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Student satisfaction with faculty advisors: Influences on retention in higher education

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STUDENT SATISFACTION WITH FACULTY ADVISORS: INFLUENCES ON RETENTION IN HIGHER EDUCATION

by

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ABSTRACT

STUDENT SATISFACTION WITH FACULTY ADVISORS:
INFLUENCES ON RETENTION IN HIGHER EDUCATION

by

Susan C. Wyckoff
University of New Hampshire, May, 1996

This study sought to expand existing research focusing on factors contributing to student retention in higher education institutions. The study examined the impact of students' levels of satisfaction with the faculty advising process on student retention from first year to sophomore year. The research sought to answer the question, "Are students' decisions to remain at a college following their freshman year influenced by their satisfactory or unsatisfactory experiences with their academic advisors?"

The sample (N=269), drawn from three higher education institutions in New Hampshire, included fulltime, traditional-aged sophomore (non-transfer) students seeking a bachelor degree with 30-60 credits completed at the institution during the previous year. The three participating institutions were small, co-educational, private liberal arts colleges sharing key institutional characteristics such as similar student populations and financial resources.

The survey instrument included 27 Likert scale items which addressed overall satisfaction with the faculty advisor, satisfaction with the interpersonal relationship with the faculty advisor, satisfaction with the advisor's skills and competence, and the impact of these levels of satisfaction on students' decisions to return to that college for the sophomore year.

Means and standard deviations were calculated for each survey item and two constructed subscales focusing on the interpersonal relationship and the advisor's skills and competence. Pearson correlation coefficients were calculated to assess the impact of student satisfaction with the faculty advisor on students' decisions to return to their institutions.

Mean scores on survey items, ranging from 3.29-4.38 on a 1-5 scale, revealed above average student satisfaction with the overall advising process. Mean scores on the two subscales of interpersonal relationships (4.0) and advisor skills and competence (3.95) also revealed above average student satisfaction. Correlational data revealed a moderate impact of overall satisfaction with advisors, satisfaction with the interpersonal relationship, and satisfaction with the advisors' skills on decisions to remain at the institution from freshman to sophomore years.

Further research (potentially including large, public institutions) is needed to assess which college environment factors, in conjunction with academic advising, contribute to student satisfaction levels, and to what degree these factors ultimately impact student retention.

CHAPTER I

INTRODUCTION

The past several years in higher education have been characterized by a climate of criticism. Various national reports (National Institute of Education, 1984; Association of American Colleges, 1985) have called for dramatic improvements in traditional undergraduate education. Charges of apathetic students, illiterate graduates, incompetent teaching, and impersonal campuses rage at a time when a quality postsecondary education is viewed as a critical requirement for effective citizenship, productive work, and global competitiveness (Johnson & Packer, 1987).

Additionally, the higher education community wrestles with other serious issues: demographic shifts, economic uncertainties, and public policy changes which threaten spiraling costs and limited resources, declining enrollments, excess capacity, and institutional closings. This pessimistic outlook for higher education institutions is, to a large degree, founded in the reality that the pool of college-age students is shrinking dramatically. Between the late 1970's and the mid-1990's, the traditional 18 to 21 year old student group has been projected to decline by 21-25 percent (Centra, 1980). In fact, Tinto (1987) reported that the decline in the size of the college-going population shrank to 12.2 million in 1984 from a high of 12.37 in 1981. The pool of college age students was predicted to further decline to an estimated low of 10.5 million in 1995 before increasing again in the later part of the decade.

The experience of shrinking enrollments varies considerably among institutions of higher education. While prestigious private colleges have continued to experience gains in enrollments, many smaller and less prestigious public and private colleges have undergone

dramatic declines (Tinto, 1987). Institutions most vulnerable to the demographic decline have included less selective private institutions (Carnegie Foundation, 1975), and institutions in the Northeast, where decreases ranged from 35-40 percent (Breneman, 1983).

These demographic shifts have resulted in major impacts in the higher education community. Institutions are forced to grapple with the possibility of reduced enrollments, budget deficits, and faculty retrenchment. Concomitantly, a buyer's market in education has evolved, ushering in an era of rising student consumerism and a resulting nationwide focus on student satisfaction with the college experience. Historically, the notion of treating the student as a customer or client who deserves to be satisfied with a purchased product, in this case an undergraduate education, has not been well-received in higher education. Traditional thinking seemed to view students as passive recipients of education rather than an empowered group of paying customers who constantly evaluate, either consciously or unconsciously, their levels of satisfaction with the college experience (Mazelan, 1992).

Today, however, colleges and universities are increasingly challenged to meet higher student expectations of satisfaction with the educational experience. Institutions of higher learning need to recognize that students must be satisfied with their undergraduate educational experiences for the institutions to succeed and thrive in an increasingly competitive marketplace. In other words, providers of a customer service must ensure that consumers are satisfied with the purchased product for the service providers to survive against stiffening competition. Higher education institutions must, therefore, become increasingly aware of the competitive nature of student enrollment patterns and respond to these market realities through higher levels of accountability and sensitivity to consumer (student) issues. Although discussions of accountability in higher education frequently overlook the issue of student satisfaction, Astin (1987) and Sines and Duckworth (1994) argued that students' perceptions of value and satisfaction should carry

considerable weight for higher education institutions, particularly in light of an increasingly competitive marketplace and recent declining enrollments.

Successful institutions recognize that student enrollment and retention is a function of a number of factors, such as a student's academic performance and personal financial circumstances. Ultimately, however, student retention is also a by-product of overall student satisfaction with the college experience. Dissatisfied students will, eventually, "vote with their feet" and choose to dropout or transfer to another institution which appears to exhibit a more satisfying campus climate.

Summerskill (1962), Iffert (1957), and Eckland (1964a) all reported alarmingly high attrition rates in higher education in the 1950's and 1960's. More recently, attrition rates have continued to pose serious concern for colleges and universities, with more students leaving their institutions than staying. In 1986, of the 2.8 million students who entered higher education for the first time, over 1.6 million left their institution without receiving a degree. The bulk of dropping out behavior tends to occur during the first two years of college with 44 percent of new entrants departing their institutions (Tinto, 1987).

Institutional responses to this reality, whether prompted by a sincere desire to serve students or merely the threat of extinction, must put students' satisfaction, needs and interests at the core of campus focus. Recently, the development of institutional self-studies designed to collect information about student satisfaction has become a growth industry (Kells & Kirkwood, 1979; Mazelan, 1992). Gathering information about student attitudes, perceptions and levels of satisfaction not only provides interesting information, but can help to shape the managerial decisions of those who plan for and provide educational services in higher education institutions. Commonly, student surveys are designed to assess satisfaction with the overall college environment, defined by Astin (1968) as any characteristic of the college that constitutes a potential stimulus for the student. While college environments differ greatly in their quality and character, surveys to assess student satisfaction with the college environment address key facets of the

institution including programs and services, university learning and social environments, institutional mission and values, educational preparation, general satisfaction, attitudes toward coursework, and student demographic information.

Through such institutional research, colleges and universities can assess programs, identify problems and stimulate action to solve them. Periodic self-study aimed at institutional improvement is currently viewed as essential to effective institutional management and functioning. Kells and Kirkwood (1979) maintained that if self-study and institutional research function well, they provide feedback for continuous program and institutional improvement and serve as bases for program design and institutional planning efforts to enhance quality and strengthen student satisfaction.

Student satisfaction data can provide information to be integrated into a broader institutional agenda through which college and university administrators can pinpont dissatisfied student groups and problem areas and then target their efforts to improve specific programs to better meet student needs. For example, examining and potentially restructuring administrative policies and programs such as freshman orientation, student residence arrangements, and faculty recruitment and reward structures, may help to foster a more positive campus climate and improve student satisfaction. Survey data of this type can serve as a focus for institutional action.

Specific survey data can help to isolate where the student service process breaks down and can indicate certain institutional processes which need to be reassessed and redesigned. Student survey data can also be used to track changes in student satisfaction over a semester or term. The tempo of the academic timeline has been found to impact student satisfaction, reflecting a dip in satisfaction levels at midterm and rising to the highest level at the end of the term (Pennington, Zvonkovic, & Wilson, 1989). Such information about institutional ebbs and flows of student satisfaction over an academic term might prove useful in timing campus events and services.

Students' perceptions of satisfaction with college services carry significant weight in the power of institutions to retain students over a period of time. Continued research in higher education is essential to determine specific variables, both student and institutional factors, which are related to student attrition and retention. Research data which isolate variables correlating positively with student retention rates, such as level of student involvement on campus, and satisfying involvement with faculty advisors, are important and require further exploration. This study contributes to the research which addresses these issues.

It has become increasingly important for institutions to identify those characteristics which are associated with student satisfaction, and formulate educational policies which recognize, support and encourage those characteristics. To ignore student satisfaction data could intensify attrition, and ultimately spell disaster for selected institutions in this current higher education climate. Hossler and Bean (1990) and Jantzen (1991) reported that beginning in the mid 1980's enrollment management teams designed to address recruitment and retention issues on campuses became common. Enrollment management teams generally incorporate the activities of a broad range of institutional areas such as admissions, financial aid, academic advising, residence life, career planning and placement, and learning centers. Clearly, institutions of higher education have recognized the importance of coordinating the efforts of these areas driven by the fiscal imperative of attracting students and reducing attrition.

Central Research Question and its Significance

The purpose of this study was to examine the impact of students' levels of satisfaction with the faculty advising process on student retention. Specifically, the research sought to answer the following question: "Are students' decisions to remain at a college following their first year influenced by their satisfactory or unsatisfactory experiences with their academic advisors?"

This research is important for several reasons. First, the study increases empirical data related to the importance of student involvement, particularly the importance of quality interaction and involvement with the faculty advisor, as related to student satisfaction and retention rates. Secondly, the research supplements existing research data on the academic advising process with faculty advisors serving as a variable in student retention. The data from this study augments existing research with respect to student development theories which stress the importance of student involvement and academic and social integration for retention of students. Thirdly, the research helps to inform makers of campus policy and practice, helping to guide their decision making and priority setting related to an institutional focus aimed at increased retention rates.

Previous Research

Retention research in higher education, beginning in the 1930's, tended to be largely descriptive of student attributes correlated with dropping out. These early studies attempted to identify specific student variables (such as scholastic aptitude or socioeconomic background) which could then help to predict student persistence. Subsequent research focused on the "fit" between the student and the institution as a variable in retention. Most recently, studies have incorporated theoretical bases which place emphasis on the importance of student involvement and academic and social integration of students into the institution (Abrahamowicz, 1988; Astin, 1975, 1984; Beal & Noel, 1980; Cope & Hannah, 1975; Heywood, 1971; Knoell, 1960; Kuh, 1991; Pantages & Creedon, 1978; Pascarella & Terenzini, 1991; Sexton, 1965; Spady, 1970; Summerskill, 1962; Tinto, 1975, 1987).

A synthesis of retention research literature reveals that the principal student variables which serve as predictors of persistence are the student's grades in high school, scores on tests of academic ability, degree aspirations at the time of college entrance, and socioeconomic background. College environment variables which seem to be most related to student retention include college size and type, such as public versus private,

prestigious versus less prestigious (Beal & Noel, 1980; Feldman & Newcomb, 1969; Iffert, 1957; Kamens, 1971; Nelson, 1966; Panos & Astin, 1968; Tinto, 1975, 1987), student housing (Astin, 1973a, 1973b, 1984; Iffert, 1957; Newcomb, 1962; Slocum, 1956; Tinto, 1975, 1987), involvement in extracurricular activities (Beal & Noel, 1980; Chase, 1970; Schmid & Reed, 1966; Sexton, 1965; Tinto, 1975, 1987), and positive and satisfying relationships with faculty (Beal & Noel, 1980; Hannah, 1969; Newcomb, 1962; Panos & Astin, 1968; Pascarella, 1980,1991; Pascarella & Wolfle, 1985).

Despite these numerous studies to identify variables contributing to student attrition, the primary conclusion to draw from the research is that students' decisions to withdraw from college are complex, and no simple formula exists for prediction. Frequently, studies designed to identify factors associated with withdrawal from college provide meager or conflicting results. Criticism of retention research has cited the lack of theoretical models which seek to explain, not merely describe the variables related to dropping out (Cope & Hannah, 1975; Pantages & Creedon, 1978; Spady, 1970, 1971; Tinto, 1975). Conflicting results and criticisms of retention research are discussed in Chapter Two.

Conceptual/Theoretical Frameworks

In response to criticism surrounding retention research, more recent studies of student retention patterns have focused on theoretical frameworks which depict students' experiences in college as a complex interplay among numerous student and institutional variables to explain the process of student attrition. Four major theories (the college fit theory, the student involvement theory, the student/faculty interaction theory, and the academic and social integration theory) depart from the traditional focus upon precollege student variables to predict student attrition and instead concentrate on the dynamics of the student/institution interaction. These conceptual frameworks share the collective hypothesis that student attrition or retention is a result of a complex interplay among numerous student and institutional variables. Essentially, a student's fit with the college

environment, involvement with the systems of the college, interactions with faculty, and integration into the academic and social systems of the institution are all believed to impact retention (Abrahamowicz, 1988; Astin, 1964, 1984; Chickering, 1969; Feldman & Newcomb, 1969; Holland, 1973; Kuh, 1991; Pace, 1962, 1984; Pace & Stern, 1958; Pascarella & Terenzini, 1991; Spady, 1970; Tinto, 1975; Walsh, 1973).

As a partial solution to the problem of student attrition, academic advising is increasingly regarded as an important concern on college campuses. The quality of academic advising has been found to relate not only to student satisfaction and morale (Wilder, 1981) but possibly to student retention as well (Crockett, 1979; Habley, 1982; Trombley, 1984). Overall, the functions of the advising process and the specific tasks of the faculty advisor include assisting students with exploration of life and vocational goals, choosing academic programs and majors, selecting appropriate courses, scheduling courses, and referring students to other campus services. The process of faculty advising naturally involves aspects of the theoretical frameworks of student/faculty involvement and student integration into the academic and social systems of the institution. Theoretically, then, students' satisfaction with their faculty advisors could impact their overall decision to remain at the institution.

Purpose of the Study and Hypotheses

The purpose of this research was to investigate the impact of student satisfaction with the academic advising process on student retention. The study sought to discover how certain aspects of the student/faculty advisor relationship might support theoretical frameworks which indicate that positive student relationships with faculty and a perception of integration into the academic community impacts student retention. For example, students who perceive that their advisors enjoy relating to them, are accessible, take the initiative to meet with them, provide them with accurate college information, respect them as individuals, and are competent and knowledgeable, will theoretically be more satisfied with the advising process than if these conditions were not present. Resultant levels of

student satisfaction could influence students' decisions to remain at their institutions. To address these unanswered questions, this study sought to discover how student development theories of involvement, student/faculty interaction and student integration might relate specifically to the faculty advisor/student relationship in higher education and the consequential impact on student retention. The research sought to discover if a positive interpersonal relationship with the faculty advisor (as supported theoretically) influences student retention. Additionally, the research sought to discover if student satisfaction with the advisor's skills and competence impacts student retention rates.

The research sought to test hypotheses regarding the impact of students' satisfaction with academic advising and their decisions to remain at their institutions from the freshman to sophomore years. Specifically, the researcher expected to find that: overall student satisfaction with academic advising impacts students' decisions to remain at a college following their first year; that student satisfaction with the advisor/advisee relationship impacts students' decisions to remain at the college following their first year; and that student satisfaction with the advisors' skills and competence impacts students' decisions to remain at a college following their first year. The study sought to discover if a correlation existed between students' satisfaction with their faculty advisors and their decisions to return to their institutions after their first year.

Methodology

Study Sample

The sample included full time, traditional-aged sophomore (non-transfer) students seeking a bachelor degree with 30-60 credits completed at the institution during the previous year. The three participating institutions were small, co-educational, private liberal arts colleges in New Hampshire. The institutions share key institutional characteristics in that they are all small, co-educational, private liberal arts colleges with similar student populations and resources. Sophomore students were selected for the study as they have had opportunities throughout their first year to interact with their

faculty advisor. Moreover, retention of students beyond the first year is critical issue for higher education institutions. Retention data from sophomore students concerning their decision to remain at the college after their first year is critical data for participating institutions.

Survey Instrument

The survey instrument was designed to assess levels of student satisfaction with the faculty advisor and various aspects of the advising process. The survey instrument employed 27 Likert scale items which addressed overall satisfaction with the faculty advisor, student satisfaction with the interpersonal relationship with the faculty advisor, student satisfaction with the advisor's skills and competence, and the impact of these levels of satisfaction on student's decisions to return to that college for the sophomore year. The surveys preserved students' anonymity and were color-coded according to institution to allow the researcher to provide specific data to each institution at the conclusion of the study.

The survey instrument was submitted to a jury of Directors of Academic Advising at five small, private liberal arts colleges (not involved in the research project) to assess validity. Jury members supported the validity of the survey instrument to be used.

Implementation of the Survey

Students' assent was gained through discussion with them prior to distribution. Participation in the study was voluntary. The Informed Consent Document and the surveys were distributed to students either through individual appointments and/or during class sessions. The complete implementation process is described in detail in Chapter Three.

Data Analysis

Means and standard deviations were calculated for each survey item and for two constructed subscales. The two constructed subscales related to items involving the student/advisor interpersonal relationship and items involving advisor skills and

competence. The researcher also calculated levels of correlation among items related to overall satisfaction with the advisor and students' decisions to return to their institutions and the subscales of student/advisor interpersonal relationships and advisor skills/competence. The researcher also calculated the reliability of the interpersonal relationship scale and the skills/competence scale and included an item analysis. Analysis of the survey data sought to investigate the theoretical hypotheses that students' satisfaction with academic advising impacts students' decisions to remain at their colleges following the freshman year.

CHAPTER II

REVIEW OF PREVIOUS RESEARCH

Introduction

In the last few years it has become abundantly clear that higher education is no longer a growth industry. Recently, many institutions have found their adjustment to tapering enrollments particularly difficult because they had become accustomed to rapid expansion in the 1960's and 1970's. The number of high school graduates reached a record high of 2.8 million in 1979 (Western Interstate Commission for Higher Education, 1993). However, beginning in the 1980's, an era known as the "steady state" in higher education replaced bulging enrollments as changing demographics in the numbers of high school graduates brought leveling, even declining, student enrollments. Scully (1980) predicted a "demographic depression" over the next two decades which would lead to declines in undergraduate enrollments of 5 to 15 percent. In fact, throughout the 1980's and into the 1990's, the size of the nation's high school graduating class dropped precipitously. After bottoming out in 1994 to approximately 2.2 million, the number of high school graduates is predicted to rise again to a peak of 3.1 million students in the year 2008 (Western Interstate Commission for Higher Education, 1993). Despite an overall projected increase in the number of high school graduates nationally from 1994 to 2004, Brasel (1991) warned that as many as twenty-nine states will actually experience declines. According to the U.S. Department of Education (1991), the regions of the country most directly affected by sagging increases in high school graduates will be the south, midwest, and northeast. The west is expected to experience the greatest increase in high school

graduates over the period. Nationwide, while enrollments in institutions of higher education are projected to increase from 13.9 million in 1990 to 16.0 million by 2002, this still represents a slowdown in the growth rate in higher education.

Concurrent with these fluctuating and disturbing demographic predictions over the last three decades, Mayhew (1979) reported alarmingly high attrition rates in United States colleges and universities during most of the 20th century. Clearly, with the potential of fewer students available in some regions and continuing high attrition rates, institutions confronted with accordant financial ramifications and increased competition for enrollments must not only increase their recruitment efforts but also must review and revise their retention strategies.

Few institutions of higher education, whether private or public, can afford to be complacent about attracting and retaining students to their institutions. Clearly, high attrition rates represent a costly burden to colleges and universities. In most private institutions, approximately 80 percent of income is derived largely from tuition and fees (Hossler & Bean, 1990). Each new student brings additional income and each student retained maintains this income. In the public sector, the bulk of income is derived from state appropriations, which are usually allocated in direct proportion to enrollment. Tuition revenues at four year public colleges typically account for 35 percent of all revenues (Jenkins, 1988). Thus, student attrition poses a major threat to the financial stability of America's public and private colleges and universities as institutions find themselves in a constant cycle: forced to recruit new students to take the place of those who drop out in order to meet set enrollment goals.

Undoubtedly, given the economic tenor of the times, this serious phenomenon in higher education has become the focus of a growing body of research. Institutions have begun asking themselves: How can we retain students once admitted? Who is leaving and why? Where do we focus our resources for greatest impact to reduce attrition rates?

Attrition research studies over the past several decades, beginning with the first

national study in the 1930's (McNeely, 1938), tended to be largely descriptive of student attributes correlated with dropping out. In the 1940's research emphasis shifted to prediction: given certain scholastic test scores and other student variables, what was the likelihood of completion? In the 1950's, attention shifted to the "fit" between student and institution. In the 1960's, attention shifted once again to typologies of student dropouts and to the experiences students were having while in attendance (Beal & Noel, 1980). Not until the 1970's was serious consideration given to the institutions themselves. The dominant assumption had been that there was something wrong with the raw material (i.e. the students) when a college degree was not attained in four years. It was not until the 1980's that research began to examine what institutions might be doing to actually "discourage" completion of a college degree. Students were observed to "stop out" temporarily or transfer as they sought more satisfying college and noncollegiate environments. Most recently, studies have focused on such variables as quality of faculty/student interactions, types of degree programs available, adequacy of student residences, and financial aid. The emphasis has clearly shifted in the recent decade, to focus on improving the quality of higher education in an effort to retain students (Beal & Noel, 1980; Thomas, 1988).

Explaining the causes of student attrition was clearly a major concern for early scholars in the field (Astin, 1975; Cope & Hannah, 1975; Heywood, 1971; Knoell, 1960; Pantages & Creedon, 1978; Sexton, 1965; Spady, 1970; Summerskill, 1962; Tinto, 1975). The majority of studies of student attrition over five decades have been correlational studies at single institutions; they reveal that degree completion rates over a "normal" four-year college career represent a surprisingly constant picture. Summerskill (1962) reviewed 35 different studies of student attrition conducted between 1913 and 1962 and found that the median loss of students in four years was 50 percent, and concluded that the attrition rate had not changed appreciably between 1920 and 1962. These studies indicated that only about 40 percent of entering students graduated within a normal four

year term; an additional 20 percent completed their studies at a later date. Iffert (1957) reported similar figures and noted that rates of discontinuation tended to be particularly high in the early years of students' college experiences. Approximately half of those who withdrew did so by the end of their first year. Eckland (1964a) reported that three of ten students who originally entered college never obtained a college degree. Tinto (1987) reported that attrition rates in the United States in the 1980's ranged from a low of 7 percent to a high of over 80 percent depending upon institutional type (i.e. private versus public and two-year or four-year college), and relative selectivity of the institution. Similar significant attrition rates have been reported in Canada (Mehra, 1973), Great Britain (Richling, 1971; Vaizey, 1971) and Australia (Baumgart & Johnstone, 1977).

Drop out rates at two year colleges have been found to be somewhat higher than those at four-year colleges and universities (Astin, 1972; Cope & Hannah, 1975; Tinto, 1987). National data compiled over the past three decades indicate that approximately one half of community college students did not return for a second year and only about half of the remaining students went on to complete requirements for the associate degree. Approximately two students in ten entering community colleges stayed on to complete requirements for an associate degree. One in ten went on to complete requirements for a baccalaureate degree (Cope & Hannah, 1975). Although these higher rates of attrition were primarily attributable to lower levels of motivation and poorer academic preparation of entering students, the retention rates of two year colleges were still somewhat lower than would be expected when these factors were controlled (Sheffield & Meskill, 1974; Tinto, 1987). Astin (1975) and Anderson (1981) have concluded that students of comparable ability had a somewhat better chance of returning for a second undergraduate year if they attended a four year college or university rather than a two-year college.

Overall, the rate of four-year degree completion is estimated to be about 45 percent of the entering cohort, and appears not to have changed substantially over the last

100 years. Though some variations have occurred, rates of degree completion have remained virtually constant since the turn of the century (Tinto, 1987).

Despite these bleak attrition statistics at two- and four-year institutions, Astin (1972) and Cope and Hannah (1975) cautioned that national dropout rates may actually be somewhat lower than has been suggested; there may be far fewer students who permanently give up their college careers than previously thought. Even by the most severe measure of persistence (completing a baccalaureate degree within four years at the college of matriculation), 60 percent were found to either have completed their degrees or still be enrolled at their first institution toward that goal. Additionally, of those students who were neither degree recipients nor still enrolled at their first institution, nearly half requested transcripts be sent to another institution, an indication that they may have been enrolled and working toward a degree elsewhere (Astin, 1972). Similar findings were reported by Eckland (1964c), in which 70 percent of college dropouts returned to college within ten years after matriculation. Of those students, nearly 55 percent eventually completed their college degrees. From these findings, it appears that the traditional eight semester model used to define the college career might, in fact, not be the "normal" progression to graduation. Yet, this timeframe remains the standard yardstick most often used to measure attrition rates, despite a large proportion of college students who fail to conform to this artificial norm (Lavin, Murtha, & Kaufman, 1984).

Based upon attrition statistics, clearly something goes wrong for students, often early in their college careers. Considerable research has attempted to determine what student and/or institutional factors lead to decisions to withdraw in an effort to stem the tide.

Overview of Retention/Attrition Research Data

Research on retention rates in higher education has tended to focus on independent variables which could help to explain attrition of students. The majority of studies sought to examine how a variety of student characteristics were related to dropping out of

college, and sought to estimate the impact of various features of the college environment on student persistence in college. Specifically, studies have tended to focus on student pre-college demographic variables (age, gender, socioeconomic status, size and type of high school), academic variables (high school grade point average and class rank, scholastic aptitude), parental expectations, peer group influences, personality factors, college environment factors (college type and size, housing, extracurricular activities, student/faculty relationships), and financial factors (Astin, 1972, 1975, 1984; Bayer, 1968; Beal & Noel, 1980; Cooper & Bradshaw, 1984; Cope & Hannah, 1975; Hackman & Dysinger, 1970; Heilbrun, 1965; Kohen, Nestel & Karmas, 1978; Marsh, 1966; Morton, 1990; Panos & Astin, 1968; Pantages & Creedon, 1978; Pascarella, 1985; Pascarella, Duby, Miller, & Rasher, 1981; Sheffield & Meskill, 1974).

Student Variables Associated with Attrition/Retention

Researchers interested in factors related to student attrition and retention have frequently focused on several student variables which could serve as independent variables correlated to student persistence. Examples of student variables included student age, gender, socioeconomic status, religion and ethnicity, size and type of high school attended, high school grade point average (GPA) and high school class rank, scholastic aptitude, parental influence, peer group influence, marital status, employment status, financial aid status, educational goals, and personality traits. Each student factor investigated in numerous research studies represented a possible independent variable related to student persistence.

Age. Most research evidence has suggested that student age was not a primary correlational factor with student attrition. However, several studies found that older first year students were less likely to graduate than first year students of traditional age (Feldman, 1993; Sexton, 1965; Summerskill & Darling, 1955), but these results could have been confounded by the very factors which caused the delayed entrance into college initially, such as early marriage or lower socioeconomic levels, which made attending

college at the traditional age unfeasible. Eckland (1964a) found that students who completed their military service before entering college had better persistence rates than traditional age students. Sexton (1965) concluded that, while age was very likely not a crucial factor in determining probabilities of attrition, students who enrolled at the traditional age plus or minus a year had a better chance of persisting than students who were two or more years off the median age of entering students.

Gender. Research on gender and attrition rates has been conflicting. Iffert (1957) found no significant difference in the overall attrition rates of women and men. This finding was replicated in many studies (Bragg, 1956; Johansson & Rossmann, 1973; Sewell & Shah, 1968; Slocum, 1956; Suddarth, 1957; Summerskill & Darling, 1955). However, other studies found significant gender differences in attrition rates. Demos (1968), Nelson (1966), Smith (1992), and the Texas Higher Education Coordinating Board (1993) all reported significantly higher drop out rates for men, while Panos and Astin (1968) found that, when matched for high school GPA, the reverse trend appeared, and women were more likely to withdraw than men. Other studies reported that women dropped out more frequently than men (Astin, 1964; Tinto, 1975). These discrepancies may be explained by findings that gender was a variable at certain types of institutions and not a variable at others. For example, women were more likely to drop out when attending institutions with a high ratio of men to women (Astin, 1964; Cope, Pailthorp, Trapp, Skaling, & Hewitt, 1971).

Trent and Ruyle (1965), Astin (1972), and York (1993) reported that more women than men were likely to graduate in the traditional four year sequence. Astin (1972) showed that more men than women extended the timeframe for their degree completion beyond a four year sequence, and that once a woman dropped out, she was less likely to reenroll. Thus, more women graduated within the four year timeframe, but more men persisted in college over an extended period of time so that ten-year graduation rates ultimately favored males. In a study of graduation rates at two-year colleges, Burr

(1992) found that women had a higher graduation rate than men, and that the percentage of graduates who were women (57%) was higher than the percentage of enrollees who were women (49%).

Reasons given by women and men for dropping out of college have been significantly different. Studies have shown that women were more likely to drop out for external, non-academic reasons, while men were more likely to cite internal, academic reasons. Astin (1975) reported that the most frequent reasons for dropping out cited by both men and women were boredom with courses, financial difficulties, dissatisfaction with requirements or regulation, and changes in career goals. Bayer (1969) found, however, that gender differences existed in reasons given for dropping out. For example, women cited marriage, pregnancy or other family responsibilities more often than any other reasons for dropping out, while these factors were rated eighth in importance to men. Women were found to be three times more likely than men to give marriage as a reason for dropping out of college. Getting married while in college was one of the most important determinants of dropping out for women, but was of little or no importance for men (Astin, 1975). For men, poor grades were ranked fourth as a reason from dropping out, but seventh in importance for women, with about half as many women as men citing this reason. The finding that men were much more likely than women to give poor grades as a reason for dropping out is consistent with numerous earlier studies showing that women received better grades than men both in high school and in college (Astin, 1975). A more recent study (Nordquist, 1993) cited the existence of a dual standard in educational expectations linked to gender. Students reported that gender played a significant role in decisions to attend or withdraw from college, with a higher value placed on men's education both at the undergraduate and graduate level .

In conclusion, there has been conflicting evidence that gender has represented a significant variable in determining rates of student persistence. Confounding variables such as scholastic, environmental, institutional, and longitudinal factors deserve further

exploration in future studies examining gender and student retention.

Socioeconomic Status and Family Background. While nearly all theoretical and empirical analyses of college persistence have indicated that the socioeconomic status of the student's family was inversely related to the likelihood of dropping out, retention research concerning students' socioeconomic status (father's occupation, family income, parental education, ethnicity, and social status) has provided equivocal results (Lenning, Beal, & Sauer, 1980). In studying the impact of the father's occupation, some research showed no significant relationship between the father's occupation and student attrition (Little, 1959; Rossmann & Kirk, 1970), while Suddarth (1957) and Slocum (1956) found that attrition rates were much higher for students with fathers in blue collar occupations than for students with fathers in professional careers. However, these differences in attrition disappeared when the variable of high school GPA was controlled (Suddarth, 1957). Hitchcock (1955) indicated that a larger percentage of those who did not arrive on campus after pre-enrolling at the University of Nebraska were from skilled-labor parents rather than from professional and managerial parents. This relationship was corroborated by Caskey (1969) who showed a smaller percentage of dropouts' parents were in the professional group.

Iffert (1957) discovered that the median income of families of students who withdrew was significantly lower than that of students who remained in school, but cautioned against concluding that family income therefore was a factor in determining withdrawal, as family income may have impacted the type of institution attended. Costly private colleges could have lower attrition rates than public institutions, but these lower dropout rates may not be causally related to higher family incomes than those family incomes of students attending public institutions. In fact, Astin (1973) and Eckland (1965) reported that a factor analysis related to college attrition suggested that family income was not a direct factor in attrition.

Rossmann and Kirk (1970) reported that parental education did not appear to be one of the major factors in determining student persistence or attrition. However, other studies found a relationship between the level of education for both parents and the rates of student attrition (Chase, 1970; Eckland, 1964b,1965; Farnsworth, 1959; Panos & Astin, 1968; Slocum, 1956). Astin (1973b) found that the odds of a student (of either gender) persisting through four years of college increased by 10 percent if the mother earned a degree beyond the B.A.; the odds decreased by 5 percent if the mother never progressed beyond elementary school.

Parental aspirations and expectations have been shown to affect a student's persistence in college, impacting the student's achievement motivation and educational/occupational aspirations. Only 35 percent of dropouts felt that their parents were very interested in their college completion, as contrasted with 81 percent of students who did not drop out (Slocum, 1956). Hackman and Dysinger (1970) found that the commitment of parents and the student to obtaining a college education, measured prior to actual enrollment, significantly related to whether or not the student persisted beyond the first year. The level of commitment that a student and the family indicated toward the goal of obtaining a college education could be of considerable importance because, with a sufficiently strong commitment to college, students might be able to persevere through all but the most severe difficulties.

Student Religion/Ethnicity. Regarding the impact of student religion on attrition rates, Astin (1973b) found that, when academic factors such as high school rank were controlled, Jewish students were more likely to graduate in four years than non-Jewish students. Cope (1967) found that Jewish men had a much lower dropout rate than did Roman Catholic and Protestant men and that Jewish men were more likely to persist than were Jewish women. Religious preferences did not seem to be related to attrition among women. Cope and Hannah (1975) concluded that the limited research relating religious preference to persistence or withdrawal seemed to indicate that religious preference was

related to withdrawal behavior, but they doubted that the practice of a religious belief was directly related to persistence. Rather, the style of life and the value orientations of particular religions could have affected a student's motivation, achievement aspirations and educational goals.

Regarding student ethnicity in relation to retention rates, Astin (1973b) found that Hispanic students had a substantially lower probability of graduating than students of other minority groups, while no significant differences were found among African-American, Asian-American or Native-American students. In an earlier study, however, Panos and Astin (1968) found that Native-American students did show a greater likelihood than students of other minority groups of not completing college within four years following matriculation. A synthesis of the related literature on ethnicity and retention (Lenning, Beal, and Sauer, 1980) revealed that a relationship may exist between a student's ethnic background and persistence in college. Hamilton (1995) reported lower student retention rates for African-American students than for all other students and Feldman (1993) reported that the risk of dropping out was associated with being a member of any ethnic minority group other than Asian. However, Eddins (1982), Donovan (1984), and Tracey and Sedlacek (1985) have argued that since African-American students as a group are more likely to come from disadvantaged backgrounds and to have experienced inferior schooling prior to college, they are also more likely to enter college with serious academic deficiencies and could be less able to meet the formal demands of the academic system. Thus, socioeconomic and academic background variables have been thought to confound the variable of race in retention data.

Size and Type of High School. The size of high school which a student attended has not been shown to have a significant impact on college persistence. Research has indicated that while some evidence existed that graduates from very small high schools were more likely to drop out of college, no significant relationship was found between attrition and high school size (Panos & Astin, 1968; Schmid & Reed, 1966; Slocum,

1956). The impact of the type of high school attended on college persistence was not conclusive. Sexton (1956) found that the weight of evidence from earlier studies supported the conclusion that public school students showed greater persistence rates, while Astin (1973b) and Freedman (1956) found that attrition rates were lower for graduates of private high schools. More research in this area is required before any definite conclusions can be drawn concerning the significance of the type of high school on attrition rates.

High School GPA and Class Rank. A majority of studies have found that high school GPA and class rank differentiated potential dropouts from persisters (Astin, 1972; Blanchfield, 1971; Bragg, 1956; Chase, 1970; Feldman, 1993; Lenning, Beal, & Noel, 1980; Little, 1959; Morrisey, 1971; Panos & Astin, 1968; Scannell, 1960; Slocum, 1956; Summerskill, 1962; Waller, 1964). Iffert (1957) reported that students in the top 20 percent of their high school class were twice as likely to graduate as were students in the next 20 percent, and eight times more likely than students in the lowest 20 percent. Bertrand's study (1955) revealed that of those students who dropped out for academic reasons, 73 percent were in the lowest quartile of their high school class.

Demitroff (1974) asserted that academic factors continued to be the most reliable predictor of attrition, concluding that consideration of other variables did not greatly improve prediction. Academic variables have continued to be the strongest single-variable predictors presently available in the study of persistence and attrition. A negative correlation has existed between dropping out and both high school rank and standardized test scores. Students with a combination of a high GPA and high standardized test scores were two to four times more likely to persist than students with the lowest grades and lowest test scores (Astin, 1972).

Scholastic Aptitude. The majority of research studies have concurred that measures of students' scholastic aptitudes and abilities have significantly impacted students' attrition rates. Scholastic aptitude measured by SAT and ACT tests have shown

a significant difference between dropouts and non-dropouts (Lenning, Beal, & Noel, 1980; Sewell & Shah, 1968; Slocum, 1956; Summerskill, 1962). Astin (1964, 1972), Manski and Wise (1983), Marsh (1966), Tinto (1975, 1987), and Bianchi and Bean (1980) concurred that prior academic achievement and aptitude were the most useful pre-enrollment student variables in predicting dropouts from college.

Peer-group Influence. Developmental and educational psychologists and sociologists have concurred that the peer group forms the most significant external influence on the college student, second only to the existing personal characteristics of the student. Newcomb (1962) stated that peer-group experiences formed the attitudes that a student develops about college, educational and occupational goals, and life in general, to a greater degree than any other factor. The quality of the relationship with peers and the values which the peer group endorses appeared to be significant factors in persistence. A social group with negative attitudes toward college or toward education as a whole was more likely to have a greater number of its members drop out (Panos & Astin, 1968). Lenning, Beal and Noel (1980) concluded that a positive relationship existed between peer group influences and student persistence in college.

Marital Status. Competing hypotheses have existed regarding the impact of marital status on student persistence. Eckland (1964c) speculated that married students were more stable, serious and committed to their goals than unmarried students, as their working spouses may have helped to reduce financial pressure to drop out. Conversely, Chacon, Cohen, and Strover (1983) asserted that familial and financial responsibilities of married students may constrain study time and/or flexibility in adjusting to externally imposed schedules of college attendance, and thus negatively impact persistence. These competing hypotheses preclude incontestable specification of the net effect of marital status, but one study (Panos & Astin, 1968) found the dropout to be more likely than the nondropout to have been married when starting college.

Employment. One study showed that students who worked while attending the first and sophomore years were less likely, other things being equal, than those who do not work to advance successfully in the succeeding years. This impediment appeared to be greatest for those who work between half- and full-time. Among junior and seniors, however, there was not evidence of a significant impact of working on successful persistence in college (Kohen, Nestel, & Karmas, 1978). In contrast to these findings, however, Beal and Noel, (1980) and Wilkie and Jones (1994) reported that students who had part-time jobs on campus were more likely to become acquainted with faculty, administrators and other students and thus become socially integrated more readily. This integration resulted in increased student retention.

Scholarship Status/Financial Aid/Student Financial Issues. One of the most obvious causes of attrition has been economic. Students have often dropped out if they could not afford to continue in college. Iffert (1957) found that financial difficulties were ranked third in importance by students as a reason for dropping out. Summerskill's (1962) review of the literature found that in 16 out of 21 studies, financial reasons were ranked among the top three most important factors in attrition. Within the last decade, inflation, rising costs, and unemployment have increased student concern for finances and employment. In comparing the major concerns cited by students surveyed in the 1960's, 1970's and early 1980's, the concern for finances moved from ranking near the lower end of the scale in 1969 to one of the top four major concern areas for students in the 1980's (Mayes & McConatha, 1982). One particular study indicated that finances were a fundamental issue for Hispanic students (Nora, 1990).

Some research has shown that student loans had no relationship to attrition (Astin, 1973b; Blanchfield, 1971). The latter study found that the percentage of college expenses financed by loans did not correlate significantly with attrition. However, in the more recent economic climate, Martin (1985) found that student loans can help prevent departure by enabling students to overcome temporary financial difficulties.

Receipt of a scholarship has been shown to bear a positive relationship to the probability of successful persistence in college (Astin, 1973b; Beal & Noel, 1980; Blanchfield, 1971; Selby, 1973). Astin's (1973b) study found that receiving a grant, regardless of the amount, increased the odds of graduating in four years by 10 percent and if it represented a significant proportion of the student's support, the increase was 15 percent. Blanchfield's (1971) study found that the size of the scholarship was positively correlated with the probability of persisting. Iffert (1957) and Fields and LeMay (1973) reported conflicting results and showed no relationship between receiving a scholarship and persistence. Kohen, Nestel, and Karmas (1978) speculated that receiving a scholarship might not have so much to do with increasing a student's commitment to the institution, but this variable served as an additional measure of aptitude which was known to positively influence retention.

Student Educational Goals. Students' educational goals have appeared to be positively related to persistence in college. Rossman and Kirk (1970) reported that 92 percent of the persisters but only 77 percent of dropouts had, at the time of entrance, planned to graduate from Berkeley. Waggener and Smith (1993) also reported that student commitment to the goal of a college degree significantly impacted student retention. In a earlier study of National Merit Scholars, Thistlewaite (1963) reported that those students who made an early decision to go on to graduate or professional schools had a better chance of graduating than those who were not contemplating graduate training. Panos and Astin (1967) found that dropouts were less likely, at the time of entrance to college, to have plans to attend professional schools. These findings have generally suggested that educational expectations at the time of entering college were an important variable to consider when attempting to develop predictors of academic persistence (Lenning, Beal, & Noel, 1980). Similarly, Tinto and Cullen (1973) and Tinto (1975) assigned "goal commitment" a central place in their theory explaining persistence in college.

Personality Traits Distinguishing Dropouts and Nondropouts. The role played by personality characteristics in attrition has been widely studied. According to Gough (1962, 1963), Heilbrun (1965) and Jones (1962), the main personality differences between dropouts and persisters were found in the socialization (SO) and Responsibility (RE) scores of personality tests such as the Minnesota Multiphasic Personality Inventory (MMPI). Scores on the subscales revealed that students who persisted were higher in the SO measures of personal maturity, freedom from rebellion and authority problems, and in the capacity to live with others without friction. The RE scores showed higher levels of seriousness of thought, development of values, and dependability among persisters. Successful students were found to be more conforming yet self-sufficient (Blanchfield, 1971; Grace, 1957; Rose, 1965). Conversely, personality traits often found to be characteristic of dropouts were numerous and usually negative. Research has indicated that dropouts were more unable to adapt to "the college milieu," were more aloof, assertive, critical, disagreeable, immature, self-centered, lacking in self-sufficiency, impulsive, impetuous, nonconforming, and unconventional. Dropouts have also been shown to overemphasize personal pleasure, to be rebellious against authority, resentful of college academic and social regulation, uncooperative and more uncertain about the future than persisters (Astin, 1965; Blanchfield, 1971; Douvan & Kaye, 1964; Farnsworth, 1959; Freedman, 1956; Grace, 1957; Hannah, 1969; Heilbrun, 1965; Johnson, 1970; Maudal, Butcher, & Mauger, 1974; Rose, 1965; Sexton, 1965; Summerskill, 1962; Vaughan, 1968).

Research on the relationship between personality factors and retention has not provided, however, conclusive evidence that personality characteristics could be useful in the prediction of dropouts. Personality tests would be needed which could make accurate distinctions among various types of dropping out behavior (stopping out, withdrawing, transferring). Ideally, such tests would be able to isolate major psychological characteristics which would be useful in the prediction of persistence or withdrawal.

In summary, the student variables shown to be most associated with student retention have included academic factors such as grades in high school and scholastic aptitude. Other student variables have included students' educational goals, family socioeconomic backgrounds and financial circumstances.

College Environment Variables Associated with Attrition

In the mid 1960's, research began to focus on the effects of the college environment on the retention or attrition of students. This factor had previously been treated as a constant for all students at a given college, and therefore played no role in attrition studies. Iffert's (1957) survey initiated a reevaluation of this assumption, and subsequent research has provided considerable evidence that the college environment has played a major role in determining the persistence or withdrawal of students. Early research on the effects of college environment stressed the impact of the college on the student (Knapp & Goodrich, 1952; Knapp & Greenbaum, 1953). More recent studies have analyzed "input" (the student), and the interaction between the student and the college environment (Holland, 1957; McConnell & Heist, 1959; Pace, 1962; Stern, 1963, 1970; Thistlewaite, 1959). Pace and Stern (1958) highlighted the importance of examining the dynamics of the college environment and the interactions between student and college, and proposed that high congruence between a student's needs and college press (the academic and social requirements of the institution) could increase student retention. This assertion formed the crux of the "college fit" theory, which stated that the more congruence there is between the student's values, goals, and attitudes and those of the college, the more likely it is that the student will persist at that college. Numerous studies have strongly supported this proposition (Astin, 1964, 1965; Barger & Hall, 1964; Farwell, Warren, & McConnell, 1962; Feldman & Newcomb, 1969; Morstain, 1977; Nafziger, Holland & Gottfredson, 1975; Pace, 1962; Pace & Stern, 1958; Pantages & Creedon, 1978; Pervin, 1967; Pervin & Rubin, 1966; Stern, 1963, 1970; Walsh, 1973;Williams, 1966).

Research on the specific impact of the college environment on student retention has focused on the variables of college size and type, college prestige, housing, extracurricular activities, and student/faculty relationships.

College Size/College Type. The effect of college size on attrition remains unclear. Large institutions have often been thought to reduce students' confidence, have been less likely to be regarded as friendly and cohesive communities, and have promoted less contact between students and faculty. These factors then contributed to increasing student dissatisfaction with the institution and made dropping out more probable (Feldman and Newcomb,1969). Another study showed that merely the physical size of a large institution was a factor in influencing attrition: the more time it took to get from one place to another on campus, the greater the rate of attrition (Panos & Astin, 1968). Nelson (1966) reported that not only do smaller institutions have lower attrition rates overall, but any institution situated in a small community also had reduced rates of attrition. In contrast to this research favoring small institutions, Kamens (1971) demonstrated that large institutions had better retention rates for medium and high ability students. The conflicting empirical evidence prompted Tinto (1975) to conclude that college size was related to attrition, but in a manner which remained unclear. Further research is needed in this area.

Regarding the type of college attended, Iffert (1957) found that private institutions tended to have lower attrition rates. Beal and Noel (1980) reported that private, religiously affiliated schools tended to have better retention rates than public institutions.

College Prestige. The prestige and quality of the college has been shown to be related to persistence, showing a positive relationship between college prestige and student retention. High institutional prestige and selectivity generally yielded lower attrition rates (Astin, 1975; Beal & Noel, 1980; Kamens, 1971; Raimst, 1981; Wegner, 1967). These findings generally indicated that students enrolled in higher quality institutions (measured by average ability of students, proportion of doctorates on the

faculty, and expenditures per student), were more likely to graduate than students of similar ability, with similar aspirations, who attended lower quality institutions. The lowest quality institutions tended to have the lowest graduation rates for all types of students, according to the results of a national study by Kamens (1971). However, according to Wegner (1967), retention rates were best for high ability students or less able students if they attended institutions of either very high or very low quality. Thus, while it was clear that all types of students were more likely to persist to graduation in higher quality institutions, the effect of attendance at lower quality institutions was less clear in the research literature. Possibly, the greater the prestige of the college, the more dependent upon it the students were for realizing the status that it could confer, and thus students placed greater value on "membership" in the college.

Housing. Where students live while attending college and the type of housing inhabited has been shown to impact retention rates. Much of what can be concluded about the persistence/withdrawal tendencies of commuter students must be extrapolated from comparisons between residential and non-residential students at the same institution. Research has conclusively shown that students living off-campus were much more likely to drop out than those who lived on-campus (Astin, 1973a, 1973b, 1984; Forrest, 1982; Iffert, 1957; Newcomb, 1962; Slocum, 1956; Thompson, 1993). The impact of student residence on retention was found to be more significant at four-year institutions than at two-year institutions (Astin 1973b). It is difficult to determine from these studies, however, whether this trend was a function of the increased social integration derived from living in college residences, or merely reflected differences in aptitudes, aspirations or background characteristics between commuting and residential students which influenced their respective persistence/withdrawal decisions. Astin (1984) reported that students living on campus were more likely than commuters to achieve in extracurricular areas such as student leadership activities and athletics, and were more likely to express satisfaction with their undergraduate experience, particularly in the areas of student

friendships, faculty-student relations and social life. In combination, these factors all helped to increase retention of students.

Research focusing on the effects of living in a fraternity or a sorority has not been so conclusive. Barger and Hall (1964) found no significant differences in attrition, while Slocum (1956) reported that students who lived in a fraternity or a sorority had the best retention rates of all. Iffert (1957) supported this latter finding, and in addition discovered that the mere presence of fraternities or sororities at an institution decreased the overall attrition rate of that institution.

The significance of housing factors in relation to other variables, such as personality traits or academic issues, has not been fully explored. To this point, the research generally has supported the concept that housing was a factor, but it was not likely that it was a primary factor in attrition rates. It may be hypothesized that on-campus housing generally has served a valuable and positive socialization function that facilitated student adjustment and consequent satisfaction with the institution (Pantages & Creedon, 1978).

Extracurricular Activities. An important feature of social life at college are extracurricular activities such as student government and athletics. Research in this area has not provided a clear picture of the effects of participation in these activities on attrition. Some studies have shown that participation in extracurricular activities was greater for persisters (Beal & Noel, 1980; Boyd, 1992; Chase, 1970; Louis, Colten & Demeke, 1984; Schmid & Reed, 1966, Sexton, 1965; Terenzini, Pascarella, & Lorang, 1982; Tinto, 1975). Conversely, Demitroff (1974) found that dropouts attached more value to extracurricular activities and also spent more time participating in them. Other research revealed that students who dropped out were more likely to come from the two extremes of the spectrum; they either participated to a very great degree or not all (Sexton, 1965). The conflicting data on the impact of extracurricular activities on attrition rates led Fishman and Pasanella (1960) to speculate that participation in these activities

did not account for much of the variance in attrition and they concluded that such activities were not a primary factor in the retention of students.

Student-Faculty Relationships. The quality of the relationships between students and their professors has been shown to be of crucial importance in determining satisfaction with the institution. Students' positive interactions with faculty have been thought to facilitate the development of healthy attitudes toward learning and toward the college (Newcomb, 1962; Panos & Astin, 1968, Sexton, 1965). Additionally, several studies have shown that dropouts were more dissatisfied than persisters with their relationship with their professors (66 percent of dropouts were dissatisfied compared with 49 percent of persisters) and dropouts experienced a barrier between themselves and their professors that prohibited close contact (Hannah, 1969). Beal and Noel (1980), Pascarella and Wolfle (1985), and Hossler and Bean (1990) all have concurred with the research literature which asserted that student/faculty relationships positively impacted student retention.

In summary, a synthesis of the retention research literature has revealed that the principal student variables which served as predictors of persistence were the student's grades in high school and scores on tests of academic ability. Other important predictors have included possessing high degree aspirations at the time of college entrance, socioeconomic background, financing one's college education chiefly through aid from parents, a scholarship or personal savings, and not being employed during the school year. The college environment variables which seemed to be most related to student retention included the college type, such as public versus private or prestigious versus less prestigious, student housing, fraternity or sorority membership, involvement in extracurricular activities and positive and satisfying relationships with college faculty.

Limitations of Attrition/Retention Research

Despite years of research and many carefully controlled studies on factors contributing to attrition and retention, the central conclusion to draw from the research is

that students' decisions to withdraw from college are complex: no simple formula exists for prediction. Even research designed specifically to identify factors associated with withdrawal from college, while helpful, provided surprisingly meager information. The findings were often contradictory and seldom illuminated the sources of difficulty for either the student or the college. As a result, our knowledge of the attrition process is surprisingly limited as scant attention has been given to understanding the underlying dynamics of the phenomenon.

In their comprehensive reviews of the literature on the college dropout, both Spady (1970, 1971) and Tinto (1975, 1987) argued that much of the current lack of understanding of the college dropout process has been related to research emphases which have been descriptive rather than theory-based. Although the research literature is voluminous, with literally hundreds of studies conducted (Pantages & Creedon, 1978), the vast majority of research has been atheoretical, narrowly empirical in design and execution, and primarily descriptive. Tinto (1975) stated that failure to delineate more clearly the multiple characteristics of the dropout can be traced to the following major shortcomings of attrition research: inadequate attention to the definition of dropouts, lack of control groups, lack of a representative sample of institutions for making estimates that could be generalized to the college population in the United States, and lack of development of theoretical models that seek to explain, not merely describe the processes that bring individuals to leave institutions of higher education.

Regarding issues of dropout definition, researchers often have lumped together, under the rubric of dropout, forms of leaving behavior that were very different in character. For example, research on dropouts frequently failed to distinguish dropouts resulting from academic failure from those who withdrew voluntarily. Nor is it uncommon to find permanent dropouts placed together with persons whose leaving was temporary in nature or led to a transfer to other institutions of higher education. Because

of the failure to make such distinctions, past research has often produced findings contradictory in character and/or misleading in implication.

Few studies in attrition research have penetrated beyond the collection of easily assembled demographic data (e.g. age, gender, SAT scores). Too many of the investigations were single variable studies that assumed a particular variable could be used to assess the likelihood of withdrawal. These single variable investigations took an oversimplified approach to the problem. Variables may have operated concurrently as moderating, suppressing or accentuating factors relative to academic performance or withdrawal. Thus, a given variable might have been directly related, inversely related or unrelated to other variables depending on the influence of the unmeasured factors. For example, academic aptitude has usually been found to be lower for dropouts than for graduating students. However, academic ability alone has not been useful in any practical sense for predicting who will drop out, especially from institutions with relatively homogeneous student populations.

The lack of theoretical models which have sought to explain, not merely to describe the drop out process, has been cited as a limitation of much retention research (Tinto, 1975). The research has been marked by an inadequate conceptualization of the entire, complex process of dropping out for students. Particularly noticeable has been the lack of attention given to the development of longitudinal models that would lead to an understanding of the processes of interaction which, over time, have brought individual students within an institution to varying levels of persistence or dropout behavior.

Studies have searched for student or institutional variables significantly related to dropout behavior with no conceptual model to guide or focus inquiry. As a result, there has appeared to be a wealth of statistically reliable ex post facto associations that have offered a markedly incomplete explanation of the drop out process (Cope & Hannah, 1975; Pantages & Creedon, 1978; Spady, 1970, 1971; Tinto, 1975). There appears to be little future in trying to predict attrition solely on the basis of students' prematriculation

characteristics. Rather, Spady's (1970) and Tinto's (1975) findings have suggested that efforts to reduce current attrition levels were more likely to succeed if they were focused on what happens to students after their arrival on campus, rather than on what they were like at the time of admission.

Recognizing the limitations of much of the attrition literature, researchers have begun to shift focus from the negative (attrition) to the positive (retention), and from why students leave college to how they could be encouraged to stay. Reviewing the literature on retention in higher education has revealed that it is impossible to isolate a single cause for student attrition in higher education. Rather, student retention is the result of an extremely intricate interplay among a multitude of variables. Rather than focusing on single student variables (high school grade point average, gender, religion) and similar "fixed" variables, research has shifted to theoretical models which focus on variables over which colleges may exert some control: orientation programs, faculty-student interactions, academic advising, adequacy of student residences, and financial aid. The emphasis has clearly shifted to improving the quality of higher education in order to retain the confidence of students.

Theories and Conceptual Frameworks Related to Retention

Four major conceptual frameworks are important in discussions of student satisfaction and retention in higher education. Rather than focusing upon precollege student variables alone, many theorists have hypothesized that student attrition or retention is a result of a complex interplay among numerous student and institutional variables. First, the student-institution fit theory, or "college fit" theory, proposed that students must meet the demands of the institution and derive satisfaction from doing so. Theoretically, the higher the degree of fit between student and institution, the greater the likelihood of retention. Student satisfaction with the college environment is thought to be a complex transactional process between the student and the college environment. Secondly, the concept of student involvement proposed that the degree to which a student

is involved in various aspects of campus life influences student retention. According to this theory, the greater the student's involvement (in academic work, in extracurricular activities, and in interaction with faculty), the greater the learning, personal development and probability of retention. Thirdly, the theory of student-faculty interaction centered around the concept of faculty serving as socializing agents for the institution. According to this theory, student-faculty interactions outside the classroom have been hypothesized to be important in student retention. Lastly, theories supporting the concept of social and academic integration have asserted that, assuming that external influences are held constant, the higher the levels of student integration into the social and academic systems of an institution, the less likely the student would be to withdraw voluntarily. Thus student integration has been proposed to positively impact retention. Each of these four conceptual frameworks appear to show promise in helping to describe the intricate process of student persistence decisions in higher education.

Student/Institutional Fit Theory

While considerable research has attempted to determine what factors lead to student withdrawal or transfer, the resulting lists of variables associated with dropping out have prompted skepticism about their usefulness in developing full understanding of attrition phenomena. Rather than emphasizing specific, narrow variables which may or may not be related to student retention, Feldman and Newcomb (1969) asserted that adjustment to college, and ultimately, student persistence at that college was a transactional process involving both the characteristics of the student and the nature of the college environment.

The "college fit" theory has proposed that the student brings to the college certain skills, attitudes and expectations and that the college demands, either directly or indirectly, certain skills and attitudes before it will 'reward' the student (e.g. with passing grades or a degree). The extent to which the student can meet the demands of the college and derive satisfaction from doing so is the degree to which the student may be expected to persist at

that institution (Astin, 1964,1965; Feldman & Newcomb, 1969; Morstain, 1977; Nafziger, Holland & Gottfredson, 1975; Pace, 1962, 1984; Pace & Stern, 1958; Pervin, 1967; Pervin & Rubin, 1966; Stern, 1963,1970; Walsh, 1973; Wiese, 1994). A college that is a good fit for one student may be a poor fit for someone else; conversely, a sound reason for withdrawal for one student at a given institution may be irrelevant for other students or for the same student at a different college. Student satisfaction with the college environment, then, is theoretically a result of a complex interaction between the student and the college environment.

Research on student satisfaction has focused principally on analyses of student-environment congruence in relation to satisfaction. These studies have tended to assess an individual's general personality characteristics or traits in the context of the characteristics of faculty or students enrolled at the institution (Holland, 1973). Measures of satisfaction have centered on satisfaction with other students, with faculty, and in certain cases with the nonacademic environment of the college. These investigations have indicated that students who were congruent with their peers or faculty expressed more satisfaction with aspects of their college experience than peers less congruent.

Student satisfaction represents a matching of differing college characteristics and programs with the tastes, tolerances and characteristics which students present upon entrance. As each institution attracts a particular kind of student, it also repels and retains its own brand. Some students find a particular college satisfying and valuable, while others do not. For example, a student from a rural background attending a large, impersonal university may find certain needs are not met; the orientation of the university and people may pose a threat, precluding successful adaptation to the environment. In another instance, an academically successful student may regard the normative climate of the present institution as insufficiently challenging in relation to personal level of performance and educational goals. In this case, the student might perceive that an academic environment more congruent with demonstrated academic capabilities and levels

of motivation exists at another institution. The perceived lack of fit with the first institution might prompt the student to transfer to another college as the realization of incongruence with the normative academic climate becomes increasingly apparent. Thus, "college fit" theorists have maintained that the primary factor in retention may not be the isolated variables associated with student or institutional characteristics, but rather the student's fit with the institution itself (Astin, 1964,1965; Feldman & Newcomb, 1969; Morstain, 1977; Nafziger, Holland & Gottfredson, 1975; Pace, 1962, 1984; Pace & Stern, 1958; Pervin, 1967; Pervin & Rubin, 1966; Stern, 1963,1970; Walsh, 1973).

In support of the "college fit" theory of student satisfaction, Holland's (1973) research reported that student satisfaction was the outcome of the congruency between a student's personality and the college environment, and of the consistency and differentiation of his personality pattern. For example, a satisfied student would be expected to resemble the typical student at the college and to have a personality pattern which is both consistent and well-defined; a dissatisfied student would be expected to be less like a typical student and to have an inconsistent and poorly defined personality pattern.

Also in support of the college fit theory, Morstain (1977) reported that students who were dissatisfied with their academic program had a noticeably different education orientation profile compared with peers who were relatively satisfied. Dissatisfied students had an orientation profile most incongruent with faculty educational orientations, while highly satisfied students were least incongruent with faculty orientations.

Similarly, Walsh (1973) advanced the person-environment congruence model, citing studies which employed this framework to indicate that students who were congruent with their environment reported the highest degree of satisfaction compared with peers who were less congruent. Nafziger, Holland, and Gottfredson (1975) and Pantages and Creedon (1978) concurred that the person-environment congruency theory was useful in the analysis of student satisfaction levels and attrition/retention patterns.

However, not all research unequivocally supports the college fit theory as related to student persistence at an institution. Inconsistent research results regarding the student-environment fit theory have been reported. While Stern (1970) reported a positive relationship among congruence, satisfaction and grade achievement, another study reported that congruence was unrelated to achievement or satisfaction (Landis, 1964). Contrary to theoretical expectations, Witt and Handal (1984) were also not able to clearly substantiate congruency as a predictor of student satisfaction.

Nevertheless, on balance, it appears that the "college fit" theory holds some degree of validity in attempting to describe the important interaction which occurs between students and institutions. The complex dynamics of the interactions appear to be important in discussions of student satisfaction and retention in higher education.

Student Involvement Theory

The concept of student involvement, in certain respects, closely resembles the Freudian concept of *cathexis*, which refers to the psychological energy persons invest in objects and others outside themselves: people may *cathect* on their friends, families, schoolwork or occupations. The involvement concept also closely resembles what learning theorists have traditionally referred to as vigilance or time on task. The concept of effort, although narrow in scope, is related also to the construct of student involvement (Astin, 1984).

"Student involvement" refers to the amount of physical and psychological energy that the student devotes to the academic experience. Thus, a highly involved student is one who, for example, devotes considerable energy to studying, spends much time on campus, participates actively in student organizations, and interacts frequently with faculty members and other students. Conversely, a typical uninvolved student neglects studies, spends little time on campus, abstains from extracurricular activities, and has infrequent contact with faculty members or other students (Abrahamowicz, 1988; Astin, 1984, 1985a, 1985b; Kuh, 1991; Pascarella & Terenzini, 1991).

The theory of student involvement is similar to a much more common construct in psychology: motivation (Astin, 1984). Proponents of the student involvement theory prefer the term involvement, however, because it connotes something more than just a psychological state. Involvement is more susceptible to direct observation and measurement than the more abstract psychological construct of motivation. Also, the concept of student involvement is a more useful construct for higher education practitioners to improve educational quality. For example, the question "How do you motivate students?" is more difficult to address than the question "How do you get students involved?"

The theory of student involvement has its roots in research on college dropouts in the early 1970's. In a longitudinal study of college dropouts, Astin (1975) sought to identify those factors in the college environment which significantly affected students' persistence in college. This study revealed that virtually every significant effect could be explained through the theory of student involvement. In essence, the factors that contributed to students' retention in college were associated with involvement, whereas those that contributed to the students' dropping out implied lack of involvement. Pacheco (1994) recently reported a similar connection between student involvement and retention.

According to Astin (1975), the most significant environmental factors associated with student retention were student residence, fraternity or sorority membership, and student employment on campus. All of these factors reflect varying degrees of student involvement with the campus environment. For example, living in a campus residence was found to be positively related to retention, regardless of the type of institution or student characteristics such as gender, race, academic ability, or family background. Similar results were obtained in earlier studies (Astin, 1973a; Chickering, 1974) and have subsequently been replicated (Astin 1977, 1982, 1993). Theoretically, students who live in residence halls have more time and opportunity to become involved in all aspects of

campus life, and thus have a better chance than do commuter students to develop a strong identification and attachment to undergraduate life.

The Astin study (1975) also showed that students who joined social fraternities or sororities or participated in extracurricular activities of almost any type were less likely to drop out. Participation in intercollegiate sports was shown to have a particularly notable, positive effect on persistence. Other activities which displayed student involvement and which were shown to enhance retention included enrollment in honors programs, membership in ROTC, and participation in professors' undergraduate research projects.

Part time employment on campus, such as work-study arrangements, was found to facilitate retention, apparently through increased involvement and contact with other students, faculty and college staff. Conversely, student retention was negatively related to full time student employment off campus (Astin, 1975).

Further support for the involvement theory is found upon examination of the reasons which students offer for dropping out of college. For males, the most common reason given was boredom with classes, clearly implying a lack of involvement. For females, the most common reason was marriage, pregnancy or other family responsibilities which comprised a set of circumstances which competed with involvement in college, depleting the time and energy which women could otherwise devote to being students (Astin, 1984).

The theory of student involvement is not incompatible with the student/institution fit theory. In fact, the two theories seem accordant in many respects. Astin (1975) found that the fit between student and college was crucial to student retention. Students were more likely to persist at religious colleges if their own religious background was similar; blacks were more likely to persist at black colleges than at predominantly white colleges. It seems rational, then, to suggest that the greater a student's identity with the institution, the easier it is for the student to become involved when the college environment seems comfortable and familiar.

In summary, student involvement takes many forms: absorption in academic work, participation in extracurricular activities, and interaction with faculty members and other institutional personnel. According to the theory, the greater the student's involvement in college, the greater the learning and personal development. The persister-dropout phenomenon provides an ideal paradigm for studying student involvement. If the concept of student involvement is stretched out along a continuum, the act of dropping out can be viewed as the ultimate form of noninvolvement, while the act of successful completion of a college degree may be viewed as the most extensive form of involvement in the academic environment. Regarding educational practice to increase student retention, the theory's most significant concept is that the effectiveness of any educational policy or practice is directly related to its capacity for increasing student involvement.

Student-Faculty Interaction Theory

One of the most enduring assumptions in American higher education has been that of the educational impact of close student-faculty interactions beyond the classroom. This assumption is so widely and tenaciously held that frequent informal contact between students and faculty has frequently been upheld as an advantageous educational end in and of itself. In fact, much of the unrest experienced by academic institutions in the 1960's and 1970's has been explained as a reaction to the growing impersonal nature of the multiversity, and the lack of communication and nonclassroom contact between faculty and student cultures (Mayhew, 1969; Taylor, 1971).

The concept of colleges as socializing organizations (Clark & Trow, 1966; Newcomb, 1943, 1962; Newcomb & Wilson, 1966; Wallace, 1965, 1967; Wheeler, 1966), is a particularly useful perspective from which to view the potential impact of student-faculty informal contact. Within such organizations, student attitudes, behaviors and educational outcomes are influenced by not only institutional factors (i.e. college size or curriculum), but also through interactions with faculty who act as important agents of socialization.

The earliest systematic research on the impact of college on students provided indirect support for a systematic relationship between students' informal contact with faculty and educational outcomes. In a national sample of institutions, Jacob (1957) and Eddy (1959) found that faculty influence on students appeared more pronounced at institutions, primarily elite liberal arts colleges, where associations between faculty and students were informal and frequent, and students found teachers receptive to unhurried and relaxed conversations out of class. These studies suggested, in very broad and somewhat impressionistic ways, the potential significance of student-faculty informal contacts.

In the development of a conceptual model to assess college impact on students, Chickering (1969) suggested that student-faculty informal interaction exerted a direct influence on students' development of intellectual and general competence, sense of purpose and autonomy. Similarly, Spady's (1970) explanatory model of the college dropout process hypothesized that students' patterns of interpersonal relationships and interactions with faculty exerted an independent and direct influence on intellectual development and academic achievement. Underlying both of these conceptual models are two assumptions: that students' motivation for academic performance is subject to the influence of faculty values and norms, and that this influence is enhanced when faculty members become a significant element of students' nonclassroom experiences.

Similarly, in theoretical models addressing concepts of social and academic integration, Spady (1970) and Tinto (1975) both suggested that an important positive influence on student retention was informal contact with faculty beyond the classroom. Their hypotheses stipulated that such contacts fostered important interpersonal links between the student and the institution, which led to greater institutional commitment, increased social and academic integration, and an increased likelihood of persistence.

In a sequence of studies involving independent samples of first year students, researchers sought to determine the factors that influenced voluntary freshman-year persistence or withdrawal decisions (Pascarella & Terenzini, 1976, 1977, 1979a, 1979b; Spady, 1971; Terenzini & Pascarella, 1978, 1980). Controlling for prominent student precollege characteristics (i.e. educational goals, academic aptitude, and personality traits), researchers found that freshman-to-sophomore persistence was positively and significantly related to total amount of student-faculty nonclassroom contact with faculty. Contact was found to be particularly significant regarding frequent interactions with faculty to discuss intellectual issues, suggesting that the nonclassroom interactions with faculty that were the most important to persistence were those that integrated students' classroom and nonclassroom experiences (Pascarella, Smart, & Ethington, 1986). This conclusion has been supported in other research studies which found that student involvement with faculty in independent research projects was positively associated with undergraduate persistence (Astin, 1977; Pascarella & Terenzini, 1979b).

Further underscoring the importance of student-faculty interactions, Pascarella and Terenzini (1980) found that the quality and impact of student-faculty informal contact may be important to students' integration into the institution, thus increasing retention rates. Moreover, this study found that the impact of student-faculty relationships exerted greater contributions to the prediction of subsequent decisions to persist or withdraw than did scores on the scale addressing students' peer relationships.

Additional research support for the positive institutional outcomes of informal student-faculty interaction has been suggested by the significant association found between the amount of informal contact with faculty and students' persistence at the institution from first year to sophomore year. Tinto (1975) hypothesized that students who were able to establish satisfying informal relationships with their teachers developed a higher level of integration into the institution's social and academic systems than their classmates who failed to establish such relationships. Thus, the former may have a stronger personal

commitment to the institution than the latter, and consequently, be more likely to persist - even though they may not be achieving at a significantly higher level academically.

Research evidence concerning the link between student-faculty interaction and institutional persistence is not totally consistent, however. While some research evidence exists to support the student-faculty interaction hypotheses, other evidence exists to suggest that positive findings may be suggestive rather than conclusive (Feldman & Newcomb, 1969), and the net effect of student-faculty contact on persistence is not overwhelmingly significant (Bean, 1980, 1985; Bean & Plascak, 1987; Kowalski, 1977; Rossmann, 1968; Voorhees, 1987). However, as most of these studies were conducted on single-institution samples, the discrepancy in findings may be variations in measurement error or sampling characteristics across divergent institutional samples. Also, the inconsistent findings could reflect the fact that interaction with faculty has differential impact on student retention at varying institutional types (Pascarella, 1986). Further, Wilson, Gaff, Dienst, Wood and Bavry (1975) contended that apparent correlations may be substantially confounded by student precollege characteristics, despite attempts to control these variables. It remains unclear whether the association between student-faculty informal interaction and academic performance would continue to be significant if the influences of student pre-enrollment characteristics were controlled. Additionally, it is difficult to interpret research findings which might be clouded by ambiguities in causal direction or the possibility of reciprocal influence. For example, informal interaction with faculty could positively influence student satisfaction with college which, in turn, would lead to increased interaction with faculty.

Other conceptual problems have been raised concerning the theory of student-faculty interaction and student retention. First, the nature and frequency of student-faculty interactions are, in large measure a function of the characteristics of those persons involved in the interaction. For example, it is logical that students with a high frequency of informal contact with faculty had entering characteristics and orientations somewhat

more consistent with those of their institution's faculty than did those students reporting little or no contact. Thus, the finding that persisters tend to have significantly more classroom contact with faculty than dropouts may be due as much to the particular characteristics which students bring to college as the actual experience of college itself (Pascarella and Terenzini, 1977). It is quite possible that students with certain personality needs and orientations are somewhat more likely to seek out and develop close relationships with faculty beyond the classroom than are other students.

Students who engage in extensive informal contact with faculty beyond the classroom may be more positively disposed to the content of their formal, in-class academic experience to begin with than are other, less interacting students. Students with high rates of interaction with faculty may be more intellectually and personally stimulated by what transpires in their formal academic program, and thus are more likely to seek interaction with faculty members outside of class as a means of further enhancing the personal satisfaction or stimulation they derive in the classroom. Hence, informal interaction with faculty serves to accentuate already positive attitudes toward the academic program or students' conceptions of what constitutes a positive college experience. As a result of these interactions, these same students may tend to develop higher levels of academic and social integration and, in turn, would be more likely to remain in college. These speculations seem to align more with the "college fit" theory of student retention rather than the "student-faculty interaction" hypothesis.

Wilson, Gaff, Dienst, Wood, and Bavry (1975) found that students who engaged in a "high" frequency of informal interaction with faculty differed from their classmates who seldom engaged in such interactions across a range of characteristics. "High interactors" not only had more intellectual, artistic and cultural interests in common with faculty to begin with, but also reported having changed more during college than "low interactors." Similarly, "high interactors" also expressed greater satisfaction with their

total college experience than "low interactors." Thus, such evidence would suggest a process of self-selection and accentuation.

Examinations of faculty who enjoy and actively seek interaction with students outside of class have revealed that these faculty tend to give clear cues as to their social-psychological accessibility for such interaction through their in-class teaching styles and attitudes. Thus, particular attitudes and behaviors of faculty have been shown to influence the level of interaction in which they engage with students (Wilson, Gaff, Dienst, Wood, & Bavry, 1975).

A second conceptual problem associated with the student-faculty interaction hypothesis is that no attempt has been made to examine different types of student-faculty interaction with respect to their pattern of associations with college persistence. Perhaps not all student-faculty interactions are of equal importance in fostering students' social and academic integration and students' persistence. Hence, the relative importance of interactions which focus on intellectual, personal or career related concerns may have quite different impacts on students than academic advising contacts or social interactions. In summary, the accumulated evidence regarding the educational impact of student nonclassroom contact with faculty is generally promising. Evidence has suggested that what transpires between students and faculty outside of class may have a measurable and possible unique positive impact on various facets of individual development during college. Clearly, such evidence has underscored the potential importance of individual faculty members as informal agents of socialization during the students' college experiences. A balanced interpretation of research findings has revealed that informal student-faculty interactions do, in fact, accentuate faculty influence on student intellectual and creative development. At the same time, however, most evidence on college impact has suggested that the association between college experiences and educational outcomes could be substantially confounded by individual differences among students upon entry to college. Thus, it is likely that both the amount and type of student informal interactions

with faculty are not wholly independent of the individual characteristics of those students who seek contact with faculty beyond the classroom. On balance, the impact of student-faculty interaction on student retention remains a significant issue for further investigation.

Social and Academic Integration Theory

The Spady (1970) and Tinto (1975) models which espoused the social and academic integration theory, represent explanatory theories of attrition which have attempted to identify the variables and relations which best elucidate student attrition in higher education. Both theorists have acknowledged the abundance of descriptive studies of attrition, have criticized the comparative lack of conceptual frameworks to explain the process, and have concluded that little is to be gained by additional descriptive, theoryless research employing univariate statistical procedures. Rather, they have argued that theory-based research is needed to help explain the complex process of student attrition. The theories formulated by both Spady and Tinto have identified several levels of independent variables that theoretically affect student retention, while only a few major variables, such as the degree of academic and social integration, are thought to have a direct effect on retention. Other variables, such as certain pre-college factors, are thought to affect retention indirectly.

Spady's (1970) theoretical model to explain the undergraduate dropout process represented a synthesis and extension of concepts pertinent to balance theory, Durkeim's (1951) theory of suicide, and research on college dropouts. In essence, when one views the college as a social system with its own value and social structures, one can treat dropping out from that social system in a manner analogous to that of suicide in the wider society. The Spady model regarded the decision to leave a particular social system (i.e. college) as the result of a complex social process that includes family and previous educational background, academic potential, normative congruence, friendship support, intellectual development, grade performance, social integration, satisfaction and institutional commitment. Spady's interactional model proposed that student

characteristics and personal attributes such as dispositions, interests, attitudes, and skills interacted with environmental influences and sources of demands such as courses, faculty members, administrators and peers. This interaction provided a student with opportunities for successful or unsuccessful assimilation into the social and academic systems of an institution. The student's decision to remain or withdraw was thought to be heavily influenced by the sufficiency of the rewards found within these systems. According to the Spady model, successful assimilation of the entering college student into the full life of the institution was viewed not as a given but as a problematic process critical to student retention.

Tinto's conceptual model (1975) was similar yet more elaborate than Spady's, and incorporated work by Rootman (1972) and Cope (1967). Tinto's theory represented an attempt to develop an explanatory, predictive model of the dropout process which had at its core the concepts of academic and social integration into the institution. Whereas the principal element in Spady's conceptualization of attrition rested in the domain of social integration, Tinto asserted an approximate parity between the interacting influences of integration in both the social and academic systems of an institution. The Tinto (1975) model (see Figure 1) was complex, viewing attrition as a longitudinal process involving an intricate series of sociopsychological interactions between the student and the institutional environment.

According to this theory, students bring to college such characteristics as family background (e.g., socioeconomic status, parental values), personal attributes (e.g., sex, race, academic ability, and personality traits), and experiences (e.g., precollege social and academic achievements). Each of these traits is presumed to influence not only college performance, but also initial levels of goal and institutional commitment. These characteristics and commitments, in turn, interact with various academic systems and social systems specific to the college or university environment and lead to varying levels

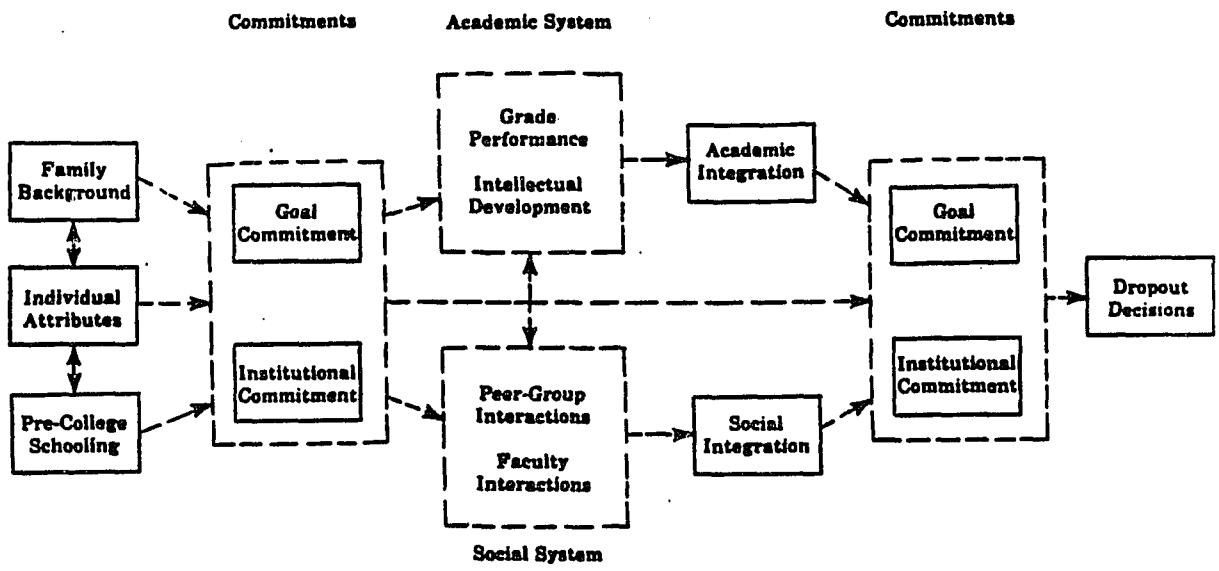

Figure 1. Tinto's (1975) conceptual model for analyzing the college dropout process. (Permission granted by publisher.)

of intetgation into the academic and social systems of the institution. The term "integration" refers to the extent to which the individual shares the normative attitudes and values of peers and faculty in the institution and abides by the formal and informal structural requirements for membership in that community or in the subgroups of which the individual is a part (Pascarella & Terenzini, 1991). Negative interactions and experiences tend to reduce integration, and to distance the individual from the academic and social communities of the institution, promoting the individual's marginality and, ultimately, leading to withdrawal from the institution.

According to Tinto, "Other things being equal, the higher the degree of integration of the individual into the college systems, the greater will be his commitment to the specific institution and to the goal of college completion." (Tinto, 1975, p. 96). In the final analysis, then, the interplay between the individual's commitment to the goal of

college completion and commitment to the institution (fostered by integration) determines whether or not the individual decides to drop out from college.

The model is intended to explore withdrawal during the second, third, or fourth years of college as well as in the first year. Theoretically, if a student is fully integrated in the social and academic systems of an institution, the individual will have more positive perceptions of those two dimensions of the institutional environment, participate more extensively in social activities, and perform at a higher level of academic achievement than will less fully integrated students. These commitments, over the span of the student's college career, are seen to have a direct, positive influence on persistence throughout the student's college experience.

According to the Tinto model, academic and social integration consist of several basic components. The extent of academic integration is determined primarily by the student's academic performance and level of intellectual development. Social integration is primarily a function of the quality of peer-group interactions and the quality of student interactions with faculty. Distinguishing between the academic and social domains of college suggests that a student may be able to achieve integration in one area without doing so in the other. Thus, a person can conceivably be integrated into the social sphere of the college and yet drop out because of insufficient integration into the academic domain of the college. Conversely, a student may perform adequately in the academic domain and yet drop out because of insufficient integration into the social life of the institution. However, one would expect a reciprocal functional relationship between the two modes of integration: excessive emphasis on integration in one domain would, eventually, detract from one's integration into the other domain. Such an imbalance could occur, for example, if too much time was devoted to social activities at the expense of academic studies.

Specifically, a student's academic integration into the college can be measured in terms of grade performance and intellectual development during the college years.

Although both contain structural and normative components, the former relates more directly to the meeting of certain explicit standards of the academic system, and the latter pertains more to the individual's identification with the norms of the academic system. Grades tend to be the most visible and extrinsic form of reward in the academic system of the college, whereas intellectual development represents a more intrinsic form of reward that can be viewed as an integral part of the student's personal and academic development.

The Tinto model asserts that a student's social integration into the college involves the notion of congruency between the individual and the social environment. Social integration occurs primarily through informal peer group associations, extracurricular activities, and interactions with faculty and administrative personnel within the college outside of class. Successful encounters in these areas result in varying degrees of social communication, friendship support, and collective affiliation, each of which can be viewed as important social rewards that become part of the person's generalized evaluation of the costs and benefits of college attendance, eventually modifying educational and institutional commitments. Other factors being equal, the Tinto model asserts that higher levels of social integration increases the likelihood of student persistence.

While interactions with faculty outside the classroom are placed in the domain of social integration, Tinto clearly suggests that such interactions may also enhance academic integration as grade performance would likely be enhanced by significant student-faculty interactions. Together, levels of social and academic integration lead to an additional component which the model terms "commitments." This component consists of commitments to the institution and to goals associated with graduation and a career. As levels of institutional and goal commitment increase, there is a corresponding increase in the likelihood of persisting at the institution. A key issue in the study of college attrition in Tinto's model is the extent to which the assessment of differential levels of social and academic integration and institutional/goal commitment contribute to the prediction of

persistence/dropout behavior when the influence of pre-college characteristics is taken into account.

Tinto's model, portraying in some detail the longitudinal process of student-institutional fit leading to persistence/withdrawal behavior, represents a major theoretical advance in attrition research, contributing to our understanding of the attrition phenomenon, rather than simply posing as a mechanism for predicting it. The relative importance of academic and social integration in predicting persistence suggests that what happens to a student after enrollment at an institution is as important to ultimate persistence in higher education, and perhaps more so, than the influence of pre-college variables. Essentially, the student's college experience may have an important, unique influence on system persistence beyond that of differences in family background, secondary school experiences, individual attributes, and initial commitments upon entering college.

Researchers have come to recognize that little future exists in attempting to predict attrition solely on the basis of students' prematriculation characteristics. Rather, greater benefit is possible in focusing on what happens to students after their arrival on campus. It is not surprising that the validity of the model has been the focus of a growing body of research (Aitken, 1982; Baumgart & Johnstone, 1977; Bean, 1980; Cabrera, 1993; Munro, 1981; Nordquist, 1993; Pascarella & Terenzini, 1979, 1980, 1991; Terenzini & Pascarella, 1977, 1978). Each of these investigations tended to support the predictive validity of the major parts of the model and the importance of the core concepts of academic and social integration.

In the Munro study (1981), academic integration was shown to have a strong effect on persistence, whereas social integration showed no significant effect. This lends support to the findings of Terenzini and Pascarella (1978) in which academic integration variables accounted for nearly twice as much variation in dropout behavior as did social

integration variables. The study also found that goal commitment had the strongest effect on persistence in higher education.

In contrast to Munro's findings, however, Brown's (1987) study of the Tinto model found goal commitment, academic integration, and social integration each to be significant factors in predicting persistence. Specifically, men who were continuing their educational efforts were more likely to be integrated into the informal social system and were more likely to use academic advising and career counseling services.

Further support for the Tinto model is found when looking specifically at the impact of student-faculty interaction on retention. In their theoretical models, both Spady (1970) and Tinto (1975) suggested that one important positive influence on students' levels of academic and social integration was the extent of their informal contact with faculty beyond the classroom. Such contacts were believed to foster important interpersonal links between the student and the institution, which in turn led to greater institutional commitment, enhanced academic and social integration and an increased likelihood of persistence.

Pascarella and Terenzini (1979b, 1980) found support for the predictive validity of this dimension of the Tinto model, noting the particularly strong contributions of student-faculty relationships as measured by the interactions with faculty and faculty concern for student development. These studies, controlling for the influence of twelve pre-enrollment characteristics, found significant correlations between student-faculty interactions and voluntary first year persistence/withdrawal decisions. Such findings are consistent with previous research reporting significant associations between frequency of student-faculty informal contact and college persistence (Pascarella & Terenzini, 1977; Spady, 1970; Terenzini & Pascarella, 1978). Additionally, Pascarella, Smart, and Ethington (1986) found the influence of student faculty interaction on retention existed at two year institutions as well. Thus, based upon research findings at two and four year institutions, it might be hypothesized that students who are able to establish satisfying informal

relationships with their teachers outside of class develop a higher level of integration into the institution's social and academic systems than their classmates who fail to establish such relationships.

Two conceptual problems cloud the findings of these studies which show an association between student-faculty interaction and persistence, however. As suggested by Wilson, Gaff, Dients, Wood, and Bavry (1975), the nature and frequency of student-faculty interactions were, to a large degree, a function of the characteristics of those people involved in the interaction. For example, students with a high degree of frequency of contact with faculty possibly possessed entering characteristics and orientations somewhat more consistent with those of their institution's faculty than did those students reporting little or no contact. Secondly, different types of student-faculty interaction might not have shared equal importance in fostering students' social and academic integration.

Also, despite the overall strengths of the Tinto model, other limitations exist. First, most of the research guided by Tinto's model has been conducted at four-year, largely residential institutions. Consistent with the total body of existing research on persistence, studies testing Tinto's model have essentially ignored students in the two-year college population. Based upon their study, Pascarella, Smart, and Ethington (1986) suggested that the model could also be useful in accounting for the long-term persistence/withdrawal behavior of individuals who begin their postsecondary education careers at two year institutions; further research at these institutions should be pursued. Secondly, existing research on the Tinto model has been primarily confined to studies of student persistence/withdrawal behavior at single institutions over a relatively brief periods. Thus, it is essentially impossible to distinguish permanent withdrawal from transfer or temporary "stop out" behavior in the absence of investigations conducted over a longer duration.

On balance, the Tinto model appears to be useful in conceptualizing the attrition process beyond earlier studies which sought only to identify pre-college characteristics associated with retention. The concepts of academic and social integration have been shown to have some validity when addressing the intricate process of students' persistence decisions, and specific components of these areas of integration warrant further examination. For example, particular attention should be given to the nature of informal student-faculty contact (i.e. academic advising) and its specific influence in facilitating the academic and social integration of students and its impact on student retention.

Summary of Theories and Conceptual Frameworks

The four major conceptual frameworks outlined here are important in discussions of student satisfaction and retention in higher education. Each theory abandons the exclusive focus upon precollege student variables to predict student attrition. Rather, the four theories presented share the collective hypothesis that student attrition or retention is a result of a complex interplay among numerous student and institutional variables.

The student-institution fit theory (or "college fit" theory) proposes that students must meet the demands of the institution and derive satisfaction from doing so. The higher the degree of fit between student and institution, the greater the degree of student satisfaction and resulting likelihood of retention.

Similarly, the concept of student involvement posits that the degree to which a student is involved in various aspects of campus life influences student retention. Accordingly, the greater the student's involvement in academic work, in extracurricular activities, and in interaction with faculty, the greater the learning, personal development and probability of retention.

Thirdly, the theory of student-faculty interaction embraces the concept of faculty serving as socializing agents for the institution, with student-faculty interactions outside the classroom hypothesized to be important in student retention.

Finally, theories supporting the concept of social and academic integration assert that, assuming that external influences are held constant, the higher the levels of student integration into the social and academic systems of an institution, the greater the rate of retention.

These four theories propose that student satisfaction and retention is the result of a complex transactional process between the student and the college environment, and appear to show promise in helping to describe the intricate process of student persistence decisions in higher education. Students' fit with the college environment, involvement with the systems of the college, interactions with faculty, and integration and assimilation into the academic and social systems of the institution are all believed to impact retention. The purpose of this research is to investigate the impact of a particular aspect of the student's college experience on student retention: the academic advising process.

The Academic Advising Process in Higher Education

The process of academic advising in higher education is linked to theories of student satisfaction and persistence. It has been argued that a positive advising relationship between faculty members and students inherently increases the students' sense of fit with the institution, frequency and quality of interactions with faculty, and involvement and integration with the academic arenas of the institution. When applying these retention theories, it follows that the academic advising process may affect students' satisfaction with their college experience, and ultimately, retention rates.

Academic advising has been increasingly regarded as an important concern on college campuses, particularly as a partial solution to the problem of student attrition. The quality of academic advising has been found to relate not only to student satisfaction and morale (Wilder 1981) but perhaps to student retention as well (Crockett, 1979; Habley, 1982; Hossler & Bean, 1990; Trombley, 1984). In fact, although all academic and support services available on a campus can represent critical elements in a retention strategy, the academic advisement process has been viewed as the cornerstone of student retention

(Beal & Noel, 1980; Crockett, 1978, 1985; Forrest, 1985; Hossler & Bean, 1990; Lenning, Beal & Noel, 1980; Noel, 1985; Stadtman, 1980).

Beal and Noel (1980), in their survey of 858 institutions of higher education, found that the primary negative characteristic linked to student attrition was inadequate academic advising. Robinson (1969), Gordon and Hudson (1971), Kendall (1973), and Timmons (1977) all found that students who dropped out of college were dissatisfied with or had received limited academic advising. Specifically, in comparison to non-persisting students, those who remained in college had more informal contact with faculty members for intellectual and course-related concerns (Pascarella & Terenzini, 1977).

Tinto (1975) suggested that informal interaction with an advisor may increase a student's social integration, thereby increasing the likelihood that he or she will remain at that institution. Essentially, the advising relationship offered a "natural context within which to strengthen a student's link to the campus" (Trombley, 1984, p. 234).

Tinto's (1975) retention research suggested that commitment to educational and career goals was perhaps the strongest factor in student persistence. The key challenge facing higher education today is to develop an effective academic advising program which can strengthen a student's understanding of the relationship between the theoretical and the practical (i.e. academic preparation and the work world). Students who understand this relationship are more likely to be retained in higher education.

Research in Academic Advising

A large proportion of the research on academic advising has consisted of surveys concerned with the functions of advising and student satisfaction with the process. Academic advising has had a long tradition in American higher education, but has not enjoyed a rich, reputable heritage. Rather, academic advising has been viewed traditionally and almost universally as being of poor quality. Early studies reported by Meeth (1970) revealed that students enrolled in higher education either did not want academic advisement, did not need it, or were not changed by it. Historically, according

to Meeth, faculty academic advising has stood among the least desired, least encouraged, and least beneficial activities in higher education. McLaughlin and Starr (1982) reviewed advising literature and concluded that students were overwhelmingly dissatisfied with their academic advising, while Polson and Jurick (1981) claimed that almost every recent study of undergraduate education cited the poor quality of academic advising as a major problem. In a similarly pessimistic report, Bostaph and Moore (1980) examined three distinctively different advising systems and found that a majority of students perceived their overall advising experiences negatively, regardless of the advising method.

National and statewide surveys of advising practices generally have concluded that advising has low institutional status and is ill-defined, that training programs for academic advisors are rare, and that advisors are seldom rewarded or systematically evaluated. Overwhelmingly, these surveys have suggested that students are dissatisfied with their academic advising, have only perfunctory and infrequent contacts with their faculty advisors, and believe that their advisors lack adequate advising information (Donk & Oetting, 1968; Levine & Weingart, 1973; McKinney & Hartwig, 1981). Ironically, despite widespread dissatisfaction with advising, students have expressed a desire for increased faculty advisor contact, and have placed a high value on academic information and counseling in comparison to other student services (McCleneghan, Sims & Suddick, 1974; Simino, 1978; Higginson, Moore & White 1981).

In contrast to reports of dissatisfied students, other research findings have demonstrated that students who received insightful and personal academic advising felt not only more positive about their academic advisors but about their institutions as well. Such positive attitudes provided the foothold and the sense of belonging which kept students vitally involved in their education (Tinto, 1975; Trombley, 1984).

Numerous assertions in the literature have led to the belief that academic advising is positively related to student retention. However, empirical investigations of this relationship have provided equivocal results. While some studies have demonstrated a

positive relationship between retention and students' indication of the frequency or quality of their advising (Brigman, Kuh & Stager, 1982; Endo & Harpel, 1979; Hoeft, 1994; Louis, Colten & Demeke, 1984; Meyers, 1981; Pascarella & Terenzini, 1977; Priest, 1991; Smith, 1980; Taylor, 1982), other studies have failed to discover an association between the two variables (Aitken, 1982; Baumgart & Johnstone, 1977; Bean, 1980; Disque, 1983; Enos, 1981; Kowalski, 1977; Staman, 1980; Steele, 1978).

While it may at first appear that these latter studies contradict the basic premise of a relationship between advising and retention, this may not necessarily be the case. In each of these studies, the direct relationship between academic advising and student retention was examined, characteristically in comparison with other independent variables. Some studies suggested that advising may have an indirect effect on retention through other variables while not showing a direct relationship. For example, academic advising may influence students' college grade point average or their perception of the value of their college education: both factors known to influence retention. Pascarella (1986) also noted the importance of considering direct and indirect effects when evaluating the impact of various interventions designed to increase student retention.

Tasks and Functions in the Advising Process

Overall, the process of academic advising in higher education is difficult to characterize because of the many settings in which it is practiced, such as large universities, small colleges, community colleges, and the persons responsible for carrying out the function, such as faculty, student personnel workers, professional counselors, and peers. Additionally, a uniform view does not exist as to the specific functions of the advising process. In one regard, advising may be viewed as a traditionally prescriptive relationship in which the advisor disseminates information and accomplishes procedural tasks. Hardee (1970) provided the most traditional view of the advising role, stating that the advisor should assist the student in effecting a program of study, assist the student in periodic evaluation of academic progress, aid in initial exploration of long range

occupational and professional plans, and coordinate the learning experiences of the student through the integration of all the institutional services available to the student.

In contrast to this view, the advising process has also been seen as a developmental relationship based upon the assumption that the academic advisor and the student differentially engage in a series of developmental tasks, the successful completion of which results in varying degrees of learning by both parties. By linking advising to the theory of student development, advising can be reduced to its purest form: teaching. This concept of "developmental advising" stresses that students and advisors should share responsibility for advising to achieve long term and intermediate goals. The process provides an opportunity for students to plan to achieve self-fulfilling lives and contributes to individual growth. The relationship between advisor and student is vital when the process is viewed in this context (Crookston, 1972). If properly delivered, the advising process has the potential to facilitate meaningful interpersonal relationships, to increase behavioral awareness, and to encourage effective problem solving and decision making skills.

Within higher education, academic advising may be viewed as a means, not an end. When advising is based upon shared responsibility and designed to help students discover meaningful academic plans, then courses and schedules become tools to achieve goals, not products of the advising relationship. Encouraging engagement in systematic academic planning helps students to become directly involved, enhances academic integration into the institution, and could, ultimately, enhance retention efforts.

Specific tasks of the advisor and functions of the advising process have been addressed extensively in the research literature. For example, O'Banion (1972) identified five dimensions of academic advising: exploration of life goals, exploration of vocational goals, academic program choice, course choices and course scheduling. These functions were viewed as integral to any advising program, regardless of the institution or system.

Morris (1973) synthesized the five functions of the academic advisor as follows: 1) to provide students with adequate information on courses being offered, areas of

interest, educational opportunities, degree programs, special opportunities, educational policies and regulations, administrative procedures and university resources; 2) to assist students in selecting programs and courses on a term-by-term basis; 3) to facilitate student development by getting to know and understand the student; 4) to provide the student with the overall objectives, philosophy of education and rationale for specific college requirements; and 5) to provide the opportunity and encouragement for each interested student to develop educational programs and professional strategies in keeping with the student's interests and abilities.

Larsen and Brown's (1983) study identified specific responsibilities of the advisor and advisee dealing with the mechanics of advising. The study documented significant agreement between faculty and students on the roles of each participant in the advising process. Specifically, the academic advisor should answer questions regarding requirements, recommend courses outside the major, provide letters of recommendation for graduate school, be knowledgeable about university resources, and keep regular office hours. Students' responsibilities should include selecting courses from the advisors' approved lists, filling out required forms, researching specific content of courses which sound interesting, calling advisors for appointments unless office hours are posted, initiating advisor contact and being able to choose or change advisors.

Giles-Gee (1988) outlined the following standard advising topics in their content analysis: registration/scheduling, selection of major, course advisement, on/off campus employment, referral to other services on campus, living conditions/personal issues, extracurricular activities, financial questions, discussion of retention. In their study, the major issues reported by advisors and students were similar though not matching in relative frequency. Courses and grades, referrals, and registration/scheduling issues were the most frequently discussed, while personal topics occurred least frequently.

Hornbuckle, Mahoney, and Borgard (1979) reported a difference between perceptions of students and those of faculty as to what was most important in the advising

process. While many faculty viewed the advisor as the university or college representative who should aid the student in providing competent technical advice regarding academic programming and registration procedures (Borgard, Hornbuckle, & Mahoney, 1977; Mahoney, Borgard, & Hornbuckle, 1978), students appeared to regard the advisor in a more general way, as their personal link with the institution. Generally, students evaluated an advisor's interpersonal skills while faculty and administrators tended to evaluate the advisor's technical, task-specific skills. Students, then, seemed to enter the advising process with a set of perceptions and expectations that might be quite unrelated to those of the advisor. The importance of the interpersonal relationship for students should not be underestimated and may be even more critical to successful advising in larger universities than in smaller residential colleges.

Factors Which Contribute to Poor Advising

A number of factors have appeared to contribute to the image of poor advising in higher education. These factors have included lack of administrative support for advising, limited university resources, non-existent or limited rewards for high quality advising, lack of consensus about the role or function of the advisor, difficulty in evaluating advisor performance, and the low priority of advising on most campuses (Guinn & Mitchell, 1986). Other recurring issues have included charges that academic advisors have not been readily accessible to their advisees, that the academic advising function has been considered minimally important by the advisors themselves, that academic advisors have not been trained adequately, that advisors have rarely possessed current information about their advisees, and that academic advisors have frequently been assigned more advisees than they can advise effectively.

Many teaching faculty have avoided their responsibilities for academic advising because advising has not been integral to the faculty reward system (Hardee, 1970; O'Banion, 1972; Robertson, 1958). As a result, faculty have tended to de-emphasize their role as advisors and have devoted themselves to research, publication and graduate

teaching, all of which have tended to involve greater rewards and recognition in higher education (Dressel, 1974; Hardee, 1959).

Strategies to Improve Academic Advising

When asked to evaluate their advising experiences, students may be unable to assess their advisors except in a diffusive fashion. Many students have one advisor for their entire undergraduate career and thus have no basis upon which to make comparisons. Clearly, however, a measure of student dissatisfaction with the advising process exists which might be partially addressed through advisor training.

Training academic advisors to fulfill the advising function is a challenge to any academic unit attempting to meet the needs of students. Certain basic skills and knowledge are essential to all academic advising. Bonar (1976) developed a systems approach for training academic advisors, including training in the areas of interpersonal skills, university and major requirement information, scheduling, and career decision making. Research has demonstrated lower attrition rates for students whose advisors were trained in group advising techniques than for those with untrained advisors (Hutchins & Miller, 1979), higher attrition rates for advisees of inexperienced faculty advisors than for those of experienced advisors (Jackson, 1979), and greater grade improvement for marginal students whose advisors were trained in self-management techniques than for those with untrained advisors (Pawlicki & Connell, 1981).

Aside from advisor training programs, several other specific strategies have been suggested to help rectify the problems surrounding academic advising. Advising could be improved by greater institutional commitment, a clearer definition of responsibilities, and an institutional plan for coordination of advising services. In addition to training, faculty advisors should receive recognition for their advising work and periodic evaluation (Guinn & Mitchell, 1986).

Research is replete with examples of the positive outcomes associated with student-faculty interaction (Beal & Noel, 1980; Hossler & Bean, 1990; Pascarella &

Wolfle, 1985). Academic advising has the potential to be an integral component of a successful educational community. The advising relationship is one of the few ways that institutions of higher education can be assured that faculty are connecting with students on a one-to-one basis. To establish a high degree of commitment to the academic advising process, university and college administrators must become cognizant not only of the educational value of advising but of the role advising plays in the retention of students and in the promotion of the school's image to prospective students.

Administrators must reward advisors intrinsically and extrinsically for the role they play in the development, education and retention of students. Currently, many advisors have little time or incentive to further their knowledge concerning academic advising. Administrators must financially reward advisors and offer positive feedback, recognition and staff support. In some cases, faculty may be engrossed in their own projects and research pursuits and are not cognizant of institutional goals and mission of the university. For example, perhaps administrative discussions stressing the need for personal contact with students fail to filter down to faculty. Faculty need to realize that spending quality time with students outside of class is not a waste but rather a judicious investment that will not jeopardize their academic futures. Ultimately, the importance of academic advising must be reflected in administrative priorities for promotion, tenure and reward systems (Dressel, 1974; Guinn & Mitchell, 1986; Hardee, 1959).

Additionally, as stated earlier, administrators must further commit to developing an adequate training program for new advisors and a viable in-service program for current advising personnel. A well-structured and defined training program for academic advisors becomes necessary to clarify the roles, objectives and expectations of academic advising both in theory and in application.

While few educators would question seriously that academic advising traditionally has been treated with benign neglect, there does appear to be a new awareness among colleges and universities regarding the important role that academic advising plays for

their consumers. This renewed interest stems from a general recognition that academic advising is becoming more of an integral component of the higher educational process, not only to facilitate the development of individual students and to respond to increasing career and curricular opportunities, but also to enhance student commitment and retention.

Further research emphasis in the area of student satisfaction with academic advising can drive changes within the college and university community which will improve the quality of experience for students, and perhaps ultimately, retention. The advising task within higher education will become even more crucial as programs, information, degree requirements, and careers expand and become increasingly complex in the next century. The time to focus our attention on the importance of the advising process is upon us.

CHAPTER III

METHODOLOGY

Introduction

This study investigated the impact of students' satisfaction with the academic advising process on decisions to remain at their respective institutions from the first year to sophomore year. The study sought to illustrate what factors students perceived as influences on their decisions to return. The following chapter will outline the participants in the study, instrumentation, data collection procedures, hypotheses, data analysis procedures, and limitations of the study.

Sample

The sample included full time, traditional-aged sophomore (non-transfer) students seeking a bachelor degree with 30-60 credits completed at the institution during the previous year. The three participating institutions were small, co-educational, private liberal arts colleges in New Hampshire, sharing key institutional characteristics, similar student populations, and comparable resources. Sophomore students were selected for the study because they had opportunities throughout their first year to interact with their faculty advisors. As student attrition after the first year is an important issue for higher education institutions, data from sophomore students concerning their decisions to remain at their colleges after their first year represented critical data for participating institutions.

The survey instrument was distributed to the total target population meeting the crieria specified above (393 students) who were identified by the academic advising offices at the three institutions, resulting in a yield of 269 usable surveys (68.4%). Some surveys from the total target population at each institution were not returned, and some returned

surveys were unusable because the consent document was not signed. Institution A had a total fulltime undergraduate student population of 599 and a total target population of 89. Sixty-one usable surveys (68.5%) were drawn from this population. Institution B had a total undergraduate student population of 513, a total sophomore class of 116, and a total target population of 69. Thirty-four usable surveys (49.2%) were drawn from this population. Institution C had a total undergraduate student population of 1,857, a total sophomore class of 410, and a total target population of 235. One hundred seventy-four usable surveys (74%) were drawn from this population.

Instrumentation

The researcher-developed survey instrument (Appendix A) employed 27 Likert scale items. Drawing upon professional literature regarding important aspects of the advisor-advisee relationship, the survey was designed to address student satisfaction with the interpersonal relationship with the faculty advisor, student satisfaction with the advisor's skills and competence, overall satisfaction with the faculty advisor, and the impact of these levels of satisfaction on the students' decisions to return to that college for the sophomore year (Crookston, 1972; Giles-Gee, 1988; Hardee, 1970; Larsen & Brown, 1983; Morris, 1973; O'Banion, 1972). Items addressing interpersonal relationships were interspersed on the survey with items addressing advisors' skills and competencies.

By mail, the instrument was submitted to a jury of Directors of Academic Advising at six institutions. As professionals in the field of academic advising, the jurors were asked to ascertain that the instrument was valid for assessing the central functions and aspects of the faculty advising process. The institutions selected, drawn from the Peterson's Guide to Four Year Colleges (1995), were geographically diverse (representing the northeast, midwest, New England, west and middle atlantic states), yet shared characteristics analogous to those institutions participating in the research (i.e. small, co-educational, private liberal arts colleges). Appendix B contains transcribed responses from the six jurors who attested to the instrument's validity.

Data Collection Procedures

Prior to data collection, a description of the proposed research project, the survey instrument and the informed consent document were submitted to and approved by Institutional Review Board for the protection of human research subjects. Formal approval for the research project was granted (see Appendix C).

For students at all three institutions, participation in the research was anonymous and voluntary. Students were not compensated in any manner for their participation in the research project. Students' assent was gained through discussion with them prior to distribution of the survey instrument; all participants read and signed the informed consent document (Appendix D) prior to completing and returning the survey instrument.

At institution A, students who met the target population criteria were identified by the Registrar. The informed consent document and survey instrument were attached to materials distributed to them as they registered in the Academic Advising Office at the beginning of the fall 1995 semester. The Director of Academic Advising explained the nature of the research to students prior to their participation. Surveys and informed consent documents were collected with the students' other registration materials.

At institution B, students who met the target population criteria were identified by the Director of Academic Advising. The researcher contacted each student in writing (see Appendix E) to introduce them to the research project and request their participation during their upcoming individual spring 1996 pre-registration meetings at the Advising Office. These pre-registration meetings occurred over a six week timeframe during the fall 1995 semester. In each case, the Director of Academic Advising explained the nature of the research to the students prior to their participation. Surveys and informed consent documents were collected with the students' registration materials. Due to the initially low participation rate at institution B, a follow-up letter from the Director of Academic

Advising was sent to students. This follow-up letter yielded only a modest number of additional responses.

At institution C, target population students were identified by registration in a required Humanities Lecture Series course comprised of sophomore students only. The researcher attended one of the class sessions to introduce them to the research project and to request their participation during the first 20 minutes of the class. The researcher outlined the nature of the research to the entire class, and explained the criteria for the target population. Only those sophomore students who met the outlined criteria were given surveys to complete. The researcher distributed and collected the surveys and informed consent documents prior to the start of the class session.

Hypotheses

The research project sought to test hypotheses regarding the impact of students' satisfaction with academic advising and their decisions to remain at their institutions from first year to sophomore year. Specifically, the researcher expected to find that: (a) overall student satisfaction with academic advising impacts students' decisions to remain at a college following their first year; (b) student satisfaction with the advisor/advisee relationship impacts students' decisions to remain at the college following their first year; and (c) student satisfaction with the advisors' skills and competence impacts students' decisions to remain at a college following their first year.

Data Analysis

Responses from the three participating institutions were combined to provide aggregate data to be analyzed in the research (N=269). The data analysis process was comprised of three distinct steps.

First, the mean and standard deviation were calculated for each of the 27 survey items and for the two constructed subscales. The two subscales included items related to the student/advisor interpersonal relationship (items 1,2,3,6,7,14,15, 17 18,19) and items

related to the advisors' skills and competence (items 4,5,8,9,10,11,12, 13,16,20,21,22). A subscale score represented a mean across the items within that subscale for each subject.

Secondly, Pearson correlations were calculated among items 23, 24, 25, 26, and 27. A correlation was also calculated between the subscale of student/advisor interpersonal relationship items and the subscale of advisor skills/competence items. Levels of correlation were also calculated between the two subscales and among items 23, 24, 25, 26, and 27.

Thirdly, the reliabilities (Cronbach's Alpha) of the two subscales were calculated and item analyses conducted to determine the relationships between items comprising the subscales and the subscale scores.

CHAPTER IV

THE DATA AND ANALYSIS OF THE DATA

Introduction

The study sample included fulltime sophomore students seeking a bachelor's degree. Students were traditional-aged, having completed 30-60 credits at their institutions during the previous year. Survey responses from students at the three participating institutions (N=269) were combined to provide aggregate data to be analyzed.

The data analysis process was designed to test hypotheses regarding the impact of students' satisfaction with academic advising and their decisions to remain at their institutions from the first year to sophomore year. The researcher sought to discover: (a) if overall student satisfaction with academic advising impacted students' decisions to remain at a college the following year; (b) if student satisfaction with the advisor/advisee relationship impacted students' decisions to remain at the college following their first year; and (c) if student satisfaction with the advisors' skills and competence impacted students' decisions to remain at the college following their first year. To address each of these research questions, means and standard deviations, reliability scores, and levels of correlation were calculated.

Means and Standard Deviations

In analyzing the raw data, means and standard deviations were calculated for each of the 27 survey items and for the two constructed subscales which included items related to the student/advisor interpersonal relationship and items related to the advisors' skills and competence. When students responded "Does not apply" on a survey item, these responses were treated as missing data so as not to impact mean calculations. These data are illustrated in Table 1.

Survey items 1-22 were designed to measure students' satisfaction with specific aspects of the advising process. Mean scores on these items ranged from 3.29 to 4.38 on a scale of 1-5, indicating average to above average student satisfaction related to these specific items. Survey items 23-25, ("Overall my advisor is effective," "I would recommend my advisor to other students," and "Overall, how satisfied are you with your advisor?"), were designed to measure students' overall satisfaction with their advisors. Mean scores on these items ranged from 4.03 to 4.10, indicating high levels of student satisfaction with their advisors. Survey items 1,2,3,6,7,14,15,17,18,19 comprised the interpersonal subscale; survey items 4,5,8,9,10,11,12,13,16,20,21,22 comprised the skills/competence subscale. Mean scores on the interpersonal subscale (4.00) and on the skills/competence subscale (3.95) indicated high levels of student satisfaction. Items 26 and 27, ("My decision about whether to return to this college this year was influenced by my interpersonal relationship with my faculty advisor," and "My decision about whether or not to return to this college this year was influenced by my advisor's skills and competence"), measured the influence of the interpersonal relationship with advisors and advisors' skills/competence on student decisions to remain at the institution. Mean scores

on these two items ranged from 2.66 to 2.70, indicating a relatively neutral impact on students' decisions to return to their institutions.

Table 1

Means and Standard Deviations of Survey Items and Constructed Subscales

Variable	N	Mean	SD
Q 1	266	4.14	0.90
Q 2	266	3.98	1.07
Q 3	265	4.14	0.88
Q 4	267	4.14	0.93
Q 5	266	3.96	0.97
Q 6	267	4.10	0.90
Q 7	267	4.26	0.81
Q 8	259	3.88	0.99
Q 9	257	3.29	1.21
Q 10	260	4.15	0.92
Q 11	260	3.71	1.07
Q 12	248	3.81	1.07
Q 13	261	4.00	0.97
Q 14	264	3.91	1.00
Q 15	260	3.83	1.04
Q 16	263	4.12	0.91
Q 17	260	3.70	1.09
Q 18	263	3.88	1.06
Q 19	267	4.15	1.04
Q 20	252	4.38	0.78
Q 21	265	4.15	0.93
Q 22	258	3.89	1.01
Q 23	266	4.10	0.98
Q 24	263	4.05	1.14
Q 25	269	4.03	1.07
Q 26	269	2.66	1.13
Q 27	269	2.70	1.13
Interpersonal	268	4.00	0.83
Skills	268	3.95	0.75

Reliability

The reliability of the two subscales was calculated using Cronbach's Alpha coefficient to measure internal consistency of the items within the subscale. For the raw variables (N=247) on the interpersonal subscale, the alpha coefficient was 0.95, with the correlations between the items and the subscale score ranging from .70 to .84. For the raw variables (N=217) on the skills/competence subscale, the alpha coefficient was .92, with the correlation between the items and the subscale score ranging from .61 to .74. These alpha levels reflect a high degree of reliability and internal consistency, indicating that items comprising the individual subscales were related to each other.

Levels of Correlation

Levels of correlation were calculated among items 23,24,25,26, and 27 and between the interpersonal and skills/competence subscales. High correlation levels (ranging from .81 to .89) were found among items measuring overall student satisfaction (items 23, 24 and 25), and the two constructed subscales. However, only moderate correlation levels (ranging from .50 to .54) were found among items 23-25 which measured overall student satisfaction and items 26 and 27 which measured the influence of student satisfaction on students' decisions to remain at their college. Moderate correlational levels were found among items 26 and 27 and the two constructed subscales. These correlational data are summarized on Table 2.

Analysis of Data in Relation to Research Hypotheses

Three hypotheses were tested in the analysis of the student survey data. The first hypothesis proposed that overall student satisfaction with the academic advising process

Table 2

Correlations of Survey Items and Constructed Subscales

	Overall student satisfaction			Decision to remain at college			
	Q 23	Q 24	Q 25	Q 26	Q 27	Interpers	Skills
Q 23	1.00						
Q 24	0.86	1.00					
Q 25	0.87	0.90	1.00				
Q 26	0.52	0.51	0.54	1.00			
Q 27	0.50	0.50	0.51	0.90	1.00		
Interpers	0.85	0.85	0.86	0.51	0.51	1.00	
Skills	0.82	0.80	0.81	0.50	0.51	0.89	1.00

would impact students' decisions to remain at their institution from the first year to sophomore year. While the data revealed relatively high satisfaction scores on items 23, 24, and 25 (means ranging from 4.03 to 4.10, with standard deviations ranging from .98 to 1.14), the mean score of items 26 and 27 (2.66 and 2.70 respectively, with standard deviations of 1.13 for both items) indicate that overall satisfaction levels with advisors did not exert a high degree of impact on students' decisions to remain at their institution. The correlation between items 23, 24 and 25 and items 26 and 27 were only in the moderate range (0.50 - 0.54). Thus, the hypothesis that overall student satisfaction with the academic advising process would impact students' decisions to remain at their institution from the first year to sophomore year cannot be strongly supported by the survey data.

The second hypothesis proposed that students' satisfaction with the advisor/advisee interpersonal relationship (as measured by the constructed subscale)

would impact students' decisions to remain at their institutions from the first year to sophomore year. While the mean score on the interpersonal subscale was quite high (4.00, with a standard deviation of .83), the mean scores for items 26 and 27 were a modest 2.66 and 2.70 respectively. Additionally, the moderate correlation level of 0.51 between the interpersonal subscale and items 26 and 27 did not reveal strong support for this hypothesis.

The third hypothesis proposed that students' satisfaction with advisors' skills and competence (as measured by the constructed subscale) would impact students' decisions to remain at their institutions from the first year to sophomore year. While the mean score on the skills/competence subscale was quite high (3.95, with a standard deviation of .75), the mean scores for items 26 and 27 were modest, and the correlation levels of 0.50 and 0.51 between the skills/competence subscale and items 26 and 27 respectively did not reveal strong support for this hypothesis.

Summary

Analysis of the survey data revealed above average student satisfaction with specific aspects of the advising process as indicated by mean scores on items 1-22. Analysis of the data related to overall student satisfaction with advisors, and satisfaction as measured by the two subscales of interspersonal relationships and advisor skills revealed similarly high levels of student satisfaction. However, data relating the impact of students' overall satisfaction with their advisors, students' satisfaction with the interpersonal relationship, and students' satisfaction with the advisors' skills on decisions to remain at the institution from first year to sophomore year revealed only a moderate impact.

CHAPTER V

DISCUSSION OF FINDINGS AND CONCLUSIONS

Introduction: Overview of the Research Project

As the higher education community wrestles with serious demographic shifts and economic uncertainties, shrinking enrollments and high attrition rates pose significant threats to the viability of many colleges and universities across the country. Recent trends point to an era of rising student consumerism and a resulting nationwide focus on student satisfaction with the college experience. Small, less prestigious public and private colleges appear to be most vulnerable to the emerging competitive marketplace of higher education (Astin, 1975; Beal & Noel, 1980; Kamens, 1971; Raimst, 1981; U.S. Department of Education, 1991; Wegner, 1967; Western Interstate Commission for Higher Education, 1993). Quite literally, many institutions could withstand only a few semesters of low enrollments before the threat of extinction could become a reality.

Successful institutions recognize how imperative it is to focus upon those factors which lead to student satisfaction with the college experience. Gathering information about student attitudes, perceptions and levels of satisfaction helps to shape the managerial decisions of those who plan for and provide educational services in higher education institutions.

Based upon this premise, this research project sought to measure student satisfaction with one aspect of the college experience: academic advising. The purpose of

this study was to examine the impact of students' levels of satisfaction with the faculty advising process on student retention. Specifically, the research project sought to answer the following question: "Are students' decisions to remain at a college following their first year influenced by satisfactory or unsatisfactory experiences with academic advisors?" The study sought to discover how certain aspects of the student/ advisor relationship might support theoretical frameworks which assert that positive student relationships with faculty and students' perceptions of integration into the academic community impact positively upon student retention.

The research project sample (N=269) included full time, traditional-aged sophomore (non-transfer) students seeking a bachelor degree with 30-60 credits completed at the institution during the previous year. The three participating institutions were small, co-educational private liberal arts colleges in New Hampshire. The survey instrument (Appendix A) employed 27 Likert scale items which addressed overall satisfaction with faculty advisors, students' satisfaction with the interpersonal relationship with faculty advisors, student satisfaction with advisors' skills and competence, and the impact of these levels of satisfaction on students' decisions to return to their respective colleges for the sophomore year.

Findings

The research project tested three hypotheses regarding the impact of students' satisfaction with their academic advisors and their decisions to remain at their institutions from the first year to sophomore year. First, the research tested the hypothesis that overall student satisfaction with academic advising impacts students' decisions to remain at their colleges following their first year. Secondly, the research tested the

hypothesis that student satisfaction with the advisor/advisee relationship impacts students' decisions to remain at their colleges following their first year. Thirdly, the research tested the hypothesis that student satisfaction with advisors' skills and competence impacts students' decisions to remain at their colleges following their first year.

Analysis and discussion of the findings in relation to these research hypotheses must first address levels of student satisfaction with the advising process as indicated by the survey data. Students were asked to rank their levels of satisfaction with the advising process on a scale of 1-5, with 1 indicating lowest levels of satisfaction, and 5 indicating highest levels of satisfaction. Findings related to student satisfaction with specific aspects of the advising process (as measured by survey items 1-22), indicated average to above average student satisfaction, with mean scores ranging from 3.29 to 4.38. Clearly, this data indicates that students at the three participating institutions were more satisfied than dissatisfied with the advising process related to these specific advising functions.

Examination of the mean scores for specific survey items revealed interesting patterns. The four items receiving the lowest mean scores (ranging from 3.29 to 3.81) included, "Takes the initiative in arranging meetings with me," "Encourages me to discuss myself and my experiences," "Clearly defines advisor/advisee responsibilities," and "Refers me to other campus sources for assistance." Three of the four survey items ranked lowest by students were items included in the skills/competence subscale. However, it cannot be concluded that advisors were ranked generally lower on this subscale, as the mean score on the skills/competence subscale was 3.95, in contrast with the mean interpersonal subscale score of 4.0.

Failure to take the initiative in arranging meetings with students may indicate an overly full calendar which permits little room for advisor-initiated contact with students. Time restrictions may also play a role in faculty advisors' failure to encourage students to discuss themselves and their experiences during advising sessions, and failure to clearly define advisor/advisee responsibilities. Failure to refer students to other campus sources for assistance may reflect either the faculty advisors' lack of knowledge about the range of campus services, or time constraints during advising sessions which preclude discussing students' needs in light of available institutional resources. The low scores on these items may indicate that faculty advisors, in fact, relegate their advising responsibilities to a lower priority than other pressing activities.

These observations support Guinn and Mitchell's (1986) assertions that a number of factors contribute to dissatisfaction with academic advising in higher education. The low priority given to advising by faculty members is reflected in lack of administrative support, limited resources, non-existent or limited rewards for high quality advising, and lack of consensus about the role or function of the advisor. These conditions lead to frequent charges that academic advisors are not readily accessible to their advisees, that the academic advising function has been considered minimally important to faculty, that faculty evaluation structures for promotion and tenure decisions often ignore the advising role, and that advisors themselves admit that they lack detailed information about their advisees and campus services designed to assist them.

The four items receiving the highest mean scores (ranging from 4.15 to 4.38) included, "Keeps my personal information confidential," "Respects my right to make my own decisions," "Is approachable and easy to talk to," and "Encourages my interest in an

academic discipline." The four items ranked highest by students were evenly divided between the skills/competence and interpersonal subscales. High scores on these four items appear to reflect faculty advisors' fundamental respect for their advisees as independent persons capable of making good decisions, and persons deserving respect regarding maintaining confidential information. Advisors seem to be approachable to students, and particularly eager to discuss advisees' interests in academic disciplines. These specific advising tasks, rated most positively by students, appeared to be a high priority for faculty advisors.

Mean scores on the survey items related to the interpersonal subscale and the skills/competence subscale (4.00 and 3.95 respectively) indicated high levels of student satisfaction. Mean scores on survey items 23-25 designed to assess students' overall satisfaction with their advisors and the advising process, ("Overall my advisor is effective," "I would recommend my advisor to other students," and "Overall, how satisfied are you with your advisor?"), ranged from 4.03 to 4.10 on a scale of 1-5, indicating similar high levels of student satisfaction. Clearly, examination of student satisfaction data revealed that surveyed students at the three participating institutions indicated above average levels of satisfaction with their advisors and the advising process.

Analysis of the central research question and accompanying hypotheses draws upon data gleaned from survey questions 23-27. Questions 23-25 assessed overall student satisfaction with the academic advising process, while questions 26-27 ("My decision about whether to return to this college this year was influenced by my interpersonal relationship with my faculty advisor," and "My decision about whether or not to return to this college this year was influenced by my advisor's skills and competence") assessed the

impact of students' satisfaction on their decisions to remain at their institutions from the freshman to sophomore years. Mean scores on items assessing overall student satisfaction with the advising process were high (ranging from 4.03 to 4.10 on a 1-5 scale). Yet, mean scores on items 26 and 27 (2.66 and 2.70 on a 1-5 scale) assessing the impact of this student satisfaction indicate only a moderate relationship between students' satisfaction and their decisions to remain at the institution. The moderate correlation (ranging from 0.50 - 0.54) between items assessing student satisfaction and students' decisions to remain at their institutions indicates that, while students reported above average satisfaction with the faculty advising process, this satisfaction exerted only moderate influence on students' decisions to remain at their institutions. The findings of this study support the central research hypotheses that student satisfaction with the academic advising process, the interpersonal relationship with the academic advisor, and the advisor's skills and competence impacts student retention to a moderate degree.

Findings in Relation to Previous Research

This research project follows several decades of retention research in higher education. Examining the causes of student attrition has been a major concern over time for scholars in the field. Previous research on retention rates in higher education has tended to focus upon independent variables which could help to explain student attrition. Most studies sought to examine either how students' precollege characteristics or institutional factors influenced student persistence in college.

Students' precollege characteristics shown to be most associated with student retention have included academic factors such as grades in high school (Astin, 1972; Feldman, 1993; Lenning, Beal & Noel, 1980), scholastic aptitude (Astin, 1964, 1972;

Lenning, Beal & Noel, 1980; Manski & Wise, 1983; Tinto, 1975, 1987) students' educational goals (Lenning, Beal & Sauer, 1980; Panos & Astin, 1967; Rossman & Kirk, 1970; Thistlewaite, 1963; Tinto, 1975; Tinto & Cullen, 1973; Waggener & Smith, 1993;) and financial circumstances (Iffert, 1957; Mayes & McConatha, 1982; Nora, 1990; Summerskill, 1962).

Research has also provided considerable evidence that institutional factors and the college environment have played a major role in determining the persistence or withdrawal of students. Institutional variables shown to be most related to student retention include college type (Beal & Noel, 1980; Feldman & Newcomb, 1969; Kamens, 1971; Panos & Astin, 1968; Tinto, 1975), student housing (Astin, 1973a, 1973b, 1984; Forrest, 1982; Iffert, 1957; Newcomb, 1962; Slocum, 1956; Thompson, 1993), student involvement in extracurricular activities (Beal & Noel, 1980; Boyd, 1992; Louis, Colten & Demeke, 1984; Terenzini, Pascarella & Lorang, 1982; Tinto, 1975), and positive, satisfying relationships with faculty (Beal & Noel, 1980; Hossler & Bean, 1990; Pascarella & Wolfle, 1985).

From this research, theorists have hypothesized that student attrition and retention patterns are a result of a complex interplay among these numerous student and institutional variables. The "institutional fit" theory, the student involvement theory, the student-faculty interaction theory, and theories of academic and social integration all abandon exclusive focus on precollege student variables, and focus on the dynamic relationship of the student with the environment in explaining student attrition and retention patterns.

Within these theoretical frameworks, the process of academic advising has been linked to student satisfaction and student persistence in higher education. These theories argue that a positive advising relationship between faculty and students increases students' sense of fit and integration with the institution, and ultimately, positively impact students' satisfaction, morale and retention.

Empirical investigations of the relationship between student satisfaction with academic advising and retention have provided equivocal results. While some studies have demonstrated a positive relationship between retention and students' indication of the frequency or quality of their advising (Brigman, Kuh, & Stager, 1982; Endo & Harpel, 1979; Hoeft, 1994; Louis, Colten & Demeke, 1984; Meyers, 1981; Pascarella & Terenzini, 1977; Priest, 1991; Smith, 1980; Taylor, 1982), other studies have failed to demonstrate an association between the two variables (Atiken, 1982; Baumgart & Johnstone, 1977; Bean, 1980; Disque, 1983; Enos, 1981; Kowalski, 1977; Staman, 1980; Steele, 1978).

In light of previous research which has produced conflicting results, this research project was designed to examine the relationship between student satisfaction with academic advising and student retention within a small, private college setting. The study demonstrated a moderate relationship between students' satisfaction with their academic advisors and their decisions to remain at their institutions from first year to sophomore year. While students reported a high degree of satisfaction with the overall advising process, with their interpersonal relationship with their advisors, and with their advisors' skills and competence, the data indicated only a moderate level of correlation between these satisfaction levels and retention.

Despite these findings, student satisfaction with academic advising may exert an indirect influence on student retention. A positive advising relationship between faculty and student may increase a student's sense of fit and integration with the institution, possibly resulting in greater participation in campus activities, closer relationships with faculty and peers, and higher grade point averages. All of these factors have been shown to impact student retention, and may be indirectly influenced by the quality of academic advising. Thus, while this study only showed a moderate link between student satisfaction with advising and retention, factors other than perceived satisfaction with academic advising must have played a role in persistence decisions of these students, and further research is necessary.

Limitations of Study and Recommendations for Further Research

This research project was conducted at three small, private institutions in New Hampshire which limits the generalizability of the results to other populations. Additionally, the aggregate rate of return from the three institutions (68.4%) does not allow the researcher to claim that this data is necessarily representative of the target population. Finally, while the survey instrument was determined valid by a jury of Directors of Academic Advising, the instrument has not been tested over time for reliability.

Further research is warranted to assess which college environment factors contribute to student satisfaction levels, and to what degree these factors ultimately impact student retention decisions. Student attrition and retention patterns are often a result of a complex interplay among numerous student and institutional variables. Follow up research at the three participating institutions could seek to examine which factors other

than satisfaction with academic advising (or perhaps in conjunction with academic advising) led to students' decisions to return to their institutions. Did peer relationships exert influence? Did satisfactory experiences with faculty in the classroom (as opposed to interaction with these faculty outside the classroom as advisors) play a key role in their decisions to stay? How much impact do campus activities or living arrangements exert on students' decisions not to drop out or transfer? Future studies could also target junior and senior level students to examine the impact of student satisfaction with academic advising on upper-class students. Surveying students who did not return to their institutions could yield comparative data regarding the impact of student satisfaction with academic advising on student retention. Additional research at a greater number of institutions (perhaps larger, public institutions) in varying geographic locations could yield additional data as well. Finally, research assessing advisors' perceptions of the value and importance of the advising process on student retention would generate revealing data concerning the level of priority faculty place upon their advising responsibilities.

Issues surrounding student satisfaction with the higher education environment persist. Colleges and universities are increasingly challenged to meet higher student expectations of satisfaction with the educational experience. Institutional self-studies designed to collect information about student attitudes, perceptions and levels of satisfaction can help to shape the managerial decisions of those who plan for and provide educational services in higher education settings. Through such institutional research, colleges and universities can assess programs, identify problems and stimulate action to solve them through institutional planning efforts designed to enhance quality and strengthen student satisfaction. Continued examination of what causes students to remain

or drop out from college is critical, not only to provide a more satisfactory educational experience for students, but to ensure the continued viability of higher education institutions in an increasingly competitive marketplace.

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APPENDIX A

STUDENT SURVEY INSTRUMENT

Did you attend this college during your freshman year? YES NO (Circle one)
If no, please do not complete this survey, as we are seeking responses from sophomore students only.

Strongly Agree 5	Agree 4	Neutral 3	Disagree 2	Strongly Disagree 1	Does Not Apply 0

My Advisor:

1.	Is a good listener	5	4	3	2	1	0
2.	Is interested in me as an individual	5	4	3	2	1	0
3.	Respects my opinions and feelings	5	4	3	2	1	0
4.	Provides me with accurate information about requirements, prerequisites	5	4	3	2	1	0
5.	Is accessible when I need to meet	5	4	3	2	1	0
6.	Provides a caring/open atmosphere	5	4	3	2	1	0
7.	Respects my right to make my own decisions	5	4	3	2	1	0
8.	Informs me of changes in academic requirements	5	4	3	2	1	0
9.	Takes the initiative in arranging meetings with me	5	4	3	2	1	0
10.	Is on time for appointments with me	5	4	3	2	1	0
11.	Clearly defines advisor/advisee responsibilities	5	4	3	2	1	0
12.	Refers me to other campus sources for assistance	5	4	3	2	1	0
13.	Allows sufficient time to discuss issues or problems	5	4	3	2	1	0
14.	Helps me to examine my needs	5	4	3	2	1	0
15.	Helps me to examine my abilities	5	4	3	2	1	0

OVER

	Strongly Agree 5	Agree 4	Neutral 3	Disagree 2	Strongly Disagree 1	Does Not Apply 0
16. Helps me to select courses that match my interests and abilities	5	4	3	2	1	0
17. Encourages me to discuss myself and my experiences	5	4	3	2	1	0
18. Seems to enjoy advising me	5	4	3	2	1	0
19. Is approachable and easy to talk to	5	4	3	2	1	0
20. Keeps my personal information confidential	5	4	3	2	1	0
21. Encourages my interest in an academic discipline	5	4	3	2	1	0
22. Is knowledgeable about courses outside my major	5	4	3	2	1	0
23. Overall my advisor is effective	5	4	3	2	1	0
24. I would recommend my advisor to other students	5	4	3	2	1	0

25. Overall, how satisfied are you with your advisor?

Very satisfied	Satisfied	Neutral	Somewhat dissatisfied	Very Dissatisfied
(5)	(4)	(3)	(2)	(1)

26. My decision about whether to return to this college this year was influenced by my interpersonal relationship with my faculty advisor:

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
(5)	(4)	(3)	(2)	(1)

27. My decision about whether or not to return to this college this year was influenced by my advisor's skills and competence:

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
(5)	(4)	(3)	(2)	(1)

APPENDIX B

INSTITUTION 1: NORTHEAST

I believe that the survey instrument is valid for assessing the faculty advising process:

X YES NO

I have the following suggestions to improve the validity of the instrument:

If some degree of developmental advising is advocated, questions pertaining to it may be desirable. For example, #7 discussing the consequences/implications of those decisions. Another question might be something to this effect: Encourages me to view my semester choices in the context of my educational goals.

INSTITUTION 2: MIDWEST

I believe that the survey instrument is valid for assessing the faculty advising process:

X YES NO

I have the following suggestions to improve the validity of the instrument:

Typo in # 26.

INSTITUTION 3: NEW ENGLAND

I believe that the survey instrument is valid for assessing the faculty advising process:

X YES NO

I have the following suggestions to improve the validity of the instrument:

I am happy to serve as a jury member to assess your survey instrument for your doctoral dissertaion proposal.

I have recently completed a survey of first-year students and juniors about our advising process in which I sought information about the relationship between advising and retention. A copy of the text of that survey is enclosed. The same survey was sent to both groups of students.

Your instrument and the one I used are similar in their questions, especially in the section titled "Academic Advising Program in my survey. One of the points I was trying to determine was how much our advising program (a two-year portfolio project) encouraged students to take responsibility for their own academic program and learning and that relationship to retention. Self-advocacy is an important goal of our advising program, and advisors who stress that point have had a higher retention rate from first to second year. My suggestion, then, is to incorporate a question in your instrument to assess the link between self-advocacy, advising and retention.

I'd be happy to discuss this with you further. Good luck with your research, and I would appreciate seeing the results of your project.

INSTITUTION 4: MIDWEST

I believe that the survey instrument is valid for assessing the faculty advising process:

X YES NO

I have the following suggestions to improve the validity of the instrument:

Two typos in # 26.

INSTITUTION 5: WEST

I believe that the survey instrument is valid for assessing the faculty advising process:

X YES NO

I have the following suggestions to improve the validity of the instrument:

Phrase all questions to refer to actual behaviors (good items include 4, 5 , 8, 9, 10, 11, 12, 13, 14, 16, 20, 23). Beware of "impressionistic" items. They may target important issues but they won't generate consistent, useful responses from students (items 2, 6, 17, 18, for example). On the whole, you have a good set of advising competencies identified here.

INSTITUTION 6: MIDDLE ATLANTIC

I believe that the survey instrument is valid for assessing the faculty advising process:

X YES NO

I have the following suggestions to improve the validity of the instrument:

I believe this is a good way to survey student satisfaction with advising. If you are trying to assess the faculty advising process, you might need some questions concerning students' use of the process. For instance, do students try to make appointments at the last minute, etc. Students' actions may affect their satisfaction. I have had some students who tell me they are not able to find an advisor, when I know that a particular advisor is always available - except when in class, at lunch, etc. It might also be good to ask how many meetings the student had with the advisor, for how long, etc. Good luck. I'd be interested in results.

APPENDIX C

UNIVERSITY OF NEW HAMPSHIRE

Office of Sponsored Research
111 Service Building
51 College Road
Durham, New Hampshire 03824-3585

(603) 862-2000 PROPOSALS & AWARDS
(603) 862-3716 ACCOUNTING
(603) 862-3750 DIRECTOR
(603) 862-3564 FAX

July 7, 1995

Ms. Susan Wyckoff
360 Sand Hill Road
Peterborough, NH 03458

IRB Protocol #1561 - Student Satisfaction with Academic Advising: Impacts on Student Retention in Higher Education

Dear Ms. Wyckoff:

The Institutional Review Board (IRB) for the Protection of Human Subjects in Research has reviewed the protocol for your project as Exempt as described in Federal Regulations 45 CFR 46, Subsection 46.101(b)(2). Approval is granted to conduct the project as described in your protocol. If you decide to make any changes in your protocol, you must submit the requested changes to the IRB for review and approval prior to any data collection from human subjects.

The protection of human subjects is an ongoing process for which you hold primary responsibility. In receiving IRB approval for your protocol, you agree to conduct the project in accordance with the ethical principles and guidelines for the protection of human subjects in research, as described in the enclosed "The Belmont Report." Additional information about other pertinent Federal and university policies, guidelines, and procedures is available in the UNH Office of Sponsored Research.

There is no obligation for you to provide a report to the IRB upon project completion unless you experience any unusual or unanticipated results with regard to the participation of human subjects. Please report these promptly to this office.

If you have any questions or concerns, please feel free to contact Kara Eddy, Regulatory Compliance Administrator (for the IRB), at 862-2003. Please refer to the IRB # above in all future correspondence related to this project. We wish you success with the research.

Sincerely,

Kathryn B. Cataneo

Kathryn B. Cataneo, Director
Research Administration
(for the IRB)

KBC: ke

Enclosure

cc: Todd DeMitchell, Education

APPENDIX D

INFORMED CONSENT DOCUMENT

Purpose: The purpose of this research is to study the relationship between students' levels of satisfaction with their faculty advisor and student retention.

Description: To participate in this study, you will be asked to complete (anonymously) a survey regarding your satisfaction with your faculty advisor and your college plans. Completion of the survey should take approximately 20 minutes.

PLEASE READ THE FOLLOWING STATEMENTS AND RESPOND AS TO WHETHER OR NOT YOU ARE WILLING TO PARTICIPATE:

1. I understand that the use of human subjects in this project has been approved by the UNH Institutional Review Board for the Protection of Human Subjects in Research.
2. I understand the scope, aims and purposes of this research project, the procedures to be followed and the expected duration of my participation.
3. I have received a description of any potential benefits that my be accrued from this research and understand how they may affect me or others.
4. I understand that confidentiality of all data and records associated with my participation in this research, including my identity, will be fully maintained.
5. I understand that my consent to participate in this research is entirely voluntary, and that my refusal to participate will involve no prejudice, penalty or loss of benefits to which I would otherwise be entitled.
6. I further understand that if I consent to participate, I may discontinue my participation at any time without prejudice, penalty, or loss of benefits to which I would otherwise be entitled.
7. I confirm that no coercion of any kind was used in seeking my participation in this research project.
8. I understand that if I have any questions pertaining to the research, I have the right to call Susan Wyckoff at (603) 428-2235 and be given the opportunity to discuss them in confidence.
9. I understand that I will not be provided financial incentive for my participation by the University of New Hampshire.
10. I certify that I have read and fully understand the purpose of this research project and its risks and benefits for me as stated above.

I, _____ CONSENT/AGREE to participate in this research project.

I, _____ REFUSE/DON'T AGREE to participate in this research project.

_____ _____

Signature of Subject Date

APPENDIX E

October 15, 1995

Student
_____ College
Nashua, New Hampshire

Dear _____,

Anne Burke Lannin in the Advising Office has indicated to me that you are a sophomore at _____ College, and that you might be willing to help me in a study I am working on.

I am a doctoral student at the University of New Hampshire and am conducting a survey of sophomore students about their level of satisfaction with their faculty advisors. The survey is completely anonymous and voluntary. Anne Burke Lannin and Sister Joan have copies of the survey, and I hope that you will take 3 or 4 minutes to complete it when you are meeting with them soon for spring registration.

I hope you are having a good semester....and thanks in advance for helping me out.

Sincerely,

Susan C. Wyckoff