

## Chapter One

### Introduction

Americans have always valued higher education and obtaining a bachelor's degree. However, postsecondary education was historically viewed as a privilege. Prior to the middle of the 19<sup>th</sup> century, only a handful of colleges and universities existed in the United States. The enrollments at these institutions did not exceed a few hundred male students. It is estimated that fewer than three percent of the nation's population even attended college during this period. The number that completed and earned a bachelor's degree was even less (Lucas, 1996).

The post-Civil War era witnessed explosive growth in the number of colleges and universities in the country. By 1900, institutions collectively awarded an estimated 29,000 degrees (Lucas, 1996). However, prior to the middle of the 20th century, higher education continued to be viewed as an opportunity for the wealthy and elite. Following World War II, the GI Bill was implemented to expand higher education, particularly for veterans. Due to the success of the GI Bill, President Truman and his Commission on Higher Education presented a proposition to expand permanent access and affordability to higher education for all Americans (Thelin, 2003). Upon adoption of the Commission's proposal in 1947, higher education enrollments began to increase.

Currently, more than 1.3 million bachelor's degrees are awarded each year (Thelin, 2003). This is a result of President Truman's proposition, coupled with increasing high school graduation rates and increasing enrollment rates in higher education. By 1990, approximately two-thirds of high school seniors were preparing to enroll in higher education (Lucas, 1996).

Much of the growth in higher education is attributable to the perceptions of social mobility and career opportunities associated with a college education. Obtaining a bachelor's degree is seen as a rite of passage to better job opportunities, salary advantages, and improved social status. For example, a high school graduate earns an average \$26,000 a year while a college graduate with a bachelor's degree earns approximately \$40,000 a year (National Research Center for College & University Admissions, 2000). In addition, American society confers prestige on those individuals awarded a college degree (Thelin, 2003).

Higher education is not for everyone, however. Traditionally, there has been a portion of students who discover that college is not an appropriate path. More specifically, almost half of

all students entering two-year colleges and more than a fourth of all students enrolling at four-year colleges and universities leave by the end of their first year (Tinto, 1993).

During the past 30 years, numerous researchers have formulated frameworks to explain persistence and withdrawal among college students. Three specific models, those by Hossler and Galligher (1987), Bean (1980; 1985), and Tinto (1975; 1982; 1987; 1993), repeatedly emerge in the literature on these matters. All three have roots in the work of sociologist Emile Durkheim and his theory of suicide. Durkheim asserted that suicide is more likely to occur when an individual is insufficiently integrated into society (Pampel, 2000). Likewise, attrition is more likely to occur when individuals have not been adequately integrated at the academic or social level.

The notion of integration into the campus society guides the three more prominent models of persistence and attrition in higher education. For example, Hossler and Galligher's (1987) three step model explains the college choice process that later influences integration and success in college. This model includes the Predisposition, Search, and Choice steps. Predisposition refers to how students prepare themselves to select an institution. This may include the academic rigor of high school coursework and motivation to attend college. Search, when students begin their college search process, includes visiting specific institutions and meeting with representatives from those institutions to gain a more in-depth perspective on the college. The final stage, Choice, describes how students evaluate institutions to find the best fit. The degree to which there is a student-institutional fit will positively influence the degree of social and academic integration the student achieves at that institution (Hossler & Galligher, 1987).

Bean's model of student attrition includes four variables that influence integration hence persistence: background variables, academic variables, environmental variables, and social integration (Bean, 1980; 1985). Background variables focus primarily on high school performance, including high school rank and standardized test scores. College GPA is the main academic variable and it has a direct, positive influence on academic integration and satisfaction. Environmental variables include institutional fit, or the extent to which students feel they belong at a particular institution. The last of the four variables, social integration, includes participation in student organizations and interactions with other students both inside and outside the

classroom. Bean (1985) asserts that the combination of the four variables positively influences integration leading to student satisfaction and persistence.

Tinto's model of college student attrition is the third model that is prevalent in the literature. First developed in the mid-1970s, the model asserts that college students are more likely to withdraw from an institution if they are not academically and socially integrated into the campus community (Tinto, 1982; 1987).

According to Tinto, motivation, commitment, academic habits, and setting specific goals are crucial in predicting persistence. The combination of these factors and an individual's success within each contributes to integration and persistence. Support for Tinto's model suggests that college students are less likely to withdraw if integration, as a result of the above factors, occurs in the first year (Brower, 1997; Pascarella et. al 1986; Somers, 1995).

The model argues that an individual's commitment to the goal of graduation and to the institution is the most predictive formula for success in higher education (Tinto, 1987). More specifically, a formula for success includes academic and social commitment, leading to integration, paired with the interaction of demographic characteristics. Academic commitment includes attending class, completing assignments, and receiving satisfactory grades. Social commitment is a reflection of making meaningful relationships with other students and faculty. Students who are integrated into the institution will have a greater likelihood of persisting beyond the first year (Tinto, 1987).

Models that explain persistence and withdrawal within higher education may have developed in the past 30 years, but persistence and withdrawal have been issues throughout the 368 years of higher education in the United States. However, as higher education shifted from a privilege of the elite to an expectation of the masses, conversations surrounding persistence and withdrawal have become more prevalent (Trow, 1979 as cited in Somers, 1995). For example, approximately 60% of entering college students leave higher education without obtaining a degree and most do so during the first two years of college (Porter, 1990 as cited in Hickman et. al 2000). Research surrounding patterns and causes of persistence and withdrawal is critical and will add to the literature base as well as provide additional methods to combat attrition.

Research illustrates that the reasons leading to withdrawal in the early stages of the college experience are very different from those that influence withdrawal in the later years (Daubman et. al 1985; Pickering et. al 1992; St. John, 1990; Tinto, 1987). For example,

academic experiences influence persistence in the later years of college. Class attendance and GPA positively affect a student's ability to persist to subsequent years and eventually to graduation, particularly after the first year (Daubman et. al 1985).

Regarding persistence to graduation, the first year is the most important period since the greatest rate of attrition occurs between the first and second years (Daubman et. al 1985; Pickering et. al 1992; Tinto, 1987). It is a period of transition and adjustment to the social and academic demands of a new environment when the likelihood of dropout is the greatest (Tinto, 1987; Upcraft & Gardner, 1989). During the first year, many variables affect persistence. Demographic characteristics, high school profile, and the college decision process are the three factors most prevalent in the literature in terms of persistence to the second year (Pascarella & Terenzini, 1979; Somers, 1995; Tinto, 1993).

Demographic characteristics are influential in predicting how academically and socially successful a student will be in higher education and at a particular institution. Overall, demographic characteristics are one of the strongest predictors of persistence from the first to the second year of college (Miville & Sedlacek, 1992; Pascarella et. al 1986; Pickering et. al 1992). These characteristics include, but are not limited to, gender, race, and level of parental education. Males, Whites, and children of parents who participated in higher education are more likely to persist to the second of college (Astin, 1973; Miville & Sedlacek, 1992; Tinto, 1982).

A student's high school profile can also be a significant predictor of persistence or withdrawal in college. Significant relationships have been found between indicators of academic success in high school, such as grade point average (GPA) and standardized test scores, and academic performance in college, which in turn influences persistence (Pickering et. al 1992; Richardson & Sullivan, 1994). Students who were academically successful at the high school level are likely to be prepared for the scholarly rigor of the college experience and, therefore, able to acclimate and succeed more easily.

The college decision process is a third factor that emerged in the literature regarding persistence and withdrawal during the first year. When choosing a college or university, students often make decisions about how well they feel they would fit into the institution. They decide by comparing themselves to students they have met from the institution (Brower, 1997). While this may be a useful technique for some, it misleads other individuals and creates misconceptions.

Many students withdraw during the first year because they discover that their expectations of the institution, either academic or social, are unrealistic (Tinto, 1982).

In summary, higher education is seen as a path to a better life causing more individuals to seek enrollment and a bachelor's degree (Thelin, 2003). As American society continues to emphasize the value of higher education, enrollments and institutions will continually grow despite cost and affordability factors (Lucas, 1996; Thelin, 2003). However, it is clear that college is not for everyone. Attrition is an ongoing challenge within higher education (Somers, 1995; Thelin, 2003; Tinto, 1993).

Models attempt to explain attrition (Hossler & Galligher, 1987; Bean, 1980; 1985; Tinto, 1975; 1982; 1987; 1993). Trends have emerged with regard to the relationship between persistence and background characteristics (Milville & Sedlacek, 1992; Pascarella et. al 1986; Pickering et. al 1992), high school profile (Pickering et. al 1992; Richardson & Sullivan, 1994), and the college decision process (Brower, 1997). These factors, however, have been studied in isolation. This study examines all three factors and compares students who returned and those who did not return for a second year of college.

#### Purpose of the Study

The purpose of this study was to examine factors influencing Year 1 to Year 2 (Y1Y2) retention among students. Specific factors included demographic characteristics, high school profile, and the college decision process. Sex, ethnicity, parents' educational level, and concern regarding ability to finance college education were included in demographic characteristics. High school profile encompassed high school GPA, standardized test scores, and time spent on various activities during the senior year. Reasons to attend college and reasons to attend the particular institution at which the study was conducted defined the college decision process factor.

The sample consisted of traditional aged (18-19 year old) students at a large public, land-grant institution in the mid-Atlantic region of the United States. Data for the study were responses to the Annual Freshman Survey (AFS) (Sax, Astin, Lindholm, Korn, Saenz, & Mahoney, 2003) sponsored by the Cooperative Institutional Research Program (CIRP). All participants completed the AFS in the summer of 2003 at the institution's orientation program. The participants were assigned to one of two groups: those who returned for their second year of college in the fall of 2004 and those who did not.

## Research Questions

This study was designed to address the following research questions:

1. Are there differences in demographic characteristics between students who return for a second year and those who do not return?
2. Are there differences in high school profiles between students who return for a second year and those who do not return?
3. Are there differences in the college decision process between students who return for a second year and those who do not return?

## Significance of the Study

The present study had significance for future practice, policy, and research. With regards to future practice, several constituencies might benefit from the results. For example, admissions counselors might obtain a more detailed picture of entering students and characteristics of those who may be at risk. Specifically, results revealed themes regarding how time was spent during the senior year of high school and the college decision process. Counselors may use the results to identify at risk students and determine better strategies to ensure their success in college.

Student affairs practitioners who work closely with first-year students, particularly in the areas of first-year experience and orientation, may also benefit from the results of this study. The study provided this group with data focusing on students' college decision process and why they chose a particular institution. Practitioners might find the results useful when working with first-year students who are making the transition and adjusting to higher education.

High school students engaged in the college decision process might also make use of the findings from this study. Themes and characteristics prevalent among students who did not return were illustrated and provided useful data to students as they decide on what college to attend and prepare for the transition to college. Students can use the findings to identify potential pitfalls and work to ensure a greater likelihood of success in college.

Parents of high school students engaged in the college decision process might also make use of the findings from this study. Themes and characteristics prevalent among students who did not return were illustrated and provide useful data to parents as they assist their student with the college decision process and prepare for the transition to higher education. Parents might use the findings to identify strategies for success in college for their offspring.

The study was also significant in terms of future policy. Those responsible for recruiting students and implementing admissions policies can benefit from the study. The findings informed this group of demographic characteristics, high school profile, and the college decision process of students who left the institution. They may use the findings when considering policies about where and how to recruit students.

Student affairs practitioners who manage policies surrounding first-year programs might also benefit from the findings of the study. The results informed the group who was retained after the first year and who was not. The findings could be used when creating policies designed to combat Y1Y2 attrition.

The findings might also assist in institutional initiatives to revamp policies surrounding first-year students. More specifically, findings addressed issues to consider when working with first-year students who did not integrate into the institution. The data may be used to create policies that encourage successful academic integration.

The study also had significance for future research. For example, this study considered characteristics of students from a large public, land-grant institution in the mid-Atlantic region. Future research may examine characteristics of students at other types of institutions. More specifically, private and public institutions vary greatly in term of culture and goals. Data on persistence and characteristics of students who chose to withdraw from different institutional settings would expand what is generally known about attrition.

Future researchers may also continue to explore student characteristics leading to attrition among different enrollment status groups. Nontraditional students, including those who attend part-time, are becoming more prevalent on campus. Therefore, data regarding attrition among groups by enrollment status would expand the literature on persistence and withdrawal.

An additional possibility for future research would be to conduct a qualitative research project. Such a study might include interviewing students who have left an institution about the decision processes that led them to enroll at and subsequently withdraw from the institution. This type of data might provide richer information about attrition.

#### Delimitations

Like all research, the present study had initial delimitations. The first delimitation related to the sample. All participants in the study were students at the same institution. Each institution offers different environmental characteristics that attract students. Therefore, it is possible that

first-year students at this institution differed from first-year students at other colleges and universities. Caution should be exercised when generalizing the results of the study to other colleges and universities, particularly non-research institutions.

A second delimitation also related to the sample. Two groups were included in the study: those who persisted to the second year and those who did not. However, the reasons why a student did not persist were not available to the researcher. Participants might have transferred to another institution, for example, hence should have been considered persisters. This suggests that caution should be used when interpreting data about those who did not return to the institution.

A third delimitation related to the survey items analyzed for the study. The AFS includes numerous items, however only select items were considered in this study. It is possible that important information about participants was not considered in the final analysis for this project. If other items had been included in the study, the results might have been different.

The present study was worthwhile in spite of its delimitations. It addressed a gap in the literature concerning pre-college characteristics, high school profile, the college decision process and persistence. The study was valuable in that it provided data regarding students' experiences that may influence their decision to leave an institution. It also laid the groundwork for future studies that explore factors affecting attrition.

#### Organization of the Study

This study is organized in five chapters. The first chapter introduced the topic of the study, the research questions, and the significance of the study. Chapter Two provides a review of literature relevant to the study. The third chapter describes the methodology utilized in the study including sampling techniques and procedures used to collect and analyze the data. Chapter Four presents the results of the study. The final chapter includes a discussion of the results, including implications for future practice, policy, and research.



## Chapter Two

### Review of the Literature

This study examined factors influencing retention prior to the sophomore year. In an effort to evaluate the available literature on the topic, three groups of work emerged, that are reflective of the predictors of attrition examined in the study. The first section of this chapter summarizes research on the relationship between attrition and demographic characteristics. The second section focuses on high school profiles and attrition. The final section addresses attrition in the context of the college decision process.

#### Demographic Characteristics

First-year students apply, enroll, and come to colleges and universities with a variety of characteristics and experiences (Pascarella & Terenzini, 1979; Tinto, 1993). Differences in demographic characteristics, such as sex, ethnicity, socio-economic status, and parents' educational level, influence pre-college experiences and a student's success once classes begin. When higher education was first established in the United States, almost all students were White men from wealthy, college educated families. However as the model of higher education in the United States has shifted from an expectation of the elite to a system for the masses, demographics have shifted and affected retention (Trow, 1979 as cited in Somers, 1995).

Demographic and background characteristics are believed to influence not only how successful a student will be in meeting academic expectations, but how the individual will integrate into an institution leading to persistence and graduation (Pascarella et. al 1986). Therefore, it is important for students and administrators to consider demographic characteristics in an effort not only to increase campus diversity and reduce attrition but also as a mechanism to target potential at-risk students. Attempts to assess and understand demographic and background characteristics, as well as diversity, have provided opportunities to assist new students before arriving and once enrolled at a university.

Traditionally, male students dominated higher education in the United States. As society changed, women became more visible in many sectors, including attendance in higher education. Today, women account for at least half, if not more, of the students enrolled in higher education (Bray, Braxton, & Sullivan, 1999). However, women still struggle to find equality. Therefore, the attainment process of females can differ substantially from that of their male counterparts (Tinto, 1982). These differences influence persistence. In some studies, females are more likely

to drop out of higher education due to insufficient social or academic integration (Ryland, Riordan, & Brack, 1994).

Similar to the issue of gender, access to higher education was limited to members of ethnic minority groups until recent decades. As students from different ethnic backgrounds enrolled in higher education, cultural differences between ethnic minorities and Whites became evident. For example, many minority groups place significantly more value on orientation and social integration experiences than Whites (Tinto, 1982). Therefore, attaining sufficient levels of integration can vary for Whites and minority students. This is particularly true for Black students (Tinto, 1982). Existing pre-enrollment characteristics among ethnic groups lead to lower persistence rates among minorities as compared to their White counterparts (Ryland et. al 1994).

Socio-economic status has repeatedly been found as a predictor of college persistence and eventual graduation at certain institutional types (Hickman et. al 2000; Somers, 1995; St. John, 1990; Tinto, 1993). Socio-economic status encompasses, but is not limited to, childhood neighborhood, family income, and parents' employment status. For many college students, socio-economic status directly influences financial aid, including grants and loans. Financial aid has been found to positively affect persistence, particularly during the first-year of college (Somers, 1995; St. John, 1990). In addition, some studies illustrate that changes in family structure, including family size and divorce, are more likely among members of lower socio-economic groups. Individuals who experience changes in the family structure are more likely to experience limited academic adjustment and integration within higher education (Hickman et. al 2000).

Closely related to socio-economic status, parental education level repeatedly has been found to positively influence attendance and persistence in higher education, particularly between the first and second years (Astin, 1973; Hickman et. al 2000; Somers, 1995; St. John, 1990; Tinto, 1993). More specifically, parents are often considered the key source of socialization and support in a child's life. Therefore, the parent-child relationship is an important factor to examine when determining predictors of college persistence. In one study, results suggest that blue-collar working parents, who often are members of lower socio-economic groups, emphasize values such as obedience and respect and are less likely to reason with their children. On the other hand, white-collar employees, or members of middle and upper socio-economic groups, often experience tolerant, accepting, and flexible working environments.

Therefore, these parents tend to emphasize fairness, communication, and reasoning with their children. These differing parenting styles can affect a student's commitment to and view of higher education (Hickman et. al 2000). This relationship can affect higher education. Parents with less education and fewer resources to fund higher education may have a more difficult time understanding the value and importance of a college education.

It is important to note, however, that contradictory viewpoints have also been found in terms of parent-student relationships and success in college. For example, one study found that fathers with high levels of education have had an adverse effect on the adjustment of their college-age students, particularly during the first-year (Hickman et. al 2000). This may be due to high expectations or comparisons to the parent's higher education experience. In addition, fathers who never attended college may be unable to emphasize the value of higher education. As a result, they do not place as much pressure on the new student to succeed in the academic environment resulting in negative outcomes for the student (Hickman et. al 2000).

Demographic characteristics of first-year students are a major factor leading to persistence beyond the first year and to eventual graduation (Ryland et. al 1994). Overall, findings reveal that women and members of ethnic minority groups have difficulty integrating and persisting in higher education. Socio-economic status and parental education level also play a large role in a student's likelihood of success in higher education. Other studies have examined the role that high school experiences play in the success of college students.

#### High School Profile

Academic and social integration is a key predictor of persistence in higher education, particularly during the first year. Successful integration is often a reflection of high school experiences. For example, those who excelled academically in high school are more likely to perform well in college (Bean & Bradley, 1986). Additionally, involvement outside the classroom during high school will likely shape an individual's social integration once in college (Richardson & Sullivan, 1994; Pascarella & Terenzini, 1979; Tinto, 1993).

Academic factors, specifically high school grade point average (HS GPA) and standardized test scores, are the most reliable predictors of college academic performance, particularly during the first year (Bean, 1985; Pascarella & Terenzini, 1979; Pickering et. al 1992; Ryland et. al 1994; Somers, 1995). More specifically, HS GPA has significant positive effects on academic integration for both men and women, but is significantly more likely to

increase men's academic satisfaction than women's (Bean & Bradley, 1986). HS GPA is also significantly more likely to affect institutional fit and satisfaction for women compared to men (Bean & Bradley, 1986).

Overall, high school grades indirectly influence a student's decision to drop out of college (Ryland et. al 1994) and past academic performance is the best predictor of future academic performance (Bean & Bradley, 1986). With this knowledge, higher education administrators should remember that the best way to improve undergraduate academic performance is to accept students who demonstrate academic competency at the high school level.

Analysis of HS GPA and college GPA indicate that 72% of first-year students obtain a college GPA within one grade range of their HS GPA (Richardson & Sullivan, 1994). The students who are not as academically successful are often encouraged to persist until they either succeed or are dismissed from the institution for academic reasons (Somers, 1995).

While correlation analyses have found significant relationships between HS GPA and college GPA, similar research has found no significant relationship between standardized test scores and college GPA (Richardson & Sullivan, 1994). This finding is reflective of recent concerns questioning the ability of standardized tests to predict success in college.. Most research has found a significantly positive relationship between standardized test scores and college GPA (Bean & Bradley, 1986; Pickering et. al 1992; Somers, 1995). Overall, HS GPA has been found to be the most reliable predictor of college GPA and persistence.

Persistence during the first year, particularly from the first to second semester is a function of standardized test scores paired with HS GPA. Individuals with higher standardized test scores are more likely to persistence than those with lower standardized test scores (Somers, 1995). Due to this strong relationship, standardized test scores, also referred to as college entrance exams, have merited attention in terms of their ability to predict academic success and persistence within higher education (Pickering et. al 1992).

In addition to academic achievement, social integration and involvement at the high school level are predictors of persistence in higher education (Abrams & Jernigan, 1984; Pascarella & Terenzini, 1979; Richardson & Sullivan, 1994). A great deal of research has focused on academic success, including HS GPA and standardized test scores. However, other background characteristics such as motivational attributes and expectations also affect a

student's performance once enrolled in higher education (Tinto, 1993). This may be attributed to the fact that while traditional academic predictors illustrate a portion of students' profile, their involvement in high school activities provides a more comprehensive understanding of their abilities, attitudes and likelihood to persist within higher education.

GPA and standardized test scores only contribute to the ability to adequately identify prospective students who are under-prepared and lack motivation and intellectual ability to succeed in higher education (Abrams & Jernigan, 1984). In addition, trends have shown an increase in academically under-prepared students within higher education. By understanding the comprehensive picture of a prospective student, it is easier to enroll students who are adequately prepared in a holistic manner (Richardson & Sullivan, 1994).

High school experiences, both inside and outside the classroom setting, are predictive of persistence, success, and degree completion in higher education (Abrams & Jernigan, 1984; Bean & Bradley, 1986; Pascarella & Terenzini, 1979; Pickering et. al 1992; Richardson & Sullivan, 1994; Ryland et. al 1994; Somers, 1995). By considering academic performance paired with involvement, attitude, and motivation, it is easier to understand students' potential once they begin their college experience. HS GPA, standardized test scores, and high school activities have significantly positive relationships and connections to persistence, particularly during the first year. Given this, it is important to examine what is known about how students decide to go to college and how they approach the college choice process.

#### College Decision Process

The college decision process can be a confusing and difficult one for many high school students. Entry into college characterizes a new stage of life for a student that includes an increased level of independence and personal responsibility that many have not previously experienced. As students make the transition, they are faced with numerous decisions including where to attend college. Multiple factors contribute to the decision process including potential institutional fit, influence of family and friends, and ability to finance the experience (Bean & Bradley, 1986; Brower, 1997; Hickman et. al 2000; Richardson & Sullivan, 1994; Ryland et. al 1994; Somers, 1995).

Institutional fit is the process through which students make decisions about how well they feel they will fit into a given higher education institution. This may occur by comparing themselves to the prototypical student at the institution (Brower, 1997). The institutional fit

process begins with the review of college information packets and campus visits and continues throughout the first year, and possibly subsequent years, once enrolled as a student.

One model proposes the process of institutional fit as a three step experience that includes predisposition, search, and choice. More specifically, predisposition describes how students prepare themselves to select a school based on academic and social opportunities, as well as demographic characteristics. Search includes students initiating a search process by pursuing institutions that have characteristics that attract them. Choice focuses on how students evaluate schools to make a selection and find the best institutional fit for themselves as individuals (Hossler & Galligher, 1987). During the process, prospective or enrolled students may ask themselves many questions including how their interests match those of students attending the institution, how they fit into the social dimension of the institution, and what skills and strengths they possess that are desired attributes of students at the institution (Brower, 1997).

The process of institutional fit continues even after a student decides on a college or university and is accepted. However, decisions required of a high school student exploring higher education choices are much different from those required of the same student once matriculated at a college (Brower, 1997; Tinto, 1993). Once enrolled, first-year students begin to develop images of themselves at the institution that may be positive or negative and they begin to strive to achieve their desired image (Brower, 1997).

Institutional fit is an important component of the college decision and transition process. More specifically, institutional fit is significantly more likely to affect the satisfaction of a female student than a male student (Bean & Bradley, 1986). In addition, institutional fit has been positively correlated to social experiences (Bean, 1985) and satisfaction (Bean & Bradley, 1986).

Due to the importance of institutional fit on the college decision process and retention of students, many institutions have longitudinal programs examining retention that are tied to the admissions process and include a variety of institutional departments (Tinto, 1993). Institutional fit is a longitudinal experience for each student that begins with initial contact with the institution and continues through acceptance, enrollment, and subsequent semesters, particularly during the first year of college (Brower, 1997).

In addition to institutional fit, integration, both academic and social, is another key component of the college decision process influencing retention. Due to individual backgrounds and family differences, students encounter varying levels of success and acceptance as they

experience the transition to college (Hickman et. al 2000; Richardson & Sullivan, 1994). Despite differences in background, experiences once they arrive at an institution have a significant and consistent impact on students' persistence (Somers, 1995). Specifically, first to second semester persistence is often a result of experiences and integration, which in turn is a reflection of institutional fit and the college decision process (Somers, 1995).

The college decision process can also be impacted by financial situations of students and their families. Many college students receive some form of financial assistance which may be in the form of scholarships, federal grants, loans, or work study funds. The results of research on financial aid and persistence are equivocal. Most studies suggest that financial aid, with the exception of scholarships, does not have a significant influence on persistence (Somers, 1995). However, some research reveals contradictory findings (St. John, 1990; Tinto, 1993).

A student's decision to continue enrollment and persist to the next semester is influenced by increases in financial aid, including grants, loans, and work study (St. John, 1990). The positive correlation between persistence and increases in aid grows stronger after each year of completion. Overall, research reveals that when students' experiences are positive, they are more likely to accept financial burdens in order to continue their education than when their experiences are not meeting their expectations (Tinto, 1993).

The college decision process is largely influenced by institutional fit, social and academic integration, and financial circumstances. Students are more likely to persist and overcome difficulties in their education when they are satisfied with their education. Satisfaction is a result of adequate integration and fit between the student and the institution. Satisfaction increases likelihood of persistence and the goal of higher education, which is graduation.

Upon reviewing the existing literature, it is clear that demographic characteristics influence withdrawal. More specifically, gender and ethnic background play a significant role. Females and members of ethnic minority groups are more likely to withdraw than males and Whites (Bray et. al 1999; Ryland et. al 1994). In addition, socio-economic status is positively correlated to persistence in higher education (Somers, 1995; St. John, 1990; Tinto, 1993). Overall, parental education level is also positively correlated to persistence (Astin, 1973; Somers, 1995; St. John, 1990).

High school profile also has an influence on withdrawal, particularly prior to the sophomore year of college. HS GPA and standardized test scores are the most reliable predictors

of college academic performance (Bean, 1985; Pickering et. al 1992; Somers, 1995). Involvement outside the classroom during high school is also a predictor of persistence in higher education (Abrams & Jernigan, 1984; Richardson & Sullivan, 1994; Ryland et. al 1994). Individuals who were involved and motivated to participate in activities in high school are more likely to be successful and persist once enrolled in college.

The college decision process, including the choice to attend higher education and the selection of a specific institution, has an influence on withdrawal. Appropriate institutional fit influences persistence (Brower, 1997). A lack of institutional fit is often due to insufficient academic and social integration (Bean & Bradley, 1986; Somers, 1995). Financial assistance can also impact the college decision process and withdrawal. The relationship between financial assistance and persistence has been found to be positive (St. John, 1990; Tinto, 1993), but also not significant (Somers, 1995).

Upon reviewing the existing literature, research has focused on demographic characteristics (Bray et. al 1999; Ryland et. al 1994) and high school profile (Pickering et. al 1992; Richardson & Sullivan, 1994; Somers, 1995), as well as the college decision process (Brower, 1997, Somers, 1995, St. John, 1990) of first-year students in isolation. The literature lacks research that considers multiple dimensions of first-year students influencing withdrawal prior to the sophomore year.

The purpose of this study was to build upon the existing body of research and knowledge by examining factors influencing Year 1 to Year 2 (Y1Y2) retention among traditional aged students utilizing responses to the Annual Freshman Survey (AFS) (Sax et. al 2003) sponsored by the Cooperative Institutional Research Program (CIRP). The study provided a comprehensive look at factors leading to withdrawal prior to the sophomore year of college. The technique, timeliness, and data set of the study provide higher education administrators with a more comprehensive picture of factors leading to withdrawal.



## Chapter Three

### Methodology

The purpose of this study was to examine factors influencing Year 1 to Year 2 (Y1Y2) retention among traditional aged students. Specific factors included demographic characteristics, high school profile, and the college decision process. Sex, ethnicity, parents' educational level, and concern regarding financial capability were included in demographic characteristics. High school profile encompassed high school GPA, standardized test scores, and time spent during the senior year of high school in selected activities. Reasons to attend college and reasons to attend the particular institution at which the study was conducted defined the college decision process factor.

The sample consisted of students at a large public, land-grant institution in the mid-Atlantic region of the United States. Data for the study were responses to the Annual Freshman Survey (AFS) (Sax et. al 2003) sponsored by the Cooperative Institutional Research Program (CIRP). All participants completed the AFS in the summer of 2003 at the institution's orientation program. Participants were assigned to one of two groups: those who returned for their second year of college at the selected institution in the fall of 2004 and those who did not.

This study was designed to address the following research questions:

1. Are there differences in demographic characteristics between students who return for a second year and those who do not return?
2. Are there differences in high school profiles between students who return for a second year and those who do not return?
3. Are there differences in the college decision process between students who return for a second year and those who do not return?

This chapter describes the method employed in the study. This includes the sample selection process, a description of the AFS, and the procedures used to collect and analyze the data.

#### Sample Selection

The institution at which the study was conducted had an undergraduate enrollment of approximately 21,000 students and a total enrollment of 26,000 in the fall of 2003. The undergraduate student enrollment was composed of 60% male students and 40% female students. Eighty-one percent of the undergraduate students were Caucasian, 6% were African-American,

and 13% were members of other ethnic groups. Traditional aged (18-24 years old) students made up the overwhelming majority of undergraduate students.

The total enrollment of first-year students in the fall of 2003 was 4,900 individuals. The first-year class was composed of 57% male students and 43% female students. Seventy-four percent of the students were Caucasian, 6% were African-American, and 20% were members of other ethnic groups.

Data were provided to the researcher by the Office of Institutional Research and Planning Analysis (OIRPA) and the Office of Academic Assessment (OAA) at the institution where the study was conducted. OIRPA retrieved student identification numbers for all first-time, full-time, BA degree-seeking students in the fall of 2003. OIRPA then sorted the student identification numbers into two groups: 1 = Returned in fall of 2004 and 2 = Did not return in fall of 2004.

The data set was then sent to OAA. OAA retrieved the data set from the 2003 administration of the AFS and added the data to the information provided by OIRPA. OAA removed all identifying information and returned the data set to the researcher in SPSS format. The researcher then sorted the data to include only traditional age students who were U.S. citizens.

#### Instrumentation

This study used the database created by the Cooperative Institutional Research Program (CIRP) Annual Freshman Survey (AFS) (see Appendix A). The CIRP, founded in 1966, was designed to provide a normative profile of the American college freshman population including demographic characteristics, and pre-college behaviors, values, and beliefs. The survey instrument is revised annually to reflect changing concerns of the academic community and of others who use the information (Sax et. al 2003).

The AFS consists of two portions. The first portion of the survey is a standardized questionnaire that all participating colleges and universities administer to incoming first-year students. Many of the 40 items within the first section consist of a number of sub-items. The second portion of the survey is a supplemental section in which institutions may ask specific questions of interest.

For purposes of this study, the researcher examined 10 items from the first portion of the AFS. The 10 items were placed in one of three groups: demographic characteristics; high school

profile, or the college decision process. Table 1 includes a complete listing of all items included in the analysis, how responses were coded, and what the response options were.

Four of the selected items related to demographic characteristics. These items asked respondents to report their sex, ethnicity, parents' education level, and concern regarding financial capability. Respondents were asked to report their father's and mother's highest level of formal education. Possible responses ranged from grammar school or less to graduate degree.

Respondents were also asked to their level of concern regarding their ability to finance their education. Possible responses included none, some, and major concern. The demographic characteristic items were selected due to the role they have traditionally played in retention and attrition based upon the review of the literature.

High school profile factors included three items. Respondents were asked to report average high school grade and standardized test scores. They were also asked to report how they spent their time during the last year of high school, including curricular and co-curricular behaviors. Respondents indicated number of hours per week spent on each activity. Choices ranged from none to more than 20 hours per week. Activities included studying/homework, partying, and working, among others.

These three items were selected to provide a balanced understanding of curricular and extra-curricular activities during the senior year of high school. Literature reveals that while the high school academic experience is predictive of retention during the first year of college, participation and motivation towards various activities also plays a role in the college experience.

The third section, focusing on the college decision process, included three items. The first item asked respondents what rank the current institution was in their college choice process. Possible responses included first choice to less than third choice. Another item in this section asked respondents what was important in their decision to attend college. Factors included parents who wanted them to go, gaining a general education and appreciation of ideas, and being able to make more money. Respondents indicated in general terms (very important, somewhat important, and not important) the influence of each factor. Respondents also were asked reasons that influenced the decision to attend the selected institution. Factors included relatives who wanted them to come, low tuition, and graduates get good jobs. Similar to the last item, respondents indicated in general terms (very important, somewhat important, and not important) the influence of each factor.

Table 1

*Selected CIRP Items and Coded Response Options*

Research Question		
CIRP Item (#)	Response Options	Collapsed Category
Demographic Characteristics		
Sex (1)	Male Female	
Ethnicity (24)	White/Caucasian	White/Caucasian
	Asian American/Asian	Asian American/Asian
	African American/Black	Other
	American Indian/Alaska Native	
	Native Hawaiian/Pacific Islander	
Mexican American/Chicano		
	Puerto Rican	
	Other Latino	
	Other	
Parent's Educational Level (27)	Grammar School or Less	High School or Less
	Some High School	
	High School Graduate	
	Postsecondary (Not College)	
	Some College	Some College or More
College Degree		
Some Graduate School		
	Graduate Degree	
Concern re Ability to Finance College Education (35)	None Some Major	
High School Profile		
Average Grade in High School (7)	A or A+	A
	A-	
	B+	B
	B	
	B-	

Table 1 (continued)

*Selected CIRP Items and Coded Response Options*

Research Question			
CIRP Item (#)	Response Options	Collapsed Category	
	C+	C	
	C		
Standardized Test Score (8)	Below Median		
	Median & Above		
Time Spent during Senior Year (34)	None	Less than an hour	
	Less than 1 hour		
	1 hour - 2 hours	1-5 hours	
	3-5 hours		
	6-10 hours	6-15 hours	
	11-15 hours		
College Decision Process	16-20 hours	More than 15 hours	
	Over 20 hours		
	College Choice (15)	First Choice	First Choice
		Second Choice	Second or Third Choice
Third Choice			
	Less than Third Choice	Less than Third Choice	
Decision to Attend Higher Education (29)	Very Important		
	Somewhat Important		
	Not Important		
Decision to Attend Particular Institution (36)	Very Important		
	Somewhat Important		
	Not Important		

The three items in this section were chosen to provide an understanding of why an individual has decided to attend higher education, while also considering why the individual has enrolled at a specific institution.

#### Reliability and Validity

Reliability considers the extent to which data from a particular instrument are consistent and accurate in measurement and free from random error (Ary, Jacobs, & Razavieh, 2002). The AFS has been administered each year since 1966. Currently, over 600 institutions administer the survey to their entering first-year students each year (Sax et. al 2003). In the past 38 years, data have been collected from millions of students. The consistency of responses throughout the years illustrates the reliability of the instrument.

Validity addresses the extent to which data support the usefulness of the proposed interpretations (Ary et. al 2002). During its 38 years of use, the AFS has been regularly reviewed by an advisory committee of people who have used the survey. Their job is to ensure that the questions remain relevant to sample being surveyed (Sax et. al 2003). Revisions and changes to the instrument often occur. This process contributes to maintaining the validity of the instrument.

#### Data Collection Procedure

The institution administered the AFS to all entering first-year students at new student orientation during the summer before the students matriculated (in this case, the summer of 2003). The institution submitted completed instruments to the CIRP processing center for analysis. When the data were returned from CIRP, the institution transferred the data to SPSS format.

OIRPA and OAA provided the researcher with a copy of the data in SPSS format. OIRPA assigned a 1 to all students who returned to the selected institution in the fall of 2004 and assigned a 2 to all students who did not return to the selected institution in the fall of 2004. The OIRPA data set was then integrated into the SPSS AFS data set by OAA staff. Student identification numbers were removed to protect individuals' identity. OAA staff provided the data set to the researcher

#### Data Analysis Procedure

Prior to the beginning of the present study, a Request for Exemption of Research Involving Human Subjects was submitted to the Institutional Review Board Office of Researcher

Compliance at the institution where the study was conducted. Upon approval, the data collection and analysis process was initiated (see Appendix B).

The researcher received the necessary CIRP data from the OIRPA and OAA at the institution where the study was conducted. Data were organized into two sets: Returners (R) and Non-Returners (NR). Chi-square tests were utilized to analyze the two data sets.

The first step in the data analysis process involved preparing the data set. Data that were coded in a manner that was not conducive for the present study were re-coded. For example, within the demographic characteristics, sex was recoded into numerical variables as 1 = male, 2 = female. All items were recoded in this manner. The data were then analyzed to address the research questions posed in the study. Multiple items were employed to address each question and some items included multiple sub-items. Table 2 summarizes the items associated with each question. Where appropriate, the categories into which sub-items were assigned are also reported.

The first research question explored differences in demographic characteristics between Rs and NRs. To answer this question, the researcher considered four items: (a) sex; (b) ethnic background; (c) parents' highest level of formal education obtained and (d) concern regarding financial capability. Sex provided two response options: 1 = male or 2 = female.

Ethnic background provided nine response options. Responses were collapsed into three groups and recoded as 1 = White/Caucasian, 2 = Asian American/Asian and 3 = Other. This data set was sorted into three groups due to the large Caucasian population and expanding Asian population at the institution where the study was conducted. Caucasian students composed the overwhelming majority of the entering class in the fall of 2003. To ensure sufficient cell sizes, all non-Caucasian and non-Asian students were assigned to a single group.

Parents' highest level of formal education included eight response options, which were collapsed into two groups and recoded as 1 = high school or less and 2 = some college or more. This item yielded two responses. One response was mother's highest level of education and one was father's highest level of education. This data set was sorted into two groups to observe differences between first-generation college students (1) and those who had at least one parent with college experience (2).

Table 2

*Assignment of CIRP Items to Categories*

Research Question		
CIRP Item (#)	Category	Sub Items
Demographic Characteristics		
Sex (1)		
Ethnicity (24)		
Parent's Educational Level (27)		
Concern re Ability to Finance College Education (35)		
High School Profile		
Average Grade in High School (7)		
Standardized Test Score (8)		
Time Spent during Senior Year (34)	Academic	Studying/homework Talking w/ teachers outside of class
	Social	Socializing with friends Partying Student clubs/organizations
	Entertainment	Watching TV Reading for pleasure Playing video/computer games
	Activities	Exercise or sports Working (for pay) Volunteer work Household/childcare duties Prayer/meditation



Table 2 (continued)

*Assignment of CIRP Items to Categories*

Research Question		
CIRP Item (#)	Category	Sub Items
College Decision Process		
College Choice (15)		
Decision to Attend Higher Education (29)	Self-Improvement	Gain general education/appreciation Improve reading and study skills Become more cultured person Learn more about things of interest
	Career	Ability to get a better job Ability to make more money Prepare for grad/professional school Train for a specific career
	Influence of Others	Parents wanted individual to go Mentor/role model encouragement
	Escape	Not able to find a job Wanted to get away from home Had nothing better to do
Decision to Attend Particular Institution (36)	Institutional Reputation	Good academic reputation Good reputation for social activities Graduates get good jobs Offers special educational programs
	Financial	Offered financial assistance Low tuition Not offered aid by first choice
	Advice from Others	Relatives wanted me to come here Teacher advised High school counselor advised Private college counselor advised
	Institutional Demographics	Live near home Size of college Attracted by religious affiliation

Table 2 (continued)

*Assignment of CIRP Items to Categories*

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Research Question		
CIRP Item (#)	Category	Sub Items
	Other	Rankings in national magazines Information from website Admitted through Early Decision Visit to campus

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The researcher calculated the percentages of each group by demographic characteristic. Frequencies were then compared utilizing chi-squares. All sections involved in the analysis yielded categorical data, thus chi-square tests were appropriate. The purpose of this step was to investigate whether there were significant differences between the two groups (Rs v. NRs). All tests were conducted at the  $p < .05$  level of significance.

The second research question explored differences in high school profile between Rs and NRs. To explore differences, the researcher considered three items: (a) average grade in high school; (b) standardized test score; and (c) average time spent on activities during the last year in high school. Average grade in high school had seven response options, which were collapsed into three responses and recoded as 1 = A; 2 = B; 3 = C.

The standardized test score item yielded scaled data. Combined SAT score was utilized and responses were coded into two groups: 1 = below median and 2 = median and above. The median combined SAT score from the dataset was 1270.

The third item in the high school profile section asked respondents how much time each week they spent on various activities during the last year of high school. The item included 13 activities. However, to provide a more consistent response in all areas and to more easily report findings, themes, and trends, the 13 activities were grouped into 4 categories: (a) Academic; (b) Social; (c) Entertainment; and (d) Activities. The Academic category included studying/homework and talking with teachers outside of class. The Social category included socializing with friends; partying; and student clubs/organizations. Watching TV; reading for pleasure; and playing video/computer games were included in the Entertainment category. The remaining activities, exercise or sports; working (for pay); volunteer work; household/childcare duties; and prayer/meditation were included in the Activities category. Possible response options yielded eight different amounts of time for each activity. Response options were collapsed into four groups and recoded as 1 = less than an hour; 2 = 1-5 hours; 3 = 6-15 hours; 4 = more than 15 hours.

Frequencies were converted to percentages. Frequencies were then analyzed to provide data regarding the second research question that focused on differences in high school profiles between the two groups (Rs v. NRs). Data analysis included running chi-squares for each sub-item of the data provided by Rs and NRs. The purpose of this step was to investigate whether there were significant differences in proportions between the two groups ( $p < .05$ ).

The third research question considered differences in the college decision process between Rs and NRs. Three items were considered: (a) college choice; (b) reasons to attend college; and (c) reasons to attend a particular college. The college choice option had four responses, which were collapsed into three responses and recoded as 1 = first choice; 2 = second or third choice; 3 = less than third choice.

The reasons to attend college item included 13 statements that were grouped into four categories (see Table 2): (a) Self-Improvement; (b) Career; (c) Influence of Others; and (d) Escape. Self-Improvement items included those statements that asked about gaining a general education and appreciation of ideas; improving reading and study skills; making the student a more cultured person; and learning more about things that interest me. Career included being able to get a better job; being able to make more money; preparing for graduate or professional school; and getting training for a specific career. Parents wanting the individual to go and a mentor/role model encouraging the individual to go were included in the Influence of Others category. The Escape group included not being able to find a job; wanting to get away from home; and having nothing better to do.

Possible response options included 1 = very important; 2 = somewhat important; 3 = not important. The sub-items were grouped into four categories to yield a more general analysis of what influences a potential college student to attend higher education. Grouping the sub-items into four categories allowed the findings to be discussed more readily.

The third item in the college decision process was reasons to attend a particular college and included 18 statements that were grouped into five categories: (a) Institutional Reputation; (b) Financial; (c) Advice from Others; (d) Institutional Demographics; and (e) Other. Institutional Reputation included college having a good academic reputation; college having a good reputation for its social activities; college's graduates getting good jobs; and college offering special educational programs. The Financial category included offering financial assistance; college having low tuition; and not being offered aid by first choice. My relatives wanting me to come here; my teacher advising me; high school counselor advising me; and private college counselor advising me were included in the Advice from Others category. Demographics included wanting to live near home; size of college; and being attracted by the religious affiliation/orientation. The remaining items, rankings in national magazines;

information from website; being admitted through an Early Action or Early Decision program; and visiting campus were included in the Other category.

Possible responses included 1 = very important; 2 = somewhat important; 3 = not important at all. The sub-items were collapsed into five categories to yield a more general analysis of what influences a potential college student to attend a particular college. The percentages of Rs and NRs for each response option were calculated. Frequencies were then analyzed using chi-squares to provide data regarding the third research question that focused on differences in the college decision process between the two groups (Rs v. NRs) ( $p < .05$ ).

In conclusion, the present study was designed to examine factors influencing Year 1 to Year 2 retention between two groups of students through analysis of responses to selected items of the AFS. Specific factors included demographic characteristics, high school profile, and the college decision process. The methodology described in this chapter was deemed sufficient to respond to the research questions posed in the study.

## Chapter 4

### Results

The purpose of this chapter is to report the findings of the study. First, the characteristics of the sample are described. Chi-square analyses of selected items were then conducted to provide data regarding the three research questions posed in the study focusing on demographic characteristics, high school profile, and the college decision process.

#### Description of the Sample

The data set, responses from a 2003 administration of the Annual Freshman Survey (AFS) (Sax et. al 2003), included responses from 2,370 students. Before analysis began, the data set was screened to include only traditional aged (17-19 year olds), full-time students with United States citizenship. This removed 156 participants. A total of 2,214 respondents were included in the final sample. Of those, 1,957 were assigned to the Returners (Rs) group and the remaining 257 were assigned to the Non-Returners (NRs) group.

Six items on the instrument were used to generate data regarding the demographic characteristics of the sample. Frequency counts and percentages of the sample for each item are reported in Table 3. For example, sex was broken down into “male” and “female” response options. The number of males was 1,280. This number represented 57.8% of the 2,214 students in the sample and is representative of the male to female ratio at the institution where the study was conducted.

#### Results of the Study

Chi-square analyses, paired with frequency counts and percentages, were utilized for purposes of analyzing the data. The researcher examined 10 items on the instrument to determine if there were statistically significant differences between Returners (Rs) and Non-Returners (NRs). Four items were examined that related to the research question regarding demographic characteristics. Three items were examined that related to the research question regarding high school profile. Three items were also examined that related to the research question regarding the college decision process. A number of items associated with the high school profile and college decision process were comprised of sub-items.

Overall, the analysis included a total of 51 chi-square tests of significance. The four items within the demographic characteristics section yielded four chi-squares. The three items within the high school profile section yielded 15 chi-squares. The three items within the college

Table 3

*Demographic Characteristics of Sample (N=2214)*

Characteristics	n	%
<b>Sex</b>		
Male	1280	57.8
Female	934	42.2
<b>Ethnicity</b>		
White/Caucasian	1951	88.1
Asian American/Asian	102	4.6
Other	161	7.3
<b>Father's Educational Level</b>		
High School or Less	346	15.6
Some College or More	1868	84.4
<b>Mother's Educational Level</b>		
High School or Less	417	18.8
Some College or More	1797	81.2
<b>Average Grade in High School</b>		
A	659	29.7
B	1531	69.2
C	24	1.1
<b>Institutional Preference</b>		
First Choice	1706	77.1
Second or Third Choice	485	21.9
Less than Third Choice	23	1.0
<b>Colleges Applied to for Admission in Addition to One Enroll</b>		
None	441	19.9
1-3	967	43.7
4-6	670	30.3
7-10	118	5.3
11 or more	18	0.8

decision process section yielded 32 chi-squares.

#### *Results of Analyses of Demographic Characteristics*

The results of the four chi-square analyses on demographic characteristics of Returners (Rs) and Non-Returners (NRs) are illustrated in Table 4. For each characteristic, the frequencies and percentages of Rs and NRs are shown. For example, ethnicity was collapsed into “White/Caucasian”, “Asian American/Asian”, and “Other” response options. The number of White/Caucasian Returners was 1,726. This number represented 88.2% of the 1,957 Returners.

There were two chi-squares out of four that were statistically significant in the analyses related to demographic characteristics. Analysis of sex suggested a significant difference between Returners and Non-Returners. NRs were more likely to be male students than female students.

The second demographic characteristic to yield significant differences was concern regarding ability to finance college education. Pair wise comparison tests were conducted to identify the pairs that differed. A significantly greater number of NRs were likely to have some or major concerns about financing their education. Significantly fewer NRs were likely to have no concerns.

#### *Results of Analyses of High School Profile*

The results of the 15 chi-square analyses regarding high school profile of Returners (Rs) and Non-Returners (NRs) are illustrated in Table 5. For each item, or sub-item, where applicable, frequencies and percentages of Rs and NRs are shown. For example, the standardized test scores were collapsed into “below median” and “median & above” response options. The number of Rs with standardized test scores below the median score of 1270 was 891. This number represented 52.7% of the 1,957 Returners.

There were five chi-square tests that were statistically significant in the analyses related to high school profile. Pair wise comparison tests were conducted to identify the precise nature of those differences. Analysis of average grade in high school suggested a significant difference between Returners and Non-Returners. Returners were more likely to have had an A grade average in high school than Non-Returners. A significantly greater number of Non-Returners were likely to have had a B or C grade average in high school.



Table 4

*Results of Chi Squares on Demographic Characteristics of Returners (Rs) v. Non-Returners (NRs) (N=2214)*

Characteristic (N)	Rs (n=1957)		NRs (n=257)		df	x <sup>2</sup>	p
	n	%	n	%			
Sex (2214)					1	6.806	0.009*
Male	1112	56.8	168	65.4			
Female	845	43.2	89	34.6			
Ethnicity (2214)					2	0.402	0.818
White/Caucasian	1726	88.2	225	87.5			
Asian American/Asian	91	4.6	11	4.3			
Other	140	7.2	21	8.2			
Parents' Highest Level of Formal Education (2214)					1	2.350	0.125
High School or Less	158	8.1	28	10.9			
Some College or More	1799	91.9	229	89.1			
Concern re Ability to Finance College Education (2163)					2	9.527	0.009* <sup>a,b</sup>
None	851	44.5	92	37.0			
Some	957	50.0	133	53.4			
Major	106	5.5	24	9.6			

\*Statistically significant at the  $p < .05$  level

<sup>a</sup> Statistically significant at the  $p < .05$  level between None and Major

<sup>b</sup> Statistically significant at the  $p < .05$  level between Some and Major

Table 5

*Results of Chi Squares on High School Profile of Returners (Rs) v. Non-Returners (NRs)*  
(N=2214)

Category/Item (N)	Rs (n=1957)		NRs (n=257)		df	x <sup>2</sup>	p
	n	%	n	%			
Average Grade in High School (2214)					2	20.837	0.000 <sup>*a,b</sup>
A	613	31.3	46	17.9			
B	1325	67.7	206	80.2			
C	19	1.0	5	1.9			
Standardized Test Score (1905)					1	1.748	0.186
Below Median	891	52.7	123	57.5			
Median & Above	800	47.3	91	42.5			
Time Spent During Senior Year							
Academic							
Studying/Homework (2169)					3	18.867	0.000 <sup>*c,d,e</sup>
Less than an hour	178	9.3	43	17.2			
1-5 hours	907	47.3	120	48.0			
6-15 hours	695	36.2	77	30.8			
More than 15 hours	139	7.2	10	4.0			
Talking with teachers outside of class (2165)					3	0.576	0.902
Less than an hour	1124	58.7	153	61.2			
1-5 hours	743	38.8	91	36.4			
6-15 hours	40	2.1	5	2.0			
More than 15 hours	8	0.4	1	0.4			
Social							
Socializing with friends (2160)					3	15.746	0.001 <sup>*c,d,e,g</sup>
Less than an hour	14	0.7	7	2.8			
1-5 hours	389	20.4	54	21.7			
6-15 hours	937	49.0	100	40.2			
More than 15 hours	571	29.9	88	35.3			
Partying (2164)					3	1.432	0.698
Less than an hour	707	36.9	88	35.2			
1-5 hours	772	40.4	97	38.8			
6-15 hours	374	19.5	55	22.0			
More than 15 hours	61	3.2	10	4.0			
Student clubs/organizations (2158)					3	7.424	0.060
Less than an hour	654	34.3	107	42.8			
1-5 hours	1026	53.7	118	47.2			
6-15 hours	177	9.3	18	7.2			
More than 15 hours	51	2.7	7	2.8			

Table 5 (continued)

Results of Chi Squares on High School Profile of Returners (Rs) v. Non-Returners (NRs)  
(N=2214)

Category/Item (N)	Rs (n=1957)		NRs (n=257)		df	x <sup>2</sup>	p
	n	%	n	%			
Entertainment (2162)							
Watching TV					3	1.800	0.615
Less than an hour	404	21.1	56	22.5			
1-5 hours	1007	52.6	136	54.6			
6-15 hours	424	22.2	46	18.5			
More than 15 hours	78	4.1	11	4.4			
Reading for pleasure (2161)					3	1.717	0.633
Less than an hour	1086	56.8	147	58.8			
1-5 hours	698	36.6	83	33.2			
6-15 hours	109	5.7	18	7.2			
More than 15 hours	18	0.9	2	0.8			
Playing video/computer games (2166)					3	12.896	0.005 <sup>*e,f,g</sup>
Less than an hour	1063	55.5	129	51.6			
1-5 hours	615	32.1	89	35.6			
6-15 hours	195	10.2	18	7.2			
More than 15 hours	43	2.2	14	5.6			
Activities							
Exercise or sports (2164)					3	2.874	0.411
Less than an hour	174	9.1	26	10.4			
1-5 hours	547	28.6	71	28.4			
6-15 hours	771	40.3	89	35.6			
More than 15 hours	422	22.0	64	25.6			
Working (for pay) (2160)					3	4.011	0.260
Less than an hour	697	36.5	96	38.6			
1-5 hours	225	11.8	24	9.6			
6-15 hours	576	30.1	65	26.1			
More than 15 hours	413	21.6	64	25.7			
Volunteer work (2162)					3	4.476	0.214
Less than an hour	983	51.4	131	52.4			
1-5 hours	785	41.1	96	38.4			
6-15 hours	109	5.7	21	8.4			
More than 15 hours	35	1.8	2	0.8			
Household/childcare duties (2166)					3	8.541	0.036 <sup>*c,f</sup>
Less than an hour	820	42.8	123	49.2			
1-5 hours	983	51.3	110	44.0			
6-15 hours	99	5.2	12	4.8			
More than 15 hours	14	0.7	5	2.0			

Table 5 (continued)

*Results of Chi Squares on High School Profile of Returners (Rs) v. Non-Returners (NRs)*  
(N=2214)

Category/Item (N)	Rs (n=1957)		NRs (n=257)		df	x <sup>2</sup>	p
	n	%	n	%			
Prayer/meditation (2163)					3	2.757	0.431
Less than an hour	1373	71.8	182	72.8			
1-5 hours	504	26.3	61	24.4			
6-15 hours	31	1.6	7	2.8			
More than 15 hours	5	0.3	0	0.0			

\*Statistically significant at the  $p < .05$  level

<sup>a</sup> Statistically significant at the  $p < .05$  level between A and B

<sup>b</sup> Statistically significant at the  $p < .05$  level between A and C

<sup>c</sup> Statistically significant at the  $p < .05$  level between Less than an hour and 1-5 hours

<sup>d</sup> Statistically significant at the  $p < .05$  level between Less than an hour and 6-15 hours

<sup>e</sup> Statistically significant at the  $p < .05$  level between Less than an hour and More than 15 hours

<sup>f</sup> Statistically significant at the  $p < .05$  level between 1-5 hours and More than 15 hours

<sup>g</sup> Statistically significant at the  $p < .05$  level between 6-15 hours and More than 15 hours

The item regarding time spent on various activities during the senior year included 13 sub-items, four of which yielded statistically significant relationships. Time spent on studying and homework illustrated a statistically significant relationship. NRs were more likely than Rs to spend less than an hour per week on studying and homework during the senior year of high school. Rs were more likely to spend 1-5 hours per week on studying and homework than NRs. Rs were also more likely than NRs to spend more than 15 hours per week on this activity during the senior year of high school.

In addition, socializing with friends also yielded a statistically significant relationship. NRs were more likely than Rs to spend less than an hour per week, 1-5 hours per week, or more than 15 hours per week socializing with friends during the senior year of high school. On the other hand, Rs were more likely to spend 6-15 hours per week socializing with friends than NRs.

Analysis of playing video and computer games also suggested a significant difference between Returners and Non-Returners. A significantly greater number of NRs were more likely to spend more than 15 hours per week engaging in this activity in comparison to Rs. A significantly greater number of NRs were also more likely than Rs to spend 1-5 hours per week playing video and computer games during the senior year of high school. On the other hand, a significantly greater number Rs were more likely to spend less than an hour per week or 6-15 hours per weeks than NRs.

The final activity to yield a statistically significant relationship was household and childcare duties. NRs were more likely than Rs to spend less than an hour per week or more than 15 hours per week engaged in this activity. In addition, Rs were more likely to spend 1-5 hours per week on household and childcare duties than NRs during the senior year of high school.

#### *Results of Analyses of College Decision Process*

The results of the 32 chi-square analyses regarding the college decision process of Returners (Rs) and Non-Returners (NRs) are illustrated in Table 6. For each item, or sub-item, where applicable, the frequencies and percentages of Rs and NRs are shown. For example, college choice was collapsed into “first choice”, “second or third choice”, and “less than third choice”. The number of Rs who were attending their first choice institution was 1,511. This number represented 77.2% of the 1,957 Returners.

Table 6

*Results of Chi Squares on College Decision Process of Returners (Rs) v. Non-Returners (NRs) (N=2214)*

Category/Item (N)	Rs (n=1957)		NRs (n=257)		df	x <sup>2</sup>	p
	n	%	n	%			
College Choice (2214)					2	1.678	0.432
First Choice	1511	77.2	195	75.9			
Second or Third Choice	424	21.7	61	23.7			
Less than Third Choice	22	1.1	1	0.4			
Reasons to Attend Higher Education							
Self-Improvement							
Gaining general education and appreciation (2204)					2	12.064	0.002 <sup>*a,b</sup>
Very Important	1264	64.9	147	57.6			
Somewhat Important	628	32.2	91	35.7			
Not Important	57	2.9	17	6.7			
Improving reading and study skills (2199)					2	4.296	0.117
Very Important	654	33.6	78	30.6			
Somewhat Important	977	50.3	123	48.2			
Not Important	313	16.1	54	21.2			
Becoming more cultured person (2194)					2	1.681	0.431
Very Important	712	36.7	87	34.4			
Somewhat Important	928	47.8	119	47.0			
Not Important	301	15.5	47	18.6			
Learning more about things of interest (2199)					2	0.838	0.658
Very Important	1609	82.7	204	80.6			
Somewhat Important	321	16.5	46	18.2			
Not Important	16	0.8	3	1.2			
Career							
Ability to get a better job (2195)					2	1.030	0.597
Very Important	1452	74.8	189	74.1			
Somewhat Important	318	16.4	47	18.4			
Not Important	170	8.8	19	7.5			
Ability to make more money (2194)					2	1.680	0.432
Very Important	1395	71.2	178	69.8			
Somewhat Important	455	23.5	68	26.7			
Not Important	89	4.6	9	3.5			
Preparation for graduate/professional school (2198)					2	7.842	0.020 <sup>*a,b</sup>
Very Important	1064	54.7	124	49.0			
Somewhat Important	652	33.5	84	33.2			
Not Important	229	11.8	45	17.8			

Table 6 (continued)

*Results of Chi Squares on College Decision Process of Returners (Rs) v. Non-Returners (NRs) (N=2214)*

Category/Item (N)	Rs (n=1957)		NRs (n=257)		df	x <sup>2</sup>	p
	n	%	n	%			
Training for a specific career (2200)					2	2.458	0.293
Very Important	1399	71.9	194	76.4			
Somewhat Important	404	20.8	46	18.1			
Not Important	143	7.3	14	5.5			
Influence of Others							
Parents wanted individual to go (2204)					2	9.855	0.007 <sup>*a,c</sup>
Very Important	554	28.4	62	24.4			
Somewhat Important	813	41.7	132	52.0			
Not Important	583	29.9	60	23.6			
Mentor/role model encouragement (2196)					2	0.225	0.893
Very Important	129	6.6	16	6.3			
Somewhat Important	616	31.8	78	30.6			
Not Important	1196	61.6	161	63.1			
Escape							
Not able to find a job (2198)					2	0.528	0.768
Very Important	42	2.2	5	2.0			
Somewhat Important	81	4.1	13	5.1			
Not Important	1821	93.7	236	92.9			
Wanted to get away from home (2194)					2	1.843	0.398
Very Important	446	23.0	64	25.2			
Somewhat Important	1050	54.1	126	49.6			
Not Important	444	22.9	64	25.2			
Had nothing better to do (2188)					2	11.624	0.003 <sup>*a,c</sup>
Very Important	51	2.6	2	0.8			
Somewhat Important	193	10.0	41	16.1			
Not Important	1690	87.4	211	83.1			
Reasons to Attend Particular Institution							
Institutional Reputation							
Good academic reputation (2166)					2	3.664	0.160
Very Important	1399	72.9	195	78.6			
Somewhat Important	498	26.0	51	20.6			
Not Important	21	1.1	2	0.8			
Good reputation for social activities (2167)					2	1.808	0.405
Very Important	802	41.8	95	38.5			
Somewhat Important	902	47.0	118	47.7			
Not Important	216	11.2	34	13.8			

Table 6 (continued)

*Results of Chi Squares on College Decision Process of Returners (Rs) v. Non-Returners (NRs)*  
(N=2214)

Category/Item (N)	Rs (n=1957)		NRs (n=257)		df	x <sup>2</sup>	p
	n	%	n	%			
Graduates get good jobs (2167)					2	9.525	0.009** <sup>a</sup>
Very Important	885	46.1	121	48.8			
Somewhat Important	829	43.2	87	35.1			
Not Important	205	10.7	40	16.1			
College offers special educational programs (2164)					2	0.160	0.923
Very Important	273	14.3	33	13.3			
Somewhat Important	596	31.1	78	31.5			
Not Important	1047	54.6	137	55.2			
Financial							
Offered financial assistance (2156)					2	1.017	0.601
Very Important	180	9.4	19	7.7			
Somewhat Important	415	21.8	52	21.0			
Not Important	1313	68.8	177	71.3			
Low tuition (2163)					2	20.117	0.000** <sup>a</sup>
Very Important	340	17.7	45	18.3			
Somewhat Important	922	48.1	84	34.1			
Not Important	655	34.2	117	47.6			
Not offered aid by first choice (2149)					2	2.701	0.259
Very Important	52	2.7	11	4.5			
Somewhat Important	97	5.1	10	4.0			
Not Important	1753	92.2	226	91.5			
Advice from Others							
Relatives wanted me to come here (2169)					2	0.060	0.971
Very Important	102	5.3	14	5.7			
Somewhat Important	558	29.0	71	28.7			
Not Important	1262	65.7	162	65.6			
Teacher advised (2168)					2	1.307	0.520
Very Important	27	1.4	5	2.0			
Somewhat Important	461	24.0	65	26.3			
Not Important	1433	74.6	177	71.7			
High school counselor advised (2160)					2	3.165	0.206
Very Important	74	3.8	5	2.0			
Somewhat Important	445	23.3	66	26.6			
Not Important	1393	72.9	177	71.4			
Private college counselor advised (2154)					2	0.585	0.746
Very Important	9	0.5	2	0.8			
Somewhat Important	84	4.4	12	4.8			



Table 6 (continued)

*Results of Chi Squares on College Decision Process of Returners (Rs) v. Non-Returners (NRs) (N=2214)*

Category/Item (N)	Rs (n=1957)		NRs (n=257)		df	x <sup>2</sup>	p
	n	%	n	%			
Not Important	1813	95.1	234	94.4			
Institutional Demographics							
Live near home (2158)					2	4.731	0.094
Very Important	64	3.4	10	4.0			
Somewhat Important	406	21.2	38	15.4			
Not Important	1441	75.4	199	80.6			
Size of college (2162)					2	1.085	0.581
Very Important	483	25.2	69	27.9			
Somewhat Important	955	49.9	122	49.4			
Not Important	477	24.9	56	22.7			
Attracted by religious affiliation/orientation (2158)					2	5.526	0.063
Very Important	18	0.9	0	0.0			
Somewhat Important	158	8.3	29	11.7			
Not Important	1735	90.8	218	88.3			
Other							
Rankings in national magazines (2157)					2	2.081	0.353
Very Important	381	20.0	59	23.8			
Somewhat Important	944	49.4	119	48.0			
Not Important	584	30.6	70	28.2			
Information from website (2146)					2	0.794	0.672
Very Important	247	13.0	37	15.0			
Somewhat Important	890	46.8	113	45.9			
Not Important	763	40.2	96	39.0			
Admitted through early action/decision (2148)					2	14.287	0.001* <sup>b,c</sup>
Very Important	403	21.2	27	11.0			
Somewhat Important	104	5.5	14	5.7			
Not Important	1395	73.3	205	83.3			
Visit to campus (2166)					2	6.205	0.045* <sup>a,b</sup>
Very Important	966	50.4	114	45.8			
Somewhat Important	705	36.8	89	35.7			
Not Important	246	12.8	46	18.5			

\*Statistically significant at the  $p < .05$  level

<sup>a</sup> Statistically significant at the  $p < .05$  level between Not Important and Somewhat Important

<sup>b</sup> Statistically significant at the  $p < .05$  level between Not Important and Very Important

<sup>c</sup> Statistically significant at the  $p < .05$  level between Somewhat Important and Very Important

There were eight chi-square tests that were statistically significant in the analyses related to the college decision process. Pair wise comparison tests were conducted to identify the specific pairs that differed. The item regarding reasons to attend higher education included 13 sub-items, four of which yielded statistically significant relationships. The 13 sub-items were grouped into the following four categories: Self-Improvement, Career, Influence of Others, and Escape. One sub-item from each category yielded a statistically significant relationship.

Gaining a general education and appreciation was the sub-item that yielded a statistically significant relationship within the category of Self-Improvement. Rs were more likely than NRs to feel that gaining a general education and appreciation was very important. NRs were significantly more likely to feel that gaining a general education and appreciation was not important.

Within the Career category, preparation for graduate/professional school was the sub-item that yielded a statistically significant relationship. Rs were more likely than NRs to feel that preparation for graduate/professional school was a very important reason to attend higher education. NRs were more likely than Rs to feel that preparation for graduate/professional school was not important.

One sub-item within the Influence of Others category, parents wanted individual to go, yielded a statistically significant relationship. NRs were more likely than Rs to feel that their parents' desire was a somewhat important reason to attend higher education. Rs were more likely than NRs to feel that their parents' desire was not an important reason to attend higher education.

Having nothing better to do was the sub-item within the Escape category that yielded a statistically significant relationship. Interestingly, Rs were more likely than NRs to respond that having nothing better to do was a very important reason to attend higher education. Rs were also more likely than NRs to feel that having nothing better to do was not an important reason to attend higher education.

The item regarding reasons to attend a particular institution included 18 sub-items, four of which yielded statistically significant relationships. The 18 sub-items were grouped into the following five categories: Institutional Reputation, Financial, Advice from Others, Institutional Demographics, and Other. One sub-item from the Institutional Reputation category, one sub-item from the Financial category, and two sub-items from the Other category yielded a statistically significant relationship.

The sub-item that yielded a statistically significant relationship within the Institutional Reputation category was graduates get good jobs. NRs were more likely than Rs to respond that a graduate getting a good job was not an important reason to attend a particular institution.

In the Financial category, low tuition was the sub-item to yield a statistically significant relationship. Almost half of Rs said low tuition was somewhat important. Almost half of NRs said low tuition was not important.

The Other category included two sub-items that yielded a statistically significant relationship. The first sub-item was admitted through early action/decision. Rs were more likely than NRs to feel that being admitted through early action/decision was very important in their decision to attend a particular institution. On the other hand, NRs were more likely than Rs to feel that being admitted through early action/decision was not important.

The other sub-item that yielded a statistically significant relationship within the Other category was visit to campus. Rs were more likely than NRs to feel that a campus visit was very important in their decision to attend a particular institution. In addition, NRs were more likely than Rs to feel that a visit to campus was not important in their decision to attend a particular institution.

In conclusion, examination of the results of the chi-squares analyses provided the necessary information to answer the three research questions posed in the study. Upon review of the 51 chi-square tests conducted regarding demographic characteristics, high school profile, and college decision process, 15 tests were statistically significant. These findings and their implications for future practice, research, and policy are discussed in the final chapter of this study.

## Chapter 5

### Discussion

This study examined demographic characteristics, high school profile, and the college decision process of those who returned and those who did not return for the sophomore year of college. Data collected through the 2003 administration of the Annual Freshman Survey (Sax et al 2003) were analyzed through the calculation of chi-square tests to determine any statistically significant differences between the two groups.

This chapter discusses the study's results and implications. The first section discusses the results of the study. The second section describes the relationship of the results of this study to prior research. Next, the implications for future practice, policy, and research are discussed based on the study's findings. Limitations are discussed in the fourth section. Finally, some general conclusions are drawn.

#### Discussion of the Results

Examination of the results is based on the three research questions posed in Chapter 1. Overall patterns of the study's findings are also discussed.

##### *Findings about Demographic Characteristics*

The first research question in this study explored differences in demographic characteristics between students who returned for a second year of college and those who did not return. Two items yielded statistically significant relationships: sex and concern regarding ability to finance a college education.

Returners were found to differ from Non-Returners in terms of sex. Females were more likely to be Returners. On the other hand, males were more likely to not return for their sophomore year. This is an interesting finding due to the fact that the majority of undergraduate students at the institution where the study was conducted are males. Therefore, it might be hypothesized that males would be more likely to return than females because females might find the campus climate to be male dominated and unwelcoming to the minority sex. However, females were more likely to return for the sophomore year. It is also possible that the women in the sample were more prepared for college, or more driven to succeed in college. Further research would be needed to explain the reasons for the difference in retention by sex.

The second significant finding related to the ability to fund college expenses. Those with no concern regarding the ability to finance their college education were more likely to return for

the sophomore year. In contrast, those with some or major concerns were more likely to not return for the sophomore year. This finding is interesting because it illustrates the role that finances and high tuition costs can play in retention and enrollment. For example, with no financial concerns, students have the opportunity to spend more time focusing on the academic and social integration components of higher education. Many students who withdraw from higher education report financial hardships and concerns as their reason for leaving. However, some believe that this reason is masking a deeper issue. Perhaps that deeper issue is a lack of academic or social integration due to financial concerns during their period of enrollment.

#### *Findings about High School Profile*

The second research question explored differences in high school profiles between students who returned for a second year of college and those who did not return. The study examined three items on the Annual Freshman Survey (Sax et. al 2003) to explore this question. One of the three items, time spent on activities during the senior year of high school, included 13 sub-items which were grouped into four categories: Academic, Social, Entertainment, and Activities. Five chi-squares yielded statistically significant relationships.

Returners were found to differ from Non-Returners regarding average high school grade. Those with an A grade average in high school were more likely to return for a second year of college. Those with a B or C grade average were less likely to return for a second year of college. This finding reaffirms prior research that persistence in college is reflective of academic success in high school. This may be a reflection of habits that were formed during high school influencing the college experience. For example, a positive relationship exists between time spent studying and grades in high school. In addition, a higher average grade in high school may be a reflection of a drive to succeed both at the high school and college level.

Returners and Non-Returners also were found to differ in regards to time spent on various activities during the senior year of high school. For example, in the Academic category, those who spent five or fewer hours per week studying and completing homework were less likely to persist to the second year of college. In addition, students who spent more than six hours per week studying and completing homework were more likely to return for the sophomore year of college. This finding illustrates the importance of forming adequate and appropriate academic habits inside and outside the classroom during high school. It would seem that those who prepare for class during high school are able to transfer these skills to the higher education atmosphere.

Conversely, those who do not seem to internalize good academic habits in high school may not be able to successfully transition to the more rigorous academic environment of college as they do not persist to the second year as frequently.

Within the Social category, differences were also statistically significant between Returners and Non-Returners in regards to how much time was spent socializing with friends during the senior year of high school. More specifically, those who spent 6-15 hours per week socializing with friends were more likely to persist on to the sophomore year of college. Individuals who spent fewer than six or more than 15 hours per week socializing were more likely to not enroll for a second year of college. This finding is important to consider in terms of the appropriate balance that is needed between academics and social opportunities. For example, Non-Returners spent either limited or excessive amounts of time socializing during their senior year. Those who spent little time socializing may lack the social and interpersonal skills necessary to succeed in a college setting. Those who spent excessive time socializing may lack the balance needed to meet academic obligations and enjoy the social setting of the college or university. Spending too little or too much time with peers in a social setting in this case was negatively associated with an individual's persistence in college.

The ability to balance academics and nonacademic activities is confirmed by the third significant difference with respect to high school profile. Time spent playing video and computer games during the senior year of high school, within the Entertainment category, also revealed statistically significant differences between Returners and Non-Returners. Individuals who spent very little (1-5 hours) or very much (more than 15 hours) time per week engaged in this activity were less likely to return for a second year of college. On the other hand, those who spent essentially no time (less than an hour) or a moderate amount of time (6-15 hours) per week playing video and computer games were more likely to return for a second year. This finding leads to a seemingly obvious conclusion. Individuals who spend excessive amounts of time playing video and computer games are not as successful in academics and social activities, which are key components of the college experience. The finding that those who play 6-15 hours per week, or approximately 1-2 hours per day, persist on to the sophomore year of college presents an interesting loophole. Those who engaged in the activity for a moderate amount were likely to return for a second year, which suggests that perhaps an appropriate balance between academic and nonacademic activities is conducive to becoming a successful student.

The final activity to yield a statistically significant relationship was time spent on household and childcare duties and located in the Activities category. Those who spent 1-15 hours per week on household and childcare duties were more likely to return for the second year of college. On the other hand, individuals who spent less than an hour or more than 15 hours per week were less likely to return. This relationship presents an interesting finding. Individuals who have very limited responsibilities in the home may not persist, which may be a reflection of a lack of discipline and motivation. On the other hand, others may not persist on due to excessive household responsibilities making the academic demands impossible to balance with domestic obligations.

#### *Findings about College Decision Process*

The final research question posed in the study examined differences in the college decision process between students who returned for a second year and those who did not return. To explore this question, the researcher examined three items on the Annual Freshman Survey (Sax et. al 2003). Eight chi-squares yielded statistically significant relationships.

One item on the Annual Freshman Survey included 13 sub-items that were grouped in four categories and examined reasons to attend higher education in general. Four of the items, one from each category, yielded statistically significant relationships. The four categories included Self-Improvement, Career, Influence of Others, and Escape.

The first reason to attend higher education that yielded a statistically significant relationship was part of the Self-Improvement category and asked about gaining a general education and appreciation of ideas. Gaining a general education was more likely to be a very important reason why those who persisted to the second year of college chose to attend higher education. On the other hand, gaining a general education was more likely to be only somewhat important or not important for those who did not persist to the second year of college. During the first year of college, many students are enrolled in introductory, general education courses. Therefore, those who are not interested in the general education or the various introductory courses may find the first year of college pointless, which could lead to withdrawal during the first year or prior to the second year. Those who believe that gaining a general education is a very important reason to go to college may find the core courses they typically take during the first year more meaningful and that may prompt them to return for a second year.

Differences regarding preparation for graduate or professional school, which was part of the Career category, also yielded a statistically significant relationship. Those who persisted to the sophomore year chose to attend higher education because preparing for graduate or professional school was more likely to be either very important or somewhat important. Preparation for graduate or professional school was less likely to be an important reason to attend higher education for those who did not enroll for a second year. This finding suggests that those who have a clear purpose and focus regarding higher education, paired with more defined long range goals, are more likely to persist within higher education.

A sub-item of the Influence of Others category, parents' wishes for an individual to attend higher education, revealed a statistically significant relationship. Those who felt that their parents wanting them to attend higher education was either very important or not at all important were more likely to persist to the second year. On the other hand, those who felt that their parents wanting them to attend college was somewhat important were less likely to persist on to the second year of college. This finding suggests that a parent's influence can either strongly encourage or discourage a student when making the decision to enroll in higher education. More specifically, those whose parents had a high degree of influence over them and whose parents had communicated their values about education to them may be more determined to persist on and succeed. Returners who reported that parents did not unduly influence them to go to college may, in fact, have simply internalized parental values about education and acted on those values without necessarily incurring parental involvement. Conversely, parents who did not emphasize the importance of their child attending higher education may have communicated to their children that college was not a necessity and that might have been interpreted by students that it was acceptable to leave college. Therefore, individuals to whom education was stressed or who were given the freedom to decide their destiny regarding higher education were more likely to succeed than those who parents were indifferent.

The final sub-item regarding reasons to attend higher education that yielded a statistically significant relationship was having nothing better to do, a sub-item assigned to the Escape category. Those who felt that having nothing better to do was a very important or not an important reason to attend higher education were more likely to persist to the sophomore year. Conversely, those who felt that having nothing better to do was a somewhat important reason to attend higher education were less likely to persist to the sophomore year of college. It appears



that attending higher education due to a lack of other plans can help an individual find direction. For example, during the first year, many students enroll in introductory general education courses and have the opportunity to learn about a variety of disciplines. By being exposed to different subject areas, students may form new interests and goals that require success at the undergraduate level, thus leading to persistence. The relative indifference about higher education (having nothing better to do was a somewhat important reason to enroll) among Non Returners suggests that leaving college may be no more important than enrolling was.

The last item in this section to be utilized from the Annual Freshman Survey (Sax et. al 2003), reasons to attend a particular institution, included 18 sub-items that were grouped into five categories: Institutional Reputation; Financial; Advice from Others; Institutional Demographics; and Other. Four of the sub-items yielded statistically significant relationships. The first sub-item was in the Institutional Reputation category. The second sub-item was in the Financial category. The last two sub-items were in the Other category.

Within the Institutional Reputation category, individuals who felt that getting a good job was a somewhat important reason to attend a particular institution were more likely to return for a second year. Those who felt that getting a good job was a very important or not an important reason to attend a particular institution were less likely to return for a second year. That is, those who have exceptionally high expectations or complete disregard for the prospect of employment after graduation may be less likely to persist to graduation at the particular institution. One possible explanation for this may be that few students have the opportunity to learn about their prospective major and specific jobs during the first year. As a result, students who choose the institution with the understanding that graduates get good jobs may feel frustrated and not on track to achieve that goal, thus leading to withdrawal.

Low tuition was the sub-item within the Financial category to yield a statistically significant relationship. Individuals who believed that low tuition was a somewhat important reason to attend a particular institution were more likely to continue at the institution after the first year. On the other hand, those who believed that low tuition was a very important reason or not an important reason to attend a particular institution were less likely to persist after the first year. There may be any number of explanations for this finding. Those who do not initially consider tuition costs may have financial difficulties and be unable to continue enrollment, or they may have ample resources so cost of tuition was not important to them. There may also be a

connection between this finding and the significant difference that was revealed regarding ability to finance a college education (those with some or major concerns were less likely to return for the sophomore year). For those who returned, low tuition was somewhat important. Perhaps they like the low tuition and are sufficiently satisfied with the experiences they garner the first year to prompt them to stay in school.

The final two statistically significant sub-items, admitted through early action/decision and a visit to campus, were included in the Other category. Individuals who reported that being admitted through early action/decision was a very important influence in their decision to attend a particular institution were more likely to persist to sophomore year at that institution. On the other hand, those who reported that being admitted through early action/decision was a somewhat important or not important reason to attend a particular institution were less likely to persist to the sophomore year at that institution. This finding suggests that individuals who apply and are accepted through early decision/action programs may be more confident in their decision regarding a particular institution. In addition, students who apply for early acceptance are often more focused, hard-working, and driven to succeed. It is possible that individuals possessing such characteristics are more likely to persist in their collegiate experience. On the other hand, individuals for whom early action/decision program was not important may be less confident in their decision to attend that particular institution. This may then affect their success and performance once enrolled as a student, thus leading to withdrawal.

A visit to campus was also considered in the decision to attend a particular institution. Those individuals who felt a visit to campus was a very or somewhat important factor in the decision to attend a particular institution were more likely to return. On the other hand, those who felt that a visit to campus was not an important factor in the decision to attend a particular institution were less likely to return. This finding illustrates the importance that a campus visit can have in understanding the institution and picturing oneself at the institution as a student. A campus visit often provides an opportunity to not only tour the campus and see the physical layout of the institution but also observe students, faculty, and staff in their daily routine. This experience may be a deciding factor for prospective students because they are able to see how they would fit into the institutional environment. However, without a visit to campus, a student may have misconceptions of the institution. This could result in a discrepancy between what they expected and what they find when they arrive on campus, thus leading to withdrawal.

Since the findings from the study are relatively complex, an overview of each of the two groups seems warranted. Overall, based upon results from this study, Returners are more likely to be females and students with an A grade average in high school. Returners are also more likely to have spent six or more hours per week studying and completing homework during their senior year of high school. This group is also more likely to have spent 6-15 hours per week, or approximately 1-2 hours per day socializing with friends. In addition, returners are more likely to feel that the following are very important reasons to attend higher education: gaining a general education or appreciation; preparing for graduate or professional school; parents wanting them to attend; and having nothing better to do. Returners are more likely to feel that the following are somewhat important reasons to attend a particular institution: graduates get good jobs; low tuition; being admitted through early action/decision; and a visit to campus.

On the other hand, Non-Returners are more likely to be males and students with B or C averages in high school based upon results from this study. In addition, Non-Returners are more likely to have some or major concern regarding their ability to finance their education and feel that low tuition was a very important factor in deciding to attend a particular institution. Non-Returners are more likely to spend five or fewer hours per week studying; six or less, or more than 15 hours per week socializing; and less than an hour or more than 15 hours per week on household and childcare duties during their senior year of high school. Non-Returners are more likely to feel that gaining a general education and preparing for graduate or professional school are not important reasons to attend higher education. This group feels that graduates getting good jobs, being admitted through early action/decision, and a visit to campus were also not important reasons to attend a particular institution.

#### Relationship of Results to Prior Research

The findings of this study are useful when compared to prior research. In some cases, the findings of the present study support previous research. In other instances, the results contradicted those of prior studies.

#### *Prior Research Supported by Results*

Results for the research question focusing on demographic characteristics contained findings that supported prior research. The current study revealed that those likely to return had no concern regarding ability to finance their college education. This finding is similar to prior

research that stated access to financial support, including aid, grants, loans, and parental funds, positively affects persistence (Somers 1995; St. John, 1990).

The results related to high school profiles also support previous research. This study reported that those with an A grade point average in high school were more likely to return for the sophomore year of college than those with a B or C grade average. Prior research is fairly convincing about the fact that high school grade point averages is the most reliable predictor of college academic performance, particularly during the first year (Bean, 1985, Pascarella & Terenzini, 1979; Pickering et. al 1992; Ryland et. al 1994; Somers, 1995). More specifically, 72% of first-year students obtain a college grade point average within one grade range of their high school grade point average (Richardson & Sullivan, 1994).

The third research question focusing on the college decision process also led to findings that supported prior research. A visit to campus is a key component for an individual making a decision to attend a particular institution. This is likely due to the direct connection between visiting a campus and getting a sense of institutional fit. Findings from this study illustrate that a visit to campus is more important to those who return for the sophomore year than those who do not return. This finding supports prior research that highlights the importance of institutional fit in regards to persistence. More specifically, when prospective students have the opportunity to compare themselves to the prototypical student at the institution and see connections between themselves and other students at the institution, they are more likely to attend the institution and be successful (Brower, 1997, Hossler & Galligher, 1987). Observations of prototypical students often occur during a visit to campus.

#### *Prior Research Contradicted by Results*

Results for the research question investigating demographic characteristics yielded findings that contradicted prior studies as well. In terms of sex, previous research indicated that females were more likely to drop out of higher education, usually due to insufficient social or academic integration (Bray et. al 1999; Ryland et. al 1994). The current study revealed just the opposite. Females were more likely to persist to the second year of college while males were less likely to continue past the first year. This finding may due to the institution type where the study was conducted. Females at the institution come from relatively high SES families and tend to be traditional aged (18-19 years old upon matriculation). They are far less likely to have demands from family or children placed on them and that may be why they persist at higher rates.

The study also contradicted prior research within the area of high school profile. In regards to standardized test scores, previous research has found a significant relationship between standardized test scores and persistence in higher education (Bean & Bradley, 1986; Pickering et. al 1992; Somers, 1995). This study did consider standardized test scores as one item that was explored within the high school profile, but results did not yield significant findings. In recent years, reliance on standardized test scores as a predictor of success in higher education has decreased. Therefore, prior research may have revealed a significant relationship between standardized tests and success in college, however current and future research may reverse that relationship.

The results regarding the college decision process research question also contradicted prior research in one area. Prior research has asserted that low tuition positively influences a student's decision to select a particular institution and continue enrollment after the first semester (St. John, 1990). This study yielded results that Non-Returners were more likely to feel that low tuition was a very important reason to attend a particular institution. These contradictory findings raise the question of an individual's reasoning for selecting and persisting at a particular institution. Future research may want to explore why low tuition is initially attracting students to a particular institution, but leading to later withdrawal.

Overall, the present study both supports and contradicts prior research regarding persistence and withdrawal. However, significant findings in this study have important implications for future practice, policy, and research which are explained further in the next section.

#### Implications for Practice, Policy, & Research

Findings and patterns from this study have implications for a number of constituencies working with students during the admissions process and first year of college. Admissions, academic support, and residence hall staff can utilize these findings in their work with students.

Admissions counselors could highly encourage all applicants to participate in a campus visit as part of the admission process. This practice would provide students the opportunity to gain a better understanding of the institution from a perspective that may not always be adequately communicated through publications. The findings from this study revealed that students who believe that a visit to campus is a very important or somewhat important factor in the decision to attend a particular institution were more likely to return for the sophomore year.

Therefore, by expecting students to visit campus prior to enrollment, students would have a better sense of the campus and what to expect as a student, potentially leading to lower attrition rates.

Admissions staff may also want to stress to students during the application and decision process the importance of defining long term goals related to higher education. More specifically, publications and communication that discuss long term outcomes of college like access to graduate education and employment opportunities may help prospective students to make a sound decision regarding an institution. This recommendation is a reflection of findings from this study. According to the results, those who believe that preparation for graduate or professional school is a very important or somewhat important reason to attend higher education are more likely to return for a second year. In addition, those who feel that getting a good job is a somewhat important reason to attend a particular institution are also more likely to return for a second year. By making prospective students aware of the possibilities available after completing a degree, an institution may be more successful in marketing itself to prospective students and in retaining those students once they matriculate.

Administrators working in offices focusing on academic support services may want to create programs that specifically target first-year students who earned a B or C grade average in high school. The program may provide additional support to promote successful methods associated with studying, class preparation, and making the transition to the classroom. This recommendation is important since results from this study reveal that students with a B or C average in higher school are less likely to return for the sophomore year of college. If the failure to return is due to the inability to academically adapt to the postsecondary institution, a program that promotes good academic habits may improve retention rates.

Residence hall staff may want to implement mandatory study halls or quiet hours, promote library use, or redefine standards in the residence halls. These steps can be taken in an effort to create an atmosphere more conducive for studying and academic work outside the classroom. Results from this study illustrate that this recommendation is important for first-year students. Specifically, those who spent five or less hours per week studying and completing homework during the senior year of high school were less likely to return for the sophomore year. In addition, residence hall staff can consider findings surrounding socializing and playing video and computer games. These results illustrate that excessive exposure to these activities can

increase the likelihood of withdrawal prior to the sophomore year. Staff can utilize this knowledge when programming and planning activities for first-year residents. In general, it is important to instill appropriate habits in new students from the beginning of their college experience.

The findings and patterns from this study also have important implications for constituencies developing and implementing policies that affect prospective and first-year students. Specifically, policy influencing early decision/action programs, expectations for academic advisors, and curriculum development of first-year transition courses can be informed by these findings.

Policy makers evaluating early decision/action programs may find the results of this study helpful. According to the findings, students who feel that being admitted through early action/decision is a very important reason to attend a particular institution are more likely to return for a second year at that institution. This finding can assist policy makers when making changes to admission policies. It may be beneficial to consider implementing some components of the early decision/action program into the regular decision program in an effort to increase retention.

Findings from this study may also be helpful when revising or implementing new standards for academic advisors. When entering higher education, each student is assigned an academic advisor, however different advisors have different expectations of their advisees. Results illustrate that those students who earned a B or C grade average in high school are less likely to return for the sophomore year. Results also illustrate that students who spent five or less hours per week studying and doing homework during the senior year of high school are less likely to return for the sophomore year of college. With this information, policy makers may want to raise the bar and develop minimum academic advising standards, particularly for students who earned Bs or less in high school.

Some institutions have implemented policies mandating enrollment in a first-year transition course for all new students. Other institutions are still in the process of developing policy surrounding such a requirement. Results from this study yield important findings which may support the rationale for a course that would address issues of transition, adjustment, and integration for new students. For example, students who are less likely to return for the sophomore year of college: are more likely to have some or major concern regarding their ability

to finance their college education; had a B or C grade average in high school; and, spent five or less hours per week studying and doing homework during their senior year of high school. In addition, students who are less likely to return for the sophomore year are more likely to feel that gaining a general education is only somewhat important or not important and are more likely to feel that preparation for graduate or professional school is not an important reason to attend higher education. A first-year transition course might assist students in addressing some of these issues and allow them to gain more knowledge about the outcomes associated with certain behaviors in college.

The current study provided valuable information to different groups of people to help first-year students succeed and return to higher education for the sophomore year. While the results add to the knowledge base about retention, they do not answer all questions regarding this topic. Future research is needed to provide additional information.

Based upon the prior research and the results of this study, there are a number of ways future research could expand the body of knowledge about withdrawal prior to the sophomore year of college. For example, this study considered only 10 items on the Annual Freshman Survey (Sax et. al 2003). A future study may consider additional items or explore items that focus on different topics including views on social issues and post-college expectations. This would provide additional information regarding characteristics of Returners and Non-Returners.

An additional possibility for future research would be to conduct a qualitative project to expand and elaborate upon findings of this study. This study focused solely on quantitative data and did not consider why students were leaving or at what point prior to the sophomore year they withdrew from the institution. Qualitative data might provide richer information about attrition. According to results, individuals who had some or major concerns regarding their ability to finance their college education were more likely to leave prior to their sophomore year. In addition, individuals who spent more than 15 hours per week on household and childcare duties were also more likely to withdraw prior to the sophomore year. Due to the nature of the data analyzed for this study, details regarding time associated with these activities and how those time commitments influenced withdrawal were not available.

Future researchers may examine characteristics of students at other types of institutions. This study was conducted on students at a large public, land-grant institution in the mid-Atlantic region. Findings reveal that females were more likely to return for a sophomore year of college.



In addition, students who felt low tuition was a somewhat important reason to attend the institution were more likely to return for a sophomore year. It would be interesting to explore whether these results would be replicated at other types of institutions like liberal arts institutions or community colleges.

#### Limitations of the Study

As in all research, this study had limitations. The first limitation related to the sample. The total first-year enrollment in the fall of 2003 at the institution where the study was conducted was approximately 4,900 students. However, only 2,214 students were included in the dataset analyzed for the study. This was most likely due to individuals not attending orientation where the instrument was administered, not completing the instrument, or incorrectly reporting their student identification number on the instrument so that their enrollment status could not be tracked. This limitation may have affected the results and not provided an accurate representation of first-year student characteristics.

A second limitation related to the timing of the administration of the instrument. In this study, participants completed the survey as part of summer orientation. It is possible that participants were distracted by other events and did not put as much thought or effort into responding to the survey. Participants may have also misreported information. Administering the survey at another time may have produced different results.

A third limitation related to the methodology of the study. This study did not gather information regarding the point prior to the sophomore year at which the student withdrew and why a student withdrew from the institution where the study was conducted. While all participants attended orientation, some may have not enrolled for the fall semester while others may have completed the first year of college but not returned for the second year. Collecting information regarding the date of withdrawal among Non-Returners may have provided additional information that would have influenced the findings of the study.

This study was worthwhile in spite of these limitations. The findings reinforced results of several earlier studies while raising questions about other previous findings. The contradictions between prior research and this study should motivate future research to examine those differences more closely.

The knowledge base concerning withdrawal prior to the sophomore year has also been expanded by the results of this study. These findings have provided information about the

relationship between pre-enrollment characteristics and beliefs and attrition that were not previously known. It lays the groundwork for future research to learn more about those characteristics and beliefs and how they might affect retention and attrition prior to the sophomore year of college, as well as success in higher education.

In conclusion, higher education is valued in American society and more than 1.3 million BA degrees are conferred annually (Thelin, 2003). Not everyone benefits from higher education, however, and many students leave at the end of the first year (Tinto, 1993). This study suggests reasons for such departure. It should be seen as a stepping stone to improving retention rates. It provides additional information about first-year students but is not the final word. As the characteristics, demographics, and experiences of college students continue to change, it will be important for those in higher education to sustain their efforts to understand their students. Information such as that revealed in this study is necessary if colleges are going to successfully improve retention rates among students between the first and second year of college.

It would seem that there are key differences between those who return and those who do not return for the sophomore year of college. These differences need to be addressed by institutions if higher education is truly invested in helping students succeed and graduate from college.

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Appendix A:  
2003 Edition of Annual Freshman Survey (AFS)  
by Cooperative Institutional Research Program (CIRP)





20. How much of your first year's educational expenses (room, board, tuition, and fees) do you expect to cover from each of the sources listed below? (Mark one answer for each possible source)

	None	Less than \$1,000	\$1,000-2,999	\$3,000-5,999	\$6,000-9,999	\$10,000+
Family resources (parents, relatives, spouse, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My own resources (savings from work, work-study, other income)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Aid which need not be repaid (grants, scholarships, military funding, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Aid which must be repaid (loans, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other than above	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

21. What is your best estimate of your parents' total income last year? Consider income from all sources before taxes. (Mark one)

<input type="radio"/> Less than \$10,000	<input type="radio"/> \$50,000-59,999
<input type="radio"/> \$10,000-14,999	<input type="radio"/> \$60,000-74,999
<input type="radio"/> \$15,000-19,999	<input type="radio"/> \$75,000-99,999
<input type="radio"/> \$20,000-24,999	<input type="radio"/> \$100,000-149,999
<input type="radio"/> \$25,000-29,999	<input type="radio"/> \$150,000-199,999
<input type="radio"/> \$30,000-39,999	<input type="radio"/> \$200,000-\$249,999
<input type="radio"/> \$40,000-49,999	<input type="radio"/> \$250,000 or more

22. Current religious preference: (Mark one in each column)

	Yours	Father's	Mother's
Baptist	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Buddhist	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Eastern Orthodox	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Episcopal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hindu	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Islamic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jewish	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LDS (Mormon)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lutheran	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Methodist	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Presbyterian	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quaker	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Roman Catholic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Seventh Day Adventist	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unitarian/Universalist	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
United Church of Christ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other Christian	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other Religion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
None	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

23. Did your high school require community service for graduation?

Yes  No

24. Please indicate the ethnic background of yourself, your father, and your mother. (Mark all that apply in each column)

	You	Father	Mother
White/Caucasian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
African American/Black	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
American Indian/Alaska Native	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Asian American/Asian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Native Hawaiian/Pacific Islander	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mexican American/Chicano	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Puerto Rican	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other Latino	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

25. For the activities below, indicate which ones you did during the past year. If you engaged in an activity frequently, mark (F). If you engaged in an activity one or more times, but not frequently, mark (O) (occasionally). Mark (N) (Not at all) if you have not performed the activity during the past year. (Mark one for each item)

	F	O	N
Attended a religious service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Was bored in class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Participated in organized demonstrations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tutored another student	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Studied with other students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Was a guest in a teacher's home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Smoked cigarettes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Drank beer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Drank wine or liquor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Felt overwhelmed by all I had to do	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Felt depressed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Performed volunteer work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Played a musical instrument	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Asked a teacher for advice after class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overslept and missed class or appointment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Discussed politics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Voted in a student election	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Socialized with someone of another racial/ethnic group	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Came late to class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Visited an art gallery or museum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Discussed religion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communicated via e-mail	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Used the Internet for research or homework	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communicated via Instant Messaging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other Internet use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Performed community service as part of a class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Used a personal computer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

26. When did you first visit this college? (Mark one)

Before I applied

After I applied but before I was accepted

After I was accepted but before I decided to attend

After I decided to attend

27. What is the highest level of formal education obtained by your parents? (Mark one in each column)

	Father	Mother
Grammar school or less	<input type="radio"/>	<input type="radio"/>
Some high school	<input type="radio"/>	<input type="radio"/>
High school graduate	<input type="radio"/>	<input type="radio"/>
Postsecondary school other than college	<input type="radio"/>	<input type="radio"/>
Some college	<input type="radio"/>	<input type="radio"/>
College degree	<input type="radio"/>	<input type="radio"/>
Some graduate school	<input type="radio"/>	<input type="radio"/>
Graduate degree	<input type="radio"/>	<input type="radio"/>

28. How would you characterize your political views? (Mark one)

Far left

Liberal

Middle-of-the-road

Conservative

Far right

29. In deciding to go to college, how important to you was each of the following reasons? (Mark one answer for each possible reason)

	Very Important	Somewhat Important	Not Important
My parents wanted me to go	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I could not find a job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wanted to get away from home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To be able to get a better job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To gain a general education and appreciation of ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To improve my reading and study skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There was nothing better to do	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To make me a more cultured person	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To be able to make more money	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To learn more about things that interest me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To prepare myself for graduate or professional school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A mentor/role model encouraged me to go	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To get training for a specific career	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

30. Rate yourself on each of the following traits as compared with the average person your age. We want the most accurate estimate of how you see yourself. (Mark one in each row)

	Highest 10%	Above Average	Average	Below Average	Lowest 10%
Academic ability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Artistic ability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Computer skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cooperativeness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Creativity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Drive to achieve	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Emotional health	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leadership ability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mathematical ability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Physical health	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Persistence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Popularity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public speaking ability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Religiosity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Risk-taking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self-confidence (intellectual)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self-confidence (social)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self-understanding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Spirituality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understanding of others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Writing ability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



31. Mark **only three** responses, **one** in each column.

- (M)** Your mother's occupation
- (F)** Your father's occupation
- (Y)** Your probable career occupation

**NOTE: If your father or mother is deceased, please indicate his or her last occupation.**

- Accountant or actuary ..... **(Y) (F) (M)**
- Actor or entertainer ..... **(Y) (F) (M)**
- Architect or urban planner ..... **(Y) (F) (M)**
- Artist ..... **(Y) (F) (M)**
- Business (clerical) ..... **(Y) (F) (M)**
- Business executive (management, administrator) ..... **(Y) (F) (M)**
- Business owner or proprietor ..... **(Y) (F) (M)**
- Business salesperson or buyer ..... **(Y) (F) (M)**
- Clergy (minister, priest) ..... **(Y) (F) (M)**
- Clergy (other religious) ..... **(Y) (F) (M)**
- Clinical psychologist ..... **(Y) (F) (M)**
- College administrator/staff ..... **(Y) (F) (M)**
- College teacher ..... **(Y) (F) (M)**
- Computer programmer or analyst ..... **(Y) (F) (M)**
- Conservationist or forester ..... **(Y) (F) (M)**
- Dentist (including orthodontist) ..... **(Y) (F) (M)**
- Dietitian or home economist ..... **(Y) (F) (M)**
- Engineer ..... **(Y) (F) (M)**
- Farmer or rancher ..... **(Y) (F) (M)**
- Foreign service worker (including diplomat) ..... **(Y) (F) (M)**
- Homemaker (full-time) ..... **(Y) (F) (M)**
- Interior decorator (including designer) ..... **(Y) (F) (M)**
- Lab technician or hygienist ..... **(Y) (F) (M)**
- Law enforcement officer ..... **(Y) (F) (M)**
- Lawyer (attorney) or judge ..... **(Y) (F) (M)**
- Military service (career) ..... **(Y) (F) (M)**
- Musician (performer, composer) ..... **(Y) (F) (M)**
- Nurse ..... **(Y) (F) (M)**
- Optometrist ..... **(Y) (F) (M)**
- Pharmacist ..... **(Y) (F) (M)**
- Physician ..... **(Y) (F) (M)**
- Policymaker/Government ..... **(Y) (F) (M)**
- School counselor ..... **(Y) (F) (M)**
- School principal or superintendent ..... **(Y) (F) (M)**
- Scientific researcher ..... **(Y) (F) (M)**
- Social, welfare or recreation worker ..... **(Y) (F) (M)**
- Therapist (physical, occupational, speech) ..... **(Y) (F) (M)**
- Teacher or administrator (elementary) ..... **(Y) (F) (M)**
- Teacher or administrator (secondary) ..... **(Y) (F) (M)**
- Veterinarian ..... **(Y) (F) (M)**
- Writer or journalist ..... **(Y) (F) (M)**
- Skilled trades ..... **(Y) (F) (M)**
- Laborer (unskilled) ..... **(Y) (F) (M)**
- Semi-skilled worker ..... **(Y) (F) (M)**
- Unemployed ..... **(Y) (F) (M)**
- Other ..... **(Y) (F) (M)**
- Undecided ..... **(Y)**

32. Mark **one** in each row:

- There is too much concern in the courts for the rights of criminals ..... **(4) (3) (2) (1)**
- Abortion should be legal ..... **(4) (3) (2) (1)**
- The death penalty should be abolished ..... **(4) (3) (2) (1)**
- Marijuana should be legalized ..... **(4) (3) (2) (1)**
- It is important to have laws prohibiting homosexual relationships ..... **(4) (3) (2) (1)**
- The federal government should do more to control the sale of handguns ..... **(4) (3) (2) (1)**
- Racial discrimination is no longer a major problem in America ..... **(4) (3) (2) (1)**
- Realistically, an individual can do little to bring about changes in our society ..... **(4) (3) (2) (1)**
- Wealthy people should pay a larger share of taxes than they do now ..... **(4) (3) (2) (1)**
- Colleges should prohibit racist/sexist speech on campus ..... **(4) (3) (2) (1)**
- Same-sex couples should have the right to legal marital status ..... **(4) (3) (2) (1)**
- Affirmative action in college admissions should be abolished ..... **(4) (3) (2) (1)**
- The activities of married women are best confined to the home and family ..... **(4) (3) (2) (1)**
- People should not obey laws which violate their personal values ..... **(4) (3) (2) (1)**
- Federal military spending should be increased ..... **(4) (3) (2) (1)**

33. Please indicate the extent to which each of the following describes you. (Mark **one** for each item)

- Searching for meaning/purpose in life ..... **(3) (2) (1)**
- Engaging in self-reflection ..... **(3) (2) (1)**
- Appreciating the interconnectedness of everything ..... **(3) (2) (1)**
- Believing in the sacredness of life ..... **(3) (2) (1)**
- Being honest in my relationships with others ..... **(3) (2) (1)**

34. During your last year in high school, how much time did you spend during a typical week doing the following activities?

Hours per week:	None	Less than 1 hour	1-2	3-5	6-10	11-15	16-20	Over 20
Studying/homework	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Socializing with friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Talking with teachers outside of class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Exercise or sports	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Partying	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Working (for pay)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Volunteer work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student clubs/groups	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Watching TV	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Household/childcare duties	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reading for pleasure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Playing video/computer games	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prayer/meditation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

35. Do you have any concern about your ability to finance your college education? (Mark **one**)

- None (I am confident that I will have sufficient funds) .....
- Some (but I probably will have enough funds) .....
- Major (not sure I will have enough funds to complete college) .....

36. Below are some reasons that might have influenced your decision to attend this particular college. How important was each reason in your decision to come here? (Mark **one** answer for each possible reason)

	Very Important	Somewhat Important	Not Important
My relatives wanted me to come here	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My teacher advised me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This college has a very good academic reputation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This college has a good reputation for its social activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was offered financial assistance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This college offers special educational programs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This college has low tuition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
High school counselor advised me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Private college counselor advised me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I wanted to live near home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not offered aid by first choice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was attracted by the religious affiliation/orientation of the college	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I wanted to go to a school about the size of this college	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rankings in national magazines	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Information from a website	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was admitted through an Early Action or Early Decision program	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A visit to the campus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This college's graduates get good jobs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



37. Below is a list of different undergraduate major fields grouped into general categories. Mark only one oval to indicate your probable field of study.

- |  |  |
|--|--|
| <b>ARTS AND HUMANITIES</b>                         | <b>PHYSICAL SCIENCE</b>  |
| Art, fine and applied ..... (1)                    | Astronomy ..... (43)   |
| English (language and literature) ..... (2)        | Atmospheric Science (incl. Meteorology) ..... (44)             |
| History ..... (3)                                  | Chemistry ..... (45)   |
| Journalism ..... (4)                               | Earth Science ..... (46)                                       |
| Language and Literature (except English) ..... (5) | Marine Science (incl. Oceanography) ..... (47)                 |
| Music ..... (6)                                    | Mathematics ..... (48)   |
| Philosophy ..... (7)                               | Physics ..... (49)   |
| Speech ..... (8)                                   | Statistics ..... (50)  |
| Theater or Drama ..... (9)                         | Other Physical Science ..... (51)                              |
| Theology or Religion ..... (10)                    | <b>PROFESSIONAL</b>  |
| Other Arts and Humanities ..... (11)               | Architecture or Urban Planning ..... (52)                      |
| <b>BIOLOGICAL SCIENCE</b>                          | Home Economics ..... (53)                                      |
| Biology (general) ..... (12)                       | Health Technology (medical, dental, laboratory) ..... (54)     |
| Biochemistry or Biophysics ..... (13)              | Library or Archival Science ..... (55)                         |
| Botany ..... (14)                                  | Medicine, Dentistry  |
| Environmental Science ..... (15)                   | Veterinarian ..... (56)  |
| Marine (Life) Science ..... (16)                   | Nursing ..... (57)   |
| Microbiology or Bacteriology ..... (17)            | Pharmacy ..... (58)  |
| Zoology ..... (18)                                 | Therapy (occupational, physical, speech) ..... (59)            |
| Other Biological Science ..... (19)                | Other Professional ..... (60)                                  |
| <b>BUSINESS</b>                                    | <b>SOCIAL SCIENCE</b>  |
| Accounting ..... (20)                              | Anthropology ..... (61)  |
| Business Admin. (general) ..... (21)               | Economics ..... (62)   |
| Finance ..... (22)                                 | Ethnic Studies ..... (63)                                      |
| International Business ..... (23)                  | Geography ..... (64)   |
| Marketing ..... (24)                               | Political Science (gov't., international relations) ..... (65) |
| Management ..... (25)                              | Psychology ..... (66)  |
| Secretarial Studies ..... (26)                     | Social Work ..... (67)   |
| Other Business ..... (27)                          | Sociology ..... (68)   |
| <b>EDUCATION</b>                                   | Women's Studies ..... (69)                                     |
| Business Education ..... (28)                      | Other Social Science ..... (70)                                |
| Elementary Education ..... (29)                    | <b>TECHNICAL</b>   |
| Music or Art Education ..... (30)                  | Building Trades ..... (71)                                     |
| Physical Education or Recreation ..... (31)        | Data Processing or Computer Programming ..... (72)             |
| Secondary Education ..... (32)                     | Drafting or Design ..... (73)                                  |
| Special Education ..... (33)                       | Electronics ..... (74)   |
| Other Education ..... (34)                         | Mechanics ..... (75)   |
| <b>ENGINEERING</b>                                 | Other Technical ..... (76)                                     |
| Aeronautical or Astronautical Eng. .... (35)       | <b>OTHER FIELDS</b>  |
| Civil Engineering ..... (36)                       | Agriculture ..... (77)   |
| Chemical Engineering ..... (37)                    | Communications ..... (78)                                      |
| Computer Engineering ..... (38)                    | Computer Science ..... (79)                                    |
| Electrical or Electronic Engineering ..... (39)    | Forestry ..... (80)  |
| Industrial Engineering ..... (40)                  | Kinesiology ..... (81)   |
| Mechanical Engineering ..... (41)                  | Law Enforcement ..... (82)                                     |
| Other Engineering ..... (42)                       | Military Science ..... (83)                                    |
|  | Other Field ..... (84)   |
|  | Undecided ..... (85)   |

DO NOT WRITE IN THIS AREA

38. Please indicate the importance to you personally of each of the following: (Mark one for each item)
- (N) Not Important  
(S) Somewhat Important  
(V) Very Important  
(E) Essential
- |  |   |   |   |   |
|--|---|---|---|---|
| Becoming accomplished in one of the performing arts (acting, dancing, etc.)    | E | V | S | N |
| Becoming an authority in my field  | E | V | S | N |
| Obtaining recognition from my colleagues for contributions to my special field | E | V | S | N |
| Influencing the political structure  | E | V | S | N |
| Influencing social values  | E | V | S | N |
| Raising a family   | E | V | S | N |
| Having administrative responsibility for the work of others                    | E | V | S | N |
| Being very well off financially  | E | V | S | N |
| Helping others who are in difficulty   | E | V | S | N |
| Making a theoretical contribution to science                                   | E | V | S | N |
| Writing original works (poems, novels, short stories, etc.)                    | E | V | S | N |
| Creating artistic work (painting, sculpture, decorating, etc.)                 | E | V | S | N |
| Becoming successful in a business of my own                                    | E | V | S | N |
| Becoming involved in programs to clean up the environment                      | E | V | S | N |
| Developing a meaningful philosophy of life                                     | E | V | S | N |
| Participating in a community action program                                    | E | V | S | N |
| Helping to promote racial understanding  | E | V | S | N |
| Keeping up to date with political affairs                                      | E | V | S | N |
| Becoming a community leader  | E | V | S | N |
| Integrating spirituality into my life  | E | V | S | N |
| Improving my understanding of other countries and cultures                     | E | V | S | N |

39. What is your best guess as to the chances that you will: (Mark one for each item)
- (N) No Chance  
(L) Very Little Chance  
(S) Some Chance  
(V) Very Good Chance
- |  |   |   |   |   |
|--|---|---|---|---|
| Change major field?                                    | V | S | L | N |
| Change career choice?                                  | V | S | L | N |
| Participate in student government?                     | V | S | L | N |
| Get a job to help pay for college expenses?            | V | S | L | N |
| Work full-time while attending college?                | V | S | L | N |
| Join a social fraternity or sorority?                  | V | S | L | N |
| Play varsity/intercollegiate athletics?                | V | S | L | N |
| Make at least a "B" average?                           | V | S | L | N |
| Get a bachelor's degree (B.A., B.S., etc.)?            | V | S | L | N |
| Participate in student protests or demonstrations?     | V | S | L | N |
| Transfer to another college before graduating?         | V | S | L | N |
| Be satisfied with your college?                        | V | S | L | N |
| Participate in volunteer or community service work?    | V | S | L | N |
| Seek personal counseling?                              | V | S | L | N |
| Develop close friendships with other students?         | V | S | L | N |
| Communicate regularly with your professors?            | V | S | L | N |
| Socialize with someone of another racial/ethnic group? | V | S | L | N |
| Participate in student clubs/groups?                   | V | S | L | N |
| Strengthen religious beliefs/convictions?              | V | S | L | N |
| Participate in a study abroad program?                 | V | S | L | N |
| Drop out of college?                                   | V | S | L | N |

40. Do you give the Higher Education Research Institute (HERI) permission to include your ID number should your college request the data for additional research analyses? HERI maintains strict standards of confidentiality and would require your college to sign a pledge of confidentiality.  Yes  No

- The remaining ovals are provided for questions specifically designed by your college rather than the Higher Education Research Institute. If your college has chosen to use the ovals, please observe carefully the supplemental directions given to you.
- |               |               |               |
|---------------|---------------|---------------|
| 41. A B C D E | 48. A B C D E | 55. A B C D E |
| 42. A B C D E | 49. A B C D E | 56. A B C D E |
| 43. A B C D E | 50. A B C D E | 57. A B C D E |
| 44. A B C D E | 51. A B C D E | 58. A B C D E |
| 45. A B C D E | 52. A B C D E | 59. A B C D E |
| 46. A B C D E | 53. A B C D E | 60. A B C D E |
| 47. A B C D E | 54. A B C D E | 61. A B C D E |

Appendix B:  
Institutional Review Board  
Exempt Approval




**Institutional Review Board**

Dr. David M. Moore  
IRB (Human Subjects) Chair  
Assistant Vice President for Research Compliance  
CVM Phase II- Duckpond Dr., Blacksburg, VA 24061-0442  
Office: 540/231-4991; FAX: 540/231-6033  
email: moored@vt.edu

DATE: December 16, 2004

MEMORANDUM

TO: Joan B. Hirt Educational Leadership & Policy St. 0302  
Elizabeth Yates

FROM: David Moore 

SUBJECT: **IRB Exempt Approval:** "Factors Leading to Withdrawal Prior to the Sophomore Year of College" IRB # 04-632

I have reviewed your request to the IRB for exemption for the above referenced project. I concur that the research falls within the exempt status. Approval is granted effective as of December 16, 2004.

Virginia Tech has an approved Federal Wide Assurance (FWA00000572, exp. 7/20/07) on file with OHRP, and its IRB Registration Number is IRB00000667.

cc: File  
Department Reviewer M. D. Alexander EL 0302

*A Land-Grant University - Putting Knowledge to Work  
An Equal Opportunity/Affirmative Action Institution*

# ELIZABETH ALICE YATES

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2090 Harper Hall  
Blacksburg, VA 24060  
540.232.2456 (home)  
eayates@vt.edu

2021 Peppermint Road  
Coopersburg, PA 18036  
610.346.8510 (home)  
610.513.3409 (cell)

## EDUCATION

**Master of Arts in Education, Higher Education and Student Affairs** *Anticipated May 2005*  
Virginia Polytechnic Institute & State University, Blacksburg, VA

**Bachelor of Arts in Sociology** *May 2003*  
Gettysburg College, Gettysburg, PA

## RELATED WORK EXPERIENCE

**Graduate Hall Director** *August 2004 – present*  
*Residence Life, Virginia Polytechnic Institute & State University, Blacksburg, VA*

- Coordinate management of two co-educational suite-style residence halls: one housing 249 undergraduate students and the other housing 334 undergraduate students including a large athlete population.
- Supervise, train, and evaluate a staff of eleven Resident Advisors and one Resident Advisor Coordinator.
- Advise two Hall Councils composed of undergraduate leaders providing community development activities to residents.
- Maintain programming budgets for Resident Advisors and Hall Councils totaling \$1,383.
- Manage housing operations including health and safety inspections and hall opening/closing.
- Serve in duty rotation as first responder Hall Supervisor On-Call for over 9,000 on-campus students.
- Serve as a Judicial Hearing Officer for the Office of Judicial Affairs by hearing cases and educationally sanctioning students.
- Assist in coordination and planning of Resident Advisor Selection involving 200 candidates and 75 staff members.
- Co-facilitate EDHL 2984: Introduction to Residence Life, a three credit course for new Resident Advisors.

**Student Teaching Assistant for Theme Housing Programs** *August 2004 – December 2004*  
*Residence Life, Virginia Polytechnic Institute & State University, Blacksburg, VA*

- Co-facilitated EDHL 2984: First-Year Seminar, a three credit course for students in “The WING”, a first-year experience theme housing community.
- Facilitated class discussions and guided activities involving critical thinking, life planning, and self-discovery for ten students.
- Conducted semester long assessment of WING students to evaluate the benefits and effects of partaking in the program.
- Presented research data for use in departmental plan to improve program and recruit incoming participants.

**ACUHO-I Intern** *May 2004 – July 2004*  
*Office of Residential Services, Lehigh University, Bethlehem, PA*

- Edited *The Greek Letter*, an annual newsletter sent to undergraduate fraternity and sorority members.
- Designed and posted a kitchen guide regarding importance of safe and correct usage in apartments, fraternity houses, and sorority houses.
- Improved and edited a resource guide for undergraduate and graduate off-campus student living.
- Researched and developed preliminary design of marketing strategy promoting on-campus living.
- Participated in committee to design break housing policy for on-campus students.
- Researched and updated institutional information on ACUHO-I’s online database.
- Attended ACUHO-I Annual Conference in Montreal, Canada.
- Attended all meetings with Associate Director pertaining to facilities management, residence hall living, and fraternity and sorority affairs.

**Graduate Hall Director***August 2003 – May 2004**Residence Life, Virginia Polytechnic Institute & State University, Blacksburg, VA*

- Co-coordinated, with professional staff member, management of a co-ed traditional style residence hall housing 811 undergraduate students including the Biological & Life Sciences Theme Housing Community.
- Co-supervised, trained, and evaluated a staff of twenty Resident Advisors.
- Worked with three Resident Computer Consultants who responded to technological needs of residents.
- Advised Hall Council composed of undergraduate leaders providing community development to residents.
- Designed, coordinated, and consulted with staff regarding social and educational programming initiatives.
- Coordinated and maintained duty schedule.
- Maintained programming budgets for Resident Advisors and Hall Council totaling \$1,622.
- Co-managed housing operations including health and safety inspections and hall opening/ closing.
- Served in duty rotation as first responder Hall Supervisor On-Call for over 9,000 on-campus students.
- Trained and coordinated 80 RAs for Individual Interview portion of Resident Advisor Selection.
- Co-facilitated EDHL 2984: Introduction to Residence Life, a three credit course for new Resident Advisors.
- Served on curriculum committee for EDHL 2984: Introduction to Residence Life.

**New Student Orientation & Parent Programs Practicum Student***January 2004 – May 2004**Office of Student Life, Virginia Polytechnic Institute & State University, Blacksburg, VA*

- Designed and edited brochure mailed to all new students regarding orientation activities.
- Assisted in updating orientation publications including online registration.
- Participated in EDHL 4984: Peer Leadership, a three credit course for all Orientation Leaders.
- Attended monthly Orientation Team meetings for University representatives involved in planning and implementation.
- Coordinated preliminary planning for Parents' Day 2004.
- Attended monthly Hokie Parent Roundtable meetings to coordinate initiatives for connecting parents.

**New Student Orientation & First-Year Experience Intern***May 2002 – May 2003**Office of Student Activities & First-Year Programs, Gettysburg College, Gettysburg, PA*

- Coordinated and organized four-day fall orientation for approximately 700 first-year and transfer students.
- Trained and supervised 70 student Orientation Leaders and 10 student Team Leaders.
- Co-facilitated Orientation Committee regarding First-Year Experience program.
- Designed and conducted presentations on philosophy, events, and experiences of Orientation to college representatives and constituencies.

**Resident Coordinator***August 2001 – May 2002**Office of Residence Life, Gettysburg College, Gettysburg, PA*

- Supervised a staff of three Resident Assistants in a co-ed residence hall housing 144 first-year students.
- Developed and implemented educational and social programming.
- Provided counseling, referrals, and crisis response for residents. Enforced college policy.
- Designed, coordinated, and participated in programming within residence halls, *What do the Letters Stand For?*, that facilitated conversations between Greek leaders and first-year students.
- Promoted to position from Resident Assistant.

**HONORS & PROFESSIONAL AFFILIATIONS***Association for Student Development (August 2003 – present); Director of Business & Finance (2004)**Alpha Delta Pi Sorority (February 2000 - present); President (2002); Panhellenic Delegate (2001)**American College Personnel Association (ACPA) (August 2003 - present)**Chi Sigma Alpha (April 2004 - present)**National Residence Hall Honorary (April 2004 - present)**Gettysburg College Student Leadership Award (May 2003)**Who's Who Among Students in American Universities and Colleges (May 2003)**Linnaean Award (October 2002)**Order of Omega (April 2002 - present)**Alpha Kappa Delta (April 2002 - present)**J. Andrew Marsh Memorial Award (October 2001)*

# ELIZABETH ALICE YATES

## REFERENCE LIST

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**Mr. Rohsaan Settle**

Assistant Director for Residence Life  
Virginia Polytechnic Institute and State University  
109 East Eggleston Hall (0428)  
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Mr. Settle is my current supervisor.

**Mr. Chris MacDonald**

Assistant Director for Residence Life  
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Mr. MacDonald served as my indirect supervisor during my first year as a Graduate Hall Director. He currently serves as the Chair of the Resident Advisor Selection Committee. I am a member of that committee.

**Dr. Joan Hirt**

Associate Professor, Higher Education & Student Affairs  
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Dr. Hirt is a professor in my graduate program. She also serves as the Chair of my Thesis Advisory Committee.

**Mr. Ozzie Breiner**

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Mr. Breiner was my practicum supervisor during my ACUHO-I Internship at Lehigh University.

**Mr. Tom Segar**

Educational Trainer and Consultant  
Director for Multicultural Student Affairs  
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Mr. Segar was my supervisor for three years while I was an undergraduate employee of Residence Life at Gettysburg College.