

AN ABSTRACT OF THE THESIS OF

Clayton Nowlin Smith for the degree of Doctor of Education in College Student Services Administration presented on November 20, 1990.

Title: A Study of the Relationship Between Living Environment Press and Retention of Freshman Pledges in Fraternities at Oregon State University.

Abstract approved *Redacted for Privacy*
Morris L. LeMay

The purposes of this study were first to determine if there were significant differences in living environment press, i.e., the pressure on an individual to behave in a certain way, between those fraternity chapters that had the highest freshman pledge retention rates and those that had the lowest. If significant differences were determined to exist, the second purpose was to investigate how those differences related to differences in the retention rates for freshman fraternity pledges.

The data were obtained from the records of all freshman pledges in the Oregon State University fraternity system for a four-year period. From these data the high pledge retention and low pledge retention fraternities were determined. The sample for the remainder of this study was two of the three highest and two of the three lowest pledge retention fraternities. The highest and lowest pledge retention fraternities were eliminated.

Analyses included: Pearson Correlation Coefficients to determine if there were significant correlations between retention of pledges in the fraternity system and six factors involving grades and the number of members and pledges living in the fraternities; two-way, fixed analyses of variance to determine if there were significant differences between the high retention fraternities (HRFs) and the low retention fra-

ternities (LRFs) with respect to pledge high school grade point averages and Scholastic Aptitude Test scores; chi square contingencies to determine if there were significant differences between the HRFs and the LRFs with respect to 14 different characteristic, background, and satisfaction variables; and F-test analyses to determine if there were significant living environment differences between the HRFs and the LRFs on each of the subscales of the University Residence Environment Scale, Form R.

The conclusions of the study were:

1. Neither high school nor college grades, SAT scores, nor individual characteristics, background, and satisfaction levels can be used to define differences in pledge retention between the HRF and LRF houses.
2. The differences within the living environment, and primarily the relationship dimension of that environment, of the two groups offer the best explanation of the pledge retention differences between the two groups.
3. The overt pressure exerted by the LRFs on their pledges to study and achieve academic success did not result in greater academic success than in HRFs, but did tend to limit the degree of social integration achieved by their pledges.
4. Social integration has a significant positive impact on pledge retention, while overt pressure toward academic integration has a probable negative impact on pledge retention.
5. Successful social integration, while having a positive impact on pledge retention, does not have a negative impact on academic performance. In fact, the impact on academic performance may be positive.
6. A crucial element in the Tinto (1987) model should be a relationship building block within the peer group interaction portion of the social system.

Recommendations for further study were made.

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**A Study of the Relationship Between Living Environment Press and
Retention of Freshman Pledges in Fraternities at Oregon State University**

by

Clayton Nowlin Smith

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DEDICATION

Only a few will read this discourse, but all the world should know that one Man has done so much for so many for so long. For over 25 years the Man has given his time, his energy, his wisdom, and most importantly, his love to thousands of young men. These were given not just because the men were fraternity men, but also because they were young, growing, maturing men who needed a loving, guiding hand along the road. *In loco parentis* in the sense of loving and caring is not dead at Oregon State. In fact, it is alive and well in the heart of the Man who in this writer's opinion most personifies the concept as it should be--caring, not controlling. This dissertation, which could not have been written without his inspiration, is dedicated to Dean Bill Brennan.

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who are not here for the end

My children Barry, Jill, Nicole, and Ethan,
who had to give up time with Dad so this
dissertation could be completed

And most importantly, my wife Kim,
she never gave up on me.

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at Oregon State University

CHAPTER I

INTRODUCTION

Statement of the Problem

For at least the past 30 years, educators and researchers have explored the reasons for student dropout from and persistence in college, and in the past 10 years there has been a great increase in college retention research. One of the main reasons for this increase has been the leveling and subsequent drop in enrollments due to a decrease in the national population aged 18 to 22 years. Nearly all of this research has focused on retention in college, while ignoring retention in specific college living environments. Also, for many years research has been conducted on the effects of living environments on people, specifically, upon college students. Numerous studies have compared the effects of different college living environments and several studies have explored the relationship between a specific living environment, e.g., fraternities, and a particular college outcome, usually academic achievement. However, no study has combined the findings of retention research with those of research on environmental effects and applied the results of such a combination to a specific environment setting, such as fraternities.

Consequently, this study was concerned with the dropout of freshman pledges and associate members (hereafter referred to as pledges) from fraternities at Oregon

State University (OSU). Annually, approximately 600 first-term freshman males pledge the 26 national fraternity chapters that have been officially recognized by the University. A four-year average has indicated that one year after pledging, only 69 percent of those freshmen were still in their chapter houses as either pledges or members. This average annual loss of 31 percent of the freshmen pledges represented a significant investment of fraternity time, money, and effort, as well as a significant loss of potential for many of the men who left. In addition, for those chapters with very low persistence rates, the loss held even greater significance and could, and sometimes did, lead to dissolution of a chapter.

Further analysis of OSU data showed that for the four-year period beginning with September 1982 and ending with October 1986, individual fraternity chapter persistence rates varied from a high of 90.3 percent for the chapter with the highest rate to a low of 35.3 percent for the chapter ranked at the bottom of the scale. The critical question, then, was why was there such a great disparity in retention rates of freshman pledges among the fraternity chapters?

Purposes of the Study

The purposes of this study were twofold. The first purpose was to determine if there were significant living environment press differences ("press" was defined as the direction and magnitude of influence the environment has upon an individual) between those fraternity chapters at OSU that had the highest freshman pledge retention rates and those that had the lowest. The second purpose was to investigate how those differences, if significant differences were determined to exist, related to differences in the retention rates for freshman fraternity pledges.

Prior to 1970, most research on college persistence and dropout focused upon an entire menu of individual differences/characteristics as explanatory or predictive

factors in college persistence and dropout. Some of the more commonly considered factors were family background, individual attributes, pre-college schooling, and specific college outcomes, such as grades, or specific college situations, including the type of living arrangement (i.e., residence hall, fraternity or sorority, or off-campus). Subsequently, William Spady (1970) and Vincent Tinto (1975; 1987) developed models which theorized that persistence and dropout were parts of a dynamic process encompassing the entire range of a student's past, his/her present college or university situation, and his/her expectations for the future. Generally, the models stated that persistence and dropout were functions of personal goals and institutional commitment, which were in turn influenced by the degree to which the student was able to integrate, or fit, into the academic and social systems of the institution. Academic integration was manifested by grade performance and intellectual development, while social integration was manifested by peer group and faculty interactions. Family background, individual attributes, and precollege schooling added to or detracted from the student's ability to integrate academically and socially. While Spady and Tinto believed that academic and social integration which lead to goal and institutional commitment were crucial to overall college persistence, they did not extend their model to sub-sets of the college population.

Kurt Lewin (1935) was one of the first to place environmental influence into the perspective of personal development. "The fact of environmental influence has been thoroughly established in various ways in recent years by the psychological study of various environments" (p. 67). Lewin stated that neither the similarities nor differences in behavior (B) permitted direct unequivocal inference of the similarities or differences in individual characteristics or of situational factors. "Inference of an individual characteristic (P) is possible only when the environmental situations (E) agree, inference of the situation only when the individuals agree" (p. 72); thus, Lewin's

equation, $B = f(PE)$, or behavior as a function of the interaction of the person and the environment. Finally, Lewin applied the concept of force to the influence of environment, implying that environmental influence had both strength and direction.

Henry Murray (1938) transformed Lewin's force into the concept of environmental press. He stated that the conduct of an individual could not be formulated without characterization of the physical and social environment, and that the environment exerted a pressure on the individual to behave in a specific way. This was the pressure he termed "environmental press." Murray also believed that one could profitably analyze an environment, a social group, or an institution from the point of the press it applied or offered to the individuals that lived within it or belonged to it. Finally, Murray stated that though an individual frequently seeks a certain press, more frequently the press meets the individual and stimulates a drive. Thus, there is a press-needs combination.

George Stern (1970) defined press as a "taxonomic classification of characteristic behaviors manifested by aggregates of individuals in their mutual interpersonal transactions" (p. 8). He also stated that there was a similar taxonomic classification of individual personality types, and that the match of personality and environment would produce a congruent needs-press situation, while a mismatch would produce a dissonant needs-press situation, which could lead either to modification of the press or withdrawal of the individual.

Rudolf Moos (1979) stated that the environment could exert a potent influence on individuals, and that the setting in which students function could affect their attitudes and moods, their behavior and performance, and their self-concept and general sense of well-being. To illustrate this concept, Moos developed a conceptual framework or model of the process of person-environment interaction.

In summary, research on retention in college indicated that a student's integration into the academic and social environment of the college was a critical retention factor, and environmental research indicates that the congruence between the press of the environment and the needs of the individual are crucial to success in the environment. Therefore, research on both retention and environmental influence suggests that a synthesis of Tinto's (1975, 1987) concept of academic and social environmental integration with Moos' (1979) model of person-environment interaction could be used to illustrate the relationship between the two, while providing at least a partial explanation of the differing pledge persistence rates among fraternities.

For the purposes of this investigation, four objectives were developed:

- 1) To provide a careful review of the literature pertaining to retention and environmental influence.
- 2) To determine if there were significant differences in living environment between fraternities with high and low pledge retention rates.
- 3) To explore the relationship between the environmental differences, if determined to exist, and the fraternity pledge retention rates.
- 4) To develop a model that combines the persistence/dropout concepts of Vincent Tinto and the person-environment interaction concepts of Rudolf Moos.

Significance of the Study

The fraternity has been an important part of the college environment since the founding of the "Triad" at Union College in 1825 and 1827. The college fraternity movement has subsequently grown to its present size of over 400,000 members. But this growth has not been without setbacks. Through the late 1960s and the 1970s, literally hundreds of chapters were forced to close and hundreds of others were just

barely able to continue. However, while the mid to late 1970s and the 1980s witnessed a resurgence of fraternity activity, many chapters were still struggling to attain or regain stability.

A significant way for a struggling chapter to build a stable, productive membership is to provide a living environment that supports the young pledge and makes him feel as though he belongs. A study such as this can provide concrete information concerning the nature of a nurturing environment that will promote retention. From this information individual fraternity chapters, as well as the entire fraternity system, can benefit from a gain in strength.

The university can also benefit from such a study. Today, most colleges and universities are actively seeking ways to increase the number of students who remain in school. Many authorities perceive this approach as a more cost effective means than marketing and recruiting efforts to maintain enrollment. Seventy-five percent of the men who leave the fraternity also leave the university. Therefore, an environment in the fraternity house which raises its retention rate may also raise the retention rate of the institution.

The individual student can be the third benefactor of this study. The dropout rate is also a measure of lost potential for the individual as well as society. If we believe that a college education is a useful vehicle to help the individual lead a more productive and socially conscious life, then we must also believe that the lost opportunity for a college education may lead to a less productive life. If the fraternity system at just this one university could raise its freshman pledge retention rate only 10 percent, each year 44 more people would have the opportunity to realize a larger measure of their potential.

Finally, a study of this nature may contribute to sociological theory. If insight can be gained into the factors that contribute to group maintenance and productivity,

as well as the factors that cause individuals to become more oriented to the needs of the group and less oriented to the needs of self, the positive factors which emerge can be more effectively promoted and thus increase both group effectiveness and individual attainment.

Definitions

The following definitions were included to provide precise meanings and clarity for the concepts and terms used in this study.

Chapter: National fraternities have organizations on many campuses throughout the United States and Canada. The branch of a national fraternity on a specific campus is referred to as a chapter of the national fraternity.

Environmental Press: The influence of the physical, social, and psychological environment on an individual. Press implies both direction, i.e., positive or negative, and strength of influence.

Fraternity: A formally organized student living group housing 15 to 80 male students which is privately-owned and founded for the common purposes of brotherhood, social activity, and academic excellence.

Fraternity System: Refers to all chapters at a particular college or university. On the OSU campus, there are 26 chapters in the system.

Interfraternity Council (IFC): Refers to a formally organized group of student representatives from each fraternity chapter at OSU existing for the purposes of promoting the welfare of and cooperation among all fraternities; the IFC offers recommendations concerning fraternity rules and regulations, implements common programs and services, and sanctions member chapters.

Pledge/Associate Member: Most fraternities use the term pledge to refer to those who have chosen to join. However, a few fraternities use the term associate member. For the sake of simplicity, this study will use the term pledge throughout. Although most, if not all, fraternities take in new pledges throughout the year, and also pledge sophomores and a few upperclassmen, for the purposes of this study a pledge is a first-term freshman, who pledged fall term of his first year in school.

Retention Rate: For the purposes of this study, the retention rate is the percentage of traditional-aged college freshmen who began college and pledged a fraternity during fall term of a specific year, remained in school and in the fraternity throughout the academic year, and returned to school and the fraternity for fall term of the following year. If any other retention rate is referred to in this study, the degree to which it differs will be so noted.

CHAPTER II

REVIEW OF RELATED LITERATURE

The review of related literature for this study included three areas which are central to the study. The first was a treatment of college fraternities, including a brief history of the development of the fraternity movement, the general nature of the fraternity, and a description of the process of becoming a full fraternity member. The second area of the review examined the concept of retention. The general area of concern was retention in colleges and universities, with more specific focus directed toward retention in college and university living groups. The third area examined person-environment interaction, including basic theory, and person-environment interaction in colleges and universities. Specific attention was then directed toward person-environment interaction in living groups.

Fraternities

History of the Fraternity

The first American college fraternities were founded between 1825 and 1827 at Union. They were three, and known as the "Union Triad" (Robson, 1976). Owen and Owen (1976) have stated that the major changes that have taken place in the fraternity system over the years have always occurred as the result of larger changes in society. In fact, the early fraternities were founded to fill a social and emotional vacuum by providing an escape from the rigors of the discipline that predominated within colleges in the late 18th and early 19th centuries (Rudolph, 1962).

One of the early effects of the fraternities was to disrupt existing literary societies by introducing new political complications into society elections (Rudolph, 1962). In just a few years the societies were reduced to forums for competing fraternities seeking to elevate their own members to prestige, and as a result most of the societies disappeared by the 1850s (Horowitz, 1987).

Fraternities grew slowly until the period following the Civil War. The Morrill Act of 1862, which led to the creation of land grant colleges, the rise of the German model of education, which viewed any aspect of college that wasn't purely academic as being extraneous, and the changes within college curriculums which began to place professional education on a par with traditional liberal learning, all contributed to fraternity growth (Aubuchon, 1978). By 1900, the American fraternity movement had attained a strength and stability which was rare in student associations (Sheldon, 1901). One of the reasons for the full acceptance of fraternities at this time was strictly practical since many universities needed fraternities to house and feed students (Horowitz, 1987).

After World War I, the fraternity system continued to expand at an increasing rate. It has been estimated that by 1929 slightly under 4,000 chapters owned total property valued at \$90 million (Horowitz, 1987). From the 1920s through the 1950s fraternities were socially dominant throughout American colleges. Their prestige was confirmed through official recognition by college and university administrations and they became the powerful rulers of the local campus, defining and controlling the major social events of the college year. Nationwide, about one-quarter to one-third of all college students belonged to a Greek letter society, but the power of the Greek system far exceeded its numbers. For example, at the University of Michigan in the 1920s, only 34 percent of the student body were Greeks, but they ran all the key organizations on campus (Horowitz, 1987).

At the beginning of World War II there were 85 registered fraternities with 2,747 chapters and 896,163 members (Johnson, 1972). Although these numbers diminished somewhat during the war, the end of World War II brought about another significant growth period in the fraternity movement due to veterans returning from the service.

The decade of the sixties, which started with the Civil Rights movement and ended with violent Vietnam War protests and student unrest and activism, was referred to by many as "the antifraternity period." From 1963 to 1973 men's national fraternities withdrew 718 existing charters and more than 50 percent of those were withdrawn between 1971 and 1973 (Robson, 1977). As fraternity membership declined to only 149,000, there were many who believed that this was the beginning of the end of the fraternity movement on college and university campuses. However, starting in 1974 fraternity membership figures again began to rise (O'Brien, 1976).

Fraternity membership rose steadily through 1983, when fraternities witnessed a new rush on campus as increasing numbers of students chose to be members, despite the well-publicized abolition of the Greek systems at Colby and Amherst. Since 1974, fraternity membership has more than doubled, reaching approximately 400,000, which is still far short of the almost 900,000 active fraternity members just prior to World War II.

Nature of the College Fraternity

Writers have characterized fraternities in many ways. Supporters of fraternities speak of congeniality, the subordination of self, friendship, camaraderie, brotherhood, personal growth, and other factors, while the detractors of fraternities emphasize terms like hedonism, organized dishonesty, chauvinism, violence, and altruism.

Robson (1977) has provided a very traditional view of the nature and purpose of fraternities.

The fraternity group is formed by mutual selection, based on congeniality and common purpose. Here the young member learns, perhaps for the first time, to submit to the will of the majority and to shape his own conduct by the interests and standards of the others with whom he lives. (p. 21)

Sheldon (1901) believed that the most compelling element that drew fraternity members together was friendship, and that these associations were based on the interpersonal affinity of members and stressed social activities and camaraderie. Johnson (1972) believed that fraternities are by nature social organizations and that most chapter activities are for the purpose of enrichment of the out-of-class life of the members and pledges. Milani (1980) suggested that the closeness of brotherhood associations justifies classifying fraternities as primary reference groups that encourage intimate relationships among members and serve as a family unit within the larger college/university environment.

A student's set of friends can be important in reinforcing certain values, as well as evoking changes in these values. When a student spends a great deal of time in a friendship group of his/her choice and is dependent upon its members for much of his security and satisfaction, the student will become vulnerable to potential influence from the group members in three ways: The group's members provide cues concerning what values are universally shared among group members; group members selectively reinforce behavior which perpetuates group cohesion; and group members are in a position to punish serious deviations from the norms by withdrawing their friendship, and thus the security and other satisfiers needed by the student (Marlowe, 1979).

An integral part of fraternity life is service--to the individual, the chapter, the national organization, the college/university, the community, and sometimes the nation and the world. Although service to the membership is the main emphasis within

the fraternity, fraternities have always recognized their role in service to the colleges and have attempted to instill in their members a sense of collegiate loyalty, which is demonstrated by continued participation in college activities and financial support by fraternity alumni.

Although development of the individual was not one of the originally espoused purposes of the fraternity, it has arguably become the principal purpose of fraternity life, pursued and attained through formal efforts undertaken by the fraternities and by college and university administrations (Milani, 1980). Schreck (1976) attributes the attractiveness of fraternities to the recognition by students that the fraternity has a serious commitment to the personal development of the individual.

Just as fraternities have characteristic natures, so too do the men who live in them. Marlowe (1979) found that fraternity men, as opposed to independents, had wealthier parents, were more socially oriented (i.e., they dated more), were more dependent on peer relationships, were more involved in extracurricular activities, were politically more conservative, were less concerned with social injustice, and aspired to higher levels of education. In a similar study Feldman and Newcomb (1973) found that fraternity men tended to be more self-confident; self-assertive; authoritarian; prejudiced; ethnocentric; religiously, socially, and politically conservative; and higher in sociability and participation.

Description of the Membership Process

Perhaps the most critical period in the life of a fraternity man is the pledge period, which begins with rush. Rush activities are the life blood of each fraternity chapter, marking the beginning of association for future members and challenging active members with the responsibility of selling their fraternity and themselves to those they decide are worthy. The rush period is the first step in the membership process,

wherein prospective members declare their interest in membership by registering as rushees. No declaration is made with regard to fraternity preference at the outset of the rush period, but it is during this period that both the fraternities and the rushees decide on their selections. Due to the very competitive nature of the rush process, rush activities are usually monitored by interfraternity councils and penalties are levied for violations of rush regulations (Milani, 1980).

The results of rush activities are surprisingly efficient on most campuses. Not every rushee receives a bid to join a fraternity and not all chapters obtain all the men they desire, but due to the predisposition of the rushees to affiliate, and the fraternities' need to replenish their membership, 90 percent of the rushees receive and accept bids (Johnson, 1972). At OSU the percentage is even higher, about 95 percent.

It is at the conclusion of the rush period, when bids are given and accepted, that the bond between the pledge and the fraternity is actually initiated. Pledgeship is both selective and voluntary. The pledge knows he has been selected, presumably over others who were not selected, and the fraternity knows the pledge has selected it, presumably over other fraternities. Thus, the prospective member meets his fellow pledges and his prospective brothers with the knowledge that he wants and is wanted. However, the next period in the process is critical in that the initial bond will either be strengthened or broken. That period is the pledge period.

Acceptance of a pledge into a fraternity begins a long process of orientation. Most pledges are selected on the basis that they will be able to get along with the membership--they will fit--and their potential to contribute to the goals of the fraternity, as well as their ability to bring credit by their deeds. The brotherhood expects each pledge to succeed and generally offers the assistance needed. Orientation is a constant and on-going process designed to help the student identify his place in the group and his role in the student society (Milani, 1980). Once the rushee becomes a

pledge he has prescribed obligations but no rights of membership. He is separated from the general student body, but is not yet a full member of his chosen group; thus, his identity is with the others of the group which constitutes the pledge class.

Subsequent to accepting the bid from the fraternity, the pledge's new status is marked by a ritualistic pledge ceremony. He will receive a pledge pin, a symbol of his new status, and he will be told that he is something special and apart from the other men on campus. After the pledge ceremony, the pledge class officers are elected and the pledge educator, the member who is charged by the chapter with the responsibility for indoctrinating the pledges, is introduced. During the initial pledge period the social relationships of the pledges are drastically changed. Interaction within the fraternity social system is greatly increased and interaction within the general social system is greatly decreased. The pledge is in a stage of transition; he is set apart, yet he is not a full member (Milani, 1980). Since all the pledges are in essentially the same situation, captured in a life of uncertainty wherein they are generally set apart and subservient to the members, the pledge class develops its own identity through collective action and communication, and bands together for mutual protection.

The pledge educator takes over and schedules chapter activities for the pledges. Generally, the subservient position of the pledges is continually emphasized through their assignment to most of the housekeeping responsibility for the chapter. However, some chapters are beginning to treat pledges on a more equal basis and are assigning everyone within the house responsibility for chores. Nonetheless, it is not possible for the pledge to feel equal to the actives.

The pledge period generally lasts for one or two terms (three to six months). Ironically, it is grades that often stand in the way of initiation into full membership. From their origins, fraternities have been criticized for their anti-academic attitude,

yet the one criteria for becoming a member that is absolutely objective is achievement of the required GPA as set by the fraternity.

The culmination of the pledge period is the initiation period and the initiation ceremony. The initiation period is an emotionally and physically demanding time; an emotional and solemn transition from pledgship to full membership in the brotherhood. Ideally, following initiation into the chapter, the new member will think of himself as a member of the fraternity and part of a stable social system. He will have intimate friends, prescribed obligations to the chapter, traditional activities in which to participate, a system of formal and informal norms, and a prestige system that requires him to participate and excel in the campus society (Milani, 1980).

Retention

Retention in Colleges and Universities

It is well established that the pool of high school graduates is shrinking and will continue to do so into the 1990s. Likewise, it has been documented that large numbers of students who are eligible to continue college will decide to drop out or "stop out" (Noel, Levitz, Saluri, & Associates, 1985). College persistence and withdrawal rates have been the subjects of extensive research in higher education. For many decades researchers have sought answers to such questions as: What is the likelihood that a student who enrolls in college as a freshman will withdraw prior to completion? Do rates of persistence and withdrawal vary among the many subgroups of students? Are there psychological and personal variables between students who persist and those who withdraw? Are there effective intervention strategies to reverse high rates of withdrawal? (Alexander, 1982). Despite the immense amount of research stimulated by such questions over the last 40 years, definitive answers to these

questions continue to be elusive. Rates of completion (dropout) have remained almost constant at about 55 (45) percent over the past 100 years (Tinto, 1982).

Several explanations of these phenomena have been derived from the extensive research on persistence/dropout and numerous studies have linked particular student characteristics or background data factors to college dropout. For example, Hinton (1982) used the *National Longitudinal Study* and causal modeling techniques to conclude that retention in higher education is influenced most by previous educational status, the measure for which was primarily high school grades. An additional explanation is that dropout/persistence is related to cost/benefit analysis, i.e., a person will withdraw from college when he/she perceives that an alternative form of investment of time, energy, and money will yield greater benefits (Tinto, 1982). A third explanation is Astin's (1985) theory of involvement. "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 the program" (p. 36). Astin found that the factors which facilitated persistence were those signifying high involvement: full-time attendance; participation in extracurricular activities; consistent study habits; living on campus; and frequent interactions with other students, faculty, and administrators.

Only recently has there been a development in persistence and withdrawal research which employs theoretical models to simultaneously consider the multitude of factors which operate concurrently to cause withdrawal from college (Alexander, 1982). Specifically, four theoretical persistence/dropout models have been proposed by Spady (1970, 1971), Rootman (1972), Tinto (1975, 1987), and Bean (1980).

Spady (1970) stated that most of the research conducted prior to 1970 had focused only upon the magnitude of attrition and were self-reports of the reasons for dropout, or predictive studies which used a range of admissions variables to predict

student success or failure. Spady's alternative was a sociological model of the drop-out process based upon the assumption that the process was best explained by the interaction between the individual student and the particular college environment to which his/her attributes (i.e., dispositions, interests, attitudes, and skills) were exposed to influences, expectations, and demands from a variety of sources, including courses, faculty members, administrators, and peers.

Spady (1970) framed the academic system in terms of student grades and intellectual development and the social system in terms of normative congruence and friendship support. Normative congruence was defined as "having attitudes, interests, and personality dispositions that are basically compatible with the attributes and influences of the environment" (p. 77). Spady believed that normative congruence and friendship support resembled the concept of social integration as explained by Durkheim (1951) in his treatise on the social nature of suicide. Durkheim believed that the likelihood of suicide increased when two kinds of integration were lacking: insufficient moral consciousness, or low normative congruence; and insufficient collective affiliation, or low friendship support. Spady also extended his parallel to Durkheim's theory to the academic system. Durkheim viewed the occupational role as a critical component of the integration process, and Spady theorized that low grades and inadequate identification with the norms of the occupational group, in other words, low intellectual development (the occupational role of a student), were reasonable additions to the model. Finally, Spady suggested that the link between social integration and dropping out was actually indirect. Two critical variables, satisfaction with the college experience and commitment to the social system, intervened since personal satisfaction with the college experience was dependent upon the available social as well as academic rewards. Hence, sustaining a personal commitment to the college

first required both a sense of integration in the system and a sufficient number of positive rewards (Spady, 1970).

Spady (1971) tested his model through a five-year longitudinal study of all 683 first-year students in the College of the University of Chicago in 1965. His analysis indicated that it was necessary to include a structural relations variable with friendship support. Consequently, extracurricular involvements, dating patterns, and contact with faculty members could be included. The major findings of his investigation were as follows:

- 1) Intellectual growth was unrelated to previous high school performance and measured intellectual capacities. It was dependent to a greater degree on contacts with faculty members and opportunities for extracurricular activities.
- 2) The more academically competitive the high school and the stronger the student's secondary school performance, the better the student's college academic performance.
- 3) Interpersonal contacts apparently inhibited academic performance, i.e., academic and interpersonal rewards were inversely related.
- 4) Satisfaction was based mainly on the academic, intellectual, and social experiences that occurred during the first several months of college, and was influenced only indirectly by the dispositions and characteristics that students brought to those experiences.
- 5) Commitment to the institution could be generated by providing students with experiences that affect the intrinsically meaningful spheres of their lives as human beings, rather than by attempts to modify the academic reward structure.

- 6) Grade performance was the primary determinant of the dropout process, although it was complemented by both institutional commitment and social integration.
- 7) Men responded more to extrinsic rewards such as grades, whereas women responded more to intrinsic rewards such as relationships.

The second theoretical model was developed by Rootman (1972), who believed that "a major limitation of most studies of withdrawal from adult socializing organizations was that they have been atheoretical" (p. 258). Rootman conducted an investigation at the U.S. Coast Guard Academy which involved all 343 members of the entering freshman class for 1968. The data were obtained through 14 instruments and a number of interviews, from which six independent variables were generated: personality, interests, and values; actual attachment to insiders; discussion of leaving with outsiders; discussion of leaving with insiders; section change; and perceived attachment to insiders. Rootman's findings suggested that voluntary withdrawal was directly caused by a lack of person-role fit within the organization and by a lack of actual interpersonal fit within the group with whom the cadet was initially socialized. He went on to conclude that voluntary withdrawal could best be understood by the concept of "stress," defined as the existence of an unresolved problem for the individual. Stress, then, is a force pressing on the individual which leads to the reaction which he called "strain." One rational means of coping with strain is to eliminate the stressful situation which caused it, or withdrawing voluntarily from the situation.

The third theoretical model considered in the current study was developed by Bean (1980), who conducted a study which applied student attrition to a causal model adapted from the industrial model of worker satisfaction and turnover in work organizations. Bean believed that worker turnover in industry had greater attraction as an analogy to student attrition than did Spady's suicide analogy. In his study of fresh-

men at a large midwestern university, Bean found that institutional commitment (the degree of loyalty toward membership in an organization) was the most important variable in explaining dropout for students.

Vincent Tinto (1975) developed the final theoretical model of persistence/dropout presented in this study. The formulation of his model, similar to the models cited above, was based upon the conviction that higher education dropout research was marked by inadequate conceptualization of the dropout process. Little attention had been given to the development of longitudinal models that would contribute to understanding of the processes of interaction, which in Tinto's theory were related to varying levels of persistence and/or varying forms of dropout behavior.

Tinto (1975) developed a theoretical model that sought to explain the processes of interaction between the individual and the institution that led differing individuals to become higher education dropouts. Tinto's model was also based on Durkheim's (1951) theory of suicide, with the addition that it also encompassed a cost-benefit analysis. Tinto believed that college dropout results from a lack of integration into the social system and the academic domain of the college.

Dropout is a longitudinal process of interactions between the individual, the academic, and the social systems during which the student's experiences in those systems continually modify his/her educational goal and institutional commitments in ways which lead to persistence or varying forms of dropout. (p. 94)

Tinto's (1975) model (Figure 2-1) postulates that a student's family background, individual attributes, and pre-college schooling lead to some level of post-secondary goal commitment and commitment to a specific institution. Once in college the student's interaction with the academic and social systems of the college lead to a level of integration into those systems. The level of academic and social integration then modifies the student's previous goal and institutional commitments, either positively or negatively, subsequently resulting in persistence or some form of drop-

out. Academic integration is manifested through grade performance and intellectual development, while social integration results primarily from informal peer group associations, semi-formal extracurricular activities, and interaction with faculty and administrative personnel. Social integration, as it pertains to persistence in college, does not imply absolute or even wide-ranging congruence with the prevailing social climate of the institution so much as it does the development, through friendship associations, of sufficient congruency with some part of the social system of the college. Thus, in Tinto's model, subcultures within colleges can play an important role in providing modes of social integration into the collegiate social system.

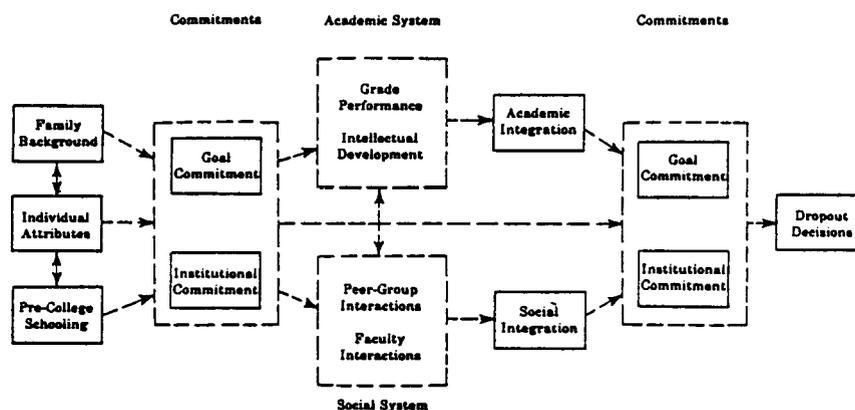


Figure 2-1. Tinto's 1975 Theoretical Model (Tinto, 1975, p. 95).

Tinto (1982) subsequently analyzed some of the shortcomings of his 1975 model, stating that: a) it had failed to sufficiently address forces external to the institution's immediate environment; b) it had not sufficiently emphasized the role of finances in student decisions; c) it had not adequately distinguished between institutional transfer and permanent withdrawal from higher education; d) it had not given enough attention to differences in the experiences of students of different gender,

race, and social status backgrounds; and e) it had not been sensitive to the forms of disengagement that occur in two-year institutions.

In 1987, Tinto revised his model to include research findings subsequent to his 1975 model. Figure 2-2 indicates the relationships established in the revised model. The primary changes to the 1975 model were the inclusion of students' intentions both prior to and following college enrollment, as well as the inclusion of both formal and informal interactions within the college academic and social systems. Tinto concluded that the key ingredient was commitment on the part of the institution to the growth and development of all members of the educational community; in effect, each community member must own the commitment, and not merely acknowledge or intellectually affirm it.

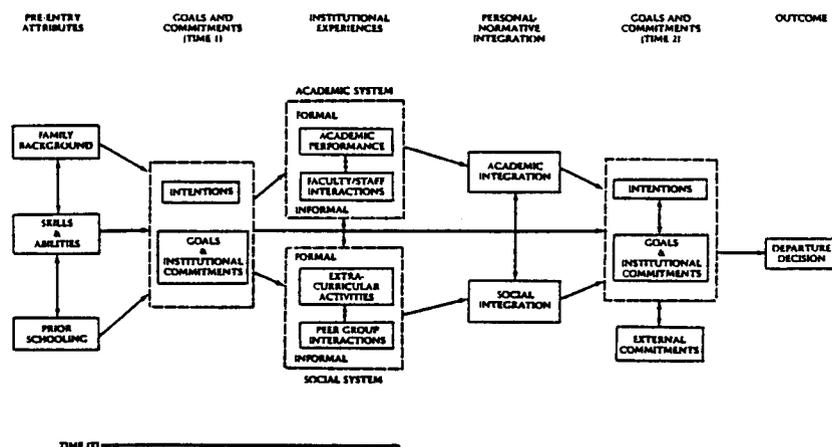


Figure 2-2. Tinto's 1987 Theoretical Model (1987, p. 114).

A review of the dropout/persistence literature leads to the conclusion that Tinto provides the most comprehensive criteria for the explaining these phenomena (Endo & Harpel, 1982). In point of fact, the Tinto model encompasses the major aspects of the other three models, as well as providing additional explanations of dropout/persistence. Tinto's model is an extension and refinement of Spady's, it incorpor-

ates Rootman's person-role and person-group fit in the concepts of academic and social integration, and it includes Bean's finding that institutional commitment is crucial. As for the explanations of dropout/persistence, it incorporates the findings of Hinton (1982) by including background and personal characteristics as initial inputs into the model. It also incorporates the cost-benefit theory as a prime factor in goal commitment, i.e., if goal commitment is weak, the cost of attaining the goal probably will not be worth the benefit. Finally, Astin's theory of involvement is a prime factor in the Tinto model in that only involvement in the academic and social systems of the educational institution can lead to satisfactory grade performance, increased intellectual development, and successful peer group and faculty interactions. Moreover, the validity of the Tinto model has been demonstrated by a number of subsequent investigations (Munro, 1981; Pascarella & Chapman, 1983; Pascarella & Terenzini, 1976, 1977, 1978, 1979, 1980; Terenzini & Pascarella, 1977, 1978, 1980; Terenzini, Pascarella, Theophilides, & Lorang, 1985).

Pascarella and Terenzini (1976, 1977, 1978, 1979, 1980), in studying freshmen at Syracuse University, found a positive relationship between the amount of informal interaction freshman students had with faculty members and their perceptions of both their academic and nonacademic college experiences. They stated that it "might be hypothesized" that students who can establish informal relationships with faculty develop a higher level of integration into the institution's social and academic systems than other students. Consequently, they develop a stronger commitment to the institution and are thus more likely to persist. They also investigated the pattern of relationships between different types of student informal contacts with faculty and both college persistence and student intellectual and personal development and found that the frequency of informal interaction with faculty significantly discriminated between persisters and dropouts. Moreover, Pascarella and Terenzini determined that

two specific types of faculty interaction contributed to the discrimination process: Contacts focusing on intellectual or course-related matters was clearly the strongest, and discussions related to career concerns was second.

In their 1978 study, Pascarella and Terenzini also found a positive relationship between informal faculty contact and both intellectual and personal development, and ultimately college persistence. They suggested that developing programs which increase faculty participation in freshman orientation and student residence life may provide clear cues to new freshmen that informal faculty contact is natural and an accepted norm. Their 1980 study replicated the findings of the 1978 study, but for a different sample of students.

Munro (1981) used path analysis to test the Tinto model, based upon a sample drawn from the *National Longitudinal Study of the High School Class of 1972*. She found that perceived parental aspirations had the strongest direct effect on educational aspirations, while at the same time establishing comparisons of the importance of the tested variables: Educational aspirations (both parents' and students') had a greater effect on goal commitment than academic integration; academic integration had a stronger effect on institutional commitment than social integration; and goal commitment had the strongest effect on persistence in higher education.

Pascarella and Chapman (1983) investigated the validity of Tinto's model for four different types of institutions: residential universities, liberal arts colleges, two-year commuter institutions, and four-year commuter institutions. Their results generally supported the predictive validity of the model, but with more validity for residential universities and liberal arts colleges than for commuter institutions. They also found that the main-effects influence on persistence of measures of social and academic integration was modest and that the influence of aspects of social and academic integration were significantly dependent on student characteristics. In addition, they

determined that for increased persistence, extensive social interaction with peers during the freshman year tended to compensate for both low levels of commitment to the institution and the goal of college graduation. Similarly, it appeared that high levels of social integration tended to compensate for low levels of academic integration, a finding which replicated the results of a prior study (Pascarella & Terenzini, 1979) and supported the Tinto hypothesis of a mutually compensatory relationship between social and academic integration.

Perhaps the clearest evidence of the validity of Tinto's model was provided in the study by Terenzini et al., (1985). Their replication of the study of Pascarella and Terenzini (1983) provided significant information which also paralleled observations by Pascarella and Chapmen (1983): Students' pre-college characteristics had no direct effect upon retention/attrition. "Rather, their influence is mediated by the nature of students' collegiate experiences and their interactions with the institutional environment" (p. 337). Even more important, the study found a significant statistical interaction between students' levels of subsequent goals and institutional commitment. High levels of institutional commitment were determined to have the greatest positive influence on persistence for those students with relatively low levels of commitment to the completion of a college degree, and vice versa. This indicated the presence of important compensatory mechanisms and a "virtually unheard of" replication of an interaction effect identified in two other studies. "The evidence is compelling that attitudes or behaviors that might be expected to lead to voluntary withdrawal may be counterbalanced by other attitudes or behaviors, culminating in retention rather than attrition" (p. 338). This study concluded that its findings constituted "compelling evidence in support of the general conceptual outlines of Tinto's model of college student attrition" (p. 338).

Retention in Living Groups

As amply demonstrated in a number of literature reviews (Pantages & Cree-den, 1979; Spady, 1970; Terenzini & Pascarella, 1984; Tinto, 1975), there has been no lack of college attrition studies. There is an equal amount of literature which describes the impact of various types of residential arrangements on a broad array of student educational outcomes. However, in spite of the abundant literature in both areas, only a small number of these studies have explored the role of collegiate living arrangements in students' decisions to continue or terminate their enrollment at an institution. As noted by Astin (1975), this apparent disregard of the relationship between residence arrangement and attendance patterns is remarkable when it is considered that "more than half of all students . . . live in a college dormitory as freshmen" (p. 90). Moreover, these residence units may constitute the center of the social, if not academic, world for many, perhaps even a substantial majority, of their occupants. Finally, it has been noted that virtually no study "examines the varying contexts within major residential types and how those variations may influence attrition or retention" (Terenzini & Pascarella, 1984, p. 112).

Perhaps the first work on the relationship between living arrangements and persistence/dropout was completed by David Nasitir in 1963. He stated that in studying persistence/dropout it was "necessary to explore the milieu in which students gain their formal education," recognizing that the undergraduate community "is divided into many subgroups whose members interact far more with each other than they do with members of the larger community" (pp. 290-291). Nasitir believed that the study of organized living groups was the most important basis for understanding student subcultures and investigated populations in six residence halls at the University of California at Berkeley. By administration of a series of tests he was able to label the halls and the student subjects as either academic or nonacademic, and further label the

student subjects as either integrated or nonintegrated within their environment.

Though his study was simply structured, his findings, including the following, were of extreme importance.

- 1) The failure rate for nonacademic students was twice as high as for academic students.
- 2) The failure rate for academic students in nonacademic residence halls was almost twice that for those in academic residence halls, and the failure rate for nonacademic students in academic halls was 50 percent higher than for those in nonacademic halls. He concluded that the harmony which students maintain with their surroundings has a great deal to do with the proportion of students that fail.
- 3) The failure rate for nonintegrated students was twice as high as for integrated students; therefore, integration was itself a factor in reducing failure rate.
- 4) For nonacademic students, the failure rate for the nonintegrated was twice as high as that for those who were integrated. These students were not only out of joint with their larger surroundings, but were also denied many of the supports that group membership can provide. Without academic orientation, and without a supportive context, students manifest a high rate of failure.

Nasitir (1963) concluded that an important variable in the understanding of failure rates could be found in the relation of the individual to his/her contexts. Nasitir's findings were but the prelude to the research subsequently conducted by Spady and Tinto. In their study, Terenzini and Pascarella (1984) stated that

residential units were presumed to be significant environments through both their sociological structures and the normative influences exerted by their occupants. Structurally, residence units might be expected to influence the nature of students' collegiate experiences both through their physical configura-

tions and consequent influence on the nature and extent of students' interactions with one another, and through the sorts of rules that govern student behaviors, as well as the academic and social experiences afforded students through the nature of the social and academic programming conducted within the residence unit. Residence units might also, however, be expected to exert a normative influence on students through such mechanisms as peer pressures and the social and intellectual value systems that develop consequent to college students living in close proximity to one another. (p. 114)

Like Alfert (1966), Astin (1975), and Nasitir (1963), Terenzini & Pascarella (1984) found that students' college residence units influence the students' voluntary persistence/dropout decisions. They also found that the compositional character of the unit derived from the classifications of resident students could be differentiated from the influence of the unit's type. Third, they found that student attrition/retention decisions were influenced by the level of institutional commitment and by the goal commitment of the students with whom they lived.

Willingham (1962) performed a study of freshman attrition at Georgia Tech and found that fraternity members had a 7 percent lower attrition rate (80 percent) than independent students (73 percent), a difference which was found to be statistically significant. Biggs and Harrington (1986) in a study of men who disassociated from fraternities at Bowling Green State University and the University of Tennessee, found six reasons for disassociation. Interviews with subjects revealed that the influencing factors were: negative affect on grades (53 percent), no sense of belonging (45 percent), time commitment not understood (31 percent), lack of realism in rush (27 percent), financial obligations not understood (18 percent), and hazing (4 percent).

Alfert (1966) investigated the relationship of housing accommodations chosen by students at the University of California and the frequency of dropout in order to determine if some housing arrangements satisfied the needs of students better than others and if student personality determines the most appropriate housing type for the individual student. She found that commuters and students living in boarding houses

or private rooms were more likely to drop out. Because they had fewer interpersonal ties within the university milieu, they felt like outsiders and had difficulty clarifying their self-concepts. She further argued that the dropout rates in cooperatives and fraternities were lower at least in part because the students in those living units developed a sense of mastery derived from the exercise of responsibility in the management and maintenance of their houses.

Astin (1975), in a national study of the influences on student attrition, found that living in a dormitory during the freshman year increased a student's chances of finishing college. These positive effects existed in nearly every type of institution. Living in sorority or fraternity houses during the freshman or sophomore years increased students' chances of persistence in much the same way as dormitory living.

Institutional characteristics, including resources, facilities, structural arrangements, and the composition of its members, are important factors in placing limits upon the development and integration of individuals within the institution, and can lead to the development of academic and social climates, or presses, with which the individual must come to grips. A high degree of dropout appears to result largely from a lack of congruence between the individual and the social climate of the institution (Tinto, 1975).

Although his work was completed in residence halls, Nasitir (1963) found that students who were not integrated into their living environment had twice the failure rate as those who were integrated. Therefore, an important variable in the understanding of failure rates is to be found not solely at the level of individual orientation, nor solely at the level of contextual factors, but rather in the relation of the individual to his/her context.

Person-Environment Interaction

Basic Theory

It has long been recognized that the psychological influence of environment on behavior and development is extremely important. In 1935, Lewin recognized the fact of this influence in his psychological study of various environments. Further, the environment is understood to mean at one time the momentary situation and at other times the milieu. In each case, behavior is dependent upon individual characteristics and upon the structure of the existing situation. Therefore, reference to environment is indispensable to the concept of either a hereditary predisposition or an individual characteristic, and each person's sensitivity to environment is subject to considerable variation. Lewin (1935), explained this interrelationship as an equation, $B = f(PE)$, or behavior is a function of the interaction of the person and the environment.

In explaining environmental influence, Lewin (1935) borrowed the concepts of force and vector from the sciences of physics and mathematics. He believed that the environment exerted a force on the person and that this force has direction, strength, and a point of application. Direction and strength are represented by the term vector and the point of application by the point of a vector arrow. Direction is an indication of positive or negative environmental influence and strength is the amount of influence. The point of application is that part of a person's psychological makeup that is influenced.

The concept of environmental press originated with Henry Murray (1938). Murray believed that since an organism is contained within an environment which largely circumscribes its behavior, and since the environment changes, the conduct of an individual cannot be formulated without characterization of the physical and social environment. What an organism knows or believes is in some measure, therefore, a

product of formerly encountered situations. Thus, the organism and its milieu must be considered jointly--a creature-environment interaction. The stimulus situation is that part of the total environment to which the creature attends and reacts. In formulating an episode, it is pertinent and convenient to classify the stimulus situation according to the kind of effect--facilitating or obstructing--it is exerting or could exert upon the organism. Such a tendency or potency in the environment may be called a press.

Though the organism frequently seeks out a certain press, it is more frequent that the press meets the organism and incites a drive. Thus, there is a press-needs combination. The term "press" is used to designate a directional tendency in a situation. Just like a need, each press has a qualitative aspect--the kind of effect it might have--as well as a quantitative aspect, since its power for harming or benefitting varies widely. An environment, a social group or an institution, can profitably be analyzed from the point of view of what press it applies or offers to the individuals that live within it or belong to it.

Piaget's observations and experiments have indicated that the behavior and thought structures comprising intelligence are continually changing as a consequence of the accommodation and assimilation involved in a person's encounters with the environment. Moreover, these processes indicate that experience, defined as the organism's encounters with the environment, is continually building a hierarchy of operations for processing information and for coping with new circumstances encountered into the developing organism (cited in Sells, 1963).

The concept of press includes conditions that are impediments to needs, as well as those that facilitate their expression. These conditions, which establish what is commonly referred to as the climate or atmosphere of an institution, are to be found in the structure created or tolerated by others. Stern (1970) defined press as a

"taxonomic classification of characteristic behaviors manifested by aggregates of individuals in their mutual interpersonal transactions," postulating the existence of personality "strains" (p. 8). Individuals of the same strain or type may be expected to respond in similar ways to similar environmental press configurations. Furthermore, groups of such individuals are likely to be found in any sufficiently congruent environmental niche. A matching of strains with environment might produce a congruent needs-press situation, while a mismatch might produce a dissonant situation which must lead either to modification of the press in a more congruent direction or to withdrawal of the participants, until or unless an artificial equilibrium is maintained through the use of coercion. In an individual case, a congruent relationship would produce a sense of satisfaction or fulfillment of the participant, while discomfort and stress would result from dissonance.

Barker (1963) stated that it is generally agreed that the ecological environment does not demand behavior, but rather that it is permissive, supportive, or resistive. Additionally, there is abundant evidence that behavior settings are strongly self-regulated systems and behavior settings with fewer than the optimal number of inhabitants will bring more forces to bear per inhabitant, in more directions, than settings with the optimal or greater number of inhabitants.

Person-Environment Interaction in Colleges

Environments have powerful effects on human behavior (Insel & Moos, 1974), and the college environment is one that has received considerable attention (Corazzini, Wilson, & Huebner, 1977). Like people, environments have unique personalities and it is equally as possible to portray the "personality" of an environment as it is to characterize individual personality (Insel & Moos 1974). The "climate" of environments influences satisfaction, moods, self-esteem, and personal growth. Envi-

ronments also shape such adaptive potential as coping behavior or the encouragement or inhibition of initiatives.

Thus, it seems reasonable that the consensus of students characterizing a college environment can be used as a measure of environmental climate, and this climate in turn exerts a directional influence (press) upon student behavior. There is a great deal of evidence that the properties of the environment can be more closely related to variations in behavior than measures of trait qualities or biographic or demographic background information (Insel & Moos, 1974). Perceptions of the college environment have a stronger relationship to satisfaction than either congruence or personality (Witt & Handal, 1984). The degree of congruency, or fit, between a variety of student characteristics and the ability of the institution to respond adequately to those characteristics could lead to increased student satisfaction, academic achievement, and personal growth. In describing student-institutional fit, three important factors should be encompassed; student characteristics, institutional characteristics, and effects of the interaction between the student and the institution. Thus, the student and the campus shape each other (Williams, 1986).

Stern's (1970) research developed a taxonomy of institutional press dimensions which included the intellectual climate, the nonintellectual climate, and impulse control. The intellectual climate included aspiration level, student dignity, academic climate, academic achievement, and self-expression. The nonintellectual climate included self-expression, group life, academic organization, social form, play-work, and vocational climate.

John Holland (1985) also developed a taxonomy of environments, noting that individuals may be characterized by their resemblance to one of six personality types; realistic, investigative, artistic, social, enterprising, and conventional. In turn, environments may be identically categorized. In effect, individuals seek environments

that will allow them to exercise their skills and abilities, express their attitudes and values, and take on agreeable problems and roles. Behavior is thus prescribed by the interaction between personality and environment. One of Holland's premises was that environments reinforce and reward a distinctive pattern of attitudes, competencies, and interests expressed by their analogous personality type.

In a study based on data drawn from the 1971 and 1980 surveys of the Cooperative Institutional Research Program (CIRP), Smart (1985) confirmed that environments not only attract, but further reinforce the distinctive attitudinal and behavioral patterns of their respective members. Pace (1962) has described the "effective environment" of a college as that which students are aware of and agree with some unanimity is true or not true about a college. The assumption is that this "aggregate or group awareness of students about their environment constitutes a press in the sense of exerting a directive influence on their behavior, or setting conditions with which they must deal" (p. 47).

Using the College Characteristics Index as the instrument, Stern (1970) found that college types can be distinguished by their own unique press. Marked differences were found in the nature of the programs characterizing the small independent liberal arts college, the denominational college, and at least certain undergraduate areas in a large university. The independent liberal arts college catered to students concerned with intellectuality and autonomy. Engineering schools also emphasized personal independence, but were more aggressive, thrill-seeking, and achievement oriented. Denominational schools were group-centered, as were university-affiliated liberal arts, business, and teacher-training colleges. Denominational college life appeared to be more purposive and goal oriented, and less playful and convivial than life at large universities, whereas the atmosphere of the business administration programs was decidedly anti-intellectual. Finally, Stern found that entering freshmen expectations did not

match the characteristics of the schools they were to attend, but the school press was relatively uninfluenced by these dissonant expectations.

Thistlethwaite (1959) performed an analysis, also based on the College Characteristics Index, for the measurement of environmental press at different colleges. It was found that specific colleges have very different presses. For example, Harvard and Radcliff were highest in expressions of humanism, MIT represented scientism, Georgia Tech reflected pragmatism, Smith evoked nurturance, and Chicago was expressed by understanding. It was also found that the press at colleges emphasizing the natural sciences was very different from those emphasizing the arts, humanities, and social sciences. Subsequently, Thistlethwaite and Wheeler (1966) found support for the hypotheses that the student's disposition to seek advanced training was strengthened by the press of peers with high educational aspirations, by teachers who gave favorable evaluations, by the performance of undergraduate research, by enrollment in honors programs, and by social recognition for academic achievement.

According to Moos (1979), the social environment has important effects on satisfaction, learning, and personal growth. Personality and other individual difference variables account only partially for behavioral variations. In addition, Holland (1985) postulated that because many of the psychologically important features of the environment consist of or are transmitted by the people composing the environment, an environment may be characterized by assessment of its population. The environment can exert a potent influence on the extent and type of change that occurs in human characteristics, and all sources are in agreement that the social-ecological setting in which students function can affect their attitudes and moods, their behavior and performance, and their self-concept and general sense of well-being.

Most environments admit new members selectively, and most people select the environments they wish to enter. Moos (1979) has modeled this social-ecological en-

vironmental framework, which in concept provides a general model of the process of person-environment interaction. The model indicates that people and settings mutually affect each other with respect to stability and change, whereas the primary focus of the current study is the influence of personal and environmental characteristics on outcomes.

Person-Environment Interaction in Living Groups

While environmental assessments have been used extensively for residence halls and other aspects of university life, little use of this technique has been made for fraternities, other than to compare fraternities with other types of living groups, including residence halls, cooperatives, or sororities.

Warwick (1962) studied the relationship of group cohesiveness and scholastic aspirations to academic achievement among fraternity pledges and nonfraternity freshmen at Cornell University. He based his study on the premise that if an organized group has a high degree of cohesiveness and an optimum level of scholastic aspiration, then it could be assumed that the group would be of considerable help to the academic pursuits of its members. Warwick found that fraternity groups were more cohesive than independent groups, that there was no difference in the scholastic aspiration levels between fraternity pledges and independent groups, that high cohesiveness seemed to be negatively related to scholarship improvement, and that scholastic aspiration levels were positively related to scholarship improvement.

Frichette (1976) used the University Residence Environment Scale (URES), Form R, to examine factors associated with the social climate of residence halls, cooperatives, fraternities, and sororities at Oregon State University. In comparison to students who lived in cooperatives, it was found that students living in fraternities and sororities scored significantly higher on the involvement, emotional support, tradi-

tional social orientation, intellectuality, and order and organization subscales, and significantly lower on the independence subscale. He also found that students in small living groups (fraternities, sororities, and cooperatives) scored significantly higher on the involvement, emotional support, intellectuality, order and organization and student influence subscales, and significantly lower on the independence subscale, than students in the larger living groups (residence halls).

Schrager (1986) administered the URES to 36 fraternity groups and 18 male residence hall groups at the University of Illinois in order to examine the relationship between living group social climate and student academic performance. The object was to gain insight into the effect of social environment upon freshmen grades. He found that Greeks scored substantially higher than nonGreeks on the involvement, emotional support, traditional social orientation, and student influence subscales, and scored lower on independence. He also found that among fraternity groups, academic achievement, competition, and student influence were significantly correlated with freshman GPAs, indicating that house emphasis on academic achievement and competition had a facilitating effect and that student influence had an inhibiting effect on freshman GPAs. Schrager stated that the

press toward involvement, social support, and conforming behavior is consistent with the aims of social fraternities. They attempt to be highly cohesive and supportive groups that actively engage their members in a wide range of social and extracurricular activities. They tend to foster a collective orientation, while inhibiting independent behavior that deviates from group norms. (p. 274)

Parker and Gade (1981) administered the URES Form R to a random sample of fraternity men and sorority women at the University of North Dakota and found significant differences in only three areas: The men scored significantly higher on the degree of competitiveness, on their perception that they were in control of running the house, and on the amount of innovation that took place in the house.

Only two studies have compared two different groups of fraternities, and then only in relation to academic achievement. Butler (1959), in studying the 27-chapter fraternity system at the University of Kansas, found that three of the fraternities were always at the top scholastically and that three were consistently at the bottom.

Through an extensive interview process with the pledge classes of the six fraternities, he was able to discern considerable differences in the environmental climates between the high achieving fraternities (HAFs) and the low achieving fraternities (LAFs). His findings included the following:

- 1) A fraternity atmosphere is productive and cooperative when the behavior of pledges and the expectations of the members coincide.
- 2) A fraternity social system is productive and cooperative when the expectations of the actives are perceived by the pledges to be reasonable.
- 3) Setting examples for pledges to follow provides indications of behavior considered proper and acceptable to the group.
- 4) When individual needs are satisfied, social control is more easily attained.
- 5) When actives have exercised control over the pledges, the members of the fraternity are better able to understand and profit from their daily experiences.
- 6) An atmosphere in which pledges are respected, accepted, and encouraged will develop inter-personal relationships that are likely to be positive.
- 7) An atmosphere in which pledges are given the opportunity to take self-initiated action and be responsible for those actions will contribute to good scholarship and interest in supporting group activities.

- 8) A systematic and consistent method of reward and punishment will tend to develop interpersonal relationships that are positive.
- 9) The use of rewards alone, or a combination of rewards and punishment, is likely to develop interpersonal relationships that are positive. Punishment alone is likely to develop negative interpersonal relationships.
- 10) The pledge programs of the HAFs were based on a system of management and guidance rather than law enforcement; the LAFs were the opposite.
- 11) Pledges of the HAFs considered the expectations of the actives to be reasonable and realistic; the LAFs were the opposite.
- 12) Pledges of both HAFs and LAFs copied the behavior of the actives.
- 13) An aspiration of the HAFs was to see and understand the pledge as an individual who had definite physical and emotional needs; the LAFs were the opposite.
- 14) Because of the use of systematic and consistent methods of reward and punishment, the pledges of the HAFs had no doubts about the road they must travel to achieve honors and promotions.

The second study was designed by Winston, Hutson, and McCaffery (1980) to investigate the differences evident among fraternities with relatively high GPAs and relatively low GPAs. They sought answers to two questions: Can academic ability, as measured by the SAT, account for the differences in scholastic performance among fraternities; and, if differences in academic ability alone do not account for differences in fraternity GPAs, are there dimensions within the house environments that can help explain the differential academic performances? The the top 3 and the bottom 3 academic fraternities, within a system of 26 fraternities, at a large southern public university were selected for study. Individual SAT scores and GPAs were obtained

from the registrar's office and the members of the six fraternities were given the URES Form R to measure the social climate within each of the fraternities. One-way analyses of variance were performed on the SAT scores and the ten URES subscales. The results were that there were no statistically significant differences in SAT scores between the high and low groups. However, there were statistically significant differences between the high and low groups for three of the URES subscales: independence, academic achievement, and intellectuality. Eta-squared statistics indicated that 15.2 percent, 43.6 percent, and 5.8 percent, respectively, of the variance was explained by each of the three subscales.

Winston et al. (1980) concluded that the social environment each fraternity creates within its house has an impact on the academic achievement of its members. The HAFs scored lower on the independence subscale than the LAFs, which may have meant that the HAFs exerted more influence and control over their members. The HAFs scored much higher on the academic achievement subscale, evidencing concern and awareness for academic achievement with respect to grades. The HAFs were also higher on the intellectuality subscale than the LAFs, indicating a concern for intellectual development beyond the classroom.

Research Expectations

The review of previous research provides some indication of what the findings of this current research will be. Retention research, particularly that of William Spady (1970) and Vincent Tinto (1975; 1987), has led to theory that retention/drop-out in colleges and universities is more the result of a process than it is the influence of individual background characteristics or previous academic standing. Spady and Tinto both state that retention/dropout were functions of personal goals and commit-

ments, which were in turn influenced by the degree to which the student was able to integrate, or fit, into the academic and social systems of the institution.

Kurt Lewin (1935) theorized that behavior is a function of the interaction of the person with his/her environment. Henry Murray (1938) termed the force an environment exerts on an individual as "press," and George Stern (1970) believed that if the person and the environment were not congruent, i.e., the press of the environment did not meet the needs of the individual, the result would be either a modification of the press or withdrawal of the individual from the environment. Finally, Rudolf Moos (1979) stated that the environment exerted a potent influence on individuals, affecting their attitudes, moods, behavior, and performance.

If all of these factors are critical to persistence/dropout from college, it might follow that they would also be critical to retention/dropout from fraternities since fraternities are the primary socializing organization on the campus for those students who are in them. This current research then, would expect to find that it is the press of the fraternity living environment that is the most critical factor in a student's decision to stay in or leave the fraternity.

CHAPTER III

METHODOLOGY

This chapter includes the hypotheses, the method of sample selection, the data collection procedures, and the instruments. The section on sample selection describes the location of the study, the subjects, and the sources of the data. The method of data collection from records and from the instruments is described in the procedures section. Two instruments, one a standardized instrument purchased through a testing service and one developed locally, are described.

Hypotheses

The null hypotheses for this study fell into four groups. The first explored the correlation between the retention rates of all OSU fraternities and six other factors:

- Ho₁ There are no significant correlations between fraternity retention rates and:
- a. the number of freshman pledges,
 - b. freshman pledge college grades,
 - c. all chapter member and pledge grades,
 - d. the number of live-in members and pledges,
 - e. the ratio of total live-in's to pledges, and
 - f. the ratio of total members and pledges to live-in's.

The second hypothesis group concerned the retention rates of the high retention fraternities (HRFs) as compared to the low retention fraternities (LRFs) in four areas:

- Ho₂ There are no significant differences between HRF pledges and LRF pledges, or between all pledges retained and all pledges who dropped out, with respect to:
- a. high school grade point averages (HSGPA),
 - b. Scholastic Aptitude Test (SAT) verbal scores,
 - c. SAT math scores, and
 - d. Test of Standard Written English (TSWE) scores.

The third hypotheses group included the contrasts between the HRFs and the LRFs on 14 individual characteristic, background, and satisfaction variables.

- Ho₃ There are no significant differences between the HRFs and the LRFs with respect to:
- a. members and pledges,
 - b. year in school,
 - c. school or college, i.e., major,
 - d. length of time lived in the fraternity,
 - e. family total income.
 - f. father's level of education,
 - g. mother's level of education,
 - h. involvement in student activities,
 - i. satisfaction with house facilities,
 - j. satisfaction with support from resident advisor or housemother,
 - k. satisfaction with support from chapter advisor(s),
 - l. hours per week the student works for pay,

- m. involvement in chapter activities, and
- n. overall satisfaction with fraternity experience.

The final hypothesis group concerned the contrasts between HRFs and the LRFs on 10 specific characteristics of the living environment, as measured by the subscales of the University Residence Environment Scale (URES) (Moos & Gerst, 1974).

- Ho₄ There are no significant differences between the HRFs and the LRFs in degree of:
- a. involvement,
 - b. emotional support,
 - c. independence,
 - d. traditional social orientation,
 - e. competition,
 - f. academic achievement,
 - g. intellectuality,
 - h. order and organization,
 - i. student influence, and
 - j. innovation.

Selection of the Sample

Location of the Study

Oregon State University (OSU) is located in Corvallis, Oregon, and is the state land grant institution. Official records indicate that the fall term, 1986, enrollment at the institution was 15,204, including 12,462 undergraduates and 2,742 graduate stu-

dents. There were 9,116 male and 6,088 female students; the foreign student total was 1,450.

For reason of its location, 85 miles from Portland, the major metropolitan center of the state, and because of the population of the Corvallis community (44,000), OSU is primarily a residential campus, consisting of 13 residence halls, 26 national fraternities, 14 national sororities, and 5 cooperatives, 2 of which are university-owned and 3 of which are private. These officially recognized living environments housed a total of 5,664 students: 3,306 (21.7 percent) in residence halls, 1,395 (9.2 percent) in fraternities, 631 (4.2 percent) in sororities, and 332 (2.2 percent) in cooperatives. The remainder of the students were commuters, most of whom lived in off-campus apartments and houses; others commuted from surrounding communities, some from as far away as Portland. Table 3-1 shows the fall term, 1986, distribution of OSU students by sex and place of residence.

Table 3-1. Fall Term, 1986, Distribution of Oregon State University Students by Sex and Place of Residence.

Place of Residence	Male	Female	Total	Percent
Residence halls & College Inn	1,819	1,487	3,306	21.7
Fraternities	1,395	0	1,395	9.2
Sororities	0	631	631	4.2
Cooperatives	187	145	332	2.2
Off-campus	5,715	3,825	9,540	62.7
Totals:	9,116	6,088	15,204	100.0

Subjects

The subjects of this study were all live-in members and pledges of 4 of the 26 fraternities. Two of the fraternities were chosen because of their high retention rates for freshman pledges and two were selected because of their low retention rates. Table 3-2 shows pledge, member and retention data for all 26 fraternities for a four-year period, beginning with fall term, 1982, and ending fall term, 1986.

The sample for the high retention fraternities (HRFs) included fraternities 2 and 3. The sample for the low retention fraternities (LRFs) included fraternities 20 and 21. Fraternities 23-26 were deleted from the study, partly for reason of their small memberships, but mostly because they were either closed for a period between fall, 1982, and fall, 1986, and/or were reorganized during that period. The two fraternities within the remaining 22 with the highest and the lowest retention rates, fraternities 1 and 22, were deleted from the study to eliminate extremes within high and low retention data.

Table 3-2. Fraternity Pledges, Retention, and Membership Data, Fall 1982 to Fall 1986.

	Total Freshmen Pledges/ Total Retained	Retention Rate	Avg. Total Members/ Total Live-ins/ Pledges
1.	103/93	90.3	98/79/29
2.	64/51	79.7	80/64/28
3.	76/60	79.0	97/69/29
4.	60/46	76.7	77/56/23
5.	78/58	74.4	74/57/25
6.	43/32	74.4	39/35/16
7.	46/34	73.9	40/33/15
8.	66/48	72.7	88/67/28
9.	53/38	71.7	71/51/24
10.	94/67	71.3	80/60/28
11.	66/47	71.2	89/60/28
12.	73/52	71.2	88/58/34
13.	75/51	69.9	84/62/27
14.	74/50	67.6	64/54/23
15.	55/37	67.3	50/39/17
16.	27/18	66.7	70/41/20
17.	81/53	65.4	74/60/26
18.	56/36	64.3	53/44/18
19.	60/37	61.7	55/44/18
20.	49/27	55.1	38/31/17
21.	79/40	50.6	56/47/22
22.	45/21	46.7	48/41/16
Subtotal:	1,421/996	70.1	1,513/1,152/511
23.	3/2	66.7	23/22/7 (4 terms)
24.	19/9	47.4	22/19/8 (11 terms)
25.	17/9	52.9	28/20/8 (11 terms)
26.	17/6	35.3	22/19/8 (7 terms)
Total:	1,477/1,022	69.2	1,608/1,232/542

Sources of Data

All data, in the categories listed below, were obtained from OSU official records.

- 1) Name, social security number, year pledged, year in school, and whether the student returned to the fraternity for fall term of the year subsequent to pledging, were obtained from the fraternity pledge cards maintained by the Interfraternity Council (IFC) Office in the Office of Student Services.
- 2) High school GPA and SAT scores for the pledges were obtained from the rosters of each year's entering regular freshman class. These rosters are generated and maintained by the University Registrar.
- 3) Total house, total live-in, and freshman pledge numbers and college grades were obtained from the IFC Office, which publishes these data for each term.
- 4) Composition and size of the student body and the distribution of living environments was obtained from the Office of Student Services.

Procedures

Records Data Collection

The initial data for freshmen pledged during fall term of their first year and those remaining in the fraternity into fall term of the following year were obtained from the pledge cards for each fraternity, which are on file in the Dean of Students Office. By a survey of these cards the date the student was pledged, what year he was in school, and how long he stayed in his fraternity was determined. Maintenance of these cards is the responsibility of the scholarship chairman of each fraternity and

there were cases where the cards were either incomplete or had not been updated. In cases where there was uncertainty regarding a pledge's status in relation to this study, the official term-by-term grade reports for each house were referred to in order to confirm or deny the initial status. A third check was included by reviewing the Registrar's rosters of all new and entering freshman for the particular year in question. For example, if John Doe's status was uncertain because of an incomplete pledge card, the fraternity grade sheets for the year and terms in question were checked. If John Doe appeared on the grade sheets as a live-in for four consecutive terms, beginning with the fall term of his freshman year, he was counted as retained; if he failed to appear on the grade sheets for the four terms, he was counted as a dropout. Further, if the pledge appeared on the grade sheets, but did not appear on the Registrar's roster of all new entering freshmen for that year, it was assumed that he was not a freshman and was thereby deleted from the study. Following this procedure, an accurate figure for total pledges, pledges retained, and pledges lost were obtained, from which a retention percentage was derived for each fraternity.

The number of total members, live-in's, pledges, and the pledge college GPAs were obtained from the official IFC grade report for each term. The averages were generated from the figures for each house for the 12 consecutive terms from fall, 1982, through spring, 1986. High school GPAs and SAT scores were obtained from the rosters of new and entering regular freshmen for each of the four years, and the averages were generated from the cumulative totals. All other records data were obtained directly from rosters and/or reports.

Instrument Data Collection

The four fraternities from which the data were obtained were selected during winter term, 1987. A letter was sent to the presidents of the selected fraternities,

briefly explaining the purpose of the study and requesting their participation (Appendix A). The letters were followed by a discussion between the investigator and the fraternity presidents, during which the study was explained in greater detail, assurances of confidentiality were given, and a date and time were set for administering the instruments.

The confidentiality issue was sensitive. However, upon agreement that the fraternities would not be named in the results, and since not even the investigator, the only person familiar with the code that matched the answer sheets, would be able to attribute an answer sheet to a specific individual, the presidents concluded that confidentiality was satisfactory and the research could proceed.

The instruments were administered to all four fraternities by the investigator during the second and third weeks of spring term, 1987. They were administered to all live-in members and pledges who were present, which was approximately 85 percent of the total membership.

Instruments

Two instruments were used in this study. The primary instrument was the University Residence Environment Scale (Appendix B), and the secondary instrument was a questionnaire developed by the investigator (Appendix C), which sought information on individual characteristics, personal background, and satisfaction levels.

University Residence Environment Scale

The primary instrument for this study was the University Residence Environment Scale (URES), developed at Stanford University in 1974 by Rudolf H. Moos and Marvin S. Gerst. The URES is a social climate inventory which seeks to characterize living group environments according to members' perceptions of the attitudes,

values, and behaviors that are characteristic of the group (Schrager, 1986). According to Smail, De Young, and Moos (1974), the URES was developed to provide an objective method of characterizing the perceived psychosocial climate of a variety of university student living groups, such as residence halls, fraternities, and sororities.

It focuses on the measurement and description of student-student and student-staff relationships and on the type of organizational structure of the living group. The rationale used for the development of the URES was basically derived from the theoretical contributions of Henry Murray and his conceptualization of environmental press. The logic of the approach is that the consensus of individuals characterizing their environmental climate exerts a directional influence on behavior. (p. 358)

Schrager (1986) found that the URES provided a meaningful assessment of living group environments with the ability to distinguish between fraternity groups and male residence hall groups. He also noted that the URES seemed to be capable of discriminating among living group environments of the same general type.

The 100-item URES (Form R) used in this study groups the items into 10 subscales, including:

- 1) Involvement--Degree of commitment to the house and residents; amount of interaction and feeling of friendship in the house. (In this house there is a strong feeling of belongingness.)
- 2) Emotional support--Extent of manifest concern for others in the house; efforts to aid one another with academic and personal problems; emphasis on open and honest communication. (People here are concerned with helping and supporting one another.)
- 3) Independence--Diversity of residents' behaviors allowed without social sanctions, versus socially proper and conformist behavior. (Behaving properly in social situations is not considered important here.)

- 4) **Traditional social orientation**--Stress on dating, going to parties, and other traditional heterosexual interactions. (Dating is a recurring topic of conversation around here.)
- 5) **Competition**--The degree to which a wide variety of activities, such as dating, grades, and the like, are cast into a competitive framework. (Around here discussions frequently turn into verbal duels.)
- 6) **Academic achievement**--Extent to which strictly classroom and academic accomplishments and concerns are prominent in the house. (Most people here consider studies as very important in college.)
- 7) **Intellectuality**--Emphasis on cultural, artistic, and other scholarly intellectual activities in the house, as distinguished from strictly classroom achievements. (People around here talk a lot about political and social issues.)
- 8) **Order and organization**--Amount of formal structure or organization, e.g., rules, schedules, following established procedures within the house; neatness. (House procedures here are well established.)
- 9) **Student influence**--Extent to which student residents (not staff or administration) perceive they control the running of the house; formulate and enforce rules; control use of money, selection of staff, food, roommates, policies, and the like. (Students enforce house rules here.)
- 10) **Innovation**--Organizational and individual spontaneity of behaviors and ideas; number and variety of activities; new activities. (New approaches to things are often tried here.)

The 10 subscales were divided into three dimensions. The relationship dimension included the involvement and emotional support subscales which measure the degree of help and support among the members and staff and the degree of involvement

within the house and its activities. The second dimension was personal growth or development and included the independence, traditional social orientation, competition, academic achievement, and intellectuality subscales. The emphasis in this dimension was on maturational processes, independence of thought and action, traditional heterosexual interactions, and on different aspects of intellectual and academic growth. The final dimension was system maintenance and change and included the order and organization, student influence, and innovation subscales. The measure for this dimension emphasized the structure of the organization and the processes and potential for change (Small, De Young, & Moos, 1974).

The means and standard deviations for the URES Form R subscales were based on 168 living group units from 16 colleges and universities across the country, including a medical school, a fine arts college, two private women's colleges, three private co-educational colleges, two state colleges, five state universities, and two private coeducational universities. Individual units within the normative sample included: 32 women's houses integrated by class; 6 upperclass women's houses; 4 freshman women's houses; 16 fraternities; 2 freshman coed houses; and several houses with graduates and undergraduates living together. The size of the units ranged from populations of less than 20 to populations of more than 300 students. The norms are shown in Table 3-3 (Moos & Gerst, 1974).

Table 3-4 shows the subscale internal consistencies and the average item-to-subscale correlations for the 10 Form R subscales. Internal consistencies were calculated using Kuder Richardson Formula-22 and averaged within living group variances for the items as suggested by Stern (1970). The subscale internal consistencies were all acceptable, ranging from a high of 0.88 to a low of 0.77 (Moos & Gerst, 1974).

Table 3-3. Mean and Standard Deviation of URES Form R Subscales for Normative Sample.

Subscale	Number of Items	Living Groups (N=168)	
		Mean	SD
Involvement	10	5.97	1.88
Emotional support	10	6.32	1.27
Independence	10	5.27	1.07
Traditional social orientation	9	3.86	1.49
Competition	9	2.71	0.74
Academic achievement	9	4.99	1.21
Intellectuality	9	4.46	0.99
Order and organization	10	4.69	1.72
Student influence	10	5.29	1.57
Innovation	10	5.42	1.10

Table 3-4. Internal Consistencies, Average Item-Subscale Correlations, and Test-Retest Reliabilities for URES Form R Subscales.

Subscale	Internal Consist. (N=13 Living Groups)	Avg. Item-Subscale Corr. (N=505 Students)	Test-Retest Reliability	
			One Week Interval	Four Week Interval
Involvement	.88	.62	.74	.70
Emotional support	.82	.55	.77	.71
Independence	.77	.51	.71	.59
Traditional social orientation	.87	.51	.73	.74
Competition	.77	.46	.71	.67
Academic achievement	.84	.52	.76	.74
Intellectuality	.84	.51	.67	.66
Order and organization	.86	.54	.71	.68
Student influence	.81	.51	.66	.65
Innovation	.77	.44	.70	.69

The average subscale intercorrelations, which are shown in Table 3-5, are around 0.20, indicating that the subscales measure distinct, but somewhat related, aspects of university living group environments (Moos & Gerst, 1974). A copy of the URES Form R questions is in Appendix B.

Table 3-5. URES Form R Subscale Intercorrelations (N=505).

Subscale	ES	I	TSO	C	AA	Int	OO	SI	Inn
Involvement	.62	-.12	-.05	-.11	-.09	.41	.19	.20	.57
Emotional support		.18	-.01	-.33	.08	.43	.24	.17	.45
Independence			-.38	-.05	-.20	-.03	-.40	.08	.16
Traditional social orientation				.19	-.06	-.14	.27	-.13	-.15
Competition					-.07	-.06	-.06	-.16	-.12
Academic achievement						.26	.23	.09	-.18
Intellectuality							.13	.16	.43
Order & organization								.10	.09
Student influence									.06

Individual Characteristics, Background, and Satisfaction Questionnaire

The secondary instrument for this study was developed by the investigator and was used to obtain individual characteristics, background, and satisfaction information from individual fraternity members and pledges. This instrument collected information on status in the house (member/pledge), year in school, academic major, length of time in the house, estimate of family's total income, father's education, mother's education, involvement in extracurricular activities, satisfaction with house facilities, satisfaction with support from resident advisor/housemother, satisfaction with support

from chapter advisor(s), number of hours per week student worked for pay, involvement in chapter activities, and overall satisfaction with fraternity experience (Appendix C).

CHAPTER IV

RESULTS

This study was designed around four groups of null hypotheses, as outlined in Chapter III. Following are the results of the statistical analyses as they relate to each hypothesis.

Hypothesis Group 1

To determine if there were significant correlations between retention of pledges in the fraternity system and six factors involving grades and the number of members and pledges living in the fraternities, Pearson Correlation Coefficients were calculated. The results are included in Tables 4-1 through 4-6.

Ho_{1a} There are no significant correlations between fraternity retention rates and the number of freshman pledges.

Table 4-1. Correlation Between Fraternity Retention Rate and Number of Freshman Pledges.

Number (N)	Correlation Coefficient (r)	p
22	.3474	.113

Since $p > .05$ (.113), the null hypothesis is retained and it is determined that there was no significant correlation between fraternity retention rates and the number of freshman pledges in each fraternity.

Ho_{1b} There are no significant correlations between fraternity retention rates and freshman pledge college grades.

Table 4-2. Correlation Between Fraternity Retention Rate and Freshman Pledge College Grades.

Number (N)	Correlation Coefficient (r)	p
22	.3675	.092

Since $p > .05$ (.092), the null hypothesis is retained and it is determined that there was no significant correlation between fraternity retention rates and freshman pledge grades in each fraternity.

Ho_{1c} There are no significant correlations between fraternity retention rates and all chapter member and pledge grades.

Table 4-3. Correlation Between Fraternity Retention Rate and Chapter Member and Pledge Grades.

Number (N)	Correlation Coefficient (r)	p
22	.2172	.331

Since $p > .05$ (.331), the null hypothesis is retained and it is determined that there was no significant correlation between fraternity retention rates and chapter member and pledge college grades.

Ho_{1d} There are no significant correlations between fraternity retention rates and the number of live-in members and pledges.

Table 4-4. Correlation Between Fraternity Retention Rate and Number of Live-in Members and Pledges.

Number (N)	Correlation Coefficient (r)	p
22	.5936	.005*

*Significant to .005.

Since $p < .05$ (.005), the null hypothesis is rejected and it is determined that there was a significant correlation between fraternity retention rates and the number of live-in members and pledges.

Ho_{1e} There are no significant correlations between fraternity retention rates and the ratio of total live-in's to pledges.

Table 4-5. Correlation Between Fraternity Retention Rate and Ratio of Total Live-ins to Pledges.

Number (N)	Correlation Coefficient (r)	p
22	.2197	.326

Since $p > .05$ (.326), the null hypothesis is retained and it is determined that there was no significant correlation between fraternity retention rates and the ratio of total live-ins to pledges.

Ho_{1f} There are no significant correlations between fraternity retention rates and the ratio of total members to live-in's.

Table 4-6. Correlation Between Fraternity Retention Rate and Ratio of Total Members and Pledges to Live-ins.

Number (N)	Correlation Coefficient (r)	p
22	.2004	.371

Since $p > .05$ (.371), the null hypothesis is retained and it is determined that there was no significant correlation between fraternity retention rates and the ratio of total members and pledges to live-ins.

Hypothesis Group 2

To determine if there were significant differences between the HRFs and the LRFs with respect to pledge HSGPA and SAT scores, two-way, fixed analyses of variance (ANOVA) were calculated. The results are included in Tables 4-7 through 4-10.

Ho_{2a} There are no significant differences between HRF pledges and LRF pledges, or between all pledges retained and all pledges who dropped out, with respect to high school grade point averages (HSGPA).

Table 4-7. Differences Between HRFs and LRFs for High School GPA.

	Mean HSGPA Retained (N=176)		Mean HSGPA Dropout (N=80)		
Retention	3.2147		3.0610		
	Mean HSGPA HRF (N=139)		Mean HSGPA LRF (N=117)		
Fraternities	3.1979		3.1296		
Source of Variation	SS	DF	MS	F-Ratio	F-Prob.
Main Effects	1.477	2	.738	4.022	.019*
Retention	1.062	1	1.062	5.786	.017*
Fraternities	.149	1	.149	.810	.369
2-Way Interactions					
Retention/Fraternities	.035	1	.035	.192	.661
Explained	1.512	3	.504	2.745	.044
Residual	44.071	240	.184		
Total:	45.584	243	.188		

*Significant to .05.

For retention of the entire population, $p = .017$, indicating a significant difference in HSGPA for pledges retained with respect to pledges who dropped out. Since $p > .05$ (.369), the null hypothesis is retained and it is determined that there was no significant difference between the HRFs and the LRFs with respect to HSGPA. The p-value for two-way interactions was .661, indicating there was no interaction. Therefore, the difference in HSGPA between pledges retained and pledges who dropped out was the same for the HRFs as for the LRFs.

H_{02b} There are no significant differences between HRF pledges and LRF pledges, or between all pledges retained and all pledges who dropped out, with respect to the Scholastic Aptitude Test (SAT) verbal scores of pledges.

Table 4-8. Differences Between HRFs and LRFs for SAT Verbal Scores.

	Mean SAT Verbal Retained (N=176)	Mean SAT Verbal Dropout (N=80)
Retention	45.2471	45.5000
	Mean SAT Verbal HRF (N=139)	Mean SAT Verbal LRF (N=117)
Fraternities	44.3485	46.4732

Source of Variation	SS	DF	MS	F- Ratio	F- Prob.
Main Effects	277.935	2	138.968	2.154	.118
Retention	4.402	1	4.402	.068	.794*
Fraternities	274.631	1	274.636	4.257	.040*
2-Way Interactions					
Retention/Fraternities	44.196	1	44.196	.685	.409
Explained	322.131	3	107.377	1.664	.175
Residual	15483.292	240	64.514		
Total:	15805.422	243	65.043		

*Significant to .05.

For retention of the entire population, $p = .749$, indicating no significant difference in SAT verbal scores for pledges retained with respect to pledges who dropped out. Since $p < .05$ (.040), the null hypothesis is rejected and it is determined that there was a significant difference between the HRFs and the LRFs with respect to SAT Verbal scores. The p-value for two-way interactions was .409, indicating there was no interaction. Therefore, the difference in SAT verbal scores between pledges retained and pledges who dropped out was the same for the HRFs as for the LRFs.

H_{02c} There are no significant differences between HRF pledges and LRF pledges, or between all pledges retained and all pledges who dropped out, with respect to the SAT math scores of pledges.

Table 4-9. Differences Between HRFs and LRFs for SAT Math Scores.

	Mean SAT Math Retained (N=176)	Mean SAT Math Dropout (N=80)
Retention	53.3353	51.9324
	Mean SAT Math HRF (N=139)	Mean SAT Math LRF(N=117)
Fraternities	52.3106	53.6161

Source of Variation	SS	DF	MS	F- Ratio	F- Prob.
Main Effects	266.979	2	133.489	1.314	.271
Retention	163.719	1	163.719	1.611	.206
Fraternities	165.513	1	165.513	1.629	.203
2-Way Interactions					
Retention/Fraternities	.764	1	.764	.008	.931
Explained	267.742	3	89.247	.878	.453
Residual	24384.274	240	101.601		
Total:	24652.016	243	101.449		

For retention of the entire population, $p = .206$, indicating no difference in SAT math scores for pledges retained with respect to pledges who dropped out. Since $p > .05$ (.203), the null hypothesis is retained and it is determined that there was no significant difference between the HRFs and the LRFs with respect to SAT math scores. The p-value for two-way interactions was .931, indicating there was no interaction. Therefore, the difference in SAT math scores between pledges retained and pledges who dropped out was the same for the HRFs as for the LRFs.

H_{0d} There are no significant differences between HRF pledges and LRF pledges, or between all pledges retained and all pledges who dropped out, with respect to the Test of Standard Written English (TSWE) scores of pledges.

Table 4-10. Differences Between HRFs and LRFs for TSWE Scores.

	Mean TSWE Retained (N=176)	Mean TSWE Dropout (N=80)
Retention	44.3412	43.4865
	Mean TSWE HRF (N=139)	Mean TSWE LRF (N=117)
Fraternities	44.3864	43.7232

Source of Variation	SS	DF	MS	F-Ratio	F-Prob.
Main Effects	52.383	2	26.191	.396	.673
Retention	25.737	1	25.737	.389	.533
Fraternities	14.720	1	14.720	.223	.637
2-Way Interactions					
Retention/Fraternities	15.911	1	15.911	.241	.624
Explained	68.294	3	22.765	.344	.793
Residual	15684.067	240	66.100		
Total:	15932.361	243	65.565		

For retention of the entire population, $p = .533$, indicating no difference in TSWE scores for pledges retained with respect to pledges who dropped out. Since $p > .05$ (.637), the null hypothesis is retained and it is determined there was no significant difference between the HRFs and the LRFs with respect to TSWE scores. The p-value for two-way interactions was .624, indicating there was no interaction. Therefore, the difference in TSWE scores between pledges retained and pledges who dropped out was the same for the HRFs as for the LRFs.

Hypothesis Group 3

To determine if there were significant differences between the HRFs and the LRFs with respect to 14 different characteristic, background, and satisfaction variables. Chi square contingencies were calculated. The results are included in Tables 4-11 through 4-24.

Ho_{3a} There are no significant differences between the HRFs and the LRFs with respect to members and pledges.

Table 4-11. Difference Between HRFs and LRFs for Number of Members and Pledges.

	HRF		LRF	
	N	%	N	%
Members	80	89.9	30	61.2
Pledges	9	10.1	19	38.8

p = .001				

Since $p < .05$ (.001), the null hypothesis is rejected and it is determined that there was a significant difference between the HRFs and the LRFs with respect to the number of members and the number of pledges.

Ho_{3b} There are no significant differences between the HRFs and the LRFs with respect to year in school.

Table 4-12. Differences Between HRFs and LRFs for Year in School.

	HRF		LRF	
	N	%	N	%
Freshman	16	18.0	15	30.6
Sophomore	31	34.8	20	40.8
Junior	20	22.5	11	22.4
Senior	16	18.0	3	6.1
Fifth year	6	6.7	0	-
p = .060				

Since $p > .05$ (.060), the null hypothesis is retained and it is determined that there was no significant difference between the HRFs and the LRFs with respect to year in school.

H_{03c} There are no significant differences between the HRFs and the LRFs with respect to school or college (major).

Table 4-13. Differences Between HRFs and LRFs for School or College (major).

	HRF		LRF	
	N	%	N	%
Liberal Arts	17	19.1	7	14.3
Engineering	22	24.7	13	26.5
Business	32	36.0	16	32.7
Science	9	10.1	3	6.1
Education	1	1.1	1	2.0
Agriculture	4	4.5	8	16.3
Forestry	0	-	1	2.0
Undeclared	3	3.4	0	-
All others	1	1.1	0	-
p = .237				

Since $p > .05$ (.237), the null hypothesis is retained and it is determined that there was no significant difference between the HRFs and the LRFs with respect to school or college (major).

Ho_{3d} There are no significant differences between the HRFs and the LRFs with respect to length of time lived in the fraternity.

Table 4-14. Differences Between HRFs and LRFs for Length of Time Living in Fraternity.

	HRF		LRF	
	N	%	N	%
1 year	28	31.5	22	44.9
1 to 2 years	29	32.6	19	38.8
2 to 3 years	14	15.7	5	10.2
3 to 4 years	16	18.0	3	6.1
> 4 years	2	2.2	0	-

p = .139				

Since $p > .05$ (.139), the null hypothesis is retained and it is determined that there was no significant difference between the HRFs and the LRFs with respect to length of time living in the fraternity.

Ho_{3e} There are no significant differences between the HRFs and the LRFs with respect to family total income.

Table 4-15. Differences Between HRFs and LRFs for Family Total Income.

	HRF		LRF	
	N	%	N	%
< \$10,000	2	2.3	1	2.1
\$10,000 to \$20,000	7	8.0	10	20.8
\$20,001 to \$30,000	14	15.9	6	12.5
\$30,001 to \$40,000	9	10.2	9	18.8
\$40,001 to \$50,000	13	14.8	8	16.7
\$50,001 to \$75,000	24	27.3	11	22.9
> \$75,000	19	21.6	3	6.3

p = .092

Since $p > .05$ (.092), the null hypothesis is retained and it is determined that there was no significant difference between the HRFs and the LRFs with respect to family total income.

Ho_{3f} There are no significant differences between the HRFs and the LRFs with respect to father's level of education.

Table 4-16. Differences Between HRFs and LRFs for Father's Level of Education.

	HRF		LRF	
	N	%	N	%
< Eighth grade	0	-	1	2.0
Some high school	2	2.2	1	2.0
H. S. graduate	11	12.4	11	22.4
Some college	17	19.1	13	26.5
BS/BA degree	32	36.0	14	28.6
MS/MA degree	17	19.1	5	10.2
Doctorate	10	11.2	4	8.2

p = .319

Since $p > .05$ (.319), the null hypothesis is retained and it is determined that there was no significant difference between the HRFs and the LRFs with respect to father's level of education.

Ho_{3g} There are no significant differences between the HRFs and the LRFs with respect to mother's level of education.

Table 4-17. Differences Between HRFs and LRFs for Mother's Level of Education.

	HRF		LRF	
	N	%	N	%
< Eighth grade	1	1.1	0	-
Some high school	2	2.2	3	6.3
H. S. graduate	15	16.9	13	27.1
Some college	28	31.5	16	33.3
BS/BA degree	35	39.3	13	27.1
MS/MA degree	8	9.0	2	4.2
Doctorate	0	-	1	2.1

p = .260				

Since $p > .05$ (.260), the null hypothesis is retained and it is determined there was no significant difference between the HRFs and the LRFs with respect to mother's level of education.

Ho_{3h} There are no significant differences between the HRFs and the LRFs with respect to involvement in student activities.

Table 4-18. Differences Between HRFs and LRFs for Involvement in Student Activities.

	HRF		LRF	
	N	%	N	%
No activities	36	40.4	11	22.4
1 or 2	31	34.8	23	46.9
3 or 4	19	21.3	12	24.5
5 or 6	2	2.2	1	2.0
> 6	1	1.1	2	4.1

p = .231				

Since $p > .05$ (.231), the null hypothesis is retained and it is determined that there was no significant difference between the HRFs and the LRFs with respect to involvement in student activities.

Ho_{3j} There are no significant differences between the HRFs and the LRFs with respect to satisfaction with house facilities.

Table 4-19. Differences Between HRFs and LRFs for Satisfaction with House Facilities.

	HRF		LRF	
	N	%	N	%
Very dissatisfied	0	-	1	2.0
Dissatisfied	4	4.5	3	6.1
Neutral	5	5.6	10	20.4
Satisfied	51	57.3	27	55.1
Very satisfied	29	32.6	8	16.3

p = .022				

Since $p < .05$ (.022), the null hypothesis is rejected and it is determined that there was a significant difference between the HRFs and the LRFs with respect to satisfaction with house facilities.

Ho_{3j} There are no significant differences between the HRFs and the LRFs with respect to satisfaction with support from resident advisor or house-mother.

Table 4-20. Differences Between HRFs and LRFs for Satisfaction with Support from Resident Advisor or Housemother.

	HRF		LRF	
	N	%	N	%
Very dissatisfied	3	3.4	0	-
Dissatisfied	6	6.7	6	12.2
Neutral	21	23.6	9	18.4
Satisfied	33	37.1	25	51.0
Very satisfied	26	29.2	9	18.4

p = .194				

Since $p > .05$ (.194), the null hypothesis is retained and it is determined that there was no significant difference between the HRFs and the LRFs with respect to satisfaction with support from the resident advisor or housemother.

Ho_{3k} There are no significant differences between the HRFs and the LRFs with respect to satisfaction with support from chapter advisor(s).

Table 4-21. Differences Between HRFs and LRFs for Satisfaction with Support from Chapter Advisor(s).

	HRF		LRF	
	N	%	N	%
Very dissatisfied	2	2.2	0	-
Dissatisfied	5	5.6	2	4.2
Neutral	25	28.1	8	16.7
Satisfied	37	41.6	16	33.3
Very satisfied	20	22.5	22	45.8

p = .062				

Since $p > .05$ (.062), the null hypothesis is retained and it is determined that there was no significant difference between the HRFs and the LRFs with respect to satisfaction with support from chapter advisors.

H₀₃₁ There are no significant differences between the HRFs and the LRFs with respect to hours per week the student worked for pay.

Table 4-22. Differences Between HRFs and LRFs for Hours Per Week Students Work for Pay.

	HRF		LRF	
	N	%	N	%
None	76	86.4	29	61.7
< 10	5	5.7	6	12.8
10 to 20	6	6.8	10	21.3
> 20	1	1.1	2	4.3

p = .012				

Since $p < .05$ (.012), the null hypothesis is rejected and it is determined that there was a significant difference between the HRFs and the LRFs with respect to the number of hours per week the students work for pay.

H_{03m} There are no significant differences between the HRFs and the LRFs with respect to involvement in chapter activities.

Table 4-23. Differences Between HRFs and LRFs for Involvement in Chapter Activities.

	HRF		LRF	
	N	%	N	%
None	5	5.7	0	-
Slight involvement	7	8.0	4	8.3
Moderate involvement	30	34.5	16	33.3
Very involved	31	35.6	21	43.8
Deeply involved	14	16.1	7	14.6

$p = .502$				

Since $p > .05$ (.502), the null hypothesis is retained and it is determined that there was no significant difference between the HRFs and the LRFs with respect to involvement in chapter activities.

H_{03n} There are no significant differences between the HRFs and the LRFs with respect to overall satisfaction with fraternity experience.

Table 4-24. Differences Between HRFs and LRFs for Overall Satisfaction with the Fraternity Experience.

	HRF		LRF	
	N	%	N	%
Neutral	5	5.7	6	12.8
Satisfied	25	28.4	19	40.4
Very satisfied	58	65.9	22	46.8

p = .077				

Since $p > .05$ (.077), the null hypothesis is retained and it is determined that there was no significant difference between the HRFs and the LRFs with respect to overall satisfaction with the fraternity experience.

Hypothesis Group 4

To determine if there were significant living environment differences between the HRFs and the LRFs, F-tests were performed on each of the 10 subscales of the University Residence Environment Scale. The results of the F-test analysis for each subscale are shown in Table 4-25 through 4-34.

Ho_{4a} There are no significant differences between the HRFs and the LRFs in degree of involvement.

Table 4-25. Differences Between HRFs and LRFs for the Involvement Subscale.

Group	N	Mean	SD	95% Confidence Interval	
HRF	89	9.1461	1.1634	8.9010 to 9.3911	
LRF	49	8.6531	1.4223	8.2445 to 9.0616	
Source	DF	SS	MS	F-Ratio	F Prob.
Between Groups	1	7.6809	7.6809	4.8316	.030*
Within Groups	136	216.2032	1.5897		
Total:	137	223.8841			

*Significant to .05.

Since $p < .05$ (.030), the null hypothesis is rejected and it is determined that there was a significant difference between the HRFs and the LRFs in degree of involvement.

Ho_{4b} There are no significant differences between the HRFs and the LRFs in degree of emotional support.

Table 4-26. Differences Between HRFs and LRFs for the Emotional Support Subscale.

Group	N	Mean	SD	95% Confidence Interval	
HRF	89	7.9775	1.6786	7.6239 to 8.3311	
LRF	49	7.1020	2.0539	6.5121 to 7.6920	
Source	DF	SS	MS	F-Ratio	F Prob.
Between Groups	1	24.2218	24.2218	7.3131	.008*
Within Groups	136	450.4449	3.3121		
Total:	137	474.6667			

*Significant to .01.

Since $p < .05$ (.008), the null hypothesis is rejected and it is determined there was a significant difference between the HRFs and the LRFs in degree of emotional support.

Ho_{4c} There are no significant differences between the HRFs and the LRFs in degree of independence.

Table 4-27. Differences Between HRFs and LRFs for the Independence Subscale.

Group	N	Mean	SD	95% Confidence Interval	
HRF	89	3.1685	1.7980	2.7898 to 3.5473	
LRF	49	2.9592	2.1981	2.3278 to 3.5906	

Source	DF	SS	MS	F-Ratio	F Prob.
Between Groups	1	1.3851	1.3851	.3648	.547
Within Groups	136	516.3903	3.7970		
Total:	137	517.7754			

Since $p > .05$ (.547), the null hypothesis is retained and it is determined that there was no significant difference between the HRFs and the LRFs in degree of independence.

Ho_{4d} There are no significant differences between the HRFs and the LRFs in degree of traditional social orientation.

Table 4-28. Differences Between HRFs and LRFs for the Traditional Social Orientation Subscale.

Group	N	Mean	SD	95% Confidence Interval	
HRF	89	5.1011	1.7323	4.7362 to 5.4660	
LRF	49	4.9388	1.6509	4.4646 to 5.4130	

Source	DF	SS	MS	F-Ratio	F Prob.
Between Groups	1	.8329	.8329	.2868	.594
Within Groups	136	394.9062	2.97037		
Total:	137	395.7391			

Since $p > .05$ (.594), the null hypothesis is retained and it is determined that there was no significant difference between the HRFs and the LRFs in degree of traditional social orientation.

Ho_{4e} There are no significant differences between the HRFs and the LRFs in degree of competition.

Table 4-29. Differences Between HRFs and LRFs for the Competition Subscale.

Group	N	Mean	SD	95% Confidence Interval	
HRF	89	3.2921	2.0572	2.8588 to 3.7255	
LRF	49	3.4286	1.7559	2.9242 to 3.9329	

Source	DF	SS	MS	F-Ratio	F Prob.
Between Groups	1	.5883	.5883	.1537	.696
Within Groups	136	520.4045	3.8265		
Total:	137	520.9928			

Since $p > .05$ (.696), the null hypothesis is retained and it is determined that there was no significant difference between HRFs and LRFs in degree of competition.

Ho_{4f} There are no significant differences between the HRFs and the LRFs in degree of academic achievement.

Table 4-30. Differences Between HRFs and LRFs for the Academic Achievement Subscale.

Group	N	Mean	SD	95% Confidence Interval	
HRF	89	5.1910	1.9002	4.7907 to 5.5913	
LRF	49	6.5714	1.7912	6.0569 to 7.0859	

Source	DF	SS	MS	F-Ratio	F Prob.
Between Groups	1	60.2182	60.2182	17.3601	.001*
Within Groups	136	471.7528	3.4688		
Total:	137	531.9710			

*Significant to .001.

Since $p < .05$ (.001), the null hypothesis is rejected and it is determined that there was a significant difference between the HRFs and the LRFs in degree of academic achievement.

Ho_{4g} There are no significant differences between the HRFs and the LRFs in degree of intellectuality.

Table 4-31. Differences Between HRFs and LRFs for the Intellectuality Subscale.

Group	N	Mean	SD	95% Confidence Interval	
HRF	89	4.0449	2.2254	3.5762 to 4.5137	
LRF	49	4.1633	2.3571	3.4862 to 4.8403	

Source	DF	SS	MS	F-Ratio	F Prob.
Between Groups	1	.4424	.4424	.0856	.771
Within Groups	136	702.5141	5.1655		
Total:	137	702.9565			

Since $p > .05$ (.771), the null hypothesis is retained and it is determined that there was no significant difference between the HRFs and the LRFs in degree of intellectuality.

Ho_{4h} There are no significant differences between the HRFs and the LRFs in degree of order and organization.

Table 4-32. Differences Between HRFs and LRFs for the Order and Organization Subscale.

Group	N	Mean	SD	95% Confidence Interval	
HRF	89	8.6292	1.3516	8.3445 to 8.9139	
LRF	49	8.4898	1.5695	8.0390 to 8.9406	

Source	DF	SS	MS	F-Ratio	F Prob.
Between Groups	1	.6142	.6142	.2994	.586
Within Groups	136	279.0089	2.0515		
Total:	137	279.6232			

Since $p > .05$ (.586), the null hypothesis is retained and it is determined that there was no significant difference between the HRFs and the LRFs in degree of order and organization.

Ho_{4j} There are no significant differences between the HRFs and the LRFs in degree of student influence.

Table 4-33. Differences Between HRFs and LRFs for the Student Influence Subscale.

Group	N	Mean	SD	95% Confidence Interval	
HRF	89	7.3596	1.2363	7.0991 to 7.5200	
LRF	49	7.5918	1.4422	7.1776 to 8.0061	

Source	DF	SS	MS	F-Ratio	F Prob.
Between Groups	1	1.7051	1.7051	.9896	.322
Within Groups	136	234.3311	1.7230		
Total:	137	236.0362			

Since $p > .05$ (.322), the null hypothesis is retained and it is determined that there was no significant difference between the HRFs and the LRFs in degree of student influence.

Ho_{4j} There are no significant differences between the HRFs and the LRFs in degree of innovation.

Table 4-34. Differences Between HRFs and LRFs for the Innovation Subscale.

Group	N	Mean	SD	95 % Confidence Interval	
HRF	89	5.7640	1.7775	5.3896 to 6.1385	
LRF	49	4.9796	2.1456	4.3633 to 5.5959	

Source	DF	SS	MS	F-Ratio	F Prob.
Between Groups	1	19.4465	19.4465	5.2998	.023*
Within Groups	136	499.0245	3.6693		
Total:	137	518.4710			

*Significant to .05.

Since $p < .05$ (.023), the null hypothesis is rejected and it is determined that there was a significant difference between the HRFs and the LRFs in degree of innovation.

Statistical Analysis of the URES

As shown in Table 3-5, the URES average subscale intercorrelations for the normative sample were .193. Table 4-35 shows the Pearson Correlation Coefficients for subscale intercorrelations for the study population. This table was included to show that subscale intercorrelations for this study (average = .199) were closely equivalent to the normative sample and therefore the two samples were similar.

In summary, four hypotheses groups were tested and an intercorrelation statistic was calculated on the URES subscales. Only one significant correlation was found in Hypotheses Group 1. Only one significant difference between the HRFs and the

CHAPTER V

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

The purpose of this chapter is to discuss the statistical results presented in Chapter IV in relation to the theories presented in Chapter II and draw appropriate conclusions from these relationships. In addition, this chapter responds to objective number 4 of this study, the development of a model which synthesizes the persistence and dropout concepts of Vincent Tinto (1975, 1987) and the person-environment interaction concepts of Rudolf Moos (1979).

Discussion

Hypotheses Group 1

The first set of hypotheses sought to identify correlations between the retention rates of all 24 fraternities and, respectively, the number of freshman pledges in each fraternity, freshman pledge college grades, chapter grades, including those of both pledges and members, the number of live-in members and pledges, the ratio of total live-ins to pledges, and the ratio of total members and pledges to live-ins (Table 3-2). The only factor which showed a significant correlation was the total number of live-in members and pledges (p significant at .01). This tends to suggest the more people who live in a fraternity, the more likely that pledges will be retained. Barker (1963) found that behavior settings, that is, specific environments with their own unique needs-press situations, with fewer than the optimal number of inhabitants bring more forces to bear on each inhabitant from a greater number of directions than settings

with the optimal or a greater number of inhabitants. It could follow that the smaller houses tend to exert undue press on the pledges and this could contribute to the drop-out rates. In addition, one of the serious problems in the fraternity system has been the number of upperclassmen who move out of the houses, thus leaving pledges with less structure and supervision and fewer upperclassmen as role models. Still, there was no correlation between retention rates and the ratio of total live-ins to pledges ($p = .326$).

Spady (1971) and others have suggested that college grade performance was the primary determinant of the dropout process, yet the results of analysis of the data derived from the first set of hypotheses in this study do not support that contention. The absence of a correlation between freshman pledge college grades and fraternity retention rates is the first indication that grades are not the primary factor influencing retention of fraternity pledges.

Hypothesis Group 2

The second set of hypotheses was applied to determine if there were differences between the high retention fraternities (HRFs) and those with low retention rates (LRFs) with respect to pledge high school grade point average (HSGPA) and Scholastic Aptitude Test (SAT) scores.

The only significant difference found was in SAT Verbal scores (p significant at .05). These data were counter to expected results insofar as the LRF pledges had higher observed mean SAT Verbal scores (46.47) than the HRF pledges (44.35). The observed LRF mean score for SAT Math was also higher (53.62) than the comparable HRF score (52.31), but the difference was not statistically significant.

It is important to note that there was no significant difference ($p = .369$) between the two groups with respect to HSGPA. However, when fraternity affiliation

was not controlled, there was a significant difference (p significant at .05) in mean HSGPA of the pledges who were retained (3.21) versus the pledges who dropped out (3.06).

This is a very important finding. Hinton (1982) and others have found that HSGPA is a primary influence in college persistence/dropout. Hinton's results correspond with the current study finding that the pledges retained had a significantly higher HSGPA than the pledges who dropped out. But this current research also shows that the press of the fraternity environment has a strong mitigating effect on the influence of previous scholastic accomplishments. Also, the absence of a significant difference in HSGPA between the HRF pledges and the LRF pledges is the second indication that grades are not the primary factor influencing retention of fraternity pledges.

Hypothesis Group 3

The third hypotheses group was applied to determine if there were differences between the HRFs and LRFs with respect to 14 different characteristics, background, and satisfaction variables. Only three differences were found: (1) The number of HRF members (89.9 percent) and pledges (10.1 percent) when compared to the LRF (61.2 and 38.8 percent, respectively, p significant at .001); (2) satisfaction with house facilities (p significant at .05); and (3) hours per week students worked for pay (p significant at .05).

It is logical that the LRF category would include a higher percentage of pledges. Since many of their pledges drop out, more pledges must be recruited by these houses to maintain their economic viability. The primary difference between the groups in satisfaction with facilities was in the "very satisfied" category. In the

HRFs the percentage of those who were very satisfied (32.6) was twice the comparable measure for the LRFs (16.3).

In the absence of specific knowledge regarding the facilities of the houses involved, this difference cannot be explained. However, since many of those who live in the LRF houses are there only for a short period of time they may not establish "ownership" of the facilities to the degree to learn to care for them.

In the HRFs, 86.4 percent of the students did not work, while only 61.7 percent of the students in the LRFs did not work. This runs counter to retention research findings which have noted that students who work tend to persist more than students who do not work.

Perhaps the areas in which there were similarities between the HRFs and the LRFs were of greater interest than those areas in which they differed. Areas in which no significant differences were determined were year in school ($p = .060$), major ($p = .237$), length of time living in the fraternity ($p = .139$), family income ($p = .092$), father's and mother's levels of education ($p = .319$ and $.260$, respectively), involvement in student activities ($p = .231$), satisfaction with support from resident advisor or housemother ($p = .194$), satisfaction with support from chapter advisors ($p = .062$), involvement in chapter activities ($p = .502$), and overall satisfaction with the fraternity experience ($p = .077$). Previous retention research had indicated that family income, father's and mother's levels of education, and involvement in student activities were all predictors of retention/dropout in colleges and universities, but the present study does not support that research.

Hypothesis Group 4

The fourth group of hypotheses concerned the University Residence Environment Scale (URES). On the 10 subscales, F-tests revealed four significant differences

between the HRFs and the LRFs; (1) involvement (p significant at .05), emotional support (p significant at .01), academic achievement (p significant at .0001), and innovation (p significant at .05).

Moos and Gerst (1974), in their description of the URES, stated that the 10 subscales are three-dimensional, with the relationship dimension including subscales 1 and 2, involvement and emotional support. Involvement concerns the degree of commitment to the house and the residents and the amount of interaction and feelings of friendship within the house, while emotional support measures the amount of concern for others in the house, efforts to aid one another with academic and personal problems, and an emphasis on open communication within the house.

The HRF and LRF categories differed significantly on both relationship subscales, with the HRFs achieving the highest mean in both cases. Further analysis of individual questions within the two subscales showed the following: For the involvement subscale the HRFs showed significantly more affinity for "doing things together" (p significant at .01), for "spontaneous social activities" (p significant at .01), and to a lesser degree the HRFs indicated more "feelings of unity and cohesiveness" (p significant at .05); for the emotional support subscale the HRFs showed significantly more "concern with helping and supporting one another" (p significant at .05) and more "approachability of house staff with problems" (p significant at .001). Moreover, both groups had higher mean scores than the normative sample, results which support the findings of Schragger (1986) and Frichette (1976).

These results support Sheldon's (1901) belief that the most important element in drawing fraternity members together is friendship and camaraderie, as well as Milani's (1980) contention that fraternities are a primary reference group, thereby promoting intimate relationships and serving as a family unit. They also support Rootman's (1972) finding that dropout was caused by a lack of person-role and interper-

sonal fit within a group, and Astin's (1985) concept that involvement facilitates persistence. Tinto (1975, 1987) stated that social integration, as related to persistence in college, implies development through friendship associations of sufficient congruency with some part of the social system of the college. For this study, fraternities were the selected part of the social system.

The second dimension is personal growth and development, which includes subscales 3 through 7; independence, traditional social orientation, competition, academic achievement, and intellectuality. The HRFs and LRFs differed on only one of these subscales, academic achievement, and in this case the LRF category showed a higher concern for classroom and academic accomplishment (mean = 6.5714) than the HRF category (mean = 5.1910; p significant at .001). This is a curious result since observed HRF pledge grades (2.54) were higher than LRF pledge grades (2.42); all HRF house grades were higher (2.63) than the LRF house grades (2.61); and HRF pledge HSGPA was higher (3.20) than the LRF pledge HSGPA (3.13). HRF pledge SAT scores were lower (96.66) than those of the LRF category (100.09).

However, further analysis of individual questions indicated the LRFs placed a great deal of overt emphasis on studying, for example, "people study a lot" (p significant at .05), "studies are a primary activity" (p significant at .001), "studying as opposed to activities are planned for weekends" (p significant at .05), and "people begin studying right after dinner" (p significant at .001). This supports Tinto's (1975, 1987) hypothesis, and the findings of Pascarella and Terenzini (1979) and Pascarella and Chapman (1983), that high levels of social integration tended to compensate for low levels of academic integration. As stated by Warwick (1962), high cohesiveness can be negatively related to scholarship. This could be a partial explanation for the lower level of HRF scores on the academic achievement subscale. The finding which indicated there were no significant differences on the other subscales for this dimen-

sion, indicates that the HRF and LRF categories were similar on the personal growth and development dimension. Both Schreck (1976) and Milani (1980) stated that personal growth had become a main purpose of fraternities. The data in the current study supports that contention insofar as the observed means for both the HRFs and LRFs on the personal growth and development subscales were either equal to or well above the means for the normative sample.

The third URES dimension is system maintenance and change, including subscales 8 through 10; order and organization, student influence, and innovation. The HRFs and LRFs differed only on the innovation subscale (p significant at .05). Innovation measures the spontaneity of behavior, the number and variety of activities, and new activities. The major differences on this subscale were "spontaneity" (p significant at .01) and "unusual activities" (p significant at .001), with the HRFs having the higher score. It is likely there is a relationship between innovation and the two relationship subscales in that only within groups where there is commitment to and concern for others would spontaneous and innovative ideas be encouraged, rather than ridiculed. The finding of no significant differences for the other two subscales in this dimension indicates that the HRF and LRF houses were operated in similar ways.

Conclusions

This study has six primary conclusions.

1. Neither high school or college grades, SAT scores, nor individual characteristics, background, and satisfaction levels can be used to define differences in pledge retention between the HRF and LRF houses.

2. The differences within the living environment, and primarily the relationship dimension of that environment, of the two groups may offer the best explanation of the pledge retention differences between the two groups. The environmental press

of the houses more closely matches the needs of the pledges within the HRF group. In other words, as explained by Spady (1970), the normative congruence of the HRF pledges was compatible with the attributes and influences of the house environment, and as offered by Bean (1980), this normative congruence developed into a degree of loyalty toward membership.

3. The overt pressure exerted by the LRFs on their pledges to study and achieve academic success did not result in greater academic success than in the HRFs, but did tend to limit the degree of social integration achieved by the pledges.

4. Social integration has a significant positive impact upon pledge retention, while overt pressure toward academic integration has a probable negative impact on pledge retention.

5. Successful social integration, while having a positive impact on pledge retention, does not have a negative impact on academic performance. In fact, the impact on academic performance may be positive.

6. A crucial element in the Tinto (1987) model should be a relationship building block within the peer group interaction portion of the social system.

Milani (1980) stated that the fraternity is a dominant sub-culture on many college campuses. It is within this subculture that the relationship needs of the pledge must be met. When this is not the case, considerable stress may be suffered which may lead to dropout. According to Tinto (1987), in order to persist in college the student must integrate within the academic and the social systems of the college. Within the social system there are extracurricular activities and peer group interactions. Since the HRF and LRF groups did significantly differ in their members' involvement in extracurricular activities, it is the peer group interactions within the pledge's dominant subculture, the fraternity, that may determine whether he stays or leaves. Both Sheldon (1901) and Milani (1980) are in agreement that friendship,

camaraderie, intimate relationships, and an almost family environment are the main draws of the fraternity, and Horowitz (1987) has stated that young men who are drawn to the fraternity have relationship needs that must be met in order for them to persist. Therefore, a crucial element in the Tinto (1987) model should be a relationship building block within the peer group interaction portion of the social system. If the fraternity environment is such that the pledge is able to find the friendship and caring relationships he needs, then he will be able to integrate socially. Thus, even if academic integration is weak, the strength of the social integration may be sufficient to permit persistence.

The implications of the findings of this research may be very significant to the students who wish to live in fraternities, the fraternities themselves, the student affairs professionals who advise them, and to the colleges and universities. For fraternity pledges, social integration into their peer group is a greater factor in retention than is academic integration. Therefore, the young student seeking a fraternity should carefully select the one where he feels he will "fit in" and be able to develop close personal relationships. For the fraternities, relationship building should be a primary activity from the onset of receiving new pledges. For student affairs professionals, the implication is that they need to assist the fraternities in the development of methods and attitudes that increase sensitivity to the need to develop close personal relationships. For colleges and universities, the emphasis on relationship development within the fraternities can increase retention.

Recommendations

This study makes three recommendations.

1. As Milani (1980) has stated, most fraternity pledges are selected on the basis that they will "fit in" with the brothers. While this study found that relationship

development between members and pledges in a fraternity is a significant factor in pledge retention, it is possible that the HRF houses have a superior means of predicting which prospective pledges will fit into their houses and which will not. A study, encompassing a contrast between the HRF and LRF pledge selection processes, should be completed in order to determine if significant differences exist in the methods employed by the two groups.

2. A follow-up to this investigation could be conducted. This follow-up should seek to specifically determine the nature of the differences between the HRFs and LRFs with respect to the relationship dimension. Perhaps one technique available to those fraternities where environmental changes are indicated (in this case the LRFs) is the use of the Environmental Satisfaction Questionnaire. This is a simple but useful tool which could be helpful in responding to problem areas for students. The questionnaire assesses the degree of fit between people and their environment, while also providing information about what causes people to be mismatched with their environment, how they coped, and what they would change (Corazzini, Wilson & Huebner, 1977). However, though this is a step a fraternity could undertake for itself, this would not preclude an in depth study of the issue.

3. Future research should attempt to determine if there is an optimum number of people per fraternity that, other considerations being relatively equal, would serve to increase pledge retention.

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APPENDICES

Appendix A
Fraternity Letter

To: President,
Corvallis, OR 97330

FROM: Clayton N. Smith
Assistant Fraternity Advisor

SUBJECT: Fraternity Research

Dear

As you perhaps know, I am a doctoral student in the Office of Student Services and for the past three years have been working with Dean Bill Brennan advising IFC and the individual fraternities. This work has led to the development of a sincere interest in the fraternity system and the individual fraternities. In fact, my interest has been whetted to the point that I wish to focus my dissertation on fraternity living environment.

My research so far has revealed that there is a large disparity among OSU fraternities in their ability to retain in the fraternity those freshmen pledges they select. As you know, your investment of time, energy, and money during rush is significant and to lose a large number of the pledges you have chosen can be a critical blow to house stability and financial position. To possibly assist with this problem I would like to concentrate on discovering differences in fraternal living environments that may have some relationship to retention of freshman pledges. But, I need your help to continue.

I would like to administer a test called the University Residence Environment Scale to all the live-in members and pledges of your house sometime early spring term. The whole process should take no more than 30 to 45 minutes and might best be accomplished right after the evening meal. Confidentiality is always one of the concerns about a test like this but I can assure you that the test results will be completely confidential. In fact, no one, including myself, will be able to match answer sheets with individuals, and I will be the only person able match answer sheets with specific fraternities.

When my study is completed sometime this summer, I will be most happy to provide you with a copy of the results for your house which may provide some insight into your current environment and point to changes you may want to make. I believe this research can benefit the whole fraternity system at OSU as well as individual houses.

I will contact you within a few days to receive your answer to this request. If your answer is affirmative, we can make the arrangements to administer the test.

Sincerely,

CLAYTON N. SMITH

Appendix B

University Residence Environment Scale

All of the questions of the University Residence Environment Scale were to be answered True or False.

1. There is a feeling of unity and cohesion here.
2. People here are concerned with helping and supporting one another.
3. People here tend to check on whether their behavior is acceptable to others in the house.
4. Dating is a recurring topic of conversation around here.
5. Around here discussions frequently turn into verbal duels.
6. People around here hardly ever seem to be studying.
7. People around here talk a lot about political and social issues.
8. The house officers function in a somewhat haphazard manner.
9. The staff here decide whether and when the residents can have visitors of the opposite sex in their rooms.
10. New approaches to things are often tried here.
11. Very few things around here arouse much excitement or interest.
12. Around here people tend to hide their feelings from one another.
13. People here pretty much act and think freely without too much regard for social opinion.
14. Some people here spend a lot of time preparing for dates.
15. People don't try to impress each other here.
16. Around here studies are secondary to most activities.
17. There is a good deal of concern about intellectual awareness in this house.
18. The jobs of house officers are not clearly defined.
19. The students formulate almost all the rules here.
20. Innovation is not considered important here.

21. In this house there is a strong feeling of belongingness.
22. Trying to understand the feelings of others is considered important by most people in this house.
23. Around here people are not interested in upholding social conventions.
24. People here consider other types of social activities to be more important than dating.
25. In this house people tend not to compete with each other.
26. People here work hard to get top grades.
27. People here very rarely discuss intellectual matters.
28. House procedures here are well established.
29. The staff here have the last say about student discipline.
30. In this house people often do unusual things.
31. Most people here have a strong sense of loyalty toward the house.
32. People here try to make others feel secure.
33. Behaving correctly in public is pretty unimportant in this house.
34. In this house dating is not important.
35. People around here are always trying to win an argument.
36. Most people here consider studies as very important in college.
37. There is not much appreciation here for classical music, art, literature, etc.
38. House activities are pretty carefully planned here.
39. House finances are handled exclusively by students here.
40. Doing things in a different way is valued around here.
41. Most of the people in this house know each other very well.
42. The people here are often critical of others in the house.
43. Most people here know and use the commonly accepted rules of social conduct.
44. Nearly everyone here tries to have a date on weekends.
45. In this house people don't try to be more "cool" than others.

46. People around here tend to study long hours at a stretch.
47. The people in this house generally read a good deal about intellectual material other than class assignments.
48. Meetings and activities follow a pretty regular schedule in this house.
49. Students enforce house rules here.
50. The people here seem to be doing routine things most of the time.
51. This is a rather apathetic house.
52. People around here are not very considerate of the feelings of others.
53. Behaving properly in social situations is not considered important here.
54. Few people in this house go on dates.
55. People here try to appear more intellectual than others in the house.
56. Most people plan activities other than studying for weekends.
57. Around here people tend not to value ideas for their own sake.
58. Around here the staff usually sets an example of neatness and orderliness.
59. Around here the staff decide who gets the single rooms.
60. Around here there is a minimum of planning and a maximum of action.
61. People in the house often do something together on weekends.
62. People here tell others about their feelings of self-doubt.
63. Around here people try to act in ways that will gain the approval of others in the house.
64. Having exchanges and parties is a high priority activity in this house.
65. People who have lots of dates tend to let others in the house know.
66. Around here people don't let studies interfere with the rest of their lives.
67. The people here are generally pretty interested in cultural activities.
68. House finances are handled in a pretty loose fashion.
69. Rules about social conduct are sometimes enforced by the staff.
70. There is a sense of predictability about this house.
71. There are a lot of spontaneous social activities here.

72. In this house people rarely show affection for one another.
73. People in the house tend to fit in with the way other people do things here.
74. In this house people would rather go on a date than do something with others in the residence.
75. Intellectual one-upmanship is frowned upon here.
76. Around here people who are "academic grinds" are looked on with amusement.
77. Discussions around here are generally quite intellectual.
78. House officers are regularly elected in the house.
79. The students do not take part in staff selection.
80. Constantly developing new ways of approaching life is important here.
81. Very few people here participate in house activities.
82. Most people here tell one another their personal problems.
83. People around here don't worry much about how they dress.
84. Being popular with the opposite sex is not very important here.
85. People here always seem to be competing for the highest grades.
86. In the evening many people here begin to study right after dinner.
87. The people in this house do not have a great deal of intellectual curiosity.
88. This is a pretty disorderly house.
89. The students here determine the times when meals will be served.
90. Things rarely "just happen" around here.
91. People around here don't often go out of their way to be with one another.
92. It is sometimes difficult to approach the house staff with problems.
93. People here tend to rely on themselves when a problem comes up.
94. Around here very little of people's extracurricular lives is concerned with dating matters.
95. Academic competition is frowned upon here.
96. There are a lot of study groups around here.

97. People here rarely read or talk about serious matters (e.g., world affairs, philosophy, etc.).
98. There is a great deal of confusion during house meetings.
99. The students here determine who their roommates will be.
100. There is a methodical quality about this house.

Appendix C
Individual Characteristics, Background, and
Satisfaction Questionnaire

101. What is your current status in the house?
0 = Member
1 = Pledge/Associate Member.
102. Are you now or have you been an elected house officer?
0 = Yes
1 = No.
103. What is your year in school?
0 = Freshman
1 = Sophomore
2 = Junior
3 = Senior
4 = Fifth year.
104. What school or college are you in?
0 = Liberal Arts
1 = Engineering
2 = Business
3 = Science
4 = Education
5 = Agriculture
6 = Forestry
7 = University Exploratory Studies
8 = Other.
105. How long have you lived in the fraternity?
0 = Less than 1 year
1 = 1 to 2 years
2 = 2 to 3 years
3 = 3 to 4 years
4 = More than 4 years.
106. What is your estimate of your family's total income?
0 = Under \$10,000
1 = 10,001 to \$20,000
2 = 20,001 to \$30,000
3 = 30,001 to \$40,000
4 = 40,001 to \$50,000
5 = 50,001 to \$75,000
6 = Over \$75,000.

107. What is your father's highest level of education?
0 = Less than 8th grade
1 = Some high school
2 = High school graduate
3 = Some college
4 = Bachelor's degree
5 = Master's degree
6 = Doctorate.
108. What is your mother's highest level of education?
0 = Less than 8th grade
1 = Some high school
2 = High school graduate
3 = Some college
4 = Bachelor's degree
5 = Master's degree
6 = Doctorate.
109. Outside of the fraternity, how many separate student activities are you involved in on campus?
0 = Zero
1 = 1 or 2
2 = 3 or 4
3 = 5 or 6
4 = More than 6.
110. How satisfied are you with the house facilities in your fraternity?
0 = Very dissatisfied
1 = Dissatisfied
2 = Neutral, so-so
3 = Satisfied
4 = Very satisfied.
111. How satisfied are you with the help and support from your resident advisor or housemother?
0 = Very dissatisfied
1 = Dissatisfied
2 = Neutral, so-so
3 = Satisfied
4 = Very satisfied.
112. How satisfied are you with the help and support from your chapter advisor(s)?
0 = Very dissatisfied
1 = Dissatisfied
2 = Neutral, so-so
3 = Satisfied
4 = Very satisfied.

113. While in school, how many hours per week do you work for pay?
0 = None
1 = Less than 10 hours
2 = 10 to 20 hours
3 = 21 to 39 hours
4 = 40 or more hours.
114. How involved are you in your chapter activities?
0 = Not at all involved
1 = Only slightly involved
2 = Moderately involved
3 = Very involved
4 = Deeply involved.
115. What is your overall level of satisfaction with your experience in your fraternity?
0 = Very dissatisfied
1 = Dissatisfied
2 = Neutral, so-so
3 = Satisfied
4 = Very satisfied