations are a very good rationale for the improvement of standards with respect to their clarity and focus. Understandably, these two views are not an argument for the rejection of standards. Every time standards were questioned, school administrators would have to ask themselves what would be the alternative if all standards were abandoned tomorrow? This question is probably one of the most intriguing questions that the administrators of both high schools and colleges would be left with.

There are several aspects to consider in dealing with this new and developing paradigm shift. In dealing with the SAT, one would be forced to consider all standardized tests on all levels. Yet, many researchers believe using standardized tests can be effective, in modified form. The researchers also cited the use of the SAT II, which is a subject achievement test which tests students' knowledge on their performance in those areas. They have no need to study for the exam, like they do for the SAT, but can increase their scores by taking more rigorous classes, honing important life skills, and demanding more from their schools. J. Barnes, who wrote "The SAT Revolution", in

U.S. News & World Report in the November 11, 2002 issue, also stated that using tests to shape curriculum inevitably narrows what is taught in school.

These tests are not only an institution but also a lucrative business that yielded several millions of dollars in the past year. Moreover, many are concerned that SAT has become a self-propagating business. The SAT has also become the standard practice that has become a norm in our society. This norm carries with it ideals that have been evident for almost two consecutive generations.

Another important aspect that retention specialists have yet to seriously consider focuses on high school GPA. This variable is more subjective as it is indicative of the type of school attended, courses attempted in terms of honors or college prep, and overall preparation. Furthermore, other factors remain unanswered such as: (a) does grade inflation exist at the school the student is entering Seton Hall from, (b) are the courses consistent at all high schools, and (c) are there any reasons to believe that the schools are focused more heavily on a weighted or unweighted grade point average.

Although there have been numerous studies that have examined the relationship between high school performance and retention, they are institution specific. Despite this fact, high school grade point average has been identified as the best single predictor of retention at institutions of higher education (Astin, 1975, 1993; Bean 1980; Gaither, 1998; Pascarella & Terenzini, 1991; Tinto, 1987), although it only explains a small percentage of variance at Seton Hall. In a 1982 study, Bean suggested that performance in high school, focusing on pre-college admission criteria, is the most important of student background variables in explaining success in college. His study indicated that high school performance predicted from about 25 to 50% of the variance in college grades.

While potentially useful in developing admission criteria, these studies did not examine HS GPA specifically related to retention. Many of the students who leave an institution do so even though their grades are above passing. Many at Seton Hall, about 65% of all students that leave claim financial reasons, although in discussing this issue further we find that this is not often the case. Murtaugh et al., in "Predicting the Retention of University Students" cited that although pre-college characteristics can be useful predictors of student retention they do not explain all of the variation in attrition of students (Murtaugh et al., 1999).

Several studies focus on HS GPA as the single best predictor of persistence (Astin, 1975, 1993; Bean 1980; Gaither, 1998; Pascarella & Terenzini, 1991; and Tinto, 1987). However, these researchers have also concluded that HS GPA, coupled with rank in high school class, have been found to have a higher relationship to student attrition than any other combination of predictive factors (Hossler, 1984; Lenning, 1980; Ramist, 1981). Furthermore, in another study, it was found that the most important predictors of retention are the student's HS GPA and admission test scores (Klepper, Nelson, & Miller, 1987). Lastly, it was found in another study that admission test scores are the one consistent variable that yields the best prediction of retention (Antley, 1999). This is quite puzzling to the administrators at colleges looking at retention issues. However, it is likely that each study focused on a unique population, isolated in a specifically unique institution. Once the populations change, it has been discovered that the variables of predictability also change.

Traditional Predictors

The traditional predictors in college admission at SHU are SAT and HS GPA. These predictors are limiting, traditionally due to the fact that they have been noted to have a low correlation at influencing a student's success and are mainly contingent on an SAT score. Richard Atkinson stated that a study was launched at the University of California at Irvine to determine the predictability of SAT and other achievement tests (SAT II) in determining a student's freshman GPA. The SAT II achievement tests proved to be a more useful predictor of student success than was the SAT, both in combination with grades and as a single indicator. The benefits of both tests appeared in this study to be marginal at best. Both the SAT and achievement tests remained largely an alternative method for attaining UC eligibility (Atkinson, Winter 2001/2002).

Since 1998, SHU has gradually tightened the admissions criteria around the HS GPA. In 1998, it was possible for a student to get a scholarship with less than a cumulative HS GPA of a 3.0. However, now entering students must have a 3.0 or better to be considered for an academic scholarship. Although this is not necessarily the criteria for general admission, it is recognition that the HS GPA is an important predictor of collegiate success.

Nontraditional Predictors

Although this study will not address the use of nontraditional variables, due to the fact that Seton Hall does not consider them in the majority of the application process, they are worth noting for other future studies. The nontraditional predictors may include whether a student declared a specific major on their admission application, and whether or not they would be accepted to their major of choice on the onset of their application

review. These data can be used to then review a possible outline of a student's success and also review a possibility of a student not reaching the success level.

Richard Atkinson, President and educational researcher of the University of California, believed that admitting a student to a college should be based on the following principles: students should be judged on the basis of their actual achievements, not on ill-defined notions of aptitude; standardized tests should have a demonstrable relationship to the specific subjects taught in high school, so that students can use those tests to assess their mastery of those subjects; American universities should employ admission processes that look at individual applicants in their full complexity and take special pains to ensure that standardized tests are used properly in admission decisions (Atkinson, Winter 2001/2002). This holistic approach would be a unique view of college admission and would possibly influence retention in the near future for other studies.

Admission and Retention

Throughout the 10 years of admission statistics, it has been noted that there is a direct correlation with admission standards at SHU and retention issues. Throughout the years, if the admission standards decreased, a year later the retention decreased, and subsequently if the admission standards increased so did the retention at SHU. One goal of SHU is to raise its standards to be viewed as a more selective institution of higher learning, in an attempt to attract the brighter candidates for admission. Another goal is to increase the retention at the institution to be viewed as a more selective institution by attaining a higher rank in U.S. News & World Report's annual evaluation published each summer. At SHU there is increasing research and interest in these efforts. Although throughout researching this topic, there has also been little research found that correlates

admission standards with retention directly. This research should add to the limited literature in the field and enable others to continue with studies at universities nationwide.

Summary

An article in the Journal of Education for Business stated several reasons for establishing admission/continuance standards. First, appropriate admission standards enable a college to maximize student success and minimize student failures, increasing student retention. Second, the presence of unqualified students can retard class progress, robbing qualified students of both breadth and depth of learning (Pharr & Bailey, Nov/Dec 1993). The combined efforts in utilizing both traditional and nontraditional admission standards may have an influence on the success of a student's potential at SHU. It could be useful to begin to explore the use of certain nontraditional factors to strengthen student success. More work, though, still needs to be done.

This study is important to assist in guiding the University's efforts to improve retention of our students. With 75% of our university remaining and the overwhelming effort that is put in securing 25% every year, it is no wonder why the emphasis is focusing on the development of a holistic approach to admission qualifications.

Chapter III

Methodology

Introduction

In an effort to more clearly understand why students leave Seton Hall University, more specifically, how admission policies and requirements may influence this decision, research has been conducted focusing on admission requirements (high school GPA and SAT scores) at Seton Hall University, with first-time freshmen and their transition to sophomore year. This research is being conducted to assess Seton Hall's admission criteria as a means to understand their influence on retention. This is also important to assist in guiding the University's efforts to improve retention through marketing, recruitment, and the development of orientation and other programs (Murtaugh et al., 1999).

Although retention has been studied extensively, the literature is only able to assist in understanding the problem of attrition in general terms. There is little benefit to individual institutions in improving retention with their own students by studies specifically designed for the unique specific population of those other institutions. Current studies focus on individual populations at selected universities. The inconsistencies are numerous based on the breadth and depth of the university.

Furthermore, due to the decentralization of our higher education system in this nation, the studies are geared to assist a specific university at a specific time. Often, if duplicated 3 or even 2 years later, the findings would be very different. While the literature indicated that retention studies are important and institution specific, many institutions have not conducted studies to examine this issue. A statistical model for student retention focusing on pre-college criteria, such as HS GPA and SAT could significantly affect the way admission processes are developed and seriously influence a college's retention rate.

This study outlined both descriptive and inferential statistical analysis. The study sought to determine whether a relationship existed between pre-college criteria and retaining students through their first year of college and into the students' second year. The methodology for this study was to evaluate the data in an objective manner to determine if a relationship existed between pre-college criteria and retention of students through the first year of college and into the second year. The methods were utilized in accordance with tables and graphs to enhance the study and offer recommendations to assist in developing common and acceptable practices in the admission office at SHU.

The Design - Methods and Procedures

A quantitative research design was used to examine the relationship between pre-college criteria and student retention at SHU through their first year and into their second year. Nearly 2400 undergraduate students entered Seton Hall between the Fall of 2001 and the Fall of 2002. From that enrollment, 1711 student records were selected based on the following criteria: the students selected needed to be full-time, first-time freshmen with a standardized test score; all ACT scores were translated to their SAT equivalent as

per Table 4. The student also had to be accepted outright, this means that the person could not first be waitlisted (WL) and then accepted. Excluding this group proved necessary, since waitlisted students are evaluated on additional factors beyond SAT and HS GPA, leading to potentially spurious results. This WL then accepted group only makes up, on average, 8% of the total incoming class. The data were then reviewed for consistency of variables, ensuring that all student variables were present. The valid *N* was 1711.

The data source that was utilized for this study was constructed using Seton Hall's SIS system. This system warehouses all student data at Seton Hall and has the ability to manipulate data structures and process reports written by the members of the institution technology department in the Enrollment Services department at SHU. This was useful in reviewing the data in a longitudinal manner using the Excel program from Microsoft and then reading the data in SPSS for analysis. The data included the student's current year in college, freshman year GPA during student's fall and spring semesters of freshman year, cumulative HS GPA, amount of credits student enrolled for, and lastly, the student's composite SAT score. Current year in college was then coded as 1=Freshman year, 2= Sophomore year, 3=Junior year, 4=Senior year.

The SAT data were then divided into four equal parts called quartiles. Quartile number 1 included all students with a 1030 SAT or below. Quartile 2 included all students with a 1040 to 1110. Quartile 3 included all students with an 1120-1200. Lastly, Quartile 4 included all students with a 1210 and above. This was done to ensure that the data sets were concise and assisted in the analysis.

The students HS GPA data sets were also broken down to four quartiles. Quartile number 1 included all students with a 2.95 or below. Quartile 2 included all students with a 2.96 to 3.28. Quartile 3 included all students with a 3.29 to 3.60. Lastly, Quartile 4 included all students with a 3.61 and above. This was also done to ensure accuracy and to perform a proper statistical analysis.

To ensure that the students we were looking at were registered for each semester and into the second year, there were dichotomous values assigned. A “0” was assigned for students not registered, and a “1” for those that were registered was assigned.

For further study in this area, HS type, gender, declared major, and an indicator signifying whether the student was accepted for a specific major or not were also captured. Students coming from a private high school were given a dichotomous value of “0,” and those from public school were given a dichotomous value of “1.” Female students were assigned a dichotomous value of “0,” and male students were assigned a value of “1.” Students who declared a major upon applying for admission were given a dichotomous value of “0.” Those students who were applying as an undecided student were given a dichotomous value of “1.” Lastly, those students accepted for a specific major were given a dichotomous value of “0,” and those accepted as an undecided major were assigned a dichotomous value of “1.” This data assisted in the results section and also added to the current research being conducted to ensure a holistic approach to admission application review.

Data Collection

Data collection took 4 weeks. With the reports written in a little less than 2 weeks and 1 week to review them and dry run them for a week. SIS was utilized for data

collection with personal identification (name, social security number, personal address, and personal identification number) omitted from the data reports to ensure anonymity and confidentiality. This data information is held on the Student Information System which is utilized at Seton Hall University. Furthermore, the information that is being reviewed for this study is collected each year by the Office of Institutional Research Office, and reports are written from information gathered to be shared with university and non-university sources.

Subjects

The study included 1711 subjects with preexisting data, over a 2-year period that entered full-time and traditional, for academic years 2001 and 2002. This study was limited to reviewing only those students who began their freshman year at Seton Hall University, a mid-sized Catholic national university on the east coast. Those 2 years combined had a total number of new full-time freshmen of nearly 2400. This study looked at those complete with the following pulled data making up 74% of the total incoming class for those 2 years. The variables that were pulled from the Student Information System included the following; aggregate SAT score (actually SHU SAT is the higher Math and higher Verbal score of subject), HS GPA, who were accepted for major applied, gender, high school type, (public or private), current college GPA, registration status for a student's second semester of his/her freshman year, and whether the student registered for his/her second year.

These data were collected in an attempt to determine the relationship between pre-collegiate criteria and whether the student returned for his/her second year. Furthermore, the subjects' data records were analyzed and selected to ensure that only students

entering directly from high school into a matriculated program for 2001 and 2002 were part of the study. The data set was further narrowed to include only full-time entering students.

Data Collection Procedures

The Institutional Review Board of Seton Hall University found that the research met the applicable and legal standards for the protection of the rights and welfare of the human subjects involved in this study. The study involved compiling preexisting data records for analysis. These data had to be extracted from Seton Hall's mainframe computer system, SIS. The study was brought to the attention of a technology director in enrollment services at SHU, who agreed to assist in compiling data, once approval from the Institutional Review Board was received. The data were then extracted using the Focus programming language then migrated to a relational database then later Excel and finally, transferred to SPSS for analysis. After the data were extracted, indicators were added to the data set to flag successful completion of the student's first and second semesters. Indicators were also added to assess other pre-collegiate criteria, such as whether a student applied for a major, and whether the student was accepted into his/her first choice of major.

Research Questions

Answers were sought to the following questions:

1. To what extent does SAT influence retention among freshmen at SHU?
2. To what extent does the HS GPA influence retention among freshmen at SHU?
3. To what extent do other pre-college criteria, which are readily available and legal to consider for the admission decision at Seton Hall, have an influence on retention

into the second year at SHU? (Declared major on application and whether or not the student is going to be accepted for their major).

Methods of Analyzing Data

In an effort to understand the relationship that pre-college criteria have on retention, both descriptive and inferential statistical analyses were performed. Chi-square goodness-of-fit test, also referred to as a single sample chi-square test, was utilized. A chi-square goodness-of-fit test was used as it determines whether frequencies across categories of a variable are distributed in relative manner (Morgan, Reichert, & Harrison, 2001). This study has compared observed frequencies of occurrence with theoretical or expected frequencies (Hinkle, Wiersman, & Jurs, 1998). To analyze this data, SPSS was utilized and the outcomes were reviewed.

Summary

In analyzing these data, there are several recommendations for future studies and statistical analyses. One might repeat this study at other universities across the country, taking into consideration the types of universities that are throughout the country and involved in similar investigations. There are a host of studies that may benefit from using this large database.

Furthermore, given the amount of data and correlation it may benefit colleges to consider alternative methods for evaluating students application and the application process as a whole.

Lastly, in an effort to offer suggestions there are some guidelines that should be considered in redesigning national aptitude exams to better predict the future success of an individual. Incorporating standards-based reform with student achievement, one

should consider some commonly discussed standards. These standards include, but are not limited to, content standards, performance standards, and opportunity - to - learn standards (Nave, Miech, & Mostella, 2000). These standards should also be inclusive of and compliant with Bloom's Taxonomy of Higher Order Thinking Skills (Bloom, 1956).

Understanding that many institutions are not going to follow Richard Atkinson (2001) with the idea of no longer requiring the SAT for a student's application, admissions staffs throughout the country will need to monitor their behavior and acceptance practices. In fact, both small private institutions and mammoth state schools will have to work hard at not weighting the students' test scores too heavily and reviewing all aspects of the application, including the personal statement, high school record, extracurricular activities, recommendations, special awards and furthermore, and a personal interview.

Chapter IV

Results

Introduction

Through presenting the results of the statistical analyses, the purpose of this study was twofold. The first purpose was to examine the relationship between pre-college characteristics as seen in a student's aptitude and achievement as related to successful retention in their first year of study at Seton Hall University. This should add to the current debate and literature regarding admission requirements as relative to student performance and retention. Moreover, it should provide the admission standards committee a better understanding of admission requirements in assessing student applications. Furthermore, it should also help SHU's admissions committee members in deciphering student applications and what variables to consider in accepting applications. Finally, this study should provide the newly established Retention Committee at Seton Hall University more insight into the ability to identify at-risk students for possible early intervention. They may consider enhanced counseling to enable first-year students to complete their first year of study successfully, thus increasing retention rates among first year students.

This chapter presents the results of the statistical analyses of this study. The results of data analyses are presented in the sections of descriptive statistics, tests of questions, and summary of findings.

Selecting the most accurate variables of college academic performance is invaluable in assisting admission officers at their task. It is also invaluable in assisting SHU to increase retention and to decrease attrition.

Answers were sought to the following questions using statistical analysis:

1. To what extent does SAT influence retention among freshmen at SHU?
2. To what extent does the HS GPA influence retention among freshmen at SHU?
3. To what extent do other pre-college criteria, which are readily available and legal to consider for the admission decision at Seton Hall, have an influence on retention into the second year at SHU? (Declared major on application and whether or not the student is going to be accepted for their major).

Descriptive Statistics

Prior to analysis, descriptive statistics were run on all variables (Table 2). The sample population included 1,711 subjects of which there were 892 (52.2%) females and 816 (47.8%) males. For three of the subjects gender was not registered making this sample size $N = 1,708$.

Although there are many types of high schools, on average, these can be classified into two broad categories: students either were applying from a private or a public school. For this study, type of high school refers to public coded with a "1," where 68.4%

($n=1150$) of students attended public school, while the remaining 31.6% ($n=532$) attended a private high school coded with "0."

Pre-college criteria included TSAT and HS GPA. All of the subjects had a standardized test reflected on their account as well as HS GPA. For those who took the ACT exam, the ACT score was converted to its SAT equivalent score (See ACT-SAT conversion chart Table 4). The TSAT quartiles were added. The first quartile comprised those students with TSAT score in the low 25% of the score distribution making up 24.5% ($n=333$). These included all students who scored a 1030 or below. The second quartile consists of 26%-50% making up 26.4% ($n=356$). These students scored between 1040 and 1110. The third quartile consists of 51%-75% making up 24.9% ($n=339$). These students scored between an 1120 and 1200. Lastly, 76%-100% were in the fourth quartile making up 24.4% ($n=331$), with these students scoring a 1210 or above.

The HS GPA was also coded into four quartiles. The first quartile consisted of 25.3% ($n=433$) of students whose HS GPA was a 2.95 or below. The second quartile consisted of 24.7% ($n=423$) of students whose HS GPA was 2.96 to 3.28. The third quartile consisted of 26.2% ($n=449$) of students whose HS GPA was 3.29 to 3.60. Lastly, the fourth quartile consisted of 23.7% ($n=406$) of students whose HS GPA was a 3.61 or above. Students' grade point averages are normalized on a 4.0 scale.

The study also attempted to assess the strength of nontraditional factors in describing retention. One of these factors included whether a student declared a specific major on his/her application. Students declaring a major comprised 63.6% ($n=1089$) of the total. The remaining 36.4% ($n=622$) did not declare a major.

A related variable concerns whether a student was admitted into the major to which he/she applied. Students who were undeclared and admitted to the University were assessed as admitted into their major of choice for purposes of statistical analysis. Using this definition, we were able to determine that 14.8% ($n=254$) of the students who applied for a major other than undecided were not admitted into the University for their choice of major, but were accepted as an undecided student. For those that applied to SHU, 85.2% ($n=1457$) were accepted for the major they chose on their application, including those applying without a major.

Of the 1711 full-time students in this study, who began their freshman year at SHU in either 2001 or 2002, enrollment of 79.4% ($n=1359$) continued on into their second year. The students who dropped or stopped attending comprised the remaining, yielding a 20.6% ($n=352$), 79.4% retention rate.

A chi-square goodness-of-fit test was performed on the six nominal variables to determine if there is statistical significance between each of the pre-college criteria and registration status into second year. The research was able to confirm statistically significant variances for three of the six variables (See Table 3). The chi square for HS GPA quartiles revealed that $\chi^2(1, N = 1,711) = 29.803, p = .000$; declared major on application, $\chi^2(1, N = 1,711) = 6.207, p = .013$; and accepted for their major for which a student applied revealed $\chi^2(1, N = 1,711) = 5.346, p = .021$ were significant at the .05 alpha levels. This indicates that special variation occurred between the variables of HS GPA, declared major, and accepted for major and persistence into a student's second year. Students with a higher HS GPA were more likely to persist; students who declared a

major on their application were more likely to persist; and students who were accepted into a major that they declared on their application were more likely to persist.

As Table 3 indicates, three of the six quantitative variables had relatively large χ^2 values (value 5.346 to 29.803) that were considered significant at the .05 alpha levels. Additionally, one of those three variables (HS GPA, $\chi^2 = 29.803$) was significant at the .001 alpha level. This indicates that these individual variables (HS GPA, declared major and accepted major) are not equal for persisters and those who leave before their sophomore year. Students who persisted into the second year had a slightly higher HS GPA upon entering (2.96 and better), had a declared major on their application and, were accepted to their major of choice.

TABLE 2

Descriptive Statistics

Pre-College Criteria	Categories	<i>n</i>	% of sample
Gender* (1708)	Female	892	52.2%
	Male	816	47.8%
TSAT Quartile	1st Quartile: 1030 and below	333	24.5%
	2nd Quartile: 1040-1110	356	26.2%
	3rd Quartile: 1120-1200	339	24.9%
	4th Quartile: 1210 and above	331	24.4%
GPA Quartiles	1st Quartile: 2.95 and below	433	25.3%
	2nd Quartile: 2.96-3.28	423	24.7%
	3rd Quartile: 3.29-3.60	449	26.2%
	4th Quartile: 3.61 and above	406	23.7%
Declared Major on Application	Undeclared	622	36.4%
	Declared	1089	63.6%
Type of High School* (1682)	Public	1150	68.4%
	Private	532	31.6%
Accepted for Major Applied	Accepted for Undecided	254	14.8%
	Accepted for a Specific Major	1457	85.2%
Second Year Status	Not registered	352	20.6%
	Registered	1359	79.4%

TABLE 3

Descriptive Statistics with Chi-Square Testing the Relationship Between Each Qualitative Variable and the criterion

Pre-College Criteria	Categories	N	% of sample	χ^2	p	Std. Residual Not Reg.	Std. Residual Reg.		
Gender* (1708)	Female	892	52.2%	1.245	.264	-.7	.3		
	Male	816	47.8%					.7	-.4
TSAT Quartile	1st Quartile: 1030 and below	333	24.5%	7.758	.051	1.3	-.7		
	2nd Quartile: 1040-1110	356	26.2%					.8	-.4
	3rd Quartile: 1120-1200	339	24.9%					-.3	.2
	4th Quartile: 1210 and above	331	24.4%					-1.9	1.0
GPA Quartiles	1st Quartile: 2.95 and below	433	25.3%	29.803	.000	3.6	-1.8		
	2nd Quartile: 2.96-3.28	423	24.7%					.5	-.3
	3rd Quartile: 3.29-3.60	449	26.2%					-1.2	.6
	4th Quartile: 3.61 and above	406	23.7%					-3.0	1.5
Declared Major on Application	Undeclared	622	36.4%	6.207	.013	1.8	-.9		
	Declared	1089	63.6%					-1.3	.7
Type of High School* (1682)	Public	1150	68.4%	.127	.721	.2	-.1		
	Private	532	31.6%					-.3	.1
Accepted for Major Applied	Accepted for Undecided	254	14.8%	5.346	.021	1.9	-1.0		
	Accepted for a Specific Major	1457	85.2%					-.8	.4
Second Year Status	Not registered	352	20.6%						
	Registered	1359	79.4%						

TABLE 4

SAT ACT Conversion Table

SAT to ACT		ACT to SAT	
SAT Score Verbal + Math	ACT Composite Score	ACT Composite Score	SAT Score Verbal + Math
1600	36	36	1600
1560-1590	35	35	1580
1510-1550	34	34	1520
1460-1500	33	33	1470
1410-1450	32	32	1420
1360-1400	31	31	1380
1320-1350	30	30	1340
1280-1310	29	29	1300
1240-1270	28	28	1260
1210-1230	27	27	1220
1170-1200	26	26	1180
1130-1160	25	25	1140
1090-1120	24	24	1110
1060-1080	23	23	1070
1020-1050	22	22	1030
980-1010	21	21	990
940-970	20	20	950
900-930	19	19	910
860-890	18	18	870
810-850	17	17	830
760-800	16	16	780
710-750	15	15	740
660-700	14	14	680
590-650	13	13	620
520-580	12	12	560
500-510	11	11	500

Note.

Equivalent scores are those with the same percentile ranks for a common group of test-takers. Data in this table are based in 103,525 test-takers who took both the SAT and the ACT between October 1994 and December 1996. SAT scores do not cover the full range of the ACT scale due to differences in how percentiles are distributed at the top and bottom of the two scales.

Discriminant (Inferential) Statistics

The inferential analysis was performed on the full model and subsets of the full model. The statistical analysis that was employed was the chi-square goodness-of-fit test on each of the subsets. There were six chi-square goodness-of-fit subsets developed to look at the following questions. Selecting the most accurate pre-college criteria to determine college academic performance is invaluable in assisting admission officers at their task. It is also invaluable in assisting SHU to increase retention and to decrease attrition.

Question 1. The possibility that a pre-college criteria model could assist in the admission process to more accurately assist in influencing a student retention rate was considered. Looking at the TSAT quartiles in an effort to understand the relationship between TSAT and retention was done using chi-square goodness-of-fit test.

In looking at Table 5, the results suggest that the TSAT is not statistically significant at the .05 alpha levels with a p of .051. A chi-square goodness-of-fit test showed that the number of students who registered for the second year, $n=1359(79.4\%)$ greater than those who did not, $n=352(20.6\%)$, $\chi^2 (1, N=1711) =7.758, p = .051$. However when the standard residual is examined for each of the quartiles, it is clear that the standard residual becomes more pronounced with each succeeding quartile.

The results suggest that the standard residual of those who are in the first three quartiles up to a 1200 on the SAT are not greater than 2.0 or less than -2.0. This reflects that those students count are close to what was expected to both not register and register for their second year at SHU. However, in the fourth quartile, from 1210 on their SAT and above, the standard residual is moving towards statistical significance at -1.9. The

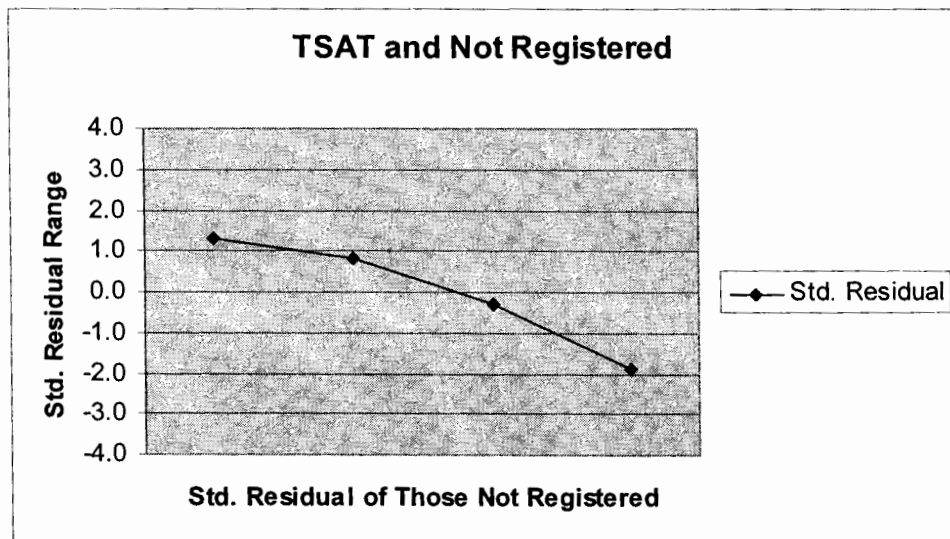
count of 64 was much lower than the expected count of 81.3 to not register. This suggests that more students in the fourth quartile of 1210 and above were continuing on to their second year at a higher rate than expected. Consequently, although the standard residual is not significant at the .05 level, the count of those in that quartile who registered was 331, larger than the expected count of 313.7, giving a standard residual of 1.0. If you were to chart the standard residual for those students not registering from the TSAT, it would resemble Figure 2.

Table 5

TSAT Quartiles

Pre-College Criteria	Categories	<i>N</i>	% of sample	χ^2	p	Std. Residual Not Reg.	Std. Residual Reg.
TSAT Quartile	1st Quartile: 1030 and below	333	24.5%	7.758	.051	1.3	-.7
	2nd Quartile: 1040-1110	356	26.2%			.8	-.4
	3rd Quartile: 1120- 1200	339	24.9%			-.3	.2
	4th Quartile: 1210 and above	331	24.4%			-1.9	1.0

Figure 2

TSAT and Not Registered

Question 2. The second research question attempted to examine the potential relationship between HS GPA and retention using a chi-square goodness-of-fit test.

The results are displayed in Table 6. These results suggest that the HS GPA is statistically significant at the .001 alpha levels, $p = .000$. A chi-square goodness-of-fit test showed that the number of students who registered for the second year, $n=1359(79.4\%)$ is greater than those who did not, $n=352(20.6\%)$, $\chi^2 (1, N=1,711) = 29.803, p = .000$. The results also suggest looking at the standard residuals more closely to determine which quartiles are statistically significant.

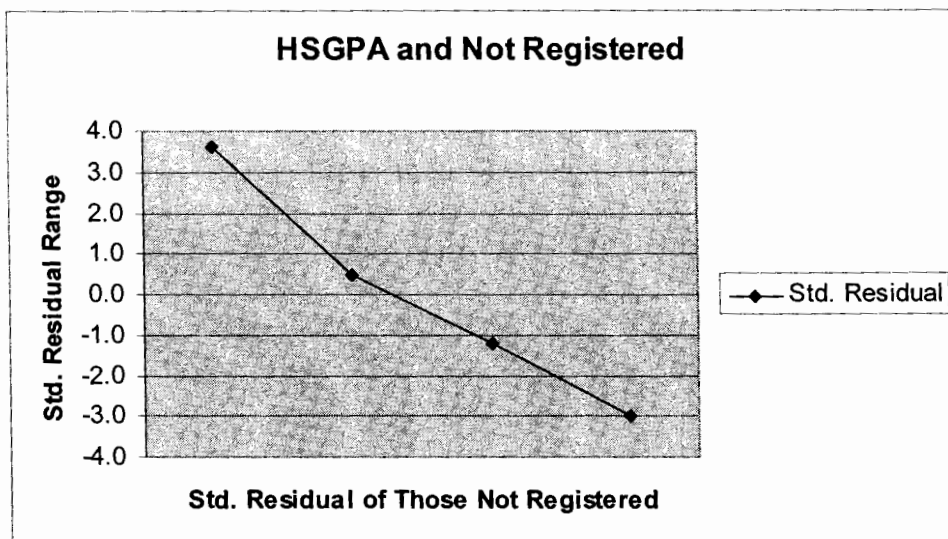
The study suggests that those students accepted in the first quartile, with a HS GPA below 2.95, are leaving at a rate higher than expected. For those students who did not register for the second year in Quartile 1, it was expected that 89.1 students would fail to return; however, 123 students actually did. Consequently for this group of students, while only 310 students actually registered, it was expected that 343.9 would return with a standard residual moving towards -2.0 at -1.8. Furthermore, the HS GPA model also suggests that the University is retaining those students in the fourth quartile at a rate higher than those than expected, with only 56 failing to return, while 83.5 were expected not to return. The standard residual is above -2.0 at -3.0. This suggests that the University is doing much better at retaining students who are accepted with a higher GPA. If you were to chart the standard residuals for those students not registering from the HS GPA, it would resemble Figure 3.

Table 6

GPA Quartiles

Pre-College Criteria	Categories	<i>N</i>	% of sample	χ^2	<i>p</i>	Std. Residual Not Reg.	Std. Residual Reg.
GPA Quartiles	1st Quartile: 2.95 and below	433	25.3%	29.803	.000	3.6	-1.8
	2nd Quartile: 2.96- 3.28	423	24.7%			.5	-.3
	3rd Quartile: 3.29- 3.60	449	26.2%			-1.2	.6
	4th Quartile: 3.61 and above	406	23.7%			-3.0	1.5

Figure 3

HSGPA and Not Registered

Question 3. The third question focused on the possibility that a model could assist in the admission process to more accurately assist in identifying influencing factors leading to successful retention of students. The question, to what extent do other pre-college criteria which are readily available and legal to consider for the admission decision at Seton Hall, have an effect on retention into the second year at SHU? Declared major on application, and whether or not the student was accepted into their choice of major were considered.

This question, however, examines other variables not commonly associated with the admission acceptance process at most universities. The four other variables that were under consideration were gender, whether a student declared a major on his/her application, the type of high school they are coming from, and whether or not they would be accepted for their major at the onset. Looking at these variables and using a chi-square goodness-of-fit test, it appears that there are two of the four variables that are statistically significant at the .05 alpha levels. The results suggest that both declared major on application $\chi^2(1, N = 1,711) = 6.207, p=.013$ and accepted for major $\chi^2(1, N = 1,711) = 5.346, p=.021$ are statistically significant at .05 alpha levels. This indicates that there is some relationship between the variables of declared major and persistence and between accepted major and persistence.

Declared major on application. The results show that having a declared major on an application is statistically significant at the .05 alpha levels with a $p = .013$. A chi-square goodness-of-fit test indicated that the number of students who registered for the second year, $n=1359(79.4\%)$ than those who did not, $n=352(20.6\%)$, $\chi^2(1, N = 1,711) =$

6.207, $p=.013$. This suggests that there is indeed a relationship with having a declared major on an application and persistence into the second year.

In looking at the standard residuals (see Table 7) of this statistical analysis it suggests that there is no significant relationship (std. residual >2 or std. residual <-2) between either undeclared and not registered (1.8), undeclared and registered (-.9), declared and not registered (-1.3), and declared and registered (.7).

Table 7

Declared Major

Pre-College Criteria	Categories	N	% of sample	Chi- Square	P	Std. Residual Not Reg.	Std. Residual Reg.
Declared Major on Application	Undeclared	622	36.4%	6.207	.013	1.8	-.9
	Declared	1089	63.6%			-1.3	.7

The undeclared major count of $n=148$ is above the expected count of 128 and represents the total count $n=1711$ of 8.6% for not registered. This standard residual of 1.8 is moving towards the 2.0 that represents statistical significance. However, the count of $n=474$ for registered undeclared majors was less than the expected count of $n=494$, representing 27.7% of the total count of $N=1,711$. The standard residual of undeclared registered majors was $-.9$. This suggests that those undeclared students who started at SHU are leaving at a greater rate than expected.

The declared major count of $n=204$ was below the expected count $n=224$ for not registered, representing 11.9% of the total count of $N=1,711$. This standard residual of -1.3 is moving towards the -2.0 that represents statistical significance. Conversely, the count of $n=885$ for registered declared majors, is greater than the expected count of $n=865$ representing 51.7% of the total $N=1711$. This standard residual of $.7$ is moving towards statistical significance of 2.0.

The suggestion that the chi-square goodness-of-fit test seems to be that those students that are declared are registering at a higher rate than expected, and those that are not declared are leaving at a higher rate than expected. The results are also suggesting that the declared students are not registering at a lower rate than expected and the undeclared students are registering at a lower rate.

Accepted for major applied. The results indicate that being accepted for the major which applied for is statistically significant at the .05 alpha levels with a $p = .021$. A chi-Square goodness-of-fit test showed that the number of students who registered for the second year, $n=1359(79.4\%)$ compared with those who did not, $n=352(20.6\%)$, $\chi^2(1, N = 1,711) = 5.346, p = .021$. This suggests that there is indeed statistically significant

variances with having been accepted with the major which was applied for on an application and persistence into the second year.

In looking at the standard residuals (see Table 8) of this statistical analysis, it suggests that there is no significant relationship ($\text{std. residual} > 2$ or $\text{std. residual} < -2$) between either accepted for undecided and not registered (1.9), accepted for undecided and registered (-1.0), accepted for a specific major and not registered (-.8), and accepted for a specific major and registered (.4).

Table 8

Accepted for Major Applied

Pre-College Criteria	Categories	N	% of sample	Chi- Square χ^2	P	Std. Residual Not Reg.	Std. Residual Reg.
Accepted for Major Applied	Accepted for Undecided	254	14.8%	5.346	.021	1.9	-1.0
	Accepted for a Specific Major	1457	85.2%			-0.8	.4

The accepted for undecided major applied count of $n=66$ was above the expected count of 52.3 and represents the total count $N=1,711$ of 3.9% for not registered. This standard residual of 1.9 is moving towards the 2.0 that represents statistical significance. Conversely, the count of $n=188$ for registered accepted for undecided applied, was less than the expected count of $n=201.7$, representing 11.0% of the total count of $N=1,711$. The standard residual of accepted for undecided registered students is -1.0. This is suggesting that those students accepted for undecided who started at SHU are leaving at a greater rate than expected.

The accepted for a specific major count of $n=286$ was below the expected count $n=299.7$ for not registered, representing 16.7% of the total count of $N=1,711$. This standard residual of -.8 is moving towards the -2.0 that represents statistical significance. Conversely, the count of $n=1171$ for registered students accepted for a specific major, is greater than the expected count of $n=1157.3$ representing 68.4% of the total $N=1,711$. This standard residual of .4 is moving towards statistical significance of 2.0.

The suggestion that the chi-square goodness-of-fit test seems to be that those students were accepted for specific major are registering at a higher rate than expected, and those that are accepted for undecided are leaving at a higher rate than expected. The results are also suggesting that the students accepted for a specific major are not registering at a lower rate than expected and the students accepted for undecided are registering at a lower rate.

Summary of Results

Overall, although there seems to be several variables that show statistical significance, there is no model currently that can be designed using the statistical significance found to be accurate enough to develop a new model. The questions looked at, however, do suggest a stronger relationship between the HS GPA than with the TSAT in dealing with students persisting at SHU. There also seems to be a relationship between whether a student declares a major on an application and his/her ability to persist. Furthermore, there is statistical significance between a student's acceptance of major and how he/she persists. The questions therefore about HS GPA and other variables to look for in considering applicants seem helpful.

Chapter V

Summary, Conclusions and Recommendations

Summary

The purpose of this study was to identify influential variables for retention at a mid-sized private university in the Northeast. In an effort to understand more clearly why students leave Seton Hall University, more specifically, how admission policies and requirements may affect this decision, research has been conducted focusing on admission requirements (high school GPA and SAT scores) at Seton Hall University, focusing on first-time full-time freshmen and their transition to sophomore year. The ability to assess students-at-risk would allow more intense scrutiny and assistance for those students while, at the same time, increasing the universities retention rate. This research was conducted to assess Seton Hall's admission criteria as a means to understand their influence on retention. This is also important to assist in guiding the University's efforts to improve retention through marketing, recruitment, and the development of orientation and other programs (Murtaugh et al., 1999).

The data were retrieved from the SIS university database from the technology director in the enrollment services area at Seton Hall University, once IRB approval was provided. These data consisted of several variables (remembering Admissions at SHU

only uses two main variables) that the admissions department considers for admission, totaling 1711 students. The model that was designed to assess retention was based on the admission requirements of the 1711 students, who were full-time, first-time freshmen entering in both 2001 and 2002. To ensure student privacy, a unique non-identifying student ID was generated, and a database accessing achievement scores, HS GPA, gender, major declared on application, accepted major and type of high school attended (public or private) was generated. Data transformations were performed to create nominal variables to record whether the student declared a major on his/her application, and whether the student was accepted into the major for which he/she applied. Finally, a dummy variable was created to flag whether a student was coming from a private or a public high school.

From the data one could argue that the University has done an average job at assisting in retaining students from the two middle HS GPA quartiles; however, for the lowest quartile, an applicant is more likely to leave Seton Hall University. On the other hand, the University seems to be doing an above average job in retaining students at the upper end of the HS GPA at retaining students. The students with a HS GPA of 3.61 or above are showing a -3.0 standard residual with an actual count of 56 for not registered and an expected count of 83.5. This suggests that the students are registering at a higher rate than expected.

As described by researchers such as, Antley (1999), Woodard, Mallory, & De Luca (2001), Klepper, Nelson, & Miller (1987) and Lenning, Sauer, & Beal (1980), research suggests that the entrance exam score is an important variable with respect to retention. However, this entrance score, when divided in four quartiles, provides a more precise picture. When articulated in this way, it can be seen that the higher two quartiles

return for their sophomore year at a rate higher than expected, where as far as the lower two quartiles, the students are not. This indicates that the higher the test score, the more inclined a student is to remain at SHU.

Those researchers who have explored the effects of HSGPA in depth such as, Cope & Hannah (1975), Astin (1993), Bean (1980), Gaither (1998), Pacarella & Terenzini (1991), Tinto (1993), and Hossler (1991), have found that High School GPA does have a stronger relationship to student attrition. The research for SHU also confirmed their findings, suggesting that those with a higher GPA, in the top two quartiles, are returning for their sophomore year at a higher rate than expected, and those in the two lower quartiles are found to not register at as high of a rate than expected.

Conclusion

First, this study has added to the literature base which suggests that the HS GPA and SAT are influential in predicting successful retention of students from their freshman to sophomore years. However, in looking at the lower two quartiles, there are other variables that may assist in determining a student's desire and ability to remain for his/her second year.

In adding to the literature base the research on SAT has supported notables such as Antley (1999), Woodard (2001), Lenning (1982), Cope and Hannah (1975), in that the SAT score is a consistently significant influencing variable of retention, and that lower college-admission test scores are related to higher attrition and imply that students must work harder to succeed in college. The research on HS GPA has supported Astin (1975, 1993), Bean (1980), Gaither (1998), Pascarella and Terenzini (1980), Tinto (1987, 1993), Hossler (1984), Lenning (1982), Ramist (1981) in stating the high school grade point

average has been identified as an important variable influencing persistence. The research also supports Klepper et al. (1987) in finding that the most important predictors of retention are the students' HS grades and admission test scores. Lastly, the findings support those leading researchers, Dennis (1998), and Tinto (1987, 1993) who found that students with no major leave at a higher rate than other students, and career indecision is a common theme among leavers as compared to persisters.

Answers were sought to the following questions using statistical analysis:

1. To what extent does SAT influence retention among freshmen at SHU?
2. To what extent does the HS GPA influence retention among freshman at SHU?
3. To what extent do other pre-college criteria, which are readily available and legal to consider for the admission decision at Seton Hall, have an influence on retention into the second year at SHU? (Declared major on application and whether or not the student is going to be accepted for their major).

Question 1. The possibility that a pre-college criteria model could assist in the admission process to more accurately assist in influencing a student retention rate was considered.

The results suggest that students' standard residual of those who are in the first three quartiles up to a 1200 on the SAT are not greater than 2.0 or less than -2.0. This reflects that those students count are close to what was expected to both not register and register for their second year at SHU. However, in the fourth quartile, from 1210 on their SAT and above, the standard residual is moving towards statistical significance at -1.9. The count of 64 was much lower than the expected count of 81.3 to not register. This

suggests that more students in the fourth quartile of 1210 and above were continuing on to their second year at a higher rate than expected. Consequently, although the standard residual was not significant at the .05 level, the count of those in that quartile who registered was 331, larger than the expected count of 313.7, giving a standard residual of 1.0.

Question 2. The second research question attempted to examine the potential relationship between HS GPA and retention using a chi-square goodness-of-fit test.

The study suggests that those students accepted in the first quartile, with a HS GPA below 2.95, are leaving at a rate higher than expected. For those students who did not register for the second year in Quartile 1, it was expected that 89.1 students would fail to return; however, 123 students actually did. Consequently for this group of students, while only 310 students actually registered, it was expected that 343.9 would return with a standard residual moving towards -2.0 at -1.8. Furthermore the HS GPA model also suggests that the University is retaining those students in the fourth quartile at a rate higher than expected, with only 56 failing to return, while 83.5 were expected not to return. The standard residual is above -2.0 at -3.0. This suggests that the University is doing much better at retaining students who are accepted with a higher GPA.

Question 3. The third question focused on the possibility that a model could assist in the admission process to more accurately assist in influencing factors leading to successful retention of the student retention rate. The question, to what extent do other pre-college criteria, which are readily available and legal to consider for the admission decision at Seton Hall, have an effect on retention into the second year at SHU? (Declared major on

application, and whether or not the student was accepted into their choice of major) was considered.

This question, however, examined other variables not commonly associated with the admission acceptance process at most universities. The four other variables that were under consideration were gender, whether a student declared a major on the application, the type of high school they were coming from, and whether or not they would be accepted for their major at the outset. Looking at these variables and using a chi-square goodness-of-fit test, it appeared that there were two of the four variables that were statistically significant at the .05 alpha levels. The results suggested that both declared major on application and accepted for major were statistically significant. This indicated that there is a relationship between the variables of declared major and persistence and between accepted major and persistence.

Declared major on application. The results suggested that having a declared major on an application is statistically significant, suggesting that there is indeed a relationship with having a declared major on an application and persistence into their second year. The findings indicated that those undeclared students who started at SHU are leaving at a greater rate than expected.

The indication is that those students that are declared are registering at a higher rate than expected and those that are not declared are leaving at a higher rate than expected. The results are also suggesting that the declared students are registering at a higher rate than expected, and the undeclared students are registering at a lower rate.

Accepted for major applied. The results suggest that being accepted for the major applied for is statistically significant. This suggests that there is indeed statistically significant variances with having been accepted with the major which was applied for on an application and persistence into the second year.

Furthermore, the suggestion is that those students accepted for undecided who started at SHU are leaving at a greater rate than expected.

The suggestion that the chi-square goodness-of-fit test seems to be that those students that are accepted for specific major are registering at a higher rate than expected, and those that are accepted for undecided are leaving at a higher rate than expected. The results are also suggesting that the students accepted for a specific major are not registering at a lower rate than expected, and the students accepted for undecided are registering at a lower rate.

Recommendations

Policy. Colleges and high schools should work together to assist the graduating high school students to be better prepared to enter college. An April 2003 report, from the National Commission on Writing for America's Families, Schools, and Colleges, points to the need for colleges to work with high schools to make writing a major focus in the academic programs at both levels . But because two thirds of high school graduates will go on to college today, admissions officers can improve the retention picture dramatically, with help from those administrators directly responsible for retention at SHU. The following is a list of what retention and admission officers can do to assist towards this policy change:

1. Present a realistic portrayal of institutional life by making sure applicants understand what types of applicants succeed at SHU, what support resources are available, and what the campus culture is really like.

2. Link admission decisions to an assessment of graduation requirements by assisting prospective students in understanding the course requirements to be fulfilled upon graduation.

3. Continue to conduct studies at SHU to focus on what variables accepted students possess each year that are linked to higher retention rates.

4. The interview has long been used to assess student applicants who do not meet the requirements for admission outright. The policy change that is recommended would shift the applicant from mere numbers and words to another dimension. Regardless if the interview lasts 10 minutes either via phone or in person, it is highly important to reach out to each applicant to embark on the relationship and outline what is expected of the student directly (Stanovec, 2004).

5. Based on the research included in this study, a policy to consider students more favorably who have decided on a major when applying seems to be justified. The research included suggests a strong influence the decision fact has on retention into the second year of study.

Practice. A team approach between those in admissions and those at the appropriate level responsible for retention (aside from the fact the whole of the university is responsible for retention) is required in an effort to impact a rising attrition rate. Communication

between those managing the intake of an institution's primary customer (the student) and those responsible for their exit at the appropriate time – with diploma – is essential. Too often, admission applications are discarded with no further action, while pertinent student records are never brought to the attention of the admission officers who originally invited that student to campus. The disconnect needs to be addressed.

Administrators, faculty, and student leaders can all assist with retention. As previously described, SHU students admitted with a higher SAT and HS GPA, return for their sophomore year at a higher rate than those with lower scores, to continue to strengthen admission qualifications and limit the number of the students being admitted with lower SAT scores and HS GPA. However, being a tuition-driven institution, there may be limitations on how far this policy can be pursued. It may, then, be beneficial to those in admissions to reconsider the policy and practice in which they use to evaluate applications and move to a more holistic approach, taking into consideration the student's personal essay and recommendations more seriously. This may warrant an overhaul of the admission policies to move to what is recommended in the Admissions Decision-Making Models published through The College Board (2003). This recommendation suggests assigning a point value to each of the admission requirements and using a point total to admit students. Research shows that this method has been proven at some universities to increase retention dramatically.

Lastly, if in fact the admission qualifications and practices are to remain the same for the foreseeable future, it may be beneficial to explore a more intensive orientation for those with a lower SAT and HS GPA (those being admitted below an 1110 SAT and 3.28 HS GPA). It is recommended from research that these orientations include intensive

study skill practices, time management skills, information on how to navigate the new environment academically and lastly how to handle the new social climate they are joining (Tinto, 1993).

It seems the policy/practice recommendations fall into two categories: those which change admissions policy; and those that accept policy as stagnant, but focus on administrative intervention mechanisms to assist retention once a student attends.

Future Research. According to The College Board (2003), an all-time high of more than 1.4 million students in the high school class of 2004 took the SAT, the 14th consecutive year that a total number of exam takers has risen. Average math scores (518) fell by a point over last year, but are up 14 points over 10 years ago. Average verbal scores rose a point to 508. In 2004, it was reported that by March of 2005, there would be an additional section added to the SAT exam. This new section is to be a written essay component. Seeing that this component is to be added, it would be useful to extend this research by adding a new additional component to assess any changes to the influence it has on retention.

Another recommendation for future research would focus on other variables not captured by this study. These variables would include the number and type of activities the student reported being involved in on the application, level of highest degree obtained by the parent, major applied, and quality of essay, to mention a few. As it was pointed out by various researchers, retention is a serious issue with many ramifications to the institution and students alike. It should be considered at all levels of a student's academic

life, not just once they are attending an institution, but what they are bringing to the institution.

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APPENDIX A

Request for IRB Exempt Status Form

APPENDIX A

Department of Educational Administration and Supervision

REQUEST FOR IRB EXEMPT STATUS FORM

Approved Disapproved Signature Elaine M. Walsh

1. Student's Name CHRISTOPHER A. KAISER
2. Mentor's Name ANTHONY J. COLELLA, PH.D. *ajc*
3. Dissertation Title ASSESSING ADMISSION CRITERIA (HIGH SCHOOL GRADE POINT AVERAGE AND SAT) AS A MEANS TO UNDERSTAND THE INFLUENCE ON RETENTION AT A PRIVATE CATHOLIC UNIVERSITY IN THE NORTEAST

4. Purpose of the study. Attach a separate sheet if additional space is needed.

THE PURPOSE OF THIS STUDY IS TWO FOLD. THE FIRST PURPOSE IS TO EXAMINE THE EFFECT OF STUDENT APTITUDE AND STUDENT ACHIEVEMENT ON SUCCESSFUL RETENTION IN THEIR FIRST YEAR OF STUDY AT SETON HALL UNIVERSITY. THIS SHOULD ADD TO THE CURRENT DEBATE REGARDING ADMISSION REQUIREMENTS AND TO ENABLE THE ADMISSION OFFICE A BETTER UNDERSTANDING OF ADMISSION REQUIREMENTS IN ASSESSING STUDENT APPLICATIONS. FURTHERMORE, ASSISTING SETON HALL UNIVERSITY'S ADMISSION OFFICE IN DECIPHERING STUDENT APPLICATIONS AND CONSIDERING VARIABLES IN ACCEPTING APPLICATIONS. SECONDLY, THIS STUDY SHOULD ENABLE THE RETENTION COMMITTEE AT SETON HALL UNIVERSITY MORE INSIGHT INTO THE ABILITY TO IDENTIFY TROUBLE STUDENTS WHO MAY BE ABLE TO BE COUNSELED TO ENABLE FIRST YEAR STUDENTS TO COMPLETE THEIR FIRST YEAR OF STUDY SUCCESSFULLY TO DECREASE THE UNIVERSITIES ATTRITION RATE AND SUBSEQUENTLY, INCREASE ITS' RETENTION RATE.

5. Data Sources (List all sources; describe what information will be collected from each source).

Attach a separate sheet if additional space is needed.

DATA COLLECTION SHOULD TAKE NO MORE THAN SIX WEEKS. WITH THE REPORTS WRITTEN IN A LITTLE LESS THAN TWO WEEKS WITH TWO WEEKS TO REVIEW THEM AND DRY RUN THEM FOR TWO WEEKS USING SPSS STATISTICAL SOFTWARE. SIS WILL BE UTILIZED FOR DATA COLLECTION WITH PERSONAL IDENTIFICATION (NAME, SOCIAL SECURITY NUMBER, PERSONAL ADDRESS, PERSONAL IDENTIFICATION NUMBER, GENDER AND HIGH SCHOOL ATTENDED) OMITTED FROM THE DATA REPORTS TO ENSURE ANONYMITY AND CONFIDENTIALITY. THIS DATA INFORMATION IS HELD ON THE STUDENT INFORMATION SYSTEM WHICH IS A PUBLIC DOMAIN TO SETON HALL UNIVERSITY EMPLOYEES. FURTHERMORE, THE INFORMATION THAT IS BEING REVIEWED FOR THIS STUDY IS COLLECTED AND AGGREGATED EACH YEAR BY THE OFFICE OF INSTITUTIONAL RESEARCH AND REPORTS ARE COMPILED FROM INFORMATION GATHERED TO BE SHARED WITH THE GENERAL PUBLIC. A DATA PROFILE ON EACH ANONYMOUS STUDENT WILL INCLUDE, HIGHEST STANDARDIZED TEST SCORE (SAT), FINAL HIGH SCHOOL GPA, FIRST YEAR ATTENDED (2001 AND 2002), FRESHMAN YEAR AFTER 24 CREDITS GPA, REGISTRARTION STATUS FOR THE STUDENTS' SOPHOMORE YEAR AND NUMBER OF CREDITS STUDENT REGEISTERED FOR THEIR SECOND YEAR AT SHU.

Student's signature Christopher A. Kaiser Date 4.30.04

Note: Three copies of this form must be submitted with a copy of your Proposal Approval Signature Sheet.