



This is to certify that the

dissertation entitled

DIFFERENCES BETWEEN FACULTY AND FRESHMAN PERCEPTIONS OF CAMPUS ENVIRONMENTS AND FRESHMAN ATTRITION RATES

presented by

William John Katip

has been accepted towards fulfillment of the requirements for

Ph.D. degree in <u>Higher Ed</u>ucation

Major professor

Date ___April 16, 1986

LIBRARY Michigan State University

PLACE IN RETURN BOX to remove this checkout from your record. TO AVOID FINES return on or before date due.

DATE DUE	DATE DUE	DATE DUE

MSU is An Affirmative Action/Equal Opportunity Institution cherodatedus.pm3-p.1

DIFFERENCES BETWEEN FACULTY AND FRESHMAN PERCEPTIONS OF CAMPUS ENVIRONMENTS AND FRESHMAN ATTRITION RATES

Ву

William John Katip

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Educational Administration
1986

ABSTRACT

DIFFERENCES BETWEEN FACULTY AND FRESHMAN PERCEPTIONS OF CAMPUS ENVIRONMENTS AND FRESHMAN ATTRITION RATES

Ву

William John Katip

The purpose of this study was to examine data from ten small private colleges to determine if any significant correlation existed between the composite variances of faculty and freshman student perceptions of the campus environments (academic programs and services, admissions policies and programs, rules and regulations, facilities, registration policies and procedures, nonacademic services and programs, and the college in general) and freshman attrition rates at the same colleges. Perceptions of the campus environments were measured by utilizing results of the 4-year Student Opinion Survey of the American College Testing (ACT) Corporation. student attrition data was collected on a form that utilized definitions from the Student Attrition Module of the Council for Independent Colleges' (CIC) Planning and Data System.

After calculating means for the freshman class and faculty of each college the difference between the two groups was determined. Rather than using the absolute value of this difference for the correlations with

the attrition rates, an index was devised that accounted for the magnitude and direction of the perception as well as the amount of the difference. Spearman's Rank Correlation test was then used to test for significant correlations (level of significance was set at p = .05).

The results of the study revealed that the ten small private colleges included in the study had very high freshman attrition rates (mean of 32.52%). The results also revealed that the faculty consistently believed their freshman students viewed the campuses more negatively than they actually did (true for all areas except academic programs and services).

Contrary to expectation, the results of the Spearman's Rank Correlation tests did not reveal any significant correlations. Consequently, no conclusions could be supported from the results and findings.

Several speculations were made, however, regarding these unexpected results and findings. In particular, it was suggested that:

The factors shown to influence persistence . . . may not be generally applied from one institution to another. . . To successfully address the issue of student retention at the institutional level it may be necessary to first understand the dynamics . . . unique to the particular institution (Pascarella, 1986, p. 101).

Pascarella, E. T. "A Program for Research and Policy Development on Student Persistence at the Institutional Level." Journal of College Student Personnel 27 (No. 2, 1986):100-107.

DEDICATION

This study is dedicated to the memory of my mother. She loved and cared for me in a very special way and perhaps, even now, looks down from heaven and is proud to see her Billy complete the degree that she encouraged and saw him work toward while she was still here on earth.

ACKNOWLEDGEMENTS

This study is the result of the cooperation, leadership, and encouragement of several individuals. I wish to express my appreciation to Dr. Gerald Miller, Dr. Keith Anderson and Dr. James Studer for their guidance and help as members of my committee. Thanks also goes to Dr. Walter Johnson for his gracious help and encouragement as a committee member before his retirement from the faculty. Special appreciation goes to Dr. Louis Stamatakos for his patient and encouraging leadership as chairman of my committee. He was always very positive, expressing faith and trust in me and inspiring me to strive for excellence.

Thanks is also due to my boys, Mike and Scottie, for their willingness to share their daddy with his books for so long. A very loving appreciation goes to my wife Debbie for her encouragement, toleration, and spelling abilities during graduate study and the writing of this dissertation! Her faithful support has been immeasurable and she has made this project worthwhile.

Most of all, I express my gratitude to my Saviour and Lord Jesus Christ for giving the abilities to complete this dissertation and degree. It is for Him that I live.

TABLE OF CONTENTS

		Page
LIST OF	ŢABLES	. vi
LIST OF	FIGURES	viii
CHAPTER		
I.	INTRODUCTION Introduction and Background Purpose of the Study Questions for Investigation Hypotheses Need for and Importance of the Study Design of the Study Definition of Terms Limitations and Delimitations Overview of the Dissertation	. 1 . 7 . 9 . 10 . 12 . 14 . 17
II.	LITERATURE REVIEW	. 23 . 24 . 27 . 31 . 39
III.	DESIGN AND METHODOLOGY	. 53 . 53 . 61 . 63
IV.	PRESENTATION AND ANALYSIS OF THE DATA Introduction Faculty and Student Perceptions and Differences Between Them Freshman Year Attrition Rates Analysis of the Data	. 78 . 78 . 79 . 93 . 95

V.	SUM	MARY, MAJOR FINDINGS, CONCLUSIONS, SPECULATIONS, INFERENCES, IMPLI-	
		CATIONS, AND RECOMMENDATIONS	114
	Majo Cond Spec Infe Impl Reco	mary	117 124 125 129 131 134
APPI	ENDIC	CES	
	A.	ACT FOUR YEAR STUDENT OPINION SURVEY	139
	В.	STUDENT ATTRITION DATA FORM	144
	C.	LETTERS AND INSTRUCTIONS FOR COMPLETING STUDENT ATTRITION DATA FORM AND FOR SURVEYING	
		OF FACULTY	146
	D.	LIST OF COLLEGES INCLUDED IN THE STUDY	150
REFI	EREN	CES	152

LIST OF TABLES

Table		Page
1.	Percentages of Freshman Students and Faculty Completing The Student Opinion Survey	65
2.	Student Opinion Survey Categorical (Nominal) Items	68
3.	Student Opinion Survey 5Choice (Likert) Satisfaction Items	68
4.	Reliability Estimates at Six Colleges Student Opinion SurveySection III	69
5.	Means and Differences Between Faculty and Freshman Students at College A	80
6.	Means and Differences Between Faculty and Freshman Students at College B	81
7.	Means and Differences Between Faculty and Freshman Students at College C	82
8.	Means and Differences Between Faculty and Freshman Students at College D	84
9.	Means and Differences Between Faculty and Freshman Students at College E	85
10.	Means and Differences Between Faculty and Freshman Students at College F	86
11.	Means and Differences Between Faculty and Freshman Students at College G	88
12.	Means and Differences Between Faculty and Freshman Students at College H	89
13.	Means and Differences Between Faculty and Freshman Students at College I	91

14.	Means and Differences Between Faculty and Freshman Students at College J	92
15.	Freshman Year Attrition Rates	93
16.	Correlations between Composite Variances of Faculty and Student Perceptions of the Academic Programs and Services and Freshman Attrition Rates	98
17.	Correlations between Composite Variances of Faculty and Student Perceptions of the Admissions Policies and Programs and Freshman Attrition Rates	100
18.	Correlations between Composite Variances of Faculty and Student Perceptions of the Rules and Regulations and Freshman Attrition Rates	102
19.	Correlations between Composite Variances of Faculty and Student Perceptions of the Facilities and Freshman Attrition Rates	104
20.	Correlations between Composite Variances of Faculty and Student Perceptions of the Registration Policies and Procedures and Freshman Attrition Rates	106
21.	Correlations between Composite Variances of Faculty and Student Perceptions of the Non-Academic Services and Programs and Freshman Attrition Rates	108
22.	Correlations between Composite Variances of Faculty and Student Perceptions of the College in General and Freshman Attrition Rates	110

LIST OF FIGURES

Figure	1	Page
1. Tir	nto's (1975) Conceptual Schema for Dropout From College	42
2. Ind	dex for Differences between Faculty	76

CHAPTER I

INTRODUCTION

Introduction and Background

College student attrition is not a new research topic for American educators. Early studies dating back to 1928 were primarily concerned with examining individual characteristics associated with a student dropping out or persisting in college (Summerskill, 1962). Individual characteristics examined in these early as well as more recent studies include personality characteristics, socio-economic status, high school academic achievement, high school extra-curricular accomplishments, age, sex, financial assistance, hometown location and size, predicted scholastic aptitude, personal motivation, clarity of and commitment to goals, and parental and peer group influence (Latta, 1983).

More recently, the focus of research has shifted from studying only individual student characteristics of persisters and drop-outs to also examining factors within the college environment. Such factors include the following: intellectual challenge, availability of major program, location of college, relationships with faculty and administrators, the social climate, degree of

personal congruence with the college and level of commitment to the institution (Cope and Hannah, 1975; Johnson, 1980).

The study of student attrition is not new, but there certainly has been recently awakened interest in it due primarily to current and projected shortfalls in enrollment (Kemerer, 1982). Although this strong interest in student attrition has resulted in an extensive body of literature, much of it is suspect and has received strong criticism. Lee Noel asserts that in reviewing the literature of the past fifty years, "we really haven't learned anything new and we haven't used what we know" (Beal and Noel, 1976, p. 34). An examination of the criticisms of attrition research will follow in the literature review chapter of the dissertation.

Continued interest in and study of student attrition is important to colleges and universities for several reasons. First, attrition affects colleges financially. The population of 18-year-olds in the United States is declining from the 4,211,000 figure of 1980 to an estimated 3,426,000 by 1990 (Francis, 1980). In spite of increased efforts to attract more students of non-traditional ages (other than 18-24), there has been (and most experts agree that there will continue to

be) a decline in enrollments at American colleges and universities throughout the 1980's (Carnegie, 1980). Enrollment declines mean financial loss to nearly any college or university, since most state funding formulas are enrollment-driven, and private institutions receive at least 50% of their income directly from tuition and fees (Gardiner and Robati, 1983). Kemerer notes in Strategies for Effective Enrollment Management that in the midst of the concern over shrinking recruitment pools, college presidents at institutions with enrollment problems have identified student attrition as the number one culprit. Kemerer further notes that 85% of the college presidents agree that more attention and resources should be devoted to the issue of student retention and reduction of the drop-out rate (Kemerer, Indeed, student attrition can have serious 1982). financial effects on nearly any college or university as attrition reduces the basis for efficiency of operation and income loss threatens survival of the institution.

Colleges also are concerned about student attrition because it tends to contribute to a breakdown in the continuity and level of maturity of the student body, especially in small colleges (Mullendore, 1980).

As attrition takes its toll, there continues a large population of underclassmen every year as compared to a small population of upperclassmen. This student mix impedes the continuity and stability of a student body and militates against a maturing peer influence (Husband, 1976, p. 1).

College Doors: The Causes and Consequences of Dropping
Out, Stopping Out, and Transferring that institutional
credibility is also affected by attrition. Colleges
with high student attrition are often criticized for
doing poor jobs, and it is demonstrable that drop-outs
erode institutional credibility while graduates become
credits to the school (Cope and Hannah, 1975).

Attrition not only affects institutions of higher education, but also has serious consequences for individual students. "College graduates traditionally have more career opportunities, more job security, better working conditions, and higher job satisfaction than non-graduates" (Mullendore, 1980, p. 3). Although there is a great deal of diversity of feelings about self among those who leave college, many students who leave feel disappointed, disillusioned, and resentful toward themselves (Cope and Hannah, 1975).

Since the early 1970's several theories have emerged which attempt to provide some conceptual coherence and theoretical basis for the substantial body of literature which exists on college student attrition (Astin, 1984; Kamens, 1971; Spady, 1970; Tinto, 1975).

These models suggest that students bring different background characteristics to college (e.g., personality traits, academic aptitude, high school achievement, etc.), which in turn lead them to interact with the college environment in different ways. The nature and quality of these environmental interactions lead to differences in students' levels of integration into the academic and social systems of the institution. With other things being equal, these models suggest that "the higher the student's level of social and academic integration, the more likely the student is to persist at the institution" (Pascarella and Terenzini, 1979).

Astin, in a recent article, articulated a theory of student development he calls Student Involvement Theory (Astin, 1984). Student Involvement "refers to the amount of physical and psychological energy that the student devotes to the academic experience" (Astin, 1984, p. 297). He notes from his studies that factors that contribute to a student's remaining in college suggest involvement, and factors that contribute to a student's dropping out imply a lack of involvement.

Spady and Tinto in their models, and Astin in his Student Involvement Theory, all suggest that informal contact with faculty beyond the classroom is an important positive influence on students' integration

into the social and academic systems of the institution (Astin, 1984; Spady, 1970; Tinto, 1975). Researchers have attempted to validate this idea and have consistently found support for the notion. Even when controlling for up to fourteen background characteristics the findings support the importance which both Spady and Tinto placed on student-faculty informal contact beyond the classroom in fostering students' social and academic integration and subsequent likelihood of persisting in college (Astin, 1977; Lacy, 1978; Pascarella and Terenzini, 1978; Spady, 1971).

Pascarella and Terenzini (1977, 1978, 1979, 1980) have made the major contributions in validating Tinto's model. Their findings, based on several years of study, indicate that students' informal contact with faculty members is consistently related to subsequent withdrawal decisions (Pascarella, 1980). Their work is based on student attitude, especially at the freshman level, where attrition is highest.

These investigators (Pascarella and Terenzini) suggest that most attrition studies fail to take into account the intricate network of relationships to which their studies point. For example, faculty views of the importance of faculty-student interaction in student retention have not been adequately represented in the research literature. This is ironic since higher education institutions may be dependent upon faculty to successfully effect the early

social and academic integration of students (needed) to reduce attrition (Thurman, 1980, p. 4).

Recent studies have examined faculty views of their role in reducing student attrition (Mullendore, 1980; Thurman, 1980) and results indicate that, in general, faculty members value such interaction, perceive it as an important component of their role expectations, and believe it positively influences student retention (Thurman, 1980). There is considerable variance, however, on several issues, including comparisons of administrators' perceptions of faculty role in retention to faculty perception (Mullendore, 1980) and the degree to which faculty members think the institutions reward such activity (Thurman, 1980).

Purpose of the Study

Although many studies have examined the informal relationship of faculty members with students (Lacy, 1978; Pascarella and Terenzini, 1978, 1979, 1980; Spady, 1971), and although recent studies have considered faculty perceptions of their role in improving student retention (Mullendore, 1980; Thurman, 1980), there still exist several questions regarding faculty members and student attrition. One such question was examined in the current study.

The purpose of this study was to examine data from ten small private colleges to determine if any significant correlation existed between the composite variances of faculty and freshman student perceptions of the campus environments and freshman attrition rates at the same schools. If social and academic integration and/or involvement (Astin, 1984; Tinto, 1975) are essential for persistence, and if faculty members' contacts with students are key influences of the same, it could be that how a faculty member believes students view the campus could affect the faculty-student subsequent attrition. Tinto (1975) interactions and and Astin (1984) both suggest that a strong relationship exists between student-faculty interactions and persistence. Not so clearly stated in the literature, however, are the means to measure the strength of student-faculty interactions. Astin (1984) suggests that when studying student involvement one should consider qualitative as well as quantitative measures. The current investigation considered congruence of faculty and students' perceptions of the campus to be a qualitative measure of student-faculty interaction. Thus, the study had the following objectives.

 To determine the differences between faculty perceptions of how students viewed the campus environments (academic programs and services, admissions policies and programs, rules and regulations, facilities, registration policies and procedures, non-academic services and programs, and the college in general) at ten small private colleges, and how students actually viewed these environments.

- 2. To determine the freshman year attrition rates for the same ten colleges.
- 3. To determine if there was any significant correlation between composite variances of faculty and freshman student perceptions and the freshman attrition rates at these ten colleges.

Questions for Investigation

- Did any significant correlation exist between composite variances of faculty and freshman student perceptions of the academic programs and services (see definitions section of this chapter) at the ten small private colleges included in the study and the freshman attrition rates at these same schools?
- 2. Did any significant correlation exist between composite variances of faculty and freshman student perceptions of the admissions policies and programs (see definitions section of this chapter) at the ten small colleges included in the study and the freshman attrition rates at these same colleges?
- 3. Did any significant correlation exist between composite variances of faculty and freshman student perceptions of the rules and regulations (see definitions section of this chapter) at the ten small private colleges included in the study and the attrition rates at these same colleges?
- 4. Did any significant correlation exist between composite variances of faculty and freshman student perceptions of the facilities (see definitions section of this chapter) at the ten small private colleges included in the study and the freshman attrition rates at these same colleges?
- 5. Did any significant correlation exist between composite variances of faculty and freshman

student perceptions of the registration policies and procedures (see definitions section of this chapter) at the ten small private colleges included in the study and the freshman attrition rates at these same colleges?

- 6. Did any significant correlation exist between composite variances of faculty and freshman student perceptions of the non-academic services and programs (see definitions section of this chapter) at the ten small private colleges included in the study and the freshman attrition rates at these same colleges?
- 7. Did any significant correlation exist between composite variances of faculty and freshman student perceptions of the college in general (see definitions section of this chapter) at the ten small private colleges included in the study and the freshman attrition rates at these same colleges?

Hypotheses

In order to accomplish objective #3 the following research hypotheses were tested in the null form.

Hypothesis I

There is no significant correlation between the composite variances of faculty and freshman student perceptions of the academic programs and services (see definitions section of this chapter) at the ten small private colleges included in the study and the freshman attrition rates at these same colleges.

Hypothesis II

There is no significant correlation between the composite variances of faculty and freshman student perceptions of the admissions policies and programs (see definitions section of this chapter) at the ten small colleges included in the study and the freshman attrition rates at these same colleges.

Hypothesis III

There is no significant correlation between the composite variances of faculty and freshman student perceptions of the rules and regulations (see definitions section of this chapter) at the ten small private colleges included in the study and the attrition rates at these same colleges.

Hypothesis IV

There is no significant correlation between the composite variances of faculty and freshman student perceptions of the facilities (see definitions section of this chapter) at the ten small private colleges included in the study and the freshman attrition rates at these same colleges.

Hypothesis V

There is no significant correlation between the composite variances of faculty and freshman student perceptions of the registration policies and procedures (see definitions section of this chapter) at the ten small private colleges included in the study and the freshman attrition rates at these same colleges.

Hypothesis VI

There is no significant correlation between the composite variances of faculty and freshman student perceptions of the non-academic services and programs (see definitions section of this chapter) at the ten small private colleges included in the study and the freshman attrition rates at these same colleges.

Hypothesis VII

There is no significant correlation between the composite variances of faculty and freshman student perceptions of the college in general (see definitions section of this chapter) at the ten small private colleges included in the study and the freshman attrition rates at these same colleges.

Need for and Importance of the Study

Astin, in his theory on student involvement, has noted that students' time is a very precious resource and needs to be carefully considered when attempting to manage the operations of a college or university.

Administrators and faculty members must recognize that virtually every institutional policy and practice (e.g., class schedules; regulations on class attendance, academic probation, and participation in honors courses; policies on office hours for faculty, student orientation, and advising) can affect the way students spend their time and the amount of effort they devote to academic pursuits. Moreover, administrative decisions about many non-academic issues (e.g., the location of new buildings such as dormitories and student unions; rules governing residency; the design of recreational and living facilities; on-campus employment opportunities; number and type of extracurricular activities and regulations regarding participation; the frequency, type, and cost of cultural events; roommate assignments; financial aid policies; the relative attractiveness of eating facilities on and off campus; parking regulations) can significantly affect how students spend their time and energy (Astin, 1984, pp. 301-302).

When considering how students spend their time and energy, faculty involvement with students emerges as an important factor in student retention. Several researchers (Pascarella and Terenzini, 1977; Thurman, 1980) have found that the nature and quality (not just the quantity) of the faculty contact with students is important when considering faculty impact on student attrition. Cope and Hannah state that:

We suspect that persistence in college requires the personal touch that only dedicated professors can give. Evidence, both personal and other, reveals that such dedication exists in abundance across America, but . . . it is largely misdirectd (Cope and Hannah, 1975, p. 45).

As noted earlier, investigators have recently begun to examine faculty perceptions regarding student retention (Mullendore, 1980; Thurman, 1980). Such efforts have primarily focused on and compared faculty and administrators' perceptions of the factors causing attrition, role of the faculty in increasing retention, and rewards for such activity.

Nearly void in the literature are any studies which compare faculty and students' perceptions of the campus environment (academic programs and services, admissions policies and programs, rules and regulations, facilities, registration policies and procedures, nonacademic services and programs, and the college in general) to see if they view it the same. In a study which hypothesized that faculty perception of the degree of effectiveness of the faculty advising program at a university would not differ significantly from student perception, Stickle (1982) noted that faculty consistently rated their effectiveness higher than students rated faculty effectivenes. Indeed, if this pattern was present to a large extent, a college might find the faculty efforts to be lesseffective than desired.

The current study attempted to address this matter of potential differences between faculty and students' perceptions of a wide variety of academic and student service programs and functions. It examined ten colleges and compared the variance in campus perceptions with attrition rates in an attempt to determine any relationship between the two.

Design of the Study

The investigation examined faculty and student perceptions of various academic and student affairs programs and services at ten small private colleges (1500 or smaller) in the United States. Comparisons were made between each college's faculty and freshman student perceptions noting significant variance, if any. After quantifying the variance between the two groups for each college, an analysis was made to determine if there was a correlation between the composite variances of faculty and freshman student perceptions and freshman attrition rates at the same schools.

Perceptions were measured by utilizing the results of the 4-Year Student Opinion Survey of the American College Testing (ACT) Corporation (see Appendix A). The ACT Student Opinion Survey has been

administered to thousands of college students at both public universities and private colleges and is a valid, reliable and comprehensive instrument for measuring student perceptions. The student attrition data was gathered on the form in Appendix B of the dissertation utilizing definitions adapted from the Student Attrition Module of the Council for Independent Colleges' (CIC) Planning and Data System (Council for Independent Colleges, 1977).

Contact was made with the ACT Corporation to locate small private colleges which administered the survey during the 1983-84 school year. After inquiries were made with the academic deans of those institutions, eleven colleges agreed to participate in the study. (At the point of data analysis it was discovered that one college had actually administered the test during the 1982-83 school year. Therefore this college's data were not included in the results.) The schools had already administered the Student Opinion Survey to their students; subsequently, and at the request of the investigator, they had faculty members complete the same items on the survey, responding as they believed students at their college would to the questions.

The faculty inventories were machine scored by the ACT Corporation, then combined on one computer tape,

along with the student inventory data of the ten schools, and transferred to the Michigan State University Computer Center. The Statistical Package for the Social Sciences (SPSS) was used to conduct the following analysis of the data:

--After calculating means for the freshman class and faculty of each college the difference between the two groups was figured for each category of the campus environment included in the study.

--Spearman's Rank Correlation Test was used to test for correlations between differences in faculty and students' perception and attrition rates.

The categories of campus life examined were as follows (see Appendix A):

- 1. Academic Programs and Services—questions 1, 17, 18, 19 of Section II and questions 1—11 of Section III.
- 2. Admissions Policies and Programs--questions 12-15 of Section III.
- 3. Rules and Regulations -- questions 16-21 of Section III.
- 4. <u>Facilities</u>—questions 6, 21 of Section II and questions 22-29 of Section III.
- 5. Registration Policies and Procedures--questions 30-33 of Section III.

- 6. Non-Academic Services and Programs--questions 2-5, 7-16, 20, 22-23 of Section II and questions 37, 39-41 of Section III.
- 7. College in General--questions 34-36, 38, 42 of Section III.

Definition of Terms

Throughout this study the terms "attrition," "persistence," "student retention," and others were used repeatedly. The following definitions were included for clarification of meaning. Also included are definitions of the various categories of campus life examined in the study.

Attrition, withdrawal and/or drop-out--All of these refer to leaving school for any reason--including disciplinary dismissal, voluntary withdrawal, death, transfer, and academic dismissal.

Students who are dismissed for academic reasons are also considered drop-outs, despite the fact that they are not voluntary drop-outs. They are included because students dismissed for academic reasons represent failures of the socialization process more than mental deficiencies and because excluding students who flunk out of school requires the arbitrary exclusion of extremely low value on grades (Bean, 1982, p. 292).

Persistence and retention--Both terms are used to describe continued enrollment at the same institution.

New full-time freshman--A student who entered an institution as a full-time student for the first time during the fall term, 1983, with less than one semester

of academic credit earned at any institution that was applicable for credit at the institution entered in fall, 1983; also included are students who had earned any amount of credit solely by means of the College Level Examination Program or similar exemption test.

Academic Programs and Services—Academic advising services, credit—by—examination programs, honors programs, computer services, testing/grading system, course content in major field, instruction in major field, out of class availability of instructors, attitude of faculty toward students, variety of courses offered by college, class size relative to type of course, flexibility to design own program of study, and preparation for future occupation.

Admissions Policies and Programs--General admissions procedures, availability of financial aid information prior to enrolling, accuracy of college information received before enrolling, and the college catalog/admissions publications.

Rules and Regulations--Student voice in college policies, rules governing student conduct, residence hall rules and regulations, academic probation and suspension policies, purposes for which student activity is used, and personal security/safety on the campus.

Facilities -- Library facilities and services, parking facilities and services, classroom facilities, laboratory facilities, athletic facilities, study areas, student union, campus bookstore, availability of student housing, and the general condition of the buildings and grounds.

Registration Policies and Procedures--General registration procedures, availability of courses at times that fit students' schedules, academic calendar for the college, and the billing and payment procedures.

Non-Academic Services and Programs--Personal counseling services, career planning services, job placement services, recreational and intramural programs and services, student health services, student health insurance programs, college-sponsored tutorial services, financial aid services, student employment services, residence hall services and programs, food services, college-sponsored social activities, cultural programs, college orientation programs, college mass transit services, veterans services, day care services, student government, religious activities and programs, and the campus media (student newspaper, campus radio, etc.).

College in General--Concern for students as individuals, attitude of college non-teaching staff toward students, racial harmony at the college, opportunities

for personal involvement in campus activities, and "the college in general."

Limitations and Delimitations

Delimitations limit the focus and scope of the research, and limitations present the inherent weak-nesses of the study that are not within the researcher's ability to control.

The study was delimited to a group of ten small private colleges which chose to administer the ACT Student Opinion Survey on their campus during the 1983-84 school year. Only first-time entering freshmen were used as subjects of this study rather than all students. Past studies (Cope and Hannah, 1975; Iffert, 1957; Noel, Levitz, and Saluri, 1985; Summerskill, 1962) have indicated that the highest amount of attrition occurs between the freshman and sophomore years, thus this group was studied.

The small number of colleges is a factor that may limit the generalizability of the findings. Without replication the results may be suspect. The study examined faculty perceptions of how faculty believed students viewed the campus. Since the ACT Student Opinion Survey has not been used for this purpose before, there is also the possibility that it may not actually measure

accurately faculty perceptions of students' views of the campus.

Another limitation is that differences between perceptions of freshman students and faculty members may have no relationship to differences in perceptions between faculty members and upperclassmen. Additional study is warranted for sophomore, junior and senior year attrition.

Finally, it should be noted that this study did not distinguish between "permanent drop-outs" and "stop-outs" since it defines drop-outs as students who do not return the second year. In other words, "it is possible that the definition of withdrawal used in this study may be capturing some stop-out behavior as well" (Desler, 1985, p. 14).

Overview of the Dissertation

The first chapter of the dissertation has been an overview of the study. Specifically, it has included a background for the study, stated the purpose and need for the study, included an overview of the basic design of the study, indicated limitation and delimitations for the study and provided working definitions that were used in the study.

Chapter two contains a review of the literature pertinent to the study. The literature review focuses

on: 1) criticisms of past attrition research, 2) rates of attrition, 3) student characteristics associated with attrition, 4) ideas about integration into the college environment, and 5) faculty impact on student attrition.

Chapter three of the dissertation contains a description of the design and methodology of the study. Included in this chapter are also descriptions of the population, sample, data-analysis techniques and information on the validity and reliability of the Student Opinion Survey.

Chapter four contains the presentation and analysis of the data.

The fifth and final chapter of the dissertation contains a summary of the study, presentation of the major findings, conclusions, speculations about and inferences derived from the findings, implications for practitioners, recommendations for further research, and a final note.

CHAPTER II

LITERATURE REVIEW

Introduction

In considering the background literature for this dissertation, it should be noted that several comprehensive reviews of the literature on student attrition do exist (Cope and Hannah, 1975; Pantages and Creedon, 1978; Spady, 1970; Summerskill, 1962). Updated reviews of the literature can also be found in several recent dissertations on college student attrition (Bright, 1982; Desler, 1985; Disque, 1982; Enos, 1981; Johnson, 1980; Latta, 1983; Melcher, 1980; Miller, 1981; Montgomery, 1982; Mullendore, 1980; Nunley, 1981; Schneider, 1982; Taylor, 1982; Thurman, 1980; Whiting, 1980). Thus, due to the extensive amount of literature that exists on college student attrition and due to the fact that so many extensive reviews are available to the reader, this review of the literature shall focus only on specific issues related to the study at hand; in particular, selected literature in the following areas: 1) criticism of attrition research, 2) rates of attrition, 3) student characteristics associated with attrition, 4) integration into the college environment, and 5) faculty impact on student persistence.

Criticisms of Attrition Research

Studying student attrition is no simple task. The process is complicated by the multitude of factors that interact to influence a student to persist or drop out of college. Several criticisms have emerged in recent years regarding the attrition research of the past fifty years.

An early criticism of the literature was that many studies of attrition tended to concentrate on factors related to the academic success of students using the assumption that college achievement is positively related to persistence. Although there is a positive correlation between achievement and persistence, there also exists a higher than expected attrition rate for academically successful students, and it is naive to base very much on this assumption (Pantages and Creedon, 1978).

A second criticism is that there has been too strong an emphasis upon the idea that dropping out of college is a negative behavior. Drop-outs have been labeled with such terms as "casualties" and "non-survivors," and these negative attitudes have not only placed undue pressure on students, but also have strongly influenced educational policies, "particularly those concerning readmission and even concerning

transfer students" (Pervin, Reik, Dalrymple, 1966, p. 18).

A third criticism has to do with the wide discrepancy in assumptions and definitions used in attrition studies. With such variance, many studies are not comparable since they are really dealing with different phenomena (Johnson, 1980).

A final criticism of attrition studies is that until the last decade or so there really was no theoretical orientation or model which could help guide the study and suggest a methodology to be employed (Johnson, 1980; Mullendore, 1980; Pantages and Creedon, 1978). Without a basis or model to set the focus, many of the early studies examined only narrow areas of inquiry (pre-enrollment characteristics, student behavior while enrolled, etc.) rather than considering a broad framework from which one might be able to explain the process of dropping out.

Attempts were made in this current study to be sensitive to the four criticisms expressed in the preceding section. First, the study at hand considered faculty and students' perceptions of the entire campus environment, not only academic factors, thus acknowledging that academic success alone is not the only determinate for college persistence.

Regarding the criticism that dropping out of college is viewed as negative behavior, it should be clear that all student attrition is not bad. Lenning, Beal, and Saven clarify the issue very well:

Some students need to transfer, stop out, or drop out for their own benefit, and an approach that could somehow force them to stay would be inappropriate, in spite of the detrimental financial implications of decreased enrollment.

... Rather than improving retention per se, the primary goal should be to better meet student needs and to provide a more meaningful educational experience. And in the long run, motivations close to the mission of the institution probably will lead to higher enrollments and tuition revenue than will a short-sighted, survivalist focus on enrollment for enrollment's sake (quoted in Kemerer, 1982, p. 87).

The study at hand attempted to not only help determine strategy for higher retention rates, but also sought to help faculty members realize that they may not always view their institution in the same manner as their students. Aside from any enrollment concerns, determining variances in faculty and student perceptions of the total institutional environment could be a critical factor in improving the quality of education.

In an attempt to respond to the criticism of many that research on attrition needs more clearly defined definitions and assumptions, the writer clearly stated his definitions as well as the limitations and delimitations of this current study.

The final criticism expressed in this section was the lack of a conceptual/theoretical basis for conducting attrition research. Tinto (1975) has indeed formulated a conceptual model for studying student attrition and several researchers have tested all or parts of his model (Atkin, 1982; Bean, 1980, 1981; Desler, 1985; Mundo, 1981; Pascarella, Duby and Iverson, 1983; Pasceralla and Terenzini, 1979, 1980; Terenzini and Pascarella, 1977, 1978). More recently, Astin (1984) has formulated his Student Involvement Theory, which, among other things, attempts to identify factors that significantly affect students' persistence in college. Both models (Astin, 1984; Tinto, 1975) suggest a positive correlation between student-faculty interactions and subsequent persistence. By using faculty awareness of student perceptions of the campus environment as a qualitative measure of student-faculty interactions the current study attempted to test and validate this notion from Tinto's (1975) and Astin's (1984) models.

Rates of Attrition

The major analysis of national attrition rates between 1950 and 1975 was published by Iffert in 1957 (Pantages and Creedon, 1978). Iffert's major conclusions were:

- 1. Fifty percent of the entering class will be
 "lost" to the average college by the end of four
 years;
- 2. Only 40% of the entering class will graduate from that college four years later;
- 3. The remaining 10% will graduate from that college after four years; and
- 4. Twenty percent of the "lost" students will graduate from some other institution eventually (Iffert, 1957).

Summerskill (1962), one of the most often quoted sources for attrition data, confirmed Iffert's findings. In his studies over a forty-year time span (1913-1953) involving thirty-five attrition studies, he noted that the percentage of students lost to a college over a four-year period had not changed significantly in four decades. The median loss after four years was 50%, and the median of the graduating classes in four years was 37% (Summerskill, 1962).

Both Iffert and Summerskill found that one-half of the total who dropped out did so before the sophomore year (Iffert, 1957; Summerskill, 1962). Not only do freshmen have the highest rate of not returning for their second year, but "given the theory of the dropout process postulated by Tinto (1975), it may reasonably be

concluded that they also have the highest percentage of permanent dropout of any class" (Latta, 1983, p. 24).

The early studies of Iffert and Summerskill have been criticized by some researchers for not making adequate allowances for the extended academic careers of some students (Potter, 1981). Eckland (1964) found in a study of University of Illinois students that the true completion rate (allowing a ten-year time span) was closer to 70%. Jex and Merrill (1962) estimated that 60% of the drop-outs would re-enroll and Johansson and Rossman (1973) estimate that 80% of drop-outs re-enroll and 60% will graduate. Although there is a growing awareness that many students are stop-outs, not dropouts, the literature also indicates that those early figures indicated by Iffert and Summerskill have actually remained quite constant (Astin, 1977; Cope and Hannah, 1975; Lenning, Beal and Saven, 1980; Noel, 1978; Noel, Levitz, and Saluri, 1985; Ramist, 1981).

Several items regarding rates of attrition are noted in the findings of Cope and Hannah (1975):

--The withdrawal rate is high, has been high for fifty years of attrition research, and seems to change little over time. Between 40 and 50 percent of the entering students earn baccalaureate degrees in four years, 20 to 30 percent graduate later, and the remaining 30 to 40 percent never earn degrees.

--Since most talented students persist in their studies toward degrees, there is little attrition among the most promising entrants, at least in terms of degrees earned.

--Men and women discontinue, stop-out, transfer, and so on in approximately equal proportions, but for different reasons: men more often because of matters related to competence, adequacy, and identity-searching; women more often because of intellectual-aesthetic and social dimensions, including dating and marriage.

--The rate of college degree completion varies considerably among different colleges and universities. The prestigious private universities experience little attrition over four years, while some of the less prestigious private colleges, the state colleges, and the community colleges have most of their students withdraw prior to completion of any degree.

--The primary factor in "holding power" is the student's identification with the college. Colleges are more likely to retain the student who chooses the institution because of its clear image, values, and programs, and knows this is what he or she wants (Cope and Hannah, 1975, pp. 101-102).

Since this study was concerned with small private colleges, it is also helpful to note that Cope and Hannah's findings indicate small, private, church-related institutions (the category of all of the ten colleges in the current study) have a first-year attrition rate of 26.8% and a 51.7% attrition rate after four years (Cope and Hannah, 1975).

Student Characteristics

<u>Age</u>

The literature gives conflicting results regarding the impact of age on attrition. Several studies (Astin, 1975; Chase, 1965; Gonyea, 1964; Sexton, 1975) had results that indicated students of "normal college age" have a better chance of persisting. However, Summerskill and Darling (1955) found older students more likely to graduate. Cope, Pailthorp, and Trapp (1971) concluded, after reviewing several studies considering the relationship of age and attrition, that age, in and of itself, is not a good predictor of dropping out.

Sex

As is the case with age, the relation between sex and attrition is noticeably mixed and unclear. In one of the earliest studies that investigated the relationship of sex and attrition, Iffert (1957) discovered that men had a significantly higher attrition rate than women. However, this study was conductd at the same time as the Korean War, when large numbers of men were called to enlist. Panos and Astin (1968), controlling for high school G.P.A., found that sex and persistence in college were unrelated. Tinto (1975) has also cited this finding. Cope (1971), however, also

controlling for high school G.P.A., noted that women were more likely to drop out when they were attending institutions that had a higher ratio of men to women.

As noted earlier in this literature review, researchers have found considerable differences when comparing reasons men and women have given for dropping out. Iffert (1957) found that the major reason cited by men was lack of interest in studies, while women reported marriage as the number one reason. Panos and Astin (1968) noted that men listed dissatisfaction with the college environment as their major reason, while women again listed marriage. However, women did list dissatisfaction with the college environment as the second major reason for dropping out of college in this Panos and Astin study. Skaling perhaps best sums up the effect sex has on attrition rate:

It is clear that sex when used alone is not a good predictor of dropping out. The research planning in view, however, suggests that when sex is used in conjunction with other variables it helps identify, predict, and explain drop-out behavior (quoted in Johnson, 1980, p. 26).

Socio-Economic Status

Socio-economic status is usually determined by the educational level of the parents, the occupation of the father, and the family income (Johnson, 1980). When

these three indicators are combined, one uses the single scale of Socio-Economic Status (SES) to find that it is correlated with attrition (Johnson, 1980). The higher the socio-economic status of a family, the less likely it is that a student will drop out of college. The lower the socio-economic status in the family, the greater the likelihood that a student will drop out (Astin, 1964; Panos and Astin, 1968; Sewell and Shah, 1967). These findings should be used cautiously, however, and more detailed study should be done on the separate factors that comprise the socio-economic status (SES) of a student (Johnson, 1980).

Expectational and Commitment Factors

It has generally been noted that the higher the level of the student's educational and career goals, the more likely he is to persist and to graduate from college (Panos and Astin, 1968; Thistlewaite, 1963). It also appears that entering college with the expectation of dropping out does indeed become a self-fulfilling prophecy (Marks, 1967; Rossman and Kirk, 1970). Hackman and Dysinger (1970) note that:

Students with high academic competence and moderate to high college commitment are most likely to persist. Students with high competence but moderate to low commitment tend to transfer to other colleges or drop out and re-enroll at a later time. Students with low competence but with moderate to high commitment

tend to persist in college until they are forced to leave because of poor grades. Finally, those students with both low competence and a moderate to low commitment are likely to drop out and are unlikely to ever re-enroll at any college (in Pantages and Creedon, 1978, p. 66).

Spady (1970) noted that a student's expectation for his college experience is one of the most unambiguous findings from the literature associated with persistence. Rossman and Kirk (1970) add further support to this notion with results from studies that indicate that students who do not expect to graduate have lower completion rates than students who expect to graduate. Fetters (1977) found the same to be true even when controlling for high school grade point average and socio-economic background.

In summary, it seems quite clear that students' educational and career expectations are important to consider when investigating causes of student attrition (Johnson, 1980).

Academic Achievement and Aptitude

Much of the research regarding student attrition indicates that there is a positive relationship between high school grades and later persistence (Astin, 1975; Noel, 1966; Panos and Astin, 1967). It should be noted, however, that none of the studies cited, and very few others, clearly differentiate academic dismissals

from those students who voluntarily withdrew in describing drop-outs (Johnson, 1980). This distinction is believed to be important, at least by some researchers. Skaling (1971), for example, noted that when he considered only "voluntary drop-outs" he found that there was no significant difference between their high school averages and those of persisters.

In reviewing studies that examine the relationship between academic achievement in college and rate the persistence, one notes that the findings are similar to those correlating persistence with high school achievement. In summary, many researchers have found a high positive correlation between college G.P.A. and persistence (Astin, 1975; Blanchfield, 1971; Panos and Astin, 1968). However, the same definitional problem cited earlier plagues these studies. Chickering (1971) found that when controlling for voluntary withdrawals, there were no significant differences in G.P.A.s between persisters and non-persisters.

A review of the literature regarding the relationship of aptitude and attrition also has conflicting results, due primarily to the imprecise definition of drop-out. Rossmann and Kirk (1970), distinguishing between academic dismissals, voluntary withdrawals, and persisters, found that voluntary

withdrawals had a significantly higher SAT verbal score than did persisters, and that academic dismissals had the lowest SAT verbal score as compared with the other two groups. These findings, along with other studies in the literature, lead to the conclusion that for those students who voluntarily withdraw from college, academic achievement and aptitude are not critical factors (Johnson, 1980).

Personality Factors

Several researchers have attempted to identify personality characteristics that are significantly related to persistence or dropping out of college. Cope and Hannah (1975), however, indicate that these efforts have "shed little light" on the subject, due to the many problems of sampling, measurement, and design. Heilbrun (1965), having studied high-ability students, noted that those who are more passive and task-oriented tended to be more likely to persist. Conversely, he also noted that students who were more assertive and less taskoriented, were more likely to drop out of college prior to the second year of study. Cope and Hannah (1975), attempting to develop a personality profile for the drop-out, compared several studies which used the Omnibus Personality Inventory (OPI). The review of these studies noted two scales within the OPI which appeared to be associated with dropping out--impulse expression and complexity. This finding could indicate that drop-outs lack the self-discipline needed to successfully pursue and complete a college education (Johnson, 1980). Cope and Hannah (1975), in concluding their discussion on personality traits, note that it is individuals' attitudes which in turn help to form and shape their values which are important in studying attrition. As noted by Tinto (1975), it is the interaction of the student's value system with the campus community that seems to better explain the phenomena of student attrition.

Study Habits

When a student actively engages in study and works to successfully complete the academic demands of his/her college, research indicates that student is more likely to persist (Johnson, 1980). Tinto (1975) found that the amount of time a student spends studying while enrolled is actually a measure of the extent of his/her academic integration.

Extra-Curricular Activities

As is the case with study habits, involvement in extra-curricular activities is considered an important measure of a student's integration within the campus

environment. Skaling (1971) notes that, in general, drop-outs are less involved with extra-curricular activities when compared with persisters, and Iffert (1957) and Sexton (1965) both note that persisters tend to demonstrate greater involvement in intercollegiate athletics and are more often members of fraternities and sororities. Johnson (1980) notes that it may not be the nature of the activity itself that influences persistence or dropping out as much as the act of participating.

Friendship

Several studies have indicated that friendship support, which may be indicative also of the extent of social integration, is strongly related to persistence in college (Cope and Hewitt, 1969; Pervin and Reuben, 1967; Tinto, 1975). Tinto (1975) notes that students with similar values and interests spend time together in groups. These sub-culture groups provide support, warmth, and help validate the activities of members. In general, the research findings concerning friendships and rate of attrition suggest that friendship is an important dynamic in helping a student feel integrated within the community. Further, "it appears to be influential in differentiating persisters and drop-outs" (Johnson, 1980, p. 24).

Integration into the Collegiate Environment

"At one time or another, virtually every aspect of an institution and the student's role in it has been compared with attrition" (Potter, 1981, p. 39). These factors have included the size of the institution (Astin and Panos, 1969; Iffert, 1957; Kemens, 1971; Nelson, 1966); religion (Astin, 1968; Pace, 1962); selectivity (Astin and Panos, 1969; Nelson, 1966; Wegner and Sewell, 1970); housing (Berger and Hall, 1965; Iffert, 1957; Slocum, 1956); and outside activities (Astin, 1975; Chase, 1970; Cope and Hannah, 1975; Sexton, 1965). In general, "those factors which tend to draw a student closer to an institution have been found to have a positive relationship to persistence" (Potter, 1981, p.39).

"The concept of integration implies the positive effect of bringing the environment and the student into a harmonious relationship" (Latta, 1983, p. 47). This notion of integration in person/role "fit" permeates a great deal of the literature on why students leave college (Astin, 1964, 1965, 1975; Pace, 1962; Stern, 1960). Spady's (1970) sociological model for college attrition is based on Durkheim's Theory of Suicide. According to Durkheim (1951), suicide is more likely to occur when individuals are insufficiently integrated into society. According to Spady's model, lack of

integration with the social system of college leads to low commitment to its social system, and subsequently increases the probability that individuals will decide to leave college and pursue other activities (Thurman, 1980). Several other researchers have given support to this interaction between students and their institutional environment in recent studies (Astin, 1975; Cope and Hannah, 1975; Feldman and Newcomb, 1969; Nelson, 1966; Tinto, 1975). Rootman's (1972) interactional theory also asserts that voluntary withdrawal is primarily related to the person/role "fit" between the individual and the environment at the college.

Perhaps the most comprehensive and best-known conceptualization based on Durkheim's Theory of Suicide is that of Tinto (1975). Although similar to, it is much more elaborate than Spady's. It attempts to explain student attrition from an individual institution of higher education rather than seeking to explain dropout behavior within the entire system of higher education. It is an institutional rather than a systems model (Tinto, 1975).

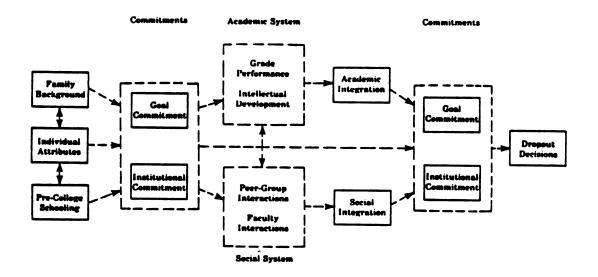
Tinto indicated that the social system of a college is really comprised of two key elements: one academic and one social. The academic system includes

the academic values that are held and espoused by the institution (importance of grades, intellectual inquiry and development, pursuit of educational goals, etc.). The social system is defined by the quality, extent and value placed on interactions between various community members (students, faculty, etc.). Although the academic and social systems are central to Tinto's theory they are but one component of his model (Johnson, 1980, p. 7).

Insert Figure 1 Here

Tinto's theoretical scheme (figure 1) is composed of six distinct parts: 1) the inputs or pre-enrollment characteristics of students (e.g., family background, individual attributes, pre-college schooling); 2) the level of a student's goal and institutional commitment at time of initial entry to college; 3) the academic and social system of the particular institution in which a student enrolls; 4) the extent of a student's academic and social integration within the institution as a result of involvement in campus academic and social activities; 5) changes in the level of a student's goal and institutional commitments after experiencing the academic and social systems of a particular college; and 6) the formulation of a decision to drop out or persist (Johnson, 1980, p. 7).

FIGURE 1
Tinto's (1975) Conceptual Schema for Dropout From College



"Tinto's model views attrition as a longitudinal process involving a complex series of sociopsychological interactions between student and institutional environment" (Thurman, 1980, p. 22). A student brings to college characteristics such as family background (e.g., socio-economic status, parental values), personal attributes (e.g., sex, race, academic ability, and personality traits), and experiences (e.g., pre-college social and academic achievements). presumes that these traits influence not only college but also initial levels of goal and performance institutional commitment. He further purports that these characteristics and commitment in turn interact with various features of a particular college or university environment leading them to levels of integration with academic and social systems of the school. According to Tinto (1975),

Given individual characteristics, prior experiences and commitment . . . it is the individual's integration into the academic and social systems of the college that most directly relates to his continuance in that college. Given prior levels of goal and institutional commitment, it is the person's normative and structural integration into the academic and social systems that lead to new levels of Other things being equal, the commitment. 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).

The validity of Tinto's model has been the focus of a growing body of research (Atkin, 1982; Bean, 1980, 1981; Desler, 1985; Mundo, 1981; Pascarella, Duby and Iverson, 1983; Pascarella and Terenzini, 1979, 1980; Terenzini and Pascarella, 1977, 1978). While not all of these studies provide a comprehensive test in which all of Tinto's constructs are represented and their influence estimated in a causal sequence, each of these investigations do tend to support the predictive ability of several aspects of the model.

The final model explored in this section on Integration into the Collegiate Environment is Alexander Astin's Student Involvement Theory (Astin, 1984). Endeavoring over many years to identify factors in the college environment that significantly affect the student's persistence in college, Astin notes that:

It turned out that virtually every significant effect could be rationalized in terms of the involvement concept; that is, every positive factor was likely to increase involvement, whereas every negative factor was likely to reduce involvement (Astin, 1984, p. 302).

Astin's notion of student involvement resembles the psychological construct known as motivation. Student Involvement goes beyond the psychological state, however, and includes the behavior manifestation. In contrast to many theories on student development (Chickering, 1981), Student Involvement Theory is more

concerned with the process that facilitates growth rather than the developmental outcomes. The focus, that is, is on the <u>how</u> more than the <u>what</u> of student development (Astin, 1984).

In a recent article Astin identifies the basic postulates of his Student Involvement Theory:

At this stage in its development, the involvement theory has five basic postulates:

- 1. Involvement refers to the investment of physical and psychological energy in various objects. The objects may be highly generalized (the student experience) or highly specific (preparing for a chemistry examination).
- 2. Regardless of its object, involvement occurs along a continuum; that is, different students manifest different degrees of involvement in a given object, and the same student manifests different degrees of involvement in different objects at different times.
- 3. Involvement has both quantitative and qualitative features. The extent of a student's involvement in academic work, for instance, can be measured quantitatively (how many hours the student spends studying) and qualitatively (whether the student reviews and comprehends reading assignments or simply stares at the textbook and daydreams).
- 4. The amount of student learning and personal development associated with any educational program is directly proportional to the quality and quantity of student involvement in that program.
- 5. The effectiveness of any educational policy or practice is directly related to the capacity of that policy or practice to increase student involvement.

These last two propositions are, of course, the key educational postulates, because they provide

clues for designing more effective educational programs for students. Strictly speaking, they do not really qualify as postulates, because they are subject to empirical proof. Indeed, much of the recommended research on involvement... would be designed to test these two propositions (Astin, 1984, p. 298).

Astin notes that support for his involvement theory is found when examining the reasons students give for dropping out of college.

For men the most common reason is boredom with courses, clearly implying a lack of involvement. The most common reason for women is marriage, pregnancy, or other responsibilities, a set of competing objects that drain away the time and energy that women could otherwise devote to being students (Astin, 1984, p. 303).

Astin believes that the persister-dropout phenomenon is ideal for studying student involvement. If one conceives of involvement as occurring along a continuum, "the act of dropping out can be viewed as the ultimate form of noninvolvement" (Astin, 1984, p. 303).

Faculty Impact on Student Persistence

persons who can positively influence student retention. Lee Noel asserts that, although retention should be viewed as a by-product of quality programs and services and not as a goal in itself, all faculty and staff on a campus have a responsibility to contribute in some way to retention efforts (Noel, 1976).

Astin notes that student-faculty interaction is critical for students' satisfaction and subsequent retention:

Student-faculty interaction has a stronger relationship to student satisfaction with the college experience than any other involvement variable, or indeed, any other student or institutional characteristic. Students who interact frequently with faculty are more satisfied with all aspects of their institutional experience . . (Astin, 1977, p. 223).

Panos and Astin (1968) note that dropping out is less likely to occur when students perceive the classroom environment to be characterized by a high level of personal involvement on the part of faculty and when students feel familiar with faculty members. Pascarella and Terenzini (1976, 1977, 1979) have consistently found faculty relationships, such as contacts outside of the classroom, to be positively associated with student persistence.

Wilson, Wood and Gaff (1975) have contributed to the conceptual clarity of research on faculty-student interaction beyond the classroom through extensive studies on faculty impact on students. They have defined six role capacities for respondents in faculty conversations or discussions with students. The six categories are as follows:

- 1. Educational Advisor -- to give a student basic information and advice about his academic program;
- 2. <u>Career Advisor--</u>to help a student consider matters related to his/her future career;
- 3. <u>Counselor</u>—to help a student resolve a disturbing personal problem;
- 4. <u>Instructor</u>—to discuss intellectual or academic matters with a student;
- 5. <u>Campus Citizen</u>—to discuss a campus issue or problem with a student; and
- 6. <u>Friend</u>—to socialize informally with a student (Wilson, Wood, Gaff, 1975, p. 76).

Some studies have noted that the six types of contact do not contribute equally to college student persistence (Thurman, 1980). For example, in one study, Pascarella and Terenzini (1977) found that contacts focusing on intellectual or course-related matters clearly contribute most to discrimination between persistence and non-persistence.

Most research on faculty-student interaction uses data from students and fails to reflect faculty experiences (Thurman, 1980). Wilson, Wood and Gaff (1975) have gone beyond the majority of studies and focused on faculty members. Their findings indicate faculty members who have more extensive contacts with students are more likely to feel that students evaluate

them favorably and are also more likely to be satisfied with teaching than are those with fewer contacts. Also noted in this study was that faculty members who report the most extensive interaction with students in the six areas indicated earlier receive the greatest number of nominations from their colleagues as "outstanding teachers" and from college seniors as the "one teacher who contributed most" (Wilson, Wood and Gaff, 1975). Thus, faculty interaction with students as noted by Thurman, "may not only be significantly related to their social-psychological accessibility but to effectiveness as a teacher . . ." (Thurman, 1980, p. 33).

The role faculty members play in improving student retention may be related to whether or not they see a change in their behavior as relevant. At least three variables have been identified as central for faculty behavior change: motivation, role expectations, and resources and constraints (Davis, 1979).

Faculty who have the most extensive interaction with students seem to reap personal and educational benefits from such interaction: out-of-class interaction seems to enhance both the enjoyment and the sense of accomplishment which a faculty member can derive from teaching. Wilson and others suggest that although the psychological satisfactions of working closely with students may be great, teachers--even committed ones--like to see their efforts recognized in a tangible way by the formal reward structure of the college (Thurman, 1980, p. 37).

The research regarding faculty-student interaction without a doubt suggests that it is an important dimension in shaping student satisfaction with a college which in turn affects rate of persistence and withdrawal. Within Tinto's model, such interactions appear to influence both the academic and social integration that students experience (stronger associations with academic) and indeed should be examined carefully when considering factors influencing student retention on a campus (Johnson, 1980).

Summary

Acknowledging that there exist many comprehensive reviews of the literature on college student attrition, this review has focused only on the areas most pertinent to the study at hand. In particular the review examined criticisms of attrition research, established what the norms are for attrition rates, noted the characteristics associated most often with attrition, reviewed several models that stress the importance of integration into the college environment, and provided an overview of the literature which considers faculty impact on student persistence.

Attrition rates of at least 40% at American colleges and universities are quite common. Past and present studies indicate, in fact, that these rates have

been consistent over the past 40 years (Rees, 1979). Although researchers have attempted to discern the reasons students persist or withdraw from college, it remains a difficult task due to the multitude of factors that interact to influence a student. Several criticisms have emerged in recent years regarding the validity of some of the past studies. Attempts were made in the design and methodology of the current study to avoid the pitfalls of the past.

Early attrition studies focused primarily on individual student differences, and attempted to note areas where persisters and non-persisters differed. The current review noted findings regarding several student characteristics and subsequent effects on attrition. More recently, however, the focus has shifted from exclusively examining individual difference between persisters and non-persisters to also considering the role of the institution.

Particular attention was given in this review to how a student's integration into the collegiate environment impacts his decision to stay or leave and to the role faculty members play in this notion of integration. Models of Spady (1970) and Tinto (1975) were reviewed as well as Astin's Theory of Student Involvement (1984) and all pointed out a strong positive

correlation between integration into the college community and persistence. Also pointed out in this review was the importance of faculty members in facilitating a student's more complete integration into the academic and social systems of the college.

The strong support from the literature for the integration models, as well as its indication of the critical role faculty members play in retention, provides the foundation for the current study. If faculty members are aware of what students think about the campus, they may be in a better position to help facilitate better integration and subsquently increase a student's likelihood of persisting. The current study builds on previous research which indicates the importance of these integration issues and attempts to add new information regarding the faculty members' role in retention.

In essence, congruence between faculty and students' perceptions of the campus is viewed as a qualitative measure of faculty-student interaction. Thus, the current study attempted to validate Tinto's (1975) and Astin's (1984) strong emphasis on the faculty-student relationship as an important factor when studying student attrition.

CHAPTER III

DESIGN AND METHODOLOGY

Introduction

The purpose of this study was to examine data from ten small private colleges to determine if any significant relationship existed between the composite variances of faculty and freshman student perceptions of the campus environments and freshman attrition rates at the same schools. Congruence between faculty and students' perceptions is viewed by the researcher as a qualitative measure of faculty-student interaction, thus the study attempted to validate Tinto's (1975) and Astin's (1984) emphasis on faculty-student relationships as an important factor when studying student attrition.

This chapter describes the population and sample for the study, the instrumentation and data collection techniques, the hypotheses, the means for measurement and operational definitions of the variables, and the procedures used to analyze the data.

Population and Sample

The colleges participating in the study were Baker University (Baldwin City, Ks.), Berry College (Mount Berry, Ga.), College of St. Joseph (Rutland, Vt.), Franklin College (Franklin, In.), Grand Rapids

Baptist College (Grand Rapids, Mi.), McMurry College (Abilene, Tx.), Neumann College (Aston, Pa.), Ottawa University (Ottawa, Ks.), Schreiner College (Kerville, Tx.), and Upsala College (East Orange, NJ.).

The colleges were selected for the study on the basis of their size (1500 or less) and because they had administered the American College Testing (ACT) Corporation's Student Opinion Survey, 4-year version, to their students during the 1983-84 school year. Inquiries were made with the ACT Corporation to identify colleges that met these two criteria. After contacting the academic deans of the fifteen institutions who met these criteria, the respondents of eleven colleges agreed to participate in the study. It was discovered, however, that one college had actually administered the survey in the 1982-83, not in the 1983-84, school year thus this college's data was not included in the study.

The ten colleges selected for the study are similar in size, are all affiliated with a church body, have similar admissions requirements, are similar in their general missions, provide similar course offerings, and are coeducational. These similar variables were considered to enhance the internal and external validity of the study. The ten colleges included in the study are briefly described below.

Baker University was founded in 1858 as the first 4-year institution of higher education in the state of While named a university, the traditional mode of operation is collegiate, with primary concern expressed for undergraduate teaching and advising. Baker University's affiliation with the Methodist church affirms the University's desire to provide a campus atmosphere conducive to the development and maturation of the moral and spiritual values of the Judeo-Christian tradition. Located 45 miles southwest of Kansas City, the school is accredited by the North Central Association of Secondary Schools and Colleges. The coeducational university offers a limited amount of graduate programs along with a wide range of traditional baccalaureate programs for a liberal arts college. University had a freshman class enrollment of 221 in the fall of 1983 (Baker University Catalog, 1984).

Berry College, located in northwest Georgia (half way between Atlanta and Chattanooga), is a private coeducational school which had a freshman class of 284 in the fall of 1983. The school is accredited by the Southern Association of Colleges and Secondary Schools. Founded in 1902, Berry College is dedicated to being Christian in spirit and democratic in procedure. The coeducational college offers a full range of typical

liberal arts majors as well as master's degrees in business administration and education. Berry students have the distinction of learning and living on a campus nestled among 28,000 acres of forests, fields, mountains, lakes, and streams (Berry College Catalog, 1983).

The College of St. Joseph was founded by the Sisters of St. Joseph in 1954 and originally existed to prepare Sisters for teaching careers. In 1962 the college expanded its mission and continues today to educate men and women in the context of Christian values and Roman Catholic traditions. The college is accredited by the New England Association of Schools and Colleges, is located near a small city in central Vermont, and had a freshman class enrollment of 45 in the fall of 1983. The college offers traditional liberal arts majors as well as a master's degree in teacher education (College of St. Joseph Catalog, 1983).

Franklin College, located in rural southern Indiana, was founded in 1834 by Indiana Baptists. The college is accredited by the North Central Association of Secondary Schools and Colleges and offers a wide range of traditional liberal arts concentrations as well as several pre-professional and specialized undergraduate career preparation areas of study. The college is primarily a residential school and maintains a voluntary

affiliation with the American Baptist Churches, U.S.A., and the Indiana Baptist Convention. The coeducational college had a freshman enrollment of 243 in the fall of 1983 (Franklin College Catalog, 1984).

Grand Rapids Baptist College, located in the second largest city in Michigan, was founded in 1941 as an evening Bible institute. The coeducational school became a Bible college in 1962 and in 1976 expanded its curriculum to include the more traditional liberal arts offerings. The college shares its 132 acre campus with a seminary and is accredited by the North Central Association of Secondary Schools and Colleges. The school is affiliated with the General Association of Regular Baptist Churches and seeks to maintain a distinctively Christian approach to all of its educational programs and services. Grand Rapids Baptist College had a freshman class enrollment of 209 in the fall of 1983 (Grand Rapids Baptist College Catalog, 1984).

McMurry College was founded in 1920 by the Northwest Texas Conference of the Methodist Church and continues today to be supported by the United Methodist Church. The college is accredited by the Southern Association of Colleges and Schools and had a freshman class of 226 in the fall of 1983. Central to the mission of the college is sound preparation of young men

and women for careers in science, education, and the Christian ministry. McMurry College has the distinction of being the legal and spiritual successor to four historic educational institutions of West Texas and New Mexico, namely, Stamford College, Clarendon College, Seth Ward College, and Western College of Artesia (McMurry College Catalog, 1984).

Neumann College was established in 1965 as a four year, Catholic, liberal arts college for women, sponsored by the Sisters of St. Francis of Philadelphia. Located in Delaware County, Pennsylvania, the college became coeducational in 1980 and had a freshman class of 122 in the fall of 1983. True to its original mission, Neumann College stresses the value of the liberal arts in developing intellectual excellence, professional competence and a strong family life, all in the context of the traditional Roman Catholic values. The college offers a wide range of traditional liberal arts majors as well as a recently added master's degree in pastoral counseling. The college is accredited by the Middle States Association of Colleges and Secondary Schools (Neumann College Catalog, 1983).

Founded in 1865 as a mission of the church, Ottawa University continues its commitment to the work of Jesus Christ and to the accomplishment of its task

through relatedness to the American Baptist Churches, U.S.A. Located in Franklin County, Kansas, the school offers a wide range of liberal arts majors as well as several pre-professional programs. The school had a freshman class of 124 in the fall of 1983 and has been accredited by the North Central Association of Colleges and Secondary Schools continuously from its beginning. The coeducational university attempts to provide the highest possible quality education for the development of individual students in the context of its Christian heritage, its liberal arts emphasis, and its coeducational community of concern and scholarship (Ottawa University Catalog, 1983).

Founded in 1917, Schreiner College is related by choice and covenant to the Presbyterian Church (U.S.A.). As a coeducational, baccalaureate degree granting institution, the purpose of the college is to serve students holistically and through them, the community, the state, the nation, and the ecumenical church. Located sixty miles northwest of San Antonio, the college was originally a military preparatory school for men. In 1977 the school became coeducational and in 1973, phase out began of the preparatory department. At this time the curriculum was broadened to include career education and life long learning opportunities. After a

decade the transition was complete in 1983. The college is accredited by the Southern Association of Schools and Colleges and had a freshman class of 132 in the fall of 1983 (Schreiner College Catalog, 1984).

Upsala College was founded in 1893 by Lutherans of Swedish descent living in the eastern United States. Its 240-acre campus is located in suburban East Orange, New Jersey just thirty minutes away from New York City. Upsala believes the development of the mind that results from a liberal education is central to success in life and in a career. Therefore, both traditional disciplines and the pre-professional programs contain a strong emphasis on a broad liberal arts component, all within the context of the Judeo-Christian tradition of the Lutheran Church. The college is accredited by the Middle States Association of Colleges and Schools and offers a wide range of baccalaureate degrees as well as master's programs in counseling services and human resource management. Upsala College had a freshman class of 318 in the fall of 1983 (Upsala College Catalog, 1984).

In order to protect the privacy of the ten colleges, individual names of the schools were not indicated in the results section of the dissertation.

Each school was assigned a letter (not alphabetically)

which was known only to the researcher and the individual college. All results refer to the colleges by these designations (i.e., College A, College B, etc.). First time entering freshmen enrolled at these ten colleges in the fall of 1983 were the students used in the study. As noted earlier, past studies (Cope and Hannah, 1975; Iffert, 1957; Summerskill, 1962) have indicated the highest amount of attrition occurs between the freshman and sophomore years, thus this group was studied.

Hypotheses

As indicated in the introduction chapter of this dissertation, the study had the following objectives:

- 1. To determine the differences between faculty perceptions of how students viewed the campus environments (academic programs and services, admissions policies and programs, rules and regulations, facilities, registration policies and procedures, non-academic services and programs, and the college in general) at ten small private colleges and how students actually viewed these environments.
- 2. To determine the freshman year attrition rates for the same ten colleges.
- 3. To determine if there was any significant correlation between composite variances of faculty and freshman student perceptions and the freshman attrition rates at these ten colleges.

In order to accomplish objective #3 the following research hypotheses were tested in the null form.

Hypothesis I

There is no significant correlation between the composite variances of faculty and freshman student perceptions of the academic programs and services (see definitions section of chapter I) at the ten small private colleges included in the study and the freshman attrition rates at these same colleges.

Hypothesis II

There is no significant correlation between the composite variances of faculty and freshman student perceptions of the admissions policies and programs (see definitions section of chapter I) at the ten small private colleges included in the study and the freshman attrition rates at these same colleges.

Hypothesis III

There is no significant correlation between the composite variances of faculty and freshman student perceptions of the rules and regulations (see definitions section of chapter I) at the ten small private colleges included in the study and the freshman attrition rates at these same colleges.

Hypothesis IV

There is no significant correlation between the composite variances of faculty and freshman student perceptions of the facilities (see definitions section of chapter I) at the ten small private colleges included in the study and the freshman attrition rates at these same colleges.

Hypothesis V

There is no significant correlation between the composite variances of faculty and freshman student perceptions of the registration policies

and procedures (see definitions section of chapter I) at the ten small private colleges included in the study and the freshman attrition rates at these same colleges.

Hypothesis VI

There is no significant correlation between the composite variances of faculty and freshman student perceptions of the non-academic services and programs (see definitions section of chapter I) at the ten small private colleges included in the study and the freshman attrition rates at these same colleges.

Hypothesis VII

There is no significant correlation between the composite variances of faculty and freshman student perceptions of the college in general (see definitions section of chapter I) at the ten small private colleges included in the study and the freshman attrition rates at these same colleges.

Instrumentation and Data Collection

The student attrition data for the study was obtained from each college on the form in Appendix B of the dissertation. The form utilized definitions adapted from the Student Attrition Module of the Council for Independent Colleges' (CIC) Planning and Data System (Council for Independent Colleges, 1977). The form was mailed to the academic dean at each college along with instructions (see Appendix C) during the spring of 1985, and completed copies were returned in a timely fashion. The data from each school was then converted to an attrition percentage by dividing the number of

students who did not return in the fall of 1984 into the total number of new freshmen in the fall of 1983.

Campus perceptions of both students and faculty members were measured by utilizing the 4-year Student Opinion Survey of the American College Testing (ACT) Corporation (see Appendix A). As noted in the population and sample section of this chapter the ten schools in the study had administered this instrument to their students sometime during the 1983-84 school year. Subsequently, the researcher mailed copies of the instrument, along with instructions (see Appendix C) to the deans of the 10 colleges and asked that faculty members compile the same instrument, responding as they believed students at their college would respond to the guestions. The percentages of freshman students who completed the Student Opinion Survey at the Ten Colleges ranged from 17.61 % to 100 % with a mean of 71.29%. As indicated in table 1 the percentages of faculty members who completed the instrument at the 10 colleges ranged from 15.32 % to 78.38 % with a mean of 51.63 %.

Insert Table 1 Here

The validity and reliability of the ACT Student-Opinion Survey is discussed subsequently in this section.

Table 1

Percentages of Freshman Students and Faculty

Completing The Student Opinion Survey

Nameof College	% of Freshman	% of Faculty
College A	17.61	15.32
College B	42.22	60.00
College C	54.32	23.73
College D	100.00	57.14
College E	58.87	57.69
College F	81.06	60.00
College G	42.99	58.82
College н	17.92	55.17
College I	22.95	50.00
College J	77.03	78.38

Validity of the Student Opinion Survey

The ACT Student Opinion Survey as well as the other instruments of the ACT Evaluation/Survey Service were developed after a thorough review of the pertinent and after consultation with expert practiliterature tioners in the fields. A preliminary version of the instrument was reviewed by educators from a number of colleges and universities as well as a small sample of Following these initial reviews, a pilot version of each instrument in ACT's Evaluation/Survey Series was developed and administered to over 10,000 students, prospective students and alumni. Response patterns within and between institutions, as well as inter-item relationships, were studied prior to the development of the final instrument (ACT, 1981). steps undertaken in the development of the Student Opinion Survey and others in the Evaluation/Survey Service (ESS) Series were as follows:

- 1. Extensive review of relevant literature.
- 2. Review of similar survey instruments.
- Preparation of preliminary items and scales.
- 4. Internal review of these items for content and clarity.
- 5. Preparation of draft instruments.
- 6. Draft instruments reviewed by college administrators, content experts, and other interested persons.

- 7. Preparation of pilot instruments.
- 8. Pilot instruments review by a sample of students.
- 9. Pilot administration of the instruments.
- 10. Analysis of pilot data.
- 11. Preparation of final ESS instruments (ACT, 1981, p. 13).

The ACT Corporation feels that:

Perhaps the most direct evidence of the face validity and content validity of the instruments lies in the items themselves. They are easy to read, straightforward questions which deal directly with particular aspects of the college (ACT, 1981, p. 13).

Reliability of the Student-Opinion Survey

Typical measures of reliability such as KR-20 or coefficient are not appropriate for the ACT Student-Opinion Survey since this instrument has no logical scale on which to base a total score (ACT, 1981, p. 13). Test-retest reliability measures have been used to test for reliability of the instrument. This approach calls for the instrument to be administered on two separate occasions to the same group and then to compare the responses.

The reliability data presented in tables 2 and 3 were obtained through such a test-retest administration at a major midwestern university. The reader will note a relatively high degree of stability on the items indicated.

Table 2
Student Opinion Survey Categorical (Nominal) Items

Type of item	Average perc responses on		
Section IDemographic items (age, sex, etc.			98%
Section IOther Backg (hours worked per wee tional goals, occupatetc.)	k, educa-		90%
Section IIUsage of C grams and Services	ollege Pro-		93%
		(ACT, 1981,	p. 14)

Correlation between the average

Table 3

Student Opinion Survey 5--Choice (Likert)
Satisfaction Items

Type of items	ratings of satisfaction-related items on two administrations of the instrument
Section IISatisfaction College Programs and Se	
Section IIISatisfaction Various Aspects of the Environment	

(ACT, 1981, p. 15)

Additional tests have revealed similar stability of the instrument as indicated in table four below. In this study reliability estimates of the instrument at six schools were found to range from .901 to .977 (Valiga, 1983, p. 15).

Table 4

Reliability Estimates at Six Colleges
Student Opinion Survey--Section III

		al number f cases	Number included in analysis	Estimate of reliability
Public				
Colleges:	1.	535	270	.963
_	2.	384	124	.942
	3.	250	58	.901
Private				
Colleges:	1.	610	269	.977
•	2.	440	225	.975
	3.	398	92	.957

(Valiga, 1983, p. 15)

Based on the studies reported in tables 2, 3, and 4, as well as the procedures followed by the ACT Corporation for instrument development, this researcher saw no need to conduct additional tests for validity or reliability of the instrument.

Measurement of Variables and

Operational Definitions

The individual variables used in this study were conceptualized as belonging to one of seven sets: academic programs and services, admission policies and programs, rules and regulations, facilities, registration policies and procedures, non-academic services and programs and the college in general. These variable sets were defined and measured as indicated below.

Academic Programs and Services

This variable set was operationally defined as the sum of the following 15 variables; all were measured on a Likert-response scale indicating level of satisfaction (5--very dissatisfied to 1--very satisfied):

- 1. Academic advising services;
- 2. Credit-by-examination program (PEP, CLEP, etc.);
- 3. Honors programs;
- 4. Computer services;
- 5. Testing/grading system;
- 6. Course content in your major field;
- 7. Instruction in your major field;
- 8. Out-of-class availability of your instructors;
- 9. Attitude of the faculty toward students;

- 10. Variety of courses offered by this college;
- 11. Class size relative to the type of course;
- 12. Flexibility to design your own program of study;
- 13. Availability of advisor;
- 14. Value of information provided by advisor; and
- 15. Preparation for future occupation.

Admissions Policies and Programs

This variable set was operationally defined as the sum of the following 4 variables; all were measured on a Likert-response scale indicating level of satisfaction (5--very dissatisfied to 1--very satisfied):

- 1. General admission procedures;
- Availability of financial aid information prior to enrolling;
- Accuracy of college information you received before enrolling; and
- College catalog/admissions publications.

Rules and Regulations

This variable was operationally defined as the sum of the following 6 variables; all were measured on a Likert-response scale indicating level of satisfaction (5--very dissatisfied to 1--very satisfied):

- 1. Student voice in college policies;
- Rules governing student conduct at the college;

- 3. Residence hall rules and regulations;
- 4. Academic probation and suspension policies;
- 5. Purposes for which student activity fees are used; and
- 6. Personal security/safety at this campus.

Facilities

This variable set was operationally defined as the sum of the following 10 variables; all were measured on a Likert-response scale indicating level of satisfaction (5--very dissatisified to 1--very satisfied):

- 1. Library facilities and services;
- 2. Parking facilities and services;
- 3. Classroom facilities;
- 4. Laboratory facilities;
- 5. Athletic facilities;
- Study areas;
- 7. Student union;
- 8. Campus bookstore;
- 9. Availability of student housing; and
- 10. General conditions of buildings and grounds.

Registration Policies and Procedures

This variable set was operationally defined as the sum of the following 4 variables; all were measured on a Likert-response scale indicating level of satisfaction (5--very dissatisfied to 1--very satisfied):

- 1. General registration procedures;
- 2. Availability of the courses you want at times you can take them;
- 3. Academic calendar for this college; and
- 4. Billing and fee payment procedures.

Non-Academic Services and Programs

This variable set was operationally defined as the sum of the following 21 variables; all were measured on a Likert-response scale indicating level of satisfaction (5--very dissatisfied to 1--very satisfied):

- 1. Personal counseling services;
- Career planning services;
- Job placement services;
- 4. Recreational and intramural programs and services;
- 5. Student health services;
- 6. Student health insurance programs;
- 7. College-sponsored tutorial services;
- 8. Financial aid services;
- 9. Student employment services;
- 10. Residence hall services and programs;
- 11. Food services;
- 12. College-sponsored social activities;
- 13. Cultural programs;

- 14. College orientation program;
- 15. College mass transit services;
- 16. Veterans services;
- 17. Day care services;
- 18. Opportunities for student employment;
- 19. Student government;
- 20. Religious activities and programs; and
- 21. Campus media (student newspaper, campus radio, etc.).

College in General

This variable set was operationally defined as the sum of the following 5 variables; all were measured on a Likert-response scale indicating level of satisfaction (5--very dissatisfied to 1--very satisfied):

- Concern for you as an individual;
- 2. Attitude of college non-teaching staff toward students;
- 3. Racial harmony at this college;
- 4. Opportunities for personal involvement in campus activities; and
- 5. This college in general.

The dependent variable Freshman Attrition Rate was operationally defined as the percentage of new full-time freshmen in the the fall of 1983 who did not return to their same college in the fall of 1984. As indicated earlier, a new full-time freshman was defined as a

student who entered an institution as a full-time student for the first time during the fall term, 1983, with less than one semester of academic credit earned at any institution that was applicable for credit at the institution entered in fall, 1983. Also included were students who had earned any amount of credit solely by means of the College Level Examination Program (CLEP) or similar exemption test.

Attrition in this study referred to leaving school for any reason--including disciplinary dismissal, voluntary withdrawal, death, transfer, and academic dismissal. As previously mentioned in Chapter I of this study, students who are dismissed for academic reasons are also considered drop-outs, despite the fact that they are not voluntary drop-outs.

They are included because students dismissed for academic reasons represent failures of the socialization process more than mental deficiencies and because excluding students who flunk out of school requires the arbitrary exclusion of extremely low value on grades (Bean, 1982, p. 292).

Data Analysis

The student opinion surveys administered to the students were sent by each institution to the ACT Corporation for machine scoring. Subsequently, the faculty inventories were also sent by the researcher

to the ACT Corporation where they too were machine scored. All the data from the ten schools was then combined onto one computer tape and transferred to the Michigan State University Computer Center. The Statistical Package for the Social Sciences (SPSS) was then used to conduct the analysis of the data (Norusis, 1982).

Rather than simply using the absolute value difference between faculty and freshman student perceptions of the campus environments at the ten small private colleges included in the study, a special index was devised that accounted for the magnitude and direction of the perception as well as the amount of the difference. The index was calculated by dividing the faculty mean for each item into the freshman student mean for each item, and then multiplying this product by the sum of both means (see figure 2 below).

Figure 2

Index for Differences between Faculty and Student means

Student mean X (Student mean + Faculty mean)
Faculty mean

Spearman's Rank Correlation test was used to test for correlations between differences in faculty and student perceptions (as calculated with the index indicated above) and the freshman attrition rates. This measure of the linear relationship between two variables (attrition rate and differences between faculty and student perceptions in the current case) is available for ordinal data or for interval data that does not satisfy the normality assumption (Norusis, 1982, p. 88). The question actually asked by this technique is "How much does the ranking of variable X tend to agree with the ranking of variable Y?" (Hays, 1981, p. 596). with a Pearson's correlation coefficient, the rank correlation ranges between -1 and 1, where -1 and 1 indicate a perfect linear relationship between the ranks of the two variables (Norusis, 1982, p. 88).

CHAPTER IV

PRESENTATION AND ANALYSIS OF THE DATA

Introduction

As indicated earlier in the dissertation, the study had the following objectives:

- 1. To determine the differences between faculty perceptions of how students viewed the campus environments (academic programs and services, admissions policies and programs, rules and regulations, facilities, registration policies and procedures, non-academic services and programs, and the college in general) at ten small private colleges, and how freshman students actually viewed these environments.
- 2. To determine the freshman year attrition rates for the same ten colleges.
- 3. To determine if there was any significant correlation between composite variances of faculty and freshman student perceptions and the freshman attrition rates at these ten colleges.

Data for the ten colleges included in the study were obtained and analyzed as outlined in chapter III. The results of this analysis of scores derived from the administration of the ACT Student Opinion Survey are presented in this chapter.

The first section deals with objective #1 and thus indicates the means for and differences between faculty and freshman student perceptions of the campus environments at each of the ten colleges included in the study. The second section of this chapter addresses objective #2 and reveals freshman attrition rates for

each college included in the study. The final section of the chapter contains the results of the Spearman's Rank Correlation tests that were conducted to accomplish objective #3 of the study. Hypotheses I through VII are analyzed in this section and the results presented include the correlation coefficient and the level of significance for the each of the seven categories.

Faculty and Student Perceptions and Differences between Them

The results of the analysis conducted to accomplish objective #1 of the study are as indicated in tables 5 through 14. Each variable set was operationally defined as the sum of the variables within it and was measured on a Likert-response scale indicating level of satisfaction (5--very dissatisfied to 1--very satisfied). A negative difference indicated that the faculty believed the students to be more dissatisfied than they actually were and a positive difference indicated that the faculty believed the students to be more satisfied than they actually were.

Insert tables 5 through 14 here

Table 5

Means and Differences Between Faculty and Freshman Students at College A

Survey Item	Student Mean	Faculty Mean	Difference
Academic Programs and Services	3.33	3.33	-0-
Admissions Policie and Programs	<u>s</u> 3.13	3.74	61
Rules/Regulations	3.66	4.03	37
<u>Facilities</u>	3.11	3.56	45
Registration Policand Procedures	ies 3.40	3.57	17
Non-Academic Servi	<u>ces</u> 2.49	2.61	12
College in General	3.10	3.26	16

Table 5 reveals that the faculty at College A believed the students to be more dissatisfied with the campus environment (see definitions section of chapter I) than the freshman students actually were. This is indicated by a negative difference between the means of faculty and freshman students for six of the seven areas

of campus environment for which perceptions were measured. The differences between the means of the six categories ranged from - .61 to - .12.

Faculty and freshman students at College A viewed the <u>Academic Programs and Services</u> the same as indicated by no difference between the two means.

Table 6

Means and Differences Between Faculty and Freshman Students at College B

Survey Item	Student Mean	Faculty Mean	Difference
Academic Programs			
and Services	3.25	2.77	.48
Admissions Policie and Programs	<u>s</u> 3.22	3.00	.22
Rules/Regulations	3.10	3.03	.07
<u>Facilities</u>	3.25	3.91	66
Registration Policand Procedures	<u>ies</u> 3.49	3.38	.11
Non-Academic Servi	<u>ces</u> 2.86	2.77	.09
College in General	3.03	2.80	.23

Table 6 reveals that the faculty at College B believed the students to be more satisfied with the campus environment (see definitions section of chapter I) than the freshman students actually were. This is indicated by a positive difference between the means of faculty and freshman students for six of the seven areas of campus environment for which perceptions were measured. The differences between the means of these six categories (all categories except <u>Facilities</u>) ranged from .48 to .07.

The faculty at College B believed the students to view the <u>Facilities</u> of College B more negatively than theyactually did.

Table 7

Means and Differences Between Faculty and Freshman Students at College C

Survey Item	Student Mean	Faculty Mean	Difference
Academic Programs and Services	3.33	3.43	23
Admissions Polici and Programs	<u>es</u> 3.27	3.80	53
Rules/Regulations	3.63	3.86	23

Table 7, Continued

Survey Item	Student Mean	Faculty Mean	Difference
<u>Facilities</u>	3.68	3.67	.01
Registration Policiand Procedures	<u>ies</u> 3.61	3.66	05
Non-Academic Service and Programs	<u>ces</u> 2.94	3.05	11
College in General	3.42	3.65	23

Table 7 reveals that the faculty at College C believed the students to be more dissatisfied with the campus environment (see definitions section of chapter I) than the freshman students actually were. This is indicated by a negative difference between the means of faculty and freshman students for six of the seven areas of campus environment for which perceptions were measured. The differences between the means of the six categories ranged from -.53 to -.01.

The faculty at College C believed the students to view the <u>Facilities</u> more positively than they actually did.

Table 8

Means and Differences Between Faculty and Freshman Students at College D

Survey Item	Student Mean	Faculty Mean	Difference
Academic Programs and Services	2.94	2.73	.21
Admissions Policies and Programs	<u>s</u> 3.02	2.90	.12
Rules/Regulations	3.37	3.59	22
<u>Facilities</u>	2.94	3.40	46
Registration Policiand Procedures	ies 3.22	3.44	22
Non-Academic Service and Programs	2.68	2.73	05
College in General	2.91	3.01	10

Table 8 reveals that the faculty at College D believed the students to be more dissatisfied with the campus environment (see definitions section of chapter I) than the freshman students actually were. This is indicated by a negative difference between the means of faculty and freshman students for five of the seven

areas of campus environment for which perceptions were measured. The differences between the means of the five categories ranged from - .46 to -.05.

Faculty at College D believed the students to view the <u>Academic Programs and Services</u> as well as the <u>Admissions Policies and Programs</u> more positively than the freshman students actually did.

Table 9

Means and Differences Between Faculty and Freshman Students at College E

Survey Item	Student Mean	Faculty Mean	Difference
Academic Programs and Services	3.17	3.02	.15
Admissions Policies and Programs	<u>s</u> 3.61	3.78	17
Rules/Regulations	3.88	4.17	29
<u>Facilities</u>	3.28	3.64	36
Registration Policand Procedures	ies 3.74	4.16	42
Non-Academic Service and Programs	<u>ces</u> 2.88	3.11	23
College in General	3.37	3.38	01

Table 9 reveals that the faculty at College E believed the students to be more dissatisfied with the campus environment (see definitions section of chapter I) than the freshman students actually were. This is indicated by a negative difference between the means of faculty and freshman students for six of the seven areas of campus environment for which perceptions were measured. The differences between the means of the six categories ranged from - .42 to - .01.

Faculty at College E believed the students to view the Academic Programs and Services more positively than the freshman student at College E actually did.

Table 10

Means and Differences Between Faculty and Freshman Students at College F

Survey Item	Student Mean	Faculty Mean	Difference
Academic Programs and Services	3.14	2.93	.21
Admissions Policies and Programs	3.22	3.06	.16
Rules/Regulations	3.69	3.72	03
<u>Facilities</u>	3.30	3.35	05

Table 10, Continued

Survey Item	Student Mean	Faculty Mean	Difference
Registration Policiand Procedures	les 3.58	3.42	.16
Non-Academic Service and Programs	ces 2.90	3.15	25
College in General	3.10	2.96	.14

Table 10 reveals that the faculty at College F were mixed in their perceptions of how the students viewed the campus environment (see definitions section of chapter I) of College F. This is indicated by a negative difference between the means of faculty and freshman students for three of the seven areas of campus environment for which perceptions were measured and a positive difference for the other four.

Faculty at College F believed the students to view the <u>Rules and Regulations</u>, the <u>Facilities</u>, and the <u>Non-Academic Programs and Services</u> more negatively than the freshman students at the college actually did. The differences between the means of these three categories were all rather small, ranging from - .03 to - .25.

The faculty at College F believed the students to view the following four categories more positively than did the freshman students at College F: Registration Policies and Procedures, Academic Programs and Services, Admissions Policies and Programs, and The College in General. The differences between the means for these four categories ranged from .14 to .21.

Table 11

Means and Differences Between Faculty and Freshman Students at College G

Survey Item	Student Mean	Faculty Mean	Difference
Academic Programs and Services	3.07	3.06	.01
Admissions Policies and Programs	3.28	3.22	.06
Rules/Regulations	3.31	3.39	08
<u>Facilities</u>	3.11	3.53	42
Registration Policiand Procedures	3.51	3.79	28
Non-Academic Service and Programs	<u>ces</u> 2.63	2.87	24
College in General	3.08	3.10	02

Table 11 reveals that the faculty at College G believed the students to be more dissatisfied with the campus environment (see definitions section of chapter I) than the freshman students actually were. This is indicated by a negative difference between the means of faculty and freshman students for five of the seven areas of campus environment for which perceptions were measured. The differences between the means of the five categories ranged from - .42 to - .02.

Faculty at College G believed the students to view the <u>Academic Programs and Services</u> and the <u>Admissions Policies and Programs</u> more positively than the freshman student at College G actually did.

Table 12

Means and Differences Between Faculty and Freshman Students at College H

Survey Item	Student Mean	Faculty Mean	Difference
Academic Programs and Services	3.10	3.28	18
Admissions Policionand Programs	es 3.23	3.35	12
Rules/Regulations	3.85	4.04	19

Table 12, Continued

Survey Item	Student Mean	Faculty Mean	Difference
<u>Facilities</u>	3.42	3.78	36
Registration Polici and Procedures	<u>.es</u> 3.75	4.17	42
Non-Academic Service and Programs	es 2.93	3.14	21
College in General	3.50	3.68	18

Table 12 reveals that the faculty at College H believed the students to be more dissatisfied with the campus environment (see definitions section of chapter I) than the freshman students actually were. This is indicated by a negative difference between the means of faculty and freshman students for all seven areas of campus environment for which perceptions were measured. The differences between the means of the seven categories ranged from - .42 to - .12.

Table 13

Means and Differences Between Faculty and Freshman Students at College I

Survey Item	Student Mean	Faculty Mean	Difference
Academic Programs and Services	2.52	3.07	55
Admissions Policie and Programs	<u>s</u> 2.95	2.89	.06
Rules/Regulations	3.03	3.52	49
<u>Facilities</u>	2.49	3.24	75
Registration Polic and Procedures	<u>ies</u> 2.94	3.58	64
Non-Academic Servi	<u>ces</u> 2.29	2.78	49
College in General	2.73	2.90	17

Table 13 reveals that the faculty at College I believed the students to be more dissatisfied with the campus environment (see definitions section of chapter I) than the freshman students actually were. This is indicated by a negative difference between the means of faculty and freshman students for six of the seven areas

of campus environment for which perceptions were measured. The differences between the means of the six categories ranged from -.75 to -.17.

Faculty at College I believed the students to view the Admissions Policies and Programs more positively than the freshman student at College I actually did.

Table 14

Means and Differences Between Faculty and Freshman Students at College J

Survey Item	Student Mean	Faculty Mean	Difference
Academic Programs and Services	3.18	3.35	17
Admissions Policies and Programs	<u>s</u> 3.21	3.49	28
Rules/Regulations	3.34	4.17	83
<u>Facilities</u>	2.94	3.33	39
Registration Policand Procedures	<u>ies</u> 3.63	4.03	40
Non-Academic Servi	ces 2.44	2.82	38
College in General	2.94	3.38	44

Table 14 reveals that the faculty at College J believed the students to be more dissatisfied with the campus environment (see definitions section of chapter I) than the freshman students actually were. This is indicated by a negative difference between the means of faculty and freshman students for all seven areas of campus environment for which perceptions were measured. The differences between the means of the seven categories ranged from - .83 to - .17.

Freshman Year Student Attrition Rates

As indicated in chapter III of this study, the student attrition data was obtained from each college on the form in Appendix B of the dissertation. The form utilized definitions adapted from the Student Attrition module of the Council for Independent Colleges' (CIC) Planning and Data System (Council for Independent Colleges, 1977).

Table 15
Freshman Year Student Attrition Rates

College	Freshman Year Attrition Rate (% of Non-returning Freshman)		
College A	27.82%		
College B	33.33%		

Table 15, Continued

College	Freshman Year Attrition Rate (% of Non-returning Freshman)
College C	30.86%
College D	45.13%
College E	22.58%
College F	57.58%
College G	28.51%
College H	20.44%
College I	22.13%
College J	36.84%

The attrition percentages indicated in table 15 were calculated by dividing the number of first time freshmen in the fall of 1983 who did not return in the fall of 1984 into the total number of first time freshmen in the fall of 1983. (See the definitions section of chapter I of the dissertation for the definition of a first time freshman.)

The freshman attrition rates at the ten colleges that participated in the study ranged from 20.44 % to 57.58 %. The mean attrition rate of 32.52% was higher than the national norm of 26.8% for similar colleges (Cope and Hannah, 1975). Individual attrition rates at seven of the ten colleges were also found to be higher than the national norm.

Analysis of the Data

The campus environment variables included in the study were conceptualized as belonging to one of seven sets: academic programs and services, admissions policies and programs, rules and regulations, facilities, registration policies and procedures, non-academic services and programs, and the college in general. As indicated earlier, a research hypothesis was developed for each of the seven areas to test for significant correlations between the composite variances of faculty and freshman student perceptions and the freshman attrition rates. Rather than using the absolute value difference between faculty and freshman student perceptions for the correlations, an index was devised that accounted for the magnitude and direction of the perception as well as the amount of the difference. The index was calculated by dividing the faculty mean into the student

mean for each item, and then multiplying this product by the sum of the two means (see figure 2, chapter III).

Spearman's Rank Correlation test was then used to test for significant correlations (level of significance was set at p = .05).

Generally, educational researchers will reject the null hypothesis if the [correlation] . . . is significant at the .05 level. Occasionally, the more stringent .01 level is chosen, and in exploratory studies the .10 level may be used to reject the null hypotheses. . . . When the .10 level is chosen there is one chance in ten that the researcher will reject the null hypothesis when, in fact, it is correct [Type I error]. the significance level of .01 is chosen, however, there is only one chance in a hundred that this would occur. . . . If we lower the significance level required to reject the null hypothesis we reduce the likelihood of a Type I error. At the same time, we increase the likelihood of Type II error, that is, failure to reject the null hypothesis when there is in fact [a correlation] (Borg and Gail, 1979, p. 424).

The research hypotheses and individual correlations are discussed in the following section.

Hypothesis I

Stated in the null form, it was hypothesized that there would be no significant correlation between the composite variances of faculty and freshman student perceptions of the academic programs and services (see definitions section of Chapter I) at the ten small private colleges included in the study and the freshman attrition rates at these same colleges. The variable

set Academic Programs and Services was defined as the sum of 15 individual variables (see measurement of variables and definitions section of chapter III).

Table 16 reveals results of the Spearman's Rank Correlation Tests calculated for the set. A positive correlation indicates a relationship where the faculty viewed the variable more positively than did the students, and a negative correlation indicates a relationship where the faculty viewed the variable more negatively than did the students.

The results indicate that there was not a significant correlation between the composite variances of faculty and freshman student perceptions of the academic programs and services and the freshman attrition rates: \underline{r} =.4061, \underline{p} =.123. Therefore hypothesis I was not rejected.

Insert Table 16 Here

Table 16

Correlations between Composite Variances of Faculty
and Student Perceptions of the Academic Programs
and Services and Freshman Attrition Rates

College	Difference Between Faculty and Student Means	
College A	-0-	27.82%
College B	. 48	33.33%
College C	23	30.86%
College D	.21	45.13%
College E	.15	22.58%
College F	.21	57.58%
College G	.01	28.51%
College H	18	20.44%
College I	 55	22.13%
College J	17	36.84%
Correlation	Coefficient = .4061	
Level of Sig	nificance = .123	

Hypothesis II

Stated in the null form, it was hypothesized that there would be no significant correlation between the composite variances of faculty and freshman student perceptions of the admissions policies and programs (see definitions section of Chapter I) at the ten small private colleges included in the study and the freshman attrition rates at these same colleges. The variable set Admissions Policies and Programs was defined as the sum of 4 individual variables (see measurement of variables and operational definitions section of chapter III).

Table 17 reveals results of the Spearman's Rank Correlation Tests calculated for the set. A positive correlation indicates a relationship where the faculty viewed the variable more positively than did the students, and a negative correlation indicates a relationship where the faculty viewed the variable more negatively than did the students.

The results indicate that there was not a significant correlation between the composite variances of faculty and freshman student perceptions of the admissions policies and programs and the freshman attrition rates: \underline{r} =.1152, \underline{p} =.376. Therefore hypothesis II was not rejected.

Table 17

Correlations between Composite Variances of Faculty
and Student Perceptions of the Admissions Policies
and Programs and Freshman Attrition Rates

College	Difference Between Faculty and Student Means	
College A	61	27.82%
College B	.22	33.33%
College C	 53	30.86%
College D	.12	45.13%
College E	17	22.58%
College F	.16	57.58%
College G	.06	28.51%
College H	12	20.44%
College I	.06	22.13%
College J	28	36.84%
Correlation C	oefficient = .1152	
Level of Sign	ificance = .376	

Hypothesis III

Stated in the null form, it was hypothesized that there would be no significant correlation between the composite variances of faculty and freshman student perceptions of the rules and regulations (see definitions section of Chapter I) at the ten small private colleges included in the study and the freshman attrition rates at these same colleges. The variable set Rules and Regulations was defined as the sum of 6 individual variables (see measurement of variables and operational definitions section of chapter III).

Table 18 reveals results of the Spearman's Rank Correlation Tests calculated for the set. A positive correlation indicates a relationship where the faculty viewed the variable more positively than did the students, and a negative correlation indicates a relationship where the faculty viewed the variable more negatively than did the students.

The results indicate that there was not a significant correlation between the composite variances of faculty and freshman student perceptions of the rules and regulations and the freshman attrition rates: \underline{r} =-.2364, \underline{p} =.256. Therefore hypothesis III was not rejected.

Table 18

Correlations between Composite Variances of Faculty
and Student Perceptions of the Rules and
Regulations and Freshman Attrition Rates

37 .07 23 22 29	27.82% 33.33% 30.86% 45.13% 22.58%
23 22 29	30.86% 45.13%
22 29	45.13%
29	
	22.58%
•	
03	57.58%
08	28.51%
19	20.44%
49	22.13%
83	36.84%
	19 49

Level of Significance = .256

Hypothesis IV

Stated in the null form, it was hypothesized that there would be no significant correlation between the composite variances of faculty and freshman student perceptions of the facilities (see definitions section of Chapter I) at the ten small private colleges included in the study and the freshman attrition rates at these same colleges. The variable set <u>Facilities</u> was defined as the sum of 10 individual variables (see measurement of variables and operational definitions section of chapter III).

Table 19 reveals results of the Spearman's Rank Correlation Tests calculated for the set. A positive correlation indicates a relationship where the faculty viewed the variable more positively than did the students, and a negative correlation indicates a relationship where the faculty viewed the variable more negatively.

The results indicate that there was not a significant correlation between the composite variances of faculty and student perceptions of the facilities and the freshman attrition rates: $\underline{r} = .0424$, $\underline{p} = .454$. Therefore hypothesis IV was not rejected.

Table 19

Correlations between Composite Variances of Faculty

and Student Perceptions of the Facilities

and Freshman Attrition Rates

College	Difference Between Faculty and Student Means	
College A	45	27.82%
College B	66	33.33%
College C	.01	30.86%
College D	46	45.13%
College E	36	22.58%
College F	05	57.58%
College G	42	28.51%
College H	36	20.44%
College I	 75	22.13%
College J	39	36.84%
Correlation	Coefficient = .0424	
Level of Sig	nificance = .454	

Hypothesis V

Stated in the null form, it was hypothesized that there would be no significant correlation between the composite variances of faculty and freshman student perceptions of the registration policies and procedures (see definitions section of Chapter I) at the ten small private colleges included in the study and the freshman attrition rates at these same colleges. The variable set Registration Policies and Procedures was defined as the sum of 4 individual variables (see measurement of variables and operational definitions section of chapter III).

Table 20 reveals results of the Spearman's Rank Correlation Tests calculated for the set. A positive correlation indicates a relationship where the faculty viewed the variable more positively than did the students, and a negative correlation indicates a relationship where the faculty viewed the variable more negatively.

The results indicate that there was not a significant correlation between the composite variances of faculty and student perceptions of the registration policies and procedures and the freshman attrition rates: \underline{r} = .1758, \underline{p} =.314. Therefore hypothesis V was not rejected.

Table 20

Correlations between Composite Variances of Faculty and

Student Perceptions of the Registration Policies

and Procedures and Freshman Attrition Rates

College	Difference Between Faculty and Student Means	
College A	17	27.82%
College B	.11	33.33%
College C	05	30.86%
College D	22	45.13%
College E	42	22.58%
College F	.16	57.58%
College G	28	28.51%
College H	42	20.44%
College I	64	22.13%
College J	40	36.84%
Correlation	Coefficient = .1758	
Level of Sig	nificance = .314	

Hypothesis VI

Stated in the null form, it was hypothesized that there would be no significant correlation between the composite variances of faculty and freshman student perceptions of the non-academic services and programs (see definitions section of Chapter I) at the ten small private colleges included in the study and the freshman attrition rates at these same colleges. The variable set Non-Academic Services and Programs was defined as the sum of 21 individual variables (see measurement of variables and operational definitions section of chapter III).

Table 21 reveals results of the Spearman's Rank Correlation Tests calculated for the set. A positive correlation indicates a relationship where the faculty viewed the variable more positively than did the students, and a negative correlation indicates a relationship where the faculty viewed the variable more negatively.

The results indicate that there was not a significant correlation between the composite variances of faculty and student perceptions of the non-academic services and programs and the freshman attrition rates: $\underline{r} = .1515 \ \underline{p} = .339$. Therefore hypothesis VI was not rejected.

Table 21

Correlations between Composite Variances of Faculty and

Student Perceptions of the Non-Academic Services

and Programs and Freshman Attrition Rates

College	Difference Between Faculty and Student Mea	
College A	12	27.82%
College B	.09	33.33%
College C	11	30.86%
College D	05	45.13%
College E	23	22.58%
College F	25	57.58%
College G	24	28.51%
College H	21	20.44%
College I	49	22.13%
College J	38	36.84%
Correlation	Coefficient = .1515	
Level of Sig	mificance = .339	

Hypothesis VII

Stated in the null form, it was hypothesized that there would be no significant correlation between the composite variances of faculty and freshman student perceptions of the college in general and programs (see definitions section of Chapter I) at the ten small private colleges included in the study and the freshman attrition rates at these same colleges. The variable set College in Generals was defined as the sum of 5 individual variables (see measurement of variables and operational definitions section of chapter III).

Table 22 reveals results of the Spearman's Rank Correlation Tests calculated for the set. A positive correlation indicates a relationship where the faculty viewed the variable more positively than did the students, and a negative correlation indicates a relationship where the faculty viewed the variable more negatively.

The results indicate that there was not a significant correlation between the composite variances of faculty and student perceptions of the college in general and the freshman attrition rates: $\underline{r} = -.2364$, $\underline{p} = .256$. Therefore hypothesis VII was not rejected.

Table 22

Correlations between Composite Variances of Faculty

and Student Perceptions of the College in General

and Freshman Attrition Rates

College	Difference Between Faculty and Student Means	
College A	16	27.82%
College B	.23	33.33%
College C	23	30.86%
College D	10	45.13%
College E	01	22.58%
College F	.14	57.58%
College G	02	28.51%
College H	18	20.44%
College I	17	22.13%
College J	44	36.84%
Correlation	Coefficient =2364	
Level of Sig	nificance = .256	

Summary

The following is a summary of the results for the analyses used to test the seven hypotheses of the study.

Hypothesis I: The results indicated that there was not a significant correlation between the composite variances of faculty and freshman student perceptions of the academic programs and services at the ten small private colleges included in the study and the freshman attrition rates at the same colleges. Therefore the null hypothesis was not rejected.

Hypothesis II: The results indicated that there was not a significant correlation between the composite variances of faculty and freshman student perceptions of the admissions policies and programs at the ten small private colleges included in the study and the freshman attrition rates at the same colleges. Therefore the null hypothesis was not rejected.

Hypothesis III: The results indicated that there was not a significant correlation between the composite variances of faculty and freshman student perceptions of the rules and regulations at the ten small private colleges included in the study and the freshman attrition rates at the same colleges. Therefore the null hypothesis was not rejected.

Hypothesis IV: The results indicated that there was not a significant correlation between the composite variances of faculty and freshman student perceptions of the facilities at the ten small private colleges included in the study and the freshman attrition rates at the same colleges. Therefore the null hypothesis was not rejected.

Hypothesis V: The results indicated that there was not a significant correlation between the composite variances of faculty and freshman student perceptions of the registration policies and procedures at the ten small private colleges included in the study and the freshman attrition rates at the same colleges. Therefore the null hypothesis was not rejected.

Hypothesis VI: The results indicated that there was not a significant correlation between the composite variances of faculty and freshman student perceptions of the non-academic services and programs at the ten small private colleges included in the study and the freshman attrition rates at the same colleges. Therefore the null hypothesis was not rejected.

Hypothesis VII: The results indicated that there was not a significant correlation between the composite variances of faculty and freshman student perceptions of the college in general at the ten small private

colleges included in the study and the freshman attrition rates at the same colleges. Therefore the null hypothesis was not rejected.

CHAPTER V

SUMMARY, MAJOR FINDINGS, CONCLUSIONS, SPECULATIONS, INFERENCES, IMPLICATIONS, RECOMMENDATIONS, AND A FINAL NOTE

Summary

As noted in the introduction of this dissertation, the study of student attrition at American colleges and universities is not new, but there certainly has been recently awakened interest in it due primarily to the current and projected shortfalls in enrollment (Kemerer, 1982). Recently, the focus of research has shifted from examining individual characteristics to also including examinations of factors within the college environment that may affect a student's persisting or dropping out of college (Cope and Hannah, 1975; Johnson, 1980).

Since the early 1970's several theories have emerged which attempt to provide some conceptual coherence and theoretical basis for the study of student attrition (Astin, 1984; Kamens, 1971; Spady, 1970; Tinto, 1975). These models all seem to suggest that with other things being equal, "the higher the student's level of social and academic integration, the more likely the student is to persist at the institution" (Pascarella and Terenzini, 1979).

Spady and Tinto in their models, and Astin in his Student Involvement Theory, all suggest that informal contact with faculty beyond the classroom is an important positive influence on students' integration into the social and academic systems of the institution (Astin, 1984; Spady, 1970; Tinto, 1975). Although many studies have examined the informal relationship of faculty members with students (Lacy, 1978; Pascarella and Terenzini, 1978, 1979, 1980; Spady, 1971) there still exist many questions regarding faculty members and student attrition. One such question was examined in the current study.

The purpose of the study was to examine data from ten small private colleges to determine if any significant correlation existed between the composite variances of faculty and freshman student perceptions of the campus environments and freshman attrition rates at the same colleges. In essence, the study considered congruence of faculty and students' perceptions to be a qualitative measure of student-faculty interaction (Astin, 1984).

Perceptions of the campus environments were measured by utilizing results of the 4-year Student Opinion Survey of the American College Testing (ACT) Corporation (See Appendix A). The student attrition data was

collected on a form that utilized definitions from the Student Attrition Module of the Council for Independent Colleges' (CIC) Planning and Data System (Council For Independent Colleges, 1977).

After calculating means for the freshman class and faculty of each college the difference between the two groups was determined. Rather than using the absolute value of this difference for the correlations with the attrition rates, an index was devised that accounted for the magnitude and direction of the perception as well as the amount of the difference (see figure 2, chapter III). Spearman's Rank Correlation test was then used to test for significant correlations (level of significance was set at p=.05).

The results revealed that there was not a significant correlation between the composite variances of faculty and freshman student perceptions of the campus environments at the ten small private colleges included in the study and the freshman attrition rates at the same colleges. None of the null hypotheses were rejected, (testing at the \underline{p} = .05 level). Discussion of the major findings of the analysis, conclusions, speculations, inferences, implications for practitioners, recommendations for further research, and a final note follow in this chapter.

Major Findings

Seven null hypotheses were formulated and tested at the \underline{p} = .05 level of significance to determine if there was any significant correlation between composite variances of faculty and freshman student perceptions of the campus environments at ten small private colleges and the freshman attrition rates at these same colleges. The major findings that resulted from this analysis are presented below.

Hypothesis I

Stated in the null form, it was hypothesized that there would be no significant correlation between the composite variances of faculty and freshman student perceptions of the academic programs and services (see definitions section of chapter I) at the ten small private colleges included in the study and the freshman attrition rates at these same colleges.

The results indicated that there was not a significant correlation between the composite variances of faculty and freshman student perceptions of the academic programs and services and the freshman attrition rates: $\underline{r} = .4061$, $\underline{p} = .123$. Therefore hypothesis I was not rejected.

Although not significant at the p = .05 level required to reject the null hypothesis, it should be

noted that the academic programs and services subset did indicate the strongest correlation of all areas tested. This finding seemed particularly important in light of Pascarella and Terenzini's finding that faculty-student contacts focusing on intellectual or course-related matters clearly contribute most to discrimination between persistence and non-persistence (Pascarella and Terenzini, 1977).

The positive correlation of \underline{r} =.4061 reveals that in general the faculty perceived this variable more positively than did the freshman students. This finding was consistent with that of Stickle (1982) when he found that faculty members rated their effectiveness as advisors higher than did their advisees.

Hypothesis II

Stated in the null form, it was hypothesized that there would be no significant correlation between the composite variances of faculty and freshman student perceptions of the admissions policies and programs (see definitions section of chapter I) at the ten small private colleges included in the study and the freshman attrition rates at these same colleges.

The results indicated that there was not a significant correlation between the composite variances

of faculty and freshman student perceptions of the admissions policies and programs and the freshman attrition rates: \underline{r} = .1152, \underline{p} = .376. Therefore hypothesis II was not rejected.

The positive correlation of this set indicates that, in general, faculty members perceived the admissions policies and procedures slightly more positively than did the freshman students. That admissions procedures might be of some importance to the retention of students is interesting to consider in light of Tinto's (1975) emphasis on the student's institutional commitment at the time of initial entry to the college. It was supposed in the current study that if students perceived the admissions process more negatively than faculty members (and perhaps admissions personnel), they might make less of a commitment to the institution than necessary for persistence at the particular college. The results did not, however, support such a notion.

Hypothesis III

Stated in the null form, it was hypothesized that there would be no significant correlation between the composite variances of faculty and freshman student perceptions of the rules and regulations (see definitions section of chapter I) at the ten small private

colleges included in the study and the freshman attrition rates at these same colleges.

The results indicated that there was not a significant correlation between the composite variances of faculty and freshman student perceptions of the rules and regulations and the freshman attrition rates: $\underline{r} = -.2364$, $\underline{p} = .256$. Therefore hypothesis III was not rejected.

The faculties at 9 out of the 10 colleges included in the study believed the freshman students to perceive these areas more negatively than they actually did. The researcher considered congruence of faculty and students' perceptions of the rules and regulations to be relevant to a student's integration with the institution (Astin, 1984). The finding that congruence between faculty and students' perceptions of the rules and regulations had no significant correlation with freshman attrition seems, therefore, to be somewhat inconsistent with Tinto's (1975) model which emphasized the academic and social integration of an individual as key factors in distinguishing between persisters and non-persisters.

Hypothesis IV

Stated in the null form, it was hypothesized that there would be no significant correlation between the

composite variances of faculty and freshman student perceptions of the facilities (see definitions section of chapter I) at the ten small private colleges included in the study and the freshman attrition rates at these same colleges.

The results indicated that there was not a significant correlation between the composite variances of faculty and freshman student perceptions of the facilities and the freshman attrition rates: $\underline{r} = .0424$, $\underline{p} = .454$. Therefore hypothesis IV was not rejected.

The faculty members in general perceived the facilities as a whole more negatively than did the students. This was true, in fact, for faculty at nine out of the ten colleges included in the study.

Hypothesis V

Stated in the null form, it was hypothesized that there would be no significant correlation between the composite variances of faculty and freshman student perceptions of the registration policies and procedures (see definitions section of chapter I) at the ten small private colleges included in the study and the freshman attrition rates at these same colleges.

The results indicated that there was not a significant correlation between the composite variances of faculty and freshman student perceptions of the registration policies and procedures and the freshman attrition rates: $\underline{r} = .1758$, $\underline{p} = .314$. Therefore hypothesis V was not rejected.

The findings that discrepancies between faculty and freshman student perceptions of the registration policies and procedures and facilities areas (Hypotheses IV and V) did not correlate with attrition was viewed as somewhat surprising in light of Astin's (1984) Student Involvement Theory. In his theory he stated:

. . . Virtually every institutional policy and practice. . . and administrative decision. . . can significantly affect how students spend their time and energy [and subsequently decisions to persist or withdraw from college] (Astin, 1984, pp. 301-302).

Hypothesis VI

Stated in the null form, it was hypothesized that there would be no significant correlation between the composite variances of faculty and freshman student perceptions of the non-academic programs and services (see definitions section of chapter I) at the ten small private colleges included in the study and the freshman attrition rates at these same colleges.

The results indicated that there was not a significant correlation between the composite variances of

faculty and freshman student perceptions of the non-academic programs and services and the freshman attrition rates: \underline{r} = .1515, \underline{p} = .339. Therefore hypothesis VI was not rejected.

Faculty at nine out of the ten colleges believed the students to be more dissatisfied with the non-academic programs and services than the freshman students actually were.

The finding that congruence of faculty and freshman students' perceptions of the non-academic programs and services is not correlated to attrition was viewed as somewhat surprising in light of previous studies that emphasized the importance of faculty in students' social integration into the environment (Astin, 1984; Tinto, 1975). It was supposed in the current study that discrepancy in this area might lead to less integration of the students into the social environments and subsequently higher attrition. The results of the study did not, however, support this notion.

Hypothesis VII

Stated in the null form, it was hypothesized that there would be no significant correlation between the composite variances of faculty and freshman student perceptions of the college in general (see definitions section of chapter I) at the ten small private colleges

included in the study and the freshman attrition rates at these same colleges.

The results indicated that there was not a significant correlation between the composite variances of faculty and freshman student perceptions of the college in general and the freshman attrition rates: $\underline{r} = -.2364$, $\underline{p} = .256$. Therefore hypothesis VII was not rejected.

Once again faculty at nine out of the ten colleges perceived the students to be more dissatisfied with the college in general than the freshman students actually were. This finding is somewhat surprising in light of the fact that differences between faculty and students' perceptions did not correlate significantly with freshman attrition. Tinto (1975) described the social system as the quality, extent and value placed on interactions between various community members. If faculty perceive these areas more negatively than do the students (as indicated in the results) they might also place less value on the same, which might in turn affect subsequent attrition. The results of the current study did not, however, support this notion.

Conclusions

Researchers have consistently found that student-faculty interaction is critical to students' satisfaction and subsequent retention (Astin, 1977, 1984;

Pascarella and Terenzini, 1976, 1977, 1979; Wilson, Wood and Gaff, 1975). Researchers have also found, however, that the nature and quality (not just the quantity) of the faculty contact with students is important (Pascarella and Terenzini, 1977; Thurman, 1980).

In this current study the researcher theorized that congruence of faculty and students' perceptions of the campus environments (see definitions section of chapter I) would be a good qualitative measure of faculty-student interaction. Thus, it was expected that the null hypotheses would be rejected and that the results would indicate that there was a significant correlation between the composite variances of faculty and freshman student perceptions of the campus environments at the ten small private colleges included in the study and the freshman attrition rates at these same colleges. The results, however, did not indicate any significant correlations and none of the null hypotheses were rejected. Consequently, the researcher found that no conclusions could be supported from the results and findings of the study.

Speculations

The fact that the results did not indicate any significant correlations and that none of the null hypotheses were rejected seemed to be somewhat inconsistent

with the overall pattern of the literature on student retention reviewed for this study (Astin, 1984; Spady, 1970; Tinto, 1975). The results were, in fact, quite suprising to the researcher. Several speculations can be made regarding these unexpected results and findings.

First, as noted in the previous section, in this current study the researcher theorized that congruence of faculty and students' perceptions of the campus environments (see definitions section of chapter I) would be a good qualitative measure of faculty-student interaction. Thus, it was expected that the null hypotheses would be rejected and that the results would indicate that there was a significant correlation between the composite variances of faculty and freshman student perceptions of the campus environments at the ten small private colleges included in the study and the freshman attrition rates at these same colleges. results, however, did not indicate any significant correlations and none of the null hypotheses were rejected. These results and findings cause one to speculate that faculty-student out of class relationships may not be as critical to student retention as past researchers have suggested. In fact, one wonders if studies are designed in such a way that the same notions are simply perpetuated over and over, even if they are not true.

If, however, past researchers are correct about the positive impact that faculty-student interactions have on student retention, then several other speculations can be made regarding the results and findings of the study. In particular, it might be that the results reflect a high amount of Type II error [failure to reject the null hypothesis when in fact there is a correlation] (Borg and Gail, 1979). The following paragraphs contain speculations regarding this.

First, it is possible that the variables of the seven categories of campus life (academic programs and services, admission policies and programs, rules and regulations, facilities, registration policies and procedures, non-academic services and programs, and the college in general) did not accurately describe the respective areas. The seven categories were defined as the sum of various variables, and it may be that some of the variables did not fit into the categories as well as others. It is also possible that the variables were not all of equal importance to the category as a whole and should have been weighted rather than considering all of equal value within each category.

The faculty at the ten small private colleges included in the study consistently believed their freshman students viewed their campuses more negatively

than they actually did (true for all areas except academic programs and services). When considering this fact along with the exceptionally high freshman attrition rates at the ten colleges, one could speculate that the results of the study might have been somewhat skewed. Perhaps the differences between faculty and students' perceptions did not significantly correlate with the freshman attrition rates because the attrition rates at most of the ten colleges were already high as were the differences in perceptions (and in a negative direction).

Another possible explanation of the unexpected results is that ten colleges might have been too small a sample to adequately measure significant correlations. This is further complicated by the small "n" (students and faculty) at two of the colleges and the rather small percentage of response (students and faculty) at two other colleges.

A final speculation regarding the unexpected results is more theoretical than directly related to the researcher's closeness to the study. Researchers have found that there may be substantial variability in specific factors associated with persistence or non-persistence between different institutions. Terenzini (1983) found, for example, that a measure of social

integration was positively related to persistence at one college and negatively related at another (Terenzini et al., 1983). In a recent article on student retention research Ernest Pascarella succinctly states the issue:

Thus, the factors shown to influence persistence, or even the results of comprehensive programmatic interventions designed to increase student retention, may not be generally applied from one institution to another. . . . To successfully address the issue of student retention at the institutional level it may be necessary to first understand the dynamics of student persistence or withdrawal behavior that are unique to the particular institution in question (Pascarella, 1986, p. 101).

Inferences

Although not clearly supported by the findings two inferences can be made regarding this study. The researcher believes such inferences are warranted in light of the speculations made regarding the unexpected results as well as his closeness to the retention literature in general and this study in particular.

In this study the researcher purposed to determine if congruence of faculty and students' perceptions regarding a variety of areas of campus life would significantly correlate with freshman attrition. Although no significant correlation was found to exist in the study, an inference can still be made from the data that if faculty members consistently view themselves and the

academic programs of the college more positively than do the students, then efforts toward improving the quality of student-faculty relationships might actually be less effective than desired (suggested by the high attrition rates at the colleges included in this study). As noted earlier in the dissertation, Cope and Hannah state that:

We suspect that persistence in college requires the personal touch that only dedicated professors can give. Evidence, both personal and other, reveals that such dedication exists in abundance across America, but . . . it is largely misdirected (Cope and Hannah, 1975, p. 45).

The second inference that can be made from the findings is that the higher negative perceptions of the faculty regarding the non-academic areas may affect students' satisfaction with and subsequent involvement in campus life at the ten small private colleges included in the study. Astin has noted that "studentfaculty interaction has a stronger relationship to student satisfaction . . . than any other variable" (Astin, 1977, p. 223). Researchers have also found that faculty members are key agents for encouraging students to be involved in campus life (Johnson, 1980; Pascarella and Terenzini, 1976, 1977, 1979). It is not difficult to imagine that faculty members who consistently view nonacademic areas more negatively than do freshman students will influence the students (through their studentfaculty interactions) to view these areas less

positively than they would on their own, thus encouraging dissatisfaction among and less involvement from students.

<u>Implications</u>

The results, findings, speculations, and inferences discussed in the previous paragraphs deal with critically important areas when considering essential factors that contribute to a student's persisting in or withdrawing from college. Student-faculty relationships, satisfaction with campus life and integration into the academic and social systems of the college are all positively related to student retention (Astin, 1964, 1975, 1984; Latta, 1983; Noel, Levitz, and Saluri, 1985; Pascarella and Terenzini, 1976, 1977, 1979; Potter, 1981; Tinto, 1975; Wilson, Wood and Gaff, 1975).

Therefore, these results, findings, speculations, and inferences have several implications for college faculty and administrators who are interested in improving student retention at the small private colleges included in the study or at other similar colleges. Specifically, the following are submitted as recommendations for college faculty and administrators:

(1) Results of this study should be shared with faculty members at the colleges included in the study.

Also, if replications of the study are conducted at any of these colleges, faculty members should keep a copy of their own responses to the questions so that they can individually know how their perceptions compare with those of their students. Awareness of differences in perceptions could be the first step in faculty members "getting to know their students and themselves better" and improved faculty-student relationships.

(2) As noted in table 15 of the study, the ten small private colleges included in this study had a very high freshman year attrition rate (32.52%). This mean of 32.52%—as well as the individual attrition rates at seven of the ten colleges—is higher than the national norm of 26.8% for similar colleges (Cope and Hannah, 1975; Noel, Levitz, and Saluri, 1985; Ramist, 1981).

For a college with a freshman class of 400 students this 5.72% higher attrition rate would mean a loss of twenty-two students each year. Over a three-year period this could amount to a loss of 50 or 60 students for that campus, which might mean nearly a quarter million dollars (tuition figure of \$4,000 per student used for example) in lost revenues. This loss would be substantial for any college of 1500 or fewer students. In addition to the lost revenue for the college, many of these individual students might suffer personal hardship

and loss due to their withdrawal from the college. In consideration of the high attrition rates at the ten colleges included in the study and the possible effects mentioned above, it is recommended that serious attention be given to reducing the attrition rates at the ten small private colleges included in the study. It seems quite apparent that such attention to this matter is warranted. Such efforts should include an analysis by each of the ten colleges included in the study of the college entrance exam scores of their freshmen to determine how their students compare scholastically to students at other similar colleges.

- institute programs to help faculty members improve their interactions with students beyond the classroom. Faculty workshops should include specialized, pertinent and relevant training on advising. Along with training programs, administrators must be willing to commit institutional rewards (salary, promotion, etc.) to faculty members who achieve excellence in this area.
- (4) As noted earlier, an inference was made that the higher negative perceptions of the faculty regarding the non-academic areas may affect student attitude toward and involvement in campus life at the ten small private colleges included in the study. In light of

this inference, Student Affairs and other non-academic educators, along with academic administrators, should be certain that the educational philosophies, goals and objectives of the non-academic areas are clearly communicated to faculty members as well as students. It might be that faculty members' perceptions of the non-academic areas on campus would be improved if they better understood the educational relevance of their institution's co-curricular programs. Although a sensitive issue to deal with, efforts should begin to determine effective means of communicating with faculty members regarding the non-academic programs and services of the college.

Recommendations for Further Research

The review of related literature as well as the results, findings, speculations, inferences and implications of this study suggest several areas in which further research would contribute to the understanding of student attrition in general and in particular to the role faculty members can play in improving student retention. Specifically, the following are submitted as recommendations for further research:

(1) The study should be replicated with a sample that includes upperclassmen as well as freshman students. Although freshman year attrition is the

highest at most American colleges and universities (Cope and Hannah, 1975; Lenning, Beal and Saven, 1980; Noel, Levitz, and Saluri, 1985; Ramist, 1981), such a study would allow several important questions to be addressed concerning faculty and student perceptions of campus environments and student attrition rates.

First, the colleges would be able to determine if differences existed between the perceptions of students of various classifications (freshman, sophomore, junior, senior). Second, the colleges could determine if differences existed between perceptions of faculty members and students of various classifications. Finally, the colleges could determine if any such differences were significantly related to the attrition rates at the colleges included in the study.

(2) The ACT Student Opinion Survey should be used to compare faculty perceptions of the campus environments with those of persisting and non-persisting students, and to compare the perceptions of persisting and non-persisting students with each other. This could best be accomplished with a design that called for the administration of the instrument to all students and faculty during the fall semester or quarter of an academic year and then an expost facto analysis of the

data the following fall, noting any significant differences that exist between the three groups (persisters, non-persisters and faculty).

By following this design the researcher would effectively be able to determine if at the time of enrollment there were significant differences between how the various groups viewed the campus. Along with providing valuable data for the colleges included in such a study, such an endeavor could also strengthen the validity of using the ACT Student Opinion Survey for retention research. (This suggested study was completed at one of the colleges included in the current study and the results did reveal several areas where significant differences existed between persisters, non-persisters and faculty members.)

(3) The study should be replicated with the administrators and staff members along with students and faculty. Particular attention should be given to determine if the non-academic administrators and staff view their areas more positively than do the students and the academic areas more negatively than do the students (looking for an analogy to the faculty perceptions of the current study). Such a study comparing campus perceptions of administration and staff with students and faculty might be especially valuable in light of Astin's

- (1984) notion that student involvement (and subsequent retention or attrition) can be affected by "virtually every institutional policy and practice . . . and administrative decision" (Astin, 1984, pp. 301-302).
- (4) Realizing the important role integration into the social and academic systems of the college (Tinto, 1975) and student involvement (Astin, 1984) play in a student's persistence or non-persistence in college, institutional research studies should be conducted that determine what students, faculty and administrators perceive to be the best means of encouraging student involvement in campus life.
- should develop and test additional means of effectively measuring the quality of student-faculty relationships. The researcher conducting the current study theorized that congruence of faculty and students' perceptions of the campus environment may be an appropriate qualitative measure of student-faculty relations. The results did not support this notion. Measures are needed, however, of this important relationship and efforts should be devoted to determining them.
- (6) Although there have been some recent studies examining the perceptions faculty members have of their role in improving student retention (Mullendore, 1980;

Thurman, 1980), many questions remain unanswered in this area. In particular, studies should be conducted to help determine appropriate intrinsic and extrinsic motivators for increased faculty involvement with students in non-classroom settings.

A Final Note

This study has dealt with student attrition at ten small private colleges in America. Several reasons were suggested in the earlier sections of the dissertation as to the importance of such a study. These include not only institutional factors but also matters that are from the individual student's perspective. The final note of this dissertation, however, is a reminder that not all student attrition is bad and that student retention should not become an end unto itself. As noted earlier in the dissertation, Lenning, Beal and Saven clarify the issue very well:

Some students need to transfer, stop out, or drop out for their own benefit, and an approach that could somehow force them to stay would be inappropriate, in spite of the detrimental financial implications of decreased enrollment.

... Rather than improving retention per se, the primary goal should be to better meet student needs and to provide a more meaningful educational experience. And in the long run, motivations close to the mission of the institution probably will lead to higher enrollments and tuition revenue than will a short-sighted, survivalist focus on enrollment for enrollment's sake (quoted in Kemerer, 1982, p. 87).

APPENDIX A ACT 4-YEAR STUDENT OPINION SURVEY

STUDENT OPIGION SURVEY

DIRECTIONS: The information you supply on this questionnaire will be kept completely please feel free to omit it. Your Social Security number is requested for research purposes confidential. However, if any item requests information that you do not wish to provide, only and will not be listed on any report Please use a soft (No. 1 or 2) lead pencil to fill in the oval indicating your response. DO NOT use a ball-point pen, nylon-tip or felt-tip pen, fountain pen, marker, or colored pencil. Some

items may not be applicable to you or to this college. If this is the case, skip the item or mark the "Does Not Apply" option. If you wish to change your response to an item, erase your first mark completely and then blacken the correct oval. Select only ONE response to each item.

SECTION I—BACKGROUND INFORMATION

Begin by writing your Social Security number in the large boxes at the top of Block A. Then, in the column below each box, blacken the appropriate oval. Complete the remain-

ing blocks by blackening the single most appropriate oval in each case.

 \mathbf{n}

AGE 18 or Unde) 62 or Over) 28 to 29 () 30 to 39 () 40 to 61 Ö 22 O 23 10 25 % % 00 9 **ാരുഗുരുക്കു ായരായ ഉരുത്ത** [Identification Number] SOCIAL SECURITY 20000000000 NUMBER **_@@@@@©@@@** 2000000000 **ഒരെ ഉരെ ഉരെ ഉ _@@@@@@@@@**@ **3000000000**

() Puerto Rican, Cuban, or Other Hispanic Origin Asian-American, Oriental, or Pacific Islander RACIAL/ETHNIC GROUP () American Indian or Alaskan Native () Mexican-American/Chicano U Caucasian-American/White () Prefer Not to Respond () Alto American Black 000 S

 To Obtain or Meintain a Certification
 To Complete a Vocational Technical Program
 To Obtain an Associate Degree
 To Obtain a Bachetor's Degree
 To Obtain a Master's Degree
 To Obtain a Master's Degree ш O Graduate or Professional Student O Does Not Apply to This College CLASS LEVEL AT THIS COLLEGE INDICATE YOUR O Other/Unclassified O Special Student O Sophomore O Freshman O Junior O Sendor

1 to Take a Few Courses for Self-Improvement 1 To Take Courses Necessary for Transferring to Another College YOU ENTER THIS COLLEGE? FOR WHAT PURPOSE DID O To Take a Few Job-Related Courses (Select Only One) No Delinite Purpose in Mind

> Unnarried (Including Single, Divorced, and Widowed) O Separated
> O Prefer Not to Respond MARITAL () Married CT. SEX O Female O Mate

> > OZJ>

INDICATE THE NUMBER OF HOURS PER WEEK YOU ARE CURRENTLY EMPLOYED U 0 or Only Occasional Jobs 0 21 10 30 0110 0 = 10 23 0 31 10 40 0 Over 40

STATUS AT THIS COLLEGE? WHAT IS YOUR () Full-Time Student O Part-Time Student

O Does Not Apply to This College PAY AT THIS COLLEGE? **UNITION DO YOU** WHAT TYPE OF O Out-of-State Tuition 1 In-State Tuttion

M WHAT IS YOUR
RESIDENCE CLASSIFICATION

AT THIS COLLEGE?

Out-of-State Student
Ointernational Student
(Not U.S. Citizen) U In-State Student

> INDICATE YOUR O Vocational/Technical School ATTEND JUST PRIOR WHAT TYPE OF SCHOOL DID YOU TO ENTERING THIS COLLEGE? High School

O Home of Parents or Relatives Fraternity or Sorority House O College Married Student Housing O College Residence Hall CURRENT COLLEGE RESIDENCE Off-Campus Room or Apartment Own Home 0 4-Year College or University
O Graduate/Professional College

O October

(Scholarships, Granis, Work-Study, etc.) ANY TYPE OF FEDERAL, STATE, OR COLLEGE-SPONSORED STUDENT FINANCIAL AID?) Yes % ()

MAJOR
MAJOR 3000000E 00000000 \odot \odot \odot THIS QUESTIONNAIRE, PLEASE SELECT THE THREE-DIGIT CODES FOR YOUR COLLEGE MAJOR AND YOUR OCCUPA-TIONAL CHOICE, WRITE THESE CODES IN THE BOXES AT THE TOP OF BLOCKS O AND P. HAVE MORE THAN ONE MAJOR, MAJORS AND OCCUPATIONAL CHOICES INCLUDED WITH PRIATE OVAL IN THE COLUMN BELOW EACH BOX. (IF YOU **SELECT THE ONE CODE THAT** USING THE LIST OF COLLEGE AND BLACKEN THE APPRO-BEST DESCRIBES YOUR

INDICATE YOUR OCCUPATIONAL CHOICE **ඁ෧෧෧෧෧෧෧**෧ඁ **_@@@@@**@@@ \odot

:
* *
<i>F</i>
•
· •
1
:
;
•
4:
<u> </u>
4
•

B blank. If a service is offered but you have not used it, mark "I Have Not Used This Schoics" and also leave part B blank. Indicate your level of satisfaction (part B) only if you I (NPE used the service.

S. S	1	3	1000	COLLEGE SERVICE OR PROGRAM	15/3/	5	14/5		1	100
0	0	0	-	Academic advising services	0	0	0	0	0	
0	0	0	2	Personal counseling services	0	0	0	0	0	
0	0	0	6	Career planning services	0	0	0	0	0	
0	0	0	4	Job placement services	0	0	0	0	0	
0	0	0	10	Recreational and intramural programs and services	0	0	0	0	0	
0	0	0	9	Library facilities and services	0	0	0	0	0	
0	0	0	7.	Student health services	0	0	0	0	0	
0	0	0	80	Student health insurance program	0	0	0	0	0	
0	0	0	6	College-sponsored tutorial services	0	0	0	0	0	
0	0	0	2	Financial aid services	0	0	0	0	0	
0	0	0	=	Student employment services	0	0	0	0	0	
0	0	0	12.	Residence hall services and programs	0	0	0	0	0	
0	0	0	13	Food services	0	0	0	0	0	
0	0	0	4	College-sponsored social activities	0	0	0	0	0	
0	0	0	15	Cultural programs	0	0	0	0	0	
0	0	0	16.	College orientation program	0	0	0	0	0	
0	0	0	17.	Credit-by-examination program (PEP, CLEP, etc.)	0	0	0	0	0	
0	0	0	18	Honors programs	0	0	0	0	0	
0	0	0	19	Computer services	0	0	0	0	0	
0	0	0	20.	College mass transit services	0	0	0	0	0	
0	0	0	21.	Parking facilities and services	0	0	0	0	0	
0	0	0	22	Veterans services	0	0	0	0	0	
0	0	0	23	Day care services	0	0	0	0	0	

• /
•
•
•
•
1
•
·
•
4
•
4
•
4
•
•
•
•
•
•
3
Ĭ
•
•
4
•
•
4
4
•
4
4
•
•
4
•
4
•
4
•
•
•
•
•
4
4
4 ¹
4 ′
•
•
4 ai
d
4
_

SECTION III—COLLEGE ENVIRONMENT

Please blacken the oval indicating your level of satisfaction with each of the following aspects of this college. If any item is not applicable to you or to this

college, fill in the oval in the "Does Not Apply" column and proceed to the next item. Please respond to each tem by choosing only one of the six alternatives.

z	O31421T A2210 VE	\							_	_	_	_	_	_	_	_	-	-		-	_		_
CTIO	OBIL	VEA	0	0	0	0	0	0										0	0	0	0	0	0:
TISFA	03/38/180	510	0	0	0	0	0	0				0	0	0			0	0	0	0	0	0	0:
LEVEL OF SATISFACTION	JARTI	NEC	0	0	0	0	0	0				0	0	0	0		0	0	0	0	0	0	0.
EVEL	03/35/	142	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0	0	0	0	0:
_	A A SIAR	~			0	0		0		0 0		0	0		0	0	0		0	0	0	0	0:
	1.00 2	300	0	0		-	-	+	+	+	+	+	+	+	+	+	+	0	0	0	0	0	0.
		-V	0	0	0	0	0	0	+	+	-	+	+	+	+	+	+	+	-	-	-		_
			Classroom facilities	Laboratory facilities	Athletic facilities	Study areas	Student union	Campus bookstore	Availability of student housing	General condition of buildings and grounds	General registration procedures	Availability of the courses you want at times you can take them	Academic calendar for this college	Billing and fee payment procedures	Concern for you as an individual	Attitude of college nonteaching staff toward students	Racial harmony at this college	Opportunities for student employ- ment	Opportunities for personal involve- ment in campus activities	Student government	Religious activities and programs	Campus media (student news- paper, campus radio, etc.)	This college in general
			22.	23	24	25.	26	27.	28	59	30	31	32	33	34	35	38	37.	88	39	40	14	42
						SBITI	FACIL			$ _ $	NOI	TAR	EGIST	в/				JA	HBN:	35	2		_/:
	03/																						-000
NOT	OISSATISEIED	VER	0	C	0	0	0	0	0	C	0	c	0	С	0	0	0	0	0	0	0	0	0
0 4 3 0 1 4	33/32/7	25510	-								_	-			-				_	_			
	700		C	0	0	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5	NEUT	0	0 0	0	0 0	0 0	0 0	0 0	0 0				0 0		0 0	0 0				0 0	0 0	
-	931,	NEUL	0	0	0	0	0	0	0		0	0	0		0			0	0	0			0
	03/38/7 PC	SATIS	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0 0	0 0 0	0 0 0	0	0 0	0	0	0 0	0 0	0 0	0	0	0
	03/38/7 PC	SATIS	0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0 0	0 0	0 0 0 0	0 0	0 0 0	0 0	0 0	0 0 0	0 0 0	0 0 0	0 0	0 0	0 0 0
	931,	SATIS	0 0	0 0	0 0	0 0	0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0	0. 0 0 0 0	0 0 0 0 0	0 0 0	0 0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0
	03/38/7 PC	SATIS	0 0	() () () () ()	0 0 0	rin- 0 0 0 0 0	of the faculty toward stu-	y of courses offered by this () () () () ()	ize relative to the type of () () () () ()	0 0 0	your advisor () () () () ()	0 0 0 0	upation () () () () () ()	0 0 0 0	0 0 0 0	formation () () () ()	0 0 0 0	0 0 0 0	0 0 0 0	half rules and regula-	0 0 0	which student activity () () () ()	O O O O O O O

RULES & REGULATIONS

SNOISSIMOA

8 **ଌଵଡ଼ଵଵତବଓ**୍ରସ questions require that many choices. Simply ignore the extra ovals, if no additional questions are enclosed, leave this section blank. **3999999999** 27 **③@@@@@@**©©@@ **@@@@@@@**@@ **ଡଡଡଡଡଡଡଡଡ** 300000000000 22 **③@@@@@@**@@@@ SECTION V—COMMENTS AND SUGGESTIONS **③@@@@@@@**@@@ SECTION IV-AUDITIONAL GUESTIONS @@@@@@@@@ 3000000000000 If you wish to make any comments or suggestions concerning this college, please use the lines provided below **ඔම්බම්මම් මහිට් මම්** DO NOT WRITE BELOW THIS LINE 300000000000 300000000000 **ඔම්බම්බව්මහිට්මව** If an additional set of multiple-choice questions is included with this form, please use this suction to record your responses. Twelve ovals are provided for each question, but few 3300000000000 **૱૱ઌ૱૱૱૱**૱૱ @@@@@@@@@@ **300000000000 මෙමමමෙමමමට වව**ට **මෙහිම කම් කම් කම් ක**ම් **මෙවෙමවටමහි**ටලාවට **ඔම්බම්මම් මහිට් මහිට්** 9 **ඉහරු හිට ගත් වෙනුව ගමගමවටමග**ටලවට **එම්මම්මටම්හිටර්**වෙ **ඉතිහිතව වෙතව වන ඔවෙව ම ව ව ව ව ව** 740m 4 SO SOF FMAR OR NHAFTM FI-78 FORS

APPENDIX B STUDENT ATTRITION DATA FORM

Student Attrition Data

New Full-Time Freshmen, 1983 - 1984

Please complete the following three questions as accurately as you can
Refer to the definitions to make sure you include the right people in
your figures. Please do not make any attempts to separate data for
voluntary/non-voluntary withdrawal (academic or other). Simply list
total number of freshmen, number graduated, and number continuing.

- How many new full-time freshmen were enrolled in your college fall 1. semester, 1983?
- How many of those new full-time freshmen students graduated at the 2. end of one year (diploma, certificate, etc.)?
- How many of those new full-time freshmen who were enrolled fall of 3. 1983 are returning students during the fall, 1984 term?

Definitions

New Full-Time Freshmen: A student who entered your institution as a full-time student for the first time during the fall term, 1983, with less than one semester of academic credit earned at any institution that is applicable for credit at your institution; also included are students who have earned any amount of credit solely by means of the College Level Examination Program or similar academic exemption test.

Returning Student:

A student who was a new full-time freshman during the fall, 1983 term and who is enrolled at your college during the fall, 1984 term. Students are to be counted regardless of their classification or whether part-time or full-time.

*Definitions adapted from Student Attrition Module of the Council for Independent Colleges' (CIC) Planning and Data System.

Name	of	College		
		00-1-60		

APPENDIX C

INSTRUCTIONS FOR COMPLETION OF ATTRITION DATA FORM AND OPINION SURVEY BY FACULTY MEMBERS

April 17, 1984

Dr. Rick Torgerson
Vice President for Academic Affairs
Baker University
8th and Grove
Baldwin City, KS 66006

Dear Dr. Torgerson:

Enclosed please find copies of the ACT Student Opinion Survey. As per our earlier telephone or written communication I am sending these to you to be completed by your faculty. The results are to be used in a study examining faculty and student perceptions of college campuses and student attrition.

After your faculty members have completed the instruments I will compare their perceptions to those of your students. Upon quantifying this variance for all of the colleges involved in the study (15-20 small private colleges) I will examine each school's attrition rates and attempt to discover if there is any significant relationship between variance between faculty and student perceptions of a college and the school's attrition rate.

Please have your faculty members answer only sections II and III and respond as they believe students at your college would to the questions. Also, please have them use number 2 lead pencils as the instruments will be machine scored.

For participating in the study I will either need permission from you to have ACT release your student data or have a copy sent directly to me if you hand scored your student instruments. In September of 1984 I will send you a request for demographic and student attrition data (including data on the class that entered Fall 1983) from your college. When the study is completed I will send you a copy of the results. This summary will indicate which colleges participated, but will protect privacy when listing data.

Thank you in advance for your participation in this study. I believe this project will not only help fulfill my Ph.D.

Dr. Rick Torgerson - Page 2

degree requirements, but could aid many of us who are constantly considering ways to strengthen our student retention.

Sincerely,

William J. Katip
Dean of Students
Grand Rapids Baptist College

WJK/dk

December 1984

Dr. Rick Torgerson Vice President for Academic Affairs Baker University 8th and Grove Baldwin City. KS 66006

Dear Dr. Torgerson:

As you may recall, Baker University is participating in a research project on student attrition. I am writing to give you an update on the study and to request the attrition and demographic data needed.

By way of reminder we are comparing your faculty responses to the items on the ACT Student Opinion Survey to your students' responses. Upon quantifying these variances for the eleven small colleges involved in the study, I will examine the school's freshman attrition rates, attempting to discover if there is any significant relationship between variance between faculty and student perceptions of a college and the school's freshman attrition rates.

I have the copies of your faculty members' inventories and will get your student data from the ACT Corporation. What we need now is attrition and demographic data. Would you please help us with these two items by sending us a current college catalog and completing the attached student attrition data form.

I would like these two items by the end of January if possible. I will be sharing results of the study with you as soon as possible. Thanks for your participation with the project and please let me know if you have any questions.

Sincerely,

Bill Katip

dk

APPENDIX D COLLEGES INCLUDED IN STUDY

COLLEGES INCLUDED IN STUDY

Baker University Baldwin City, Kansas

Berry College Mt. Berry, Georgia

College of St. Joseph the Provider Rutland, Vermont

Franklin College Franklin, Indiana

Grand Rapids Baptist College Grand Rapids, Michigan

McMurry College Abilene, Texas

Neumann College Aston, Pennsylvania

Ottawa University
Ottawa, Kansas

Schreiner College Kerville, Texas

Upsala College East Orange, New Jersey

REFERENCES

- ACT Evaluation/Survey Users Guide (2nd ed.). Iowa City, Iowa: American College Testing Corporation, 1981.
- Aitken, N. D. "College Student Performance, Satisfaction and Retention: Specification and Estimation of a Structural Model." <u>Journal of Higher Education</u> 53 (No. 1, 1982): 32-50.
- Astin, A. W. "Personal and Environmental Factors Associated with College Drop-Outs Among High Aptitude Students." Journal of Educational Psychology 55 (No. 4, 1964): 219-27.
- Astin, A. W. "Effects of Different College Environments on the Vocational Choices of High Aptitude Students." <u>Journal of Counseling Psychology</u> 12 (No. 1, 1965): 28-34.
- Astin, A. W. Preventing Students From Dropping Out. San Francisco: Jossey-Bass, 1975.
- Astin, A. W. Four Critical Years: Effects of College on Beliefs, Attitudes, and Knowledge. San Francisco: Jossey-Bass, 1977.
- Astin, A. W. "Student Involvement: A Developmental Theory for Higher Education." <u>Journal of College Student Personnel</u> 25 (No. 4, 1984): 297-308.
- Astin, A. W. and Panos, Robert T. The Educational and Vocational Development of College Students. Washington, D.C.: American Council on Education, 1969.
- Baker University Catalog, Baldwin City, KS, 1984.
- Barger, B. and Hall, E. "Time of Dropout as a Variable in the Study of College Attrition." College and University 41 (1965): 84-88.
- Baumgart, N. L. and Johnstone, J. N. "Attrition at an Australian University." <u>Journal of Higher Education</u> XLVIII (No. 5, Sept./Oct., 1977):553-69.

- Beal, P. E. and Noel, L. What Works in Student Retention? Iowa City, IA: American College Testing Corporation, 1980.
- Bean, J. P. "The Application of a Model of Turnover in Work Organizations to the Student Attrition Process." May, 1981. ED 204141.
- Bean, J. P. "Dropouts and Turnover: The Synthesis and Test of a Causal Model of Student Attrition."

 Research in Higher Education 12 (No. 2, 1980):155-87.
- Bean, J. P. "Student Attrition, Intentions, and Confidence: Interaction Effect in a Path Model."

 Research in Higher Education 17 (No. 4, 1982):291-320.
- Bean, J. P. "Student Attrition, Intentions, and Confidence: Interaction Effects in a Path Model. Part II, The Ten Variable Model." Paper presented at the Annual Meeting of the American Educational Research Association. Los Angeles, CA, April, 1981. 202442.
- Bean, J. P. "The Synthesis of a Theoretical Model of Student Attrition." Paper presented at the Annual Meeting of the American Educational Research Association. Los Angeles, CA, April, 1981. 202444.
- Bean, J. P. and Creswell, J. W. "Student Attrition Among Women at a Liberal Arts College." Journal of College Student Personnel 21 (No. 4, 1980):320-27.
- Berry College Catalog, Mount Berry, GA, 1983.
- Blanchfield, W. C. "College Dropout Identification: A Case Study." Journal of Experimental Education 40 (1971):1-4.
- Borg, Walter R. and Gall, Meredith D. <u>Educational</u>
 Research: An Introduction. New York: Longman,
 1979.
- Bright, Katrina H. "The Effects of Selected Variables on Student Retention in Higher Education". Doctoral Dissertation, University of Oklahoma, 1982.

- Carnegie Council on Policy Studies in Higher Education, <u>Three Thousand Futures</u>. San Francisco: Jossey-Bass, 1980.
- Chase, Charles I. "The College Dropout: His High School Prologue." Bulletin of the National Association of High School Principals 54 (1970):67-71.
- Chase, Clinton I. "The University Freshman Dropout."

 Indiana Studies in Prediction No. 6, Bureau of
 Educational Studies and Testing, Indiana University, 1965.
- Chickering, A. W. "The Best Colleges Have the Least Effect," Saturday Review (January 16, 1971):48-50.
- Chickering, A. W., et al. The Modern American College.
 San Francisco: Jossey-Bass, 1981.
- College of St. Joseph Catalog, Rutland, VT, 1983.
- Cope, R. and Hannah, W. Revolving College Doors: The Causes and Consequences of Dropping Out, Stopping Out, and Transferring. New York: John Wiley & Sons, 1975.
- Cope, R. and Hewitt, R. "Typologyof College Student Dropouts: An Environmental Approach." Paper presented at the First New England Educational Research Conference, June 1969.
- Cope, R.; Pailthorp, K.; Trapp, C.; Skaling, M.; and Hewitt, R. An Investigation of Entrance Characteristics Related to Types of College Dropouts. Washington, D.C.: Office of Education Reports, 1971.
- Council for the Advancement of Small Colleges. Planning and Data System. Washington, D.C.: 1977.
- Davis, R. H. "A Behavioral Change Model with Implications for Faculty Development." Higher Education 8 (1979):123-40.
- Desler, Mary K. "Transfer Student Persistence and Withdrawal Decisions at an Urban Commuter Institution." Doctoral Dissertation, Michigan State University, 1985.

- Disque, Carol Sue. "The Relationship of Student Characteristics and Academic Integration to College Freshman Attrition." Doctoral Dissertation, University of Virginia, 1982.
- Durkheim, E. <u>Suicide</u>. Translated by J. A. Spaulding and G. <u>Simpson</u>. New York: The Free Press of Glencoe, 1951.
- Eckland, B. K. "College Dropouts Who Came Back." Harvard Educational Review 34 (1964):402-20.
- Enos, Patricia B. "Student Satisfaction with Faculty Academic Advising and Persistence Beyond the Freshman Year in College." Doctoral Dissertation, University of Iowa, 1981.
- Feldman, K. A. and Neucomb, T. M. The Impact of College on Students. San Francisco: Jossey-Bass Publishers, 1969.
- Fetters, William B. "Withdrawal From Institutions of Higher Education: National Longitudinal Study". NCES 77, Report 264. U.S. Department of Health, Education and Welfare. Washington, D.C.: Government Printing Office, 1977.
- Frances, C. College Enrollment Trends: Testing the Conventional Wisdom Against the Facts. Washington, D.C.: American Council on Education, 1980.
- Franklin College Catalog, Franklin, IN, 1984.
- Gardiner, J. J. and Nazari-Robati, A. "Student Attrition Research: Implications for Retention Strategies." NASPA Journal 20 (No. 3, 1983):25-33.
- Gonyea, George B. "Follow-up of Above Average Students Who Leave the University of Texas." Research Report No. 16, The University of Texas Testing and Counseling Center, March, 1964.
- Hackman, R. and Dysinger, W. "Commitment to College as a Factor in Student Attrition." Sociology of Education 43 (February, 1965):1-6.

- Hays, William L. Statistics, Third Edition. New York: Holt, Rinehart and Winston, 1981.
- Heilbrun, Alfred B. "Personality Factors in College Dropouts." Journal of Applied Psychology 43 (February, 1965):1-6.
- Herzberg, Fredrick. "One More Time: How Do You Motivate Employees?" Harvard Business Review (January-February, 1968):57.
- Husband, R. L. "Significant Others: A New Look at Attrition." Draft of paper presented at Annual Meeting of the Association for Innovation in Higher Education, Philadelphia, PA (February, 1976). ED 124 056.
- Iffert, R. E. Retention and Withdrawal of College Students. Washington, D.C.: U.S. Government Printing Office, 1957.
- Jex, F. B. and Merrill, R. "Study in Persistence." Personnel and Guidance Journal 40 (1962):762-69.
- Johansson, C. B. and Rossmann, J. E. "Persistence at a Liberal Arts College: A Replicated, Five-Year Longitudinal Study." Journal of Counseling Psychology 20 (No. 1, 1973):1-9.
- Johnson, Russell H. "The Relationship of Academic and Social Integration to Student Attrition--A Study Across Institutional Types". Doctoral Dissertation, University of Michigan, 1980.
- Kamens, D. H. "The College 'Charter' and College Size: Effects on Occupational Choice and College Attrition." Sociology of Education 44 (Summer, 1971):270-96.
- Kemerer, F. R. Strategies for Effective Enrollment
 Management. Washington, D.C.: American Association of State Colleges and Universities, 1982.
- Knoell, Dorothy. "A Critical Review of Research on the College Dropout" in Lawrence A. Pervin, et al. (eds.), The College Dropout and the Civilization of Talent. Princeton, NJ: Princeton University Press, 1966.

- Lacy, W. M. "Interpersonal Relationships as Mediators of Structural Effects: College Student Socialization in a Traditional and an Experimental University Environment." Sociology of Education 51 (No. 3, July 1978):201-11.
- Latta, W. J. "A Study of Institutional Attrition Among First-Time College Freshmen: Fall 1981." Doctoral Dissertation, Michigan State University, 1983.
- Lenning, O. T., et al. "Retention and Attrition: Evidence for Action and Research." Sponsored by National Institute of Education. Washington, D.C.: 1980. ED 192 661.
- Lenning, O. T., et al. "Student Retention Strategies." Sponsored by National Institute of Education. Washington, D.C.: 1980. 200118.
- Marks, E. "Student Perceptions of College Persistence, and Their Intellective, Personality and Performance Correlates." Journal of Educational Psychology 58 (No. 4, 1967):210-21.
- McMurry College Catalog, Abilene, TX, 1984.
- Melchor, Jerry W. "Effects of a Vocational Group Experience on the Persistence Rate of Freshman College Students." Doctoral Dissertation, Texas A & M University, 1980.
- Miller, David Russell. "Factors Related to Persistence and Non-Persistence Among Freshmen at a Private, Religious, Non-Sectarian University." Doctoral Dissertation, University of South Carolina, 1981.
- Montgomery, Ernestine. "The Attrition of Black Students from Ohio University." Doctoral Dissertation, Ohio University, 1982.
- Mullendore, R. H. "A Study of Faculty and Administration Perceptions Regarding Faculty Involvement in Reducing Student Attrition in Selected Low and High Attrition Liberal Arts Colleges." Doctoral Dissertation, Michigan State University, 1980.

- Munro, B. H. "Dropouts from Higher Education: Path Analysis of a National Sample." American Educational Research Journal 18 (No. 1, Summer 1981):133-41.
- Nelson, A. C. "College Characteristics Associated with Freshman Attrition." Personnel and Guidance Journal 44 (1966):1046-50.
- Neumann College Catalog, Aston, PA, 1983.
- Noel, L. "College Student Retention--A Campus-Wide Responsibility." National ACAC Journal 21 (July, 1976):33-36.
- Noel, L. (ed.). New Directions for Student Services:

 Reducing the Dropout Rate
 Jossey-Bass, 1978.
- Noel, L., Levitz, R., and Saluri, D. <u>Increasing Student</u> Retention. San Francisco: Jossey-Bass Pub.,1985.
- Norusis, Marija J. SPSS Introductory Guide: Basic Statistics and Operations. New York: McGraw-Hill Book Co., 1982.
- Nunley, Alven C. "An Evaluation of the Developmental Studies Program Designed to Increase Persistence and Academic Performance of High-Risk Students at Northeastern State University." Doctoral Dissertation, Oklahoma State University, 1981.
- Ottawa University Catalog, Ottawa, KS, 1983.
- Pace, C. R. "Methods of Describing College Cultures." Teachers College Record 63 (1962):267-77.
- Panos, R. J. and Astin, A. W. "Attrition Among College Students." American Educational Research Journal 5 (No. 1, January 1968):57-72.
- Pantages, T. J. and Creedon, C. F. "Studies of College Attrition: 1950-1975." Review of Educational Research 48 (No. 1, Winter 1978):49-101.
- Pascarella, E. T. "A Program for Research and Policy Development on Student Persistence at the Institutional Level." <u>Journal of College Student Personnel</u> 27 (No. 2, 1986):100-107.

- Pascarella, E. T. "Student-Faculty Informal Contact and College Outcomes." Review of Educational Research 50 (No. 4, Winter 1980):545-95.
- Pascarella, E. T. "Student-Faculty Informal Contact and College Persistence: A Further Investigation."

 Journal of Educational Research 72 (No. 4, 1979):214-18.
- Pascarella, E. T. "Validation of a Theoretical Model of College Dropouts." National Institute of Education, Washington, D.C. (May, 1981). ED 221 130.
- Pascarella, E. T. and Duby, P. B. "A Test and Reconceptualization of a Theoretical Model of College Withdrawal in a Commuter Institution Setting." Sociology of Education 56 (April 1983):88-100.
- Pascarella, E. T. and Terenzini, P. T. "Interaction Effects in Spady's and Tinto's Conceptual Models of College Dropouts." <u>Sociology of Education</u> 52 (No. 4, October 1979):197-210.
- Pascarella, E. T. and Terenzini, P. T. "Interaction of Student Characteristics and Student-Faculty Relationships in Prediction of Freshman Year Voluntary Persistence/Withdrawal Decisions." Prepared for Presentation at the annual meeting of the American Educational Research Association, San Francisco, CA (April, 1979). ED 172606.
- Pascarella, E. T. and Terenzini, P. T. "Patterns of Student-Faculty Informal Interaction Beyond the Classroom and Voluntary Freshman Attrition."

 Journal of Higher Education, XLVIII (No. 5, Sept./Oct., 1977):540-51.
- Pascarella, E. T. and Terenzini, P. T. "Predicting Freshman Persistence and Voluntary Dropout Decisions from a Theoretical Model." <u>Journal of Higher Education 51</u> (No. 1, 1980):60-75.
- Pascarella, E. T. and Terenzini, P. T. "Student-Faculty and Student-Peer Relationships as Mediators of the Structural Effects of Undergraduate Resident Arrangement." Journal of Educational Research 73 (No. 6, 1980):344-53.

- Pascarella, E. T. and Terenzini, P. T. "Student-Faculty Informal Relationships and Freshman Year Educational Outcomes." <u>Journal of Educational Research</u> 71 (No. 4, 1978):183-89.
- Pervin, L. A.; Reik, L. E.; and Dalrymple, W., eds. The College Dropout and the Utilization of Talent. Princeton, NJ: Princeton University Press, 1966.
- Pervin, L. A. and Rubin, D. B. "Student Dissatisfaction with College and the College Dropout: A Transactional Approach." The Journal of Social Psychology 72 (1967):285-95.
- Potter, R. H. "Attrition in a Graduate Extended Degree Program." Doctoral Dissertation, Michigan State University, 1981.
- Ramist, L. "College Student Attrition and Retention."
 College Board Report No. 81-1. College Entrance
 Examination Board, New York, 1981.
- Rees, Daniel Ko. "A Study of the Relationship of Selected Advisor Variables and their Relationship to Attrition Rates at the Small Private College." Doctoral Dissertation, The Catholic University of America, 1979.
- Rootman, I. "Voluntary Withdrawal from a Total Adult Socializing Organization: A Model." Sociology of Education 45 (No. 3, Summer 1972):258-70.
- Rossmann, J. E. and Kirk, B. A. "Factors Related to Persistence and Withdrawal Among University Students." Journal of Counseling Psychology 17 (No. 1, 1970):56-62.
- Schneider, Irving. "Predictors of Attrition at a Private Business College." Doctoral Dissertation, University of Connecticut, 1982.
- Schreiner College Catalog, Kerville, TX, 1984.
- Sewell, W. and Shah, V. "Socioeconomic Status, Intelligence, and the Attainment of Higher Education." Sociology of Education, Vol. 40 (1967):1-23.

- Sexton, V. S. "Factors Contributing to Attrition in College Populations: Twenty-Five Years of Research." The Journal of General Psychology 72 (1965):301-26.
- Slocum, W. L. "Social Factors Involved in Academic Mortality." College and University 32 (1965):53-64.
- Spady, W. G. "Dropouts from Higher Education: An Interdisciplinary Review and Synthesis." <u>Interchange</u> 1 (No. 1, April 1970):64-85.
- Spady, W. G. "Dropouts from Higher Education: Toward an Empirical Model." <u>Interchange</u> 2 (No. 3, 1971):38-62.
- Stern, G. G. "Congruence and Dissonance in the Ecology of College Students." Student Medicine 8 (1960):304-39.
- Stickle, F. "Faculty and Student Perception of Faculty Advising Effectiveness." <u>Journal of College Student Personnel</u> 23 (No. 3, 1982):262-65.
- Summerskill, J. "Dropouts from College." In N. Sanford (ed.), The American College: A Psychological and Social Interpretation of the Higher Learning. New York: John Wiley & Sons, 1962.
- Summerskill, J. and Darling, C. D. "Sex Differences in Adjustment to College." <u>Journal of Educational Psychology</u> 46 (1955):355-61.
- Taylor, William D. "A Five-Year Attrition Study of an Undergraduate Class at the University of Tennessee at Chattanooga." Doctoral Dissertation, University of Mississippi, 1982.
- Thistlewaite, R. Recruitment and Retention of Talented College Students. U.S. Office of Education, January 1963.
- Thurman, Lanette H. "College Faculty Perceptions of Faculty-Student Interaction Relative to Role Expectations, Student Retention, and Institutional Recognition and Reward." Doctoral Dissertation, George Peabody College for Teachers, 1980.

- Terenzini, P. T. "An Evaluation of Three Basic Designs for Studying Attrition." Paper presented at the Annual Association for Institutional Research Forum, Houston, TX, May 1978. ED 161 358.
- Terenzini, P. T. and Pascarella, E. T. "Voluntary Freshman Attrition and Patterns of Social and Academic Integration in a University: A Test of a Conceptual Model." Research in Higher Education 5 (1977):25-43.
- Tinto, V. "Dropout from Higher Education: A Theoretical Synthesis of Recent Research." Review of Educational Research 45 (No. 1, Winter 1975):89-125.
- Upsala College Catalog, East Orange, NJ, 1984.
- Valiga, Michael J. "Assessing the Reliability of Survey Instrument." Paper presented at the Annual Forum of the Association for Institutional Research, Toronto, Ontario, May 1983.
- Wegner, E. L. and Sewell, W. H. "Selection and Context as Factors Affecting and Probability of Graduation for College." American Journal of Sociology 75 (1970):655-79.
- Whiting, Richard A. "First Semester Freshmen College Dropouts: A Family System Perspective." Doctoral Dissertation, University of Massachusetts, 1980.
- Wilson, R. C.; Gaff, J. G.; Dienst, E. R.; Wood, L.; and Bavry, J. L. College Professors and Their Impact on Students. New York: John Wiley & Sons, 1975.