

CHARACTERISTICS AND CONCERNS OF FIRST-
AND SECOND-YEAR STUDENTS REMAINING
AT AND LEAVING OKLAHOMA STATE
UNIVERSITY

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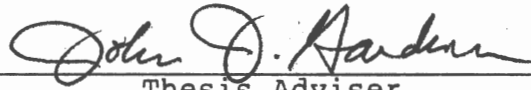
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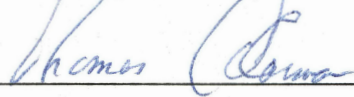
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CHAPTER I

THE RESEARCH PROBLEM

Introduction

Higher education institutions across America are entering a potential crisis period in their histories. As the 1990s approach, colleges and universities are faced with declining budgets and enrollments. Throughout the 1960s and 1970s, American higher education institutions enjoyed the benefits of financial growth and a steadily increasing enrollment. Because of growth in resources and enrollment, many administrators did not seem to worry about student attrition or retention. Fife explained:

During the '60s and early '70s there were two primary reasons why an institution had limited concern with the retention of its students. The first was that it had more students than its faculty or facilities could handle. If a number of students did not continue to enroll, it was not a problem since many other students were waiting to take their place. The second reason involved a philosophical interpretation of equal educational opportunity and the maintaining of academic standards. Many felt that they fulfilled their obligations for equal education opportunity if students had easy access to the institutions. There was also an assumption that academic standards would suffer if special considerations were given to any particular group of students, and therefore all were judged by the same criteria. As a result it was not unusual to have more than a 50 percent dropout rate before graduation.¹

However, during the 1980s the situation has changed, and administrators no longer have the luxury of too many

students. Fife noted this change saying, "the growth in enrollment has stopped and the 18- to 24-year old student cohort is predicted to decrease 25 percent by the mid-1990s."²

Due to the decrease in enrollments and the growing concern for the future of colleges and universities, many studies on retention efforts have been conducted. The importance of student retention is made evident by the Carnegie Council on Policy Studies in Higher Education's Three Thousand Futures: The Next Twenty Years in Higher Education. The chapter dealing with enrollments begins with this statement:

The most dramatic feature of the next 20 years, as far as we now know, is the prospect of declining enrollments after more than three centuries of fairly steady increase. . . . Points of enrollment acceleration in history have been 1870 with the increased growth after the Civil War and following the introduction of the land-grant college movement; 1945 with the G.I. Bill of Rights; and 1960 with the 'tidal wave' of students following the high birth-rates after World War II. Now there is a deceleration point, with the abrupt and substantial demographic decline in the numbers of young persons. Two points of change, with movements in opposite directions, will have occurred within one 20-year period. This has never happened before in American history.³

If administrators heed the forecasts and projections of these studies, they must strive to find and implement methods and techniques of recruiting students to and retaining them on their campuses. Gardiner and Nazari-Robati addressed the attrition/retention issue.

Reducing the dropout or attrition rate is increasingly being viewed by researchers as a very difficult way of maintaining college enrollment. The solution to the problem is one of focusing on the positive rather than the negative. Instead of studying the dropout and

attrition rates, researchers need to shift their emphasis to the persister and to retention rates. In other words, instead of trying to learn why students leave, administrators need to understand why their students stay.⁴

It is this line of reasoning that sets the rationale for this study: considering and comparing those students who stay in college and those who choose to leave, and learning how to modify current operating procedure as a result of that information.

Purpose of the Study

The purpose of this study was to analyze the attrition/retention situation at Oklahoma State University (OSU) among freshman and sophomore students. To help assess the causes of attrition and retention at OSU, the following questions were considered:

1. What are the characteristics and concerns of first- and second-year students who stay at OSU?
2. What are the characteristics and concerns of first- and second-year students who leave OSU?
3. Are there differences in the characteristics and concerns of first- and second-year students who stay at OSU and those who leave OSU?
4. What policy changes might be recommended for OSU as a result of this analysis?

Assumptions and Limitations

It is assumed that most students who enroll as freshmen at OSU are capable of adjusting to the comprehensive state university atmosphere and can probably be somewhat influenced by retention efforts.

It is assumed that not all of the questionnaires can be delivered to students in the population sampling.

The study is limited in that the sample population includes students who are on academic probation and could not return to OSU even if they wanted to return.

As Lenning noted, it is sometimes difficult and hazardous to obtain data directly from students. Lenning noted some of the limitations to this type of survey:

First, students may not really understand their motivations for leaving; consequently, they may cite reasons that are superficial. Often a decision results from a combination of reasons, no one of which may have made the difference between staying and leaving. Students who feel the need to protect their self-image may provide explanations that they consider socially acceptable or hide personal problems. Even inadequate financial resources, an explanation given frequently, is often not the real or most important reason.⁵

Although it is often difficult to obtain information from students who leave a campus, Lenning stressed the importance of such data to an institution. This study drew data from surveys sent to the home addresses of those students who left OSU and to students still enrolled. Follow-up consisted of another mailing to those individuals who did not respond to the first mailing, encouraging their participation in the study (Appendix A).

Definition of Terms

Terms used in this study which have some special meaning include:

Attrition is the discontinued enrollment of a student at an institution.

Retention is the continued enrollment of a student at an institution.

Students who leave are students who chose to leave OSU.

Students who stay are students who remained enrolled at OSU.

Characteristics and concerns are distinguishing traits, qualities, or properties, and opinions displayed by students.

Need for the Study

In 1978, Pantages and Creedon shared data compiled while studying college attrition from 1950 to 1975. They stated:

Over the past four decades national studies have revealed a relatively consistent pattern of attrition. Approximately one half of the freshmen who enter a baccalaureate-granting institution never graduate from that institution. Only 40% of an entering freshman class complete degrees in four years, while an additional 10% take longer than four years to graduate from the original college entered.⁶

Even though this information was significant in 1978, it was even more important and alarming in 1985. The Chronicle of Higher Education reported in January, 1980, that all but ten states would show a decline in the number of high school graduates between 1979 and 1995.⁷ Of the 40 states expected

to experience a decrease in graduating high school seniors, Oklahoma is projected to be down two percent. The study predicted that by 1991 there will be just 34,785 graduating seniors in Oklahoma compared to a high of 40,048 in 1980.⁸

What do these studies and data mean to Oklahoma State University? Not unlike most other comprehensive, land-grant universities, OSU suffers from attrition problems. According to Dr. Hazel Scott, assistant vice-president for Academic Student Services, the freshman attrition rate at OSU is 33 percent. Therefore, it is vital that a comparison study of students who stay and students who leave OSU be conducted for purposes of addressing student needs more effectively. This type of study could serve as a model to other institutions requiring similar analysis.

Despite warnings and projections, there are still some college and university administrators who doubt the forecasts. An example of how administrators feel toward retention was cited by Breneman. He noted a disturbing disbelief by college presidents that enrollments in their own institutions could decline. After conducting an informal survey, Breneman stated:

Much to my surprise, I found that almost every chief executive queried felt his or her institution would maintain enrollments in a stable pattern for the next ten years. A few presidents mentioned that they dare not say anything to the contrary, for fear it would become a self-fulfilling prophecy.⁹

Although OSU has conducted some studies regarding its attrition problem, it is important to consider new avenues of

analysis and evaluation. This study was an attempt to explore a new way of evaluating the attrition/retention situation at OSU. A selected review of the literature in the area of attrition/retention follows.

ENDNOTES

¹Jonathan D. Fife, Student Retention Strategies (ERIC/Higher Education Research Report No. 8, Washington, D.C., American Association for Higher Education, 1980), p. foreword.

²Ibid.

³Carnegie Council on Policy Studies in Higher Education, Three Thousand Futures: The Next Twenty Years in Higher Education (San Francisco, 1980), p. 32.

⁴John J. Gardiner and Ali Nazari-Robati, "Student Attrition Research: Implications for Retention Strategies," NASPA Journal, Vol. 20, No. 3 (1983), p. 26.

⁵Oscar T. Lenning, Phillip E. Beal, and Ken Sauer, Retention and Attrition: Evidence for Action and Research (Boulder, Colo., 1980), p. 25.

⁶T. J. Pantages and C. F. Creedon, "Studies of College Attrition: 1950-1975," Review of Educational Research, Vol. 48 (1978), pp. 49-101.

⁷"Changing Numbers in High School Graduating Classes," The Chronicle of Higher Education (January 7, 1980), p. 8.

⁸Ibid.

⁹David W. Breneman, The Coming Enrollment Crisis: What Every Trustee Must Know (Washington, D.C., 1982), p. 4.

CHAPTER II

REVIEW OF THE LITERATURE

The purpose of this chapter is to investigate selected research and literature relevant to the present study. The review has been divided into the following four sections: 1) marketing in American higher education, 2) student attrition in American higher education, 3) student retention in American higher education, and 4) Oklahoma State University (OSU) retention studies.

Marketing in American Higher Education

Although the term "marketing" might be considered somewhat new to many college and university administrators, the concept is not all that new. According to Cutlip, public relations is perhaps the oldest form of marketing used by administrators in American higher education. Marketing, in its oldest form, appeared as early as 1869 when educators saw the need to inform the public of the needs, benefits, and aims of their institutions.¹

The idea of informing the public about institutions of higher education has been transformed from information giving to marketing colleges and universities. Marketing, according to Kotler, is "the effective management by an organization of its exchange relations with its various markets and publics."²

The need to use marketing in the academic sector has come about as a result of declining revenue and enrollment.

The National Center for Educational Statistics (NCES) reported that the number of high school graduates was in a period of steady decline, on its way to a low of less than 2.7 million in 1983. According to NCES, the total of campus enrollments nationwide actually dropped by 1.5 percent in 1976, after it had been rising steadily from 1951 to 1975, often at rates of increase exceeding 10 percent a year. From the fall of 1976 to the fall of 1979 the net increase was only 2.4 percent.³

According to the Carnegie Council on Policy Studies in Higher Education, the most dramatic demographic feature of American higher education will be the substantial decline in enrollments.⁴ Frances noted that the projected 18-year-old population in this country will drop from 4,211,000 in 1980 to 3,426,000 in 1990.⁵ Another projection by Breneman indicated that the nation's number of 18-year-olds will drop 26 percent between 1979 and 1994.⁶

These projected changes and the realization that American higher education has become a buyer's market led to active examination of the concept of marketing. This sudden change also coincided with recent developments in marketing theory that emphasized meeting customer needs as opposed to a preoccupation with production or sales.⁷

A study, conducted by Alexander, to obtain the administrative level of acceptance or rejection of marketing activities when considered for incorporation in the management of higher education institutions, concluded that there was "general support for incorporation of marketing strategies in higher education management." Alexander solicited opinions from 1,800 administrators at 600 institutions, and of the 1,022 administrators who responded, 90.3 percent favored the use of marketing strategies. Of the chief executives, 71.6 percent indicated that marketing activities were being used at their schools.⁸

Even though many administrators believed they were using marketing concepts on their campuses, there is some indication that many of these colleges and university educators were confused about the marketing process. White found discrepancies in what college administrators reported as marketing attempts in their institutions and what catalogs, reports, and other records actually revealed. Many times documents showed that administrators were not doing what they said they were doing. White noted that although there was a growing interest in the use of marketing techniques by college administrators, most of them did not know the proper procedures to use in order to accomplish their marketing goals.⁹

John Anthony Brown, a college president, expressed disbelief at the lack of marketing skills among higher education administrators. He commented,

Colleges communicate their academic programs poorly to students; it seems easier for colleges to photograph their campuses than to explain their academic programs; colleges have great opportunity to specialize, but they fail to publicize clear and distinct differences; colleges fail to explain experimental or innovative programs to students; and, to combat enrollment drops, colleges often innovate the curriculum rather than try to better explain existing programs.¹⁰

Often, marketing is misunderstood by administrators, as illustrated in a survey by Murphy and McGarrity. They found, after polling 200 private colleges, that 90 percent of the respondents believed marketing to be synonymous with promotion, which was, in fact, only one highly visible aspect of marketing activities.¹¹

Misunderstanding the term "marketing" is easily done because administrators tend to adapt the term to whatever function or activity is taking place on their campuses. Perhaps Kotler's definition, noted earlier, can best describe the term for educators. Pointing out that all organizations must relate to their various markets and publics, he added that all organizations, profit or nonprofit, operate in an environment of one or more markets and publics.¹²

Because colleges and universities are nonprofit organizations, Kotler addressed the unique issues facing these institutions in their marketing efforts. He noted:

Nonprofit organizations face a host of problems that would be analyzed as straightforward marketing problems if found in the profit sector. Museums and symphonies have a difficult time attracting sufficient funds to carry on their cultural activities. Blood banks find it hard to enlist enough donors. Churches are having difficulties attracting and maintaining active members. . . . National parks such as Yellowstone are

plagued with overdemand and are seeking ways to discourage of 'demarket' the parks. There is hardly a public or private nonprofit organization in existence that is not faced with some problems stemming from its relations to its markets.¹³

Kotler noted that some problems might arise when trying to introduce marketing principles into the nonprofit sector.

The transportation of a conceptual system from one domain (the private sector) to another (the nonprofit sector) poses a number of challenges that call for new creative conceptualization. The concepts of product, price, promotion, and distribution, which are employed by profit-sector marketers, have to be redefined for maximum relevance to all organizations. The concepts of markets and exchange processes must be translated into benefit-cost maximization so that marketing models can be applied fruitfully in the nonprofit sector.¹⁴

The term "marketing" has been used in many different ways and has many connotations throughout the literature, however, it most generally applies to promotion and to the recruitment of students. Kotler attempted to explain marketing in higher education in broader terms. "My thesis is that the college marketing process starts before the work of the admissions office and continues beyond the work of the admissions office."¹⁵

According to Kotler, there are seven basic concepts within the college marketing process: 1) institutional positioning, or the articulation of a distinct posture of the the college relative to other colleges; 2) portfolio planning involving the number of kinds of programs offered by a particular institution; 3) applicant development, or identifying those student markets displaying a natural interest in the

college's institutional concept and portfolio and then communicating information and excitement to those students in order to influence their decision process; 4) applicant evaluation and notification, involving successfully screening the pool of qualified applicants to produce a new freshman class; 5) recruitment effort evaluation to learn the weaknesses and strengths of the effort and to spot opportunities for improvement; 6) college improvement planning, which involves identifying key dimensions of on-campus student satisfaction, evaluating student satisfaction along each dimension, and developing plans for improvement; and 7) alumni loyalty development, which included determining the current level of alumni loyalty and then developing objectives and strategies for building alumni loyalty.¹⁶

Charles R. Fowler explained a successful marketing model in higher education by outlining six steps used at Evergreen State College, Washington.

He noted,

. . . adapting marketing concepts to institutional recruiting, retention, and public relations can attract criticism from idealistic academics. But Evergreen is proof that this criticism can be largely overcome. Through its coordinated marketing program, the college has achieved three important goals-- enrollment growth, increased student retention, and greater public awareness--without having to sacrifice its founding principles.¹⁷

The steps he noted were: 1) review the institution's position; 2) establish administrative leadership; 3) adapt educational services; 4) prepare the marketing plan; 5)

coordinate and carry out the plan; and 6) evaluate the marketing process.¹⁸

One can perhaps more easily understand the marketing concept in higher education from Lovelock and Rothchild who stated that:

Not all organizations practice the marketing concept. Some espouse the 'product concept,' which leads to production of whatever an organization is competent at producing under the assumption that good products reasonably priced will essentially sell themselves. Others subscribe to the 'selling concept,' a management orientation that emphasized the use of sales and advertising techniques to 'push' whatever the organization has produced. Many observers have centered their criticisms of marketing on firms that practice the selling concept by trying to persuade consumers to buy things that the former has produced but the latter don't need.¹⁹

Lovelock and Rothchild also discussed the concept of maintaining customer loyalty. They noted that "educational consumers go through a 'life cycle' with their alma mater," and they suggested that at each stage in the life cycle the marketing task is different, as are the concerns of the target customer and the influences that are brought to bear on his or her decision.²⁰

A total marketing concept is identified in the literature by Lucas who noted that:

If universities and colleges are to adapt to a rapidly changing external environment, their faculty and leadership must understand the concept of total marketing and accept it as an integral part of their long-range plan. . . . A marketing plan must be developed that embraces all elements of the total marketing concept.²¹

Lucas further noted that in order for an institution to apply the total marketing concept it must develop various

forms of marketing research including: an outline for identifying community target groups, a detailed list of recruitment and advertising steps, a curriculum evaluation and a strong retention program, a well-researched study of the institutional image and an idea of how to build on this image, a scheme for evaluating the institution's marketing strategies, a look to see if marketing steps are incorporated into existing functions when appropriate, and the insurance that marketing responsibility is clearly assigned to faculty and staff.²²

In reviewing the literature, several authors suggested changing or adjusting an institution's products in order to meet better the needs of a diversified student body. For example, Gardiner and Nazari-Robati stated that in order to serve a diversified group of students, "administrators look to the literature of marketing which has focused on responding to human needs, on generating and satisfying individuals customers."²³ Ernest R. Leach specifically suggested such product modifications as revising course syllabi to include expected instructional outcomes, developing courses in study skills and career planning, and expanding tutorial services to support classroom learning.²⁴

Johnson also discussed the total marketing concept when studying community, junior, and technical colleges. He outlined the policies and procedures of four community colleges that employ the total marketing concept (TMC). Johnson saw

TMC as an instrument for planned and positive change in two-year institutions. His suggestions to college administrators include: be patient and persistent; set reasonable goals and priorities; establish a success model on the campus as soon as possible; bring faculty into the marketing process from the very beginning; conduct on-campus marketing workshops with faculty, staff, and administrators; evaluate the impact of internal marketing on a regular basis; and base publications and promotions on market research and segmentation.²⁵

In making use of marketing concepts and techniques in the higher education settings, many writers offered proof of successful programs and made suggestions for implementing marketing programs to administrators. Several authors adopted ideas from the profit sector and applied them to higher education. Suggestions and advice ranged from ways for administrators to organize their thinking to particular techniques that applied to student recruitment. One such writer, Uehling, illustrated a decision model for administrators that included emphasis on leader initiative; a close look at the institution at present; an effort to define and understand clientele; an assessment of the production capacity of the institution; an assessment of the potential for change within the institution; an assessment as to whether current production capacities fit clientele needs; a planning strategy; actual marketing; and an evaluation of the effort.²⁶

Kotler and Levy described an important aspect of the marketing process when they referred to the marketing plan as the act of specifying in detail what will be done, to whom, with what, and when, to achieve the organization's objectives.²⁷ The marketing plan used by Temple University, and described by Weirich, noted these components: enrollment objectives for the coming year; market objectives; demographic characteristics of Temple students; market share analysis; and specified strategies and activities including advertising and mass mailings, high school visits, a black scholars' luncheon, monthly mailings to all admitted students, and special publications to parents, among others.²⁸

Student Attrition in American Higher Education

Webster defined attrition as "the act of weakening or exhausting by constant harassment or abuse" and "a reduction (as in personnel) chiefly as a result of resignation, retirement, or death." Regardless of how the term affects college administrators, it has become a negative term and a problem that all higher education institutions must confront.²⁹

Vincent Tinto observed the idea of student attrition or dropout as related to Durkheim's theory of suicide. He noted:

According to Durkheim, suicide is more likely to occur when individuals are insufficiently integrated into the fabric of society. Specifically, the likelihood of suicide in society increases when two types of

integration are lacking--namely, insufficient moral (value) integration and insufficient collective affiliation. . . . When one views the college as a social system with its own value and social structures, one can treat dropout from that social system in a manner analogous to that of suicide in the wider society.³⁰

Regardless of how one defines attrition, the connotations the term has for most administrators centers around the idea of the loss of students because of dropouts, stopouts, and even academic failures. Explanations of how to overcome high attrition have been addressed in the literature. Because of the large body of literature on dropouts and attrition, the writer has chosen to conduct a selected review and divide the information into two main areas: 1) student characteristics; and 2) attrition theories.

Several writers have considered student characteristics as central to the analysis of student attrition, including Astin,³¹ Astin and Panos,³² Cope,³³ Devecchio,³⁴ and Pumroy.³⁵ They described characteristics of entering freshmen who would eventually drop out of college. According to their research, the most dropout-prone freshmen were those with poor academic records in high schools, low aspirations, poor study habits, relatively uneducated parents, and small town backgrounds. Also associated with dropping out was being older than most freshmen, having Protestant parents, having no current religious preference, and being a cigarette smoker. Freshman women were more likely to drop out if they were married or had marriage plans which contrasted with freshman males who seemed to stay in college if they were married.

Astin noted that by far the greatest predictive factor was a student's past academic record and academic ability. Next in importance were the student's degree plans at the time of college entrance, religious background, and religious preference, followed by concern about college finances, study habits, and educational attainment of parents.³⁶

According to Simpson, usually dropouts were compared to those remaining in school as: coming from families of lower socioeconomic status, having lower intelligence; having poorer pre-college academic preparation as indicated by high school grades, scholastic aptitude test scores, and high school quality; having lower college achievement; being less cosmopolitan (coming from smaller towns, coming from smaller high schools, being less secular); coming from families which are more religious but less warm and supportive; having lower educational aspirations and lower commitment to remain in college; viewing education vocationally rather than as a place for intellectual and personal expansion; spending less time studying; being less well socially integrated; being less mature (less rational, self-controlled, self-confident, independent, involved, and tolerant); having ideas and personal attributes which do not "fit" the college culture; and being less satisfied with the college or university they leave.³⁷

The size of the student's high school was shown to be an attrition factor in studies by Coker,³⁸ Feldman and Newcomb,³⁹ Sexton,⁴⁰ Suddarth,⁴¹ and Thompson.⁴²

According to Cope and Hannah, men and women discontinued, stopped out, and transferred in approximately equal proportions, but for different reasons. Men dropped out for reasons related to competence, adequacy, and identity searching; whereas women dropped out more because of intellectual-aesthetic dimensions, dating, and marriage.⁴³ Differences among men and women were noted by Rinehart. These differences were the result of the programs men and women selected and sexual stereotypes rather than a result of individual or group aptitudes. Women, for example, were overrepresented in teacher education and other fields where transfer arrangements were more flexible. However, women were underrepresented in such programs as engineering, where students often took more than four years to complete their degrees.⁴⁴ A variety of findings had been noted on what effect the gender of the student had upon attrition. Astin,⁴⁵ Demos,⁴⁶ and Nelson,⁴⁷ found women to have higher retention rates than men. However, Panos and Astin,⁴⁸ and Tinto⁴⁹ found men more likely to persist through to graduation.

Cope and Hannah organized information concerning attrition around a number of variables which they cited as positively or negatively related to student attrition.⁵⁰ A summary of their treatment of the relationship between student sex and retention illustrates their findings. They concluded that there was no interaction between a student's sex and retention in that the men gave no reasons for dropping out

that were different from those given by women. And, in general, neither males nor females were more likely to drop out.⁵¹

Several studies, including ones by Blanchfield,⁵² and Kossman and Kirk⁵³ contradicted general assumptions about high school performance as a predictor of college success and retention. However, other studies supported that assumption including research by Astin⁵⁴ and Waller.⁵⁵

Information found by Marks,⁵⁷ Sewell and Shah,⁵⁸ and Trent and Ruyle⁵⁹ indicated that students with a low level of commitment to college were more likely to drop out. If there were a typical dropout, he/she was found to be uncertain about the value of college, about what major to select, and what career to pursue.⁶⁰

In reviewing attrition theories identified in the literature, the work of three writers stood out.

Kamens contended that attrition could be explained by an institution's social character and size. He believed that the large and more prestigious institutions exerted greater holding power over students by means of their stronger status-allocating roles. Students were given a greater choice and possibility of access to a broad range of vocations and economic groups outside the academic profession because these institutions had a variety of professional schools and programs available on-campus and an established network of corporate recruiters and alumni of these programs. Students were

dependent on the college or university for access to these opportunities. Therefore, their commitment to the institution was greater, and they were more likely to stay enrolled.⁶¹

An interactional theory, developed by Rootman, asserted that voluntary withdrawal was functionally related to the goodness of the "person-role" fit between the individual and the normative environment of the institutional world he/she inhabited. If the fit were a poor one, the individual experienced strain, and withdrawal became a mechanism for coping when tension grew too great.⁶²

William Spady developed another interaction model which contended that personal attributes such as dispositions, interest, attitudes, and skills interacted with environmental influences and sources of demand such as courses, faculty members, administrators, and peers. Through this interaction a student had the opportunity for successful assimilation. Whether a student left or remained was greatly influenced by the sufficiency of the rewards he/she found with these systems.⁶³

Perhaps of all the models addressed in the literature, Tinto's was the most elaborate. Tinto's model sought to distinguish conceptually between those interactional patterns which led to varying forms of dropout behavior normally classified under attrition. He attempted to distinguish between those behaviors that led to academic dismissal and those that led to voluntary withdrawal from the institution.⁶⁴

Tinto explained:

Given individual characteristics, prior experience, and commitments, . . . it is the individual's integration into the academic and social systems of the college that most directly relates to his continuance in that college. Given prior levels of goal and institutional commitment it is the person's normative and structural integration into the academic and social systems that lead to new levels of commitment. Other things being equal, the higher the degree of integration of the individual into the college systems, the greater will be his commitment to the specific institution and to the goal of college completion.⁶⁵

Because of confusion and lack of understanding or explanation in retention research, Tinto developed his theoretical model of dropout behavior, derived in part from Durkheim's theory of suicide, and economic notions of cost-benefit analysis. Tinto argued that the process of interaction between the individual student and the academic and social systems of the college during which a person's experiences in these systems would continually modify his goal and institutional commitments in ways which led to persistence and/or to varying forms of dropout.⁶⁶

According to Tinto:

Individuals enter institutions of higher education with a variety of attributes . . . pre-college experiences . . . and family backgrounds, . . . each of which had direct impacts upon performance in college . . . and influence the development of the educational expectations and commitments the individual brings with him into the college environment.⁶⁷

Student Retention in American Higher Education

In examining the literature concerning how successful or effective retention programs have been, Kermerer, Baldrige,

and Green seemed to have the best handle on the retention efforts of higher education institutions. They concluded that most colleges and universities have not done much in trying to lower attrition rates. The three researchers noted several reasons retention programs have not been effective, including organizational and administrative barriers. They noted:

. . . comparing retention activities to recruitment efforts. From an organizational and administrative viewpoint recruitment is significantly different in that: (1) it has a central administrative office, (2) success or failure is easy to evaluate, (3) resources (money, personnel, equipment) are clearly assigned, and (4) responsibility is highly centralized so that changes can be made directly by top managers. In short, recruitment is a centralized, focused, well staffed, administrative function--and administrators can do something about it.⁶⁸

By contrast, retention has almost exactly opposite organizational and administrative characteristics. Who is in charge of retention? How do you evaluate the effort, and what administrators can be held responsible? Just how visible is the effort to the campus community? The answer to these questions suggests that retention efforts are decentralized, difficult to evaluate, not under the jurisdiction of a single administrator, are an administrative nightmare, and they do not have a focal point. Nevertheless, every institution must now consider how to change this situation, how to have an impact on the retention problem.⁶⁹

Although there have been many retention studies, one of the largest is the National Longitudinal Study of the High School Class of 1972. These data included information on nearly 22,000 students attending 1,800 two- and four-year institutions, excluding vocational and technical facilities.

Peng and Feters concluded: 1) women were more likely to drop out of two-year institutions; 2) when all other factors

were controlled, Whites were more likely to drop out; 3) the three variables, high school program, educational aspiration, and college grades accounted for the greatest variance; and 4) financial aid was not a significant factor in retention.⁷⁰

Many variables were involved when looking at retention studies. Felice was interested in the prediction of Black retention and was able to classify dropouts and persisters 84 percent of the time through the utilization of such variables as: student perception of structure openness, perceived school racial discrimination, and the behavior and expectations of teachers.⁷¹ Another variable used in retention studies was the personality characteristics of withdrawers and persisters. Hannah, using this variable, found that withdrawers were more impulsive, complex, anxious, and withdrawn as well as less personally integrated.⁷²

As a result of retention studies, several authors identified strategies and gave suggestions for improving student retention. Lenning, Beal, and Sauer noted six strategies that institutions could use to improve retention including: 1) improved faculty-student interaction; 2) improved peer interactions; 3) responsiveness to student complaints and expressed needs; 4) many on-campus, part-time work opportunities provided; 5) a meaningful and accurate picture of the institution presented; and 6) improved instruction and academic programs.⁷³

Noel also suggested a 14-step approach for implementing campus retention. Those steps were: 1) establishing a steering committee; 2) determining dropout rate; 3) conducting dropout study; 4) conducting self-study; 5) establishing task committees within units; 6) increasing faculty and staff awareness and encouraging attitude of serving students; 7) building a marketing approach into recruitment; 8) developing a meaningful orientation program; 9) building a strong counseling/advising program; 10) providing career-planning for undecided students; 11) providing support for students with marginal credentials; 12) building an early warning system to identify dropouts; 13) setting up exit interview processes; and 14) instituting a reward system for good teaching and advising.⁷⁴

Oklahoma State University Retention Studies

Attrition studies at Oklahoma State University have been conducted at the department, college, and university levels. In order to research the attrition/retention problem at OSU, an ad hoc committee was formed to study the experience of freshmen who entered the University in 1975 and 1976. Results were not unlike those found at the national level. The committee reported:

Four years after entering the university, 50.6 percent of the 1975 class of new freshmen had left without completing a degree. For the 1976 entering freshmen, this attrition rate increased to 53.8 percent during

their four years of study. Although these attrition rates are only slightly higher than the national findings, the graduation rate of the 1975 freshmen class was only 40.1 percent after five years of study. This is far below a 53 percent five-year graduation average for the 148 four-year public institutions participating in a recent ACT/NCHEMS study.⁷⁵

Another attrition study was conducted during the 1978-79 school year by the Office of the Vice-President for Student Services and the Division of Single Student Housing. According to Schmitz, the study was conducted to determine if any increase in withdrawals observed during the fall of 1978 was due to factors under the control of the University. It also provided an opportunity to evaluate the services provided in the residence halls.⁷⁶ Schmitz sought to discover what had caused the student withdrawals during the fall 1980 semester.

As a result of her findings Schmitz concluded:

Officials at Oklahoma State University must work together to create an environment which encourages students to stay in school. The base of this environment must be concern offered by everyone at the university.⁷⁷

Since that time other studies have been conducted. Two major studies were conducted for the Office of Student Academic Services by Dr. Ruth H. Krieger and Dr. Stephen Miller. One study looked at students who were accepted but did not attend classes at OSU. The study reported:

This study surveyed 292 students who had enrolled at OSU but did not actually attend classes. Of those 292 students, only 58 were not enrolled full-time in another institution of higher education.

Students who were enrolled elsewhere were of primary interest. Of this group, students with higher ACT composite levels were more likely to be enrolled in

comprehensive and four-year universities, whereas students with lower ACT scores were more likely to be enrolled in junior colleges.

Scholarships were generally held to be the most important single reason for students to attend schools other than OSU. Campus atmosphere and location were also an extremely important single reason. Reasons were somewhat likely to differ between those attending junior colleges and those attending other types of schools.⁷⁸

Another study was conducted examining students who were enrolled at OSU during the fall semester of 1984, who were in good standing, but who did not return to the University for the spring semester. The study focused on identifying those students, developing a profile of their characteristics, and answering three basic questions about them: 1) What are they doing at the present time; 2) Why did they leave the University; and 3) What are their future plans?⁷⁹

After analyzing the results, Krieger and Miller noted:

Some specific items stand out in the study results. First, financial problems are very real, but may not be as intractable as they seem at first glance. 'Unexpected expenses' can be budgeted for; consumer finance is a skill which can be learned. The number of students planning to enroll full-time during the summer or fall indicates that students are coping with their financial problems and looking ahead. Our problem, of course, is to show them that OSU can help them in coping.

Second, students are realistic about poor performance on their own part, and see it as a reason to leave. Helping them to perform more effectively will remove that reason while fulfilling our mission as a university.

Third, a segment of our student market does not see OSU as a friendly 'home,' and has problems with its size and perceived coldness. This is an image problem, as well as a problem of familiarity. The earlier phase of our study, focusing on enrollment

of freshmen, found the same result. We must stress the many benefits OSU can offer simply because it is a large facility with many resources. Even more important, we must refute the charge of unfriendliness through public relations, promotion, and--most important--attention to student needs.

While these factors affect all levels, the problem is greatest at the freshman and sophomore levels. These groups appear most vulnerable to the three problems mentioned above. Furthermore, at this stage of education, they can turn to a variety of junior colleges as well as to small four-year colleges if their experience at OSU is not positive.⁸⁰

Summary

This review of the literature, dealing with marketing, attrition, and retention, is just a selected sample of the information available concerning these topics. This has been an attempt to investigate some of the important issues involved. Although administrators must realize that a certain amount of attrition is expected, they must constantly seek ways to combat this problem. As Gardiner and Nazari-Robati noted:

There are limits to the degree to which retention strategies can affect fiscal and enrollment change, because the dropout will always be part of American higher education.

However, within these limits, effective use of selected retention strategies can assist institutions of higher learning in stemming the ebbing tide of decline. The future belongs to those colleges and universities that make the quality of student life their primary mission.⁸¹

ENDNOTES

¹Scott M. Cutlip, "Advertising Higher Education: The Early Years of College Public Relations," College and University Journal, Vol. 9 (1970), p. 21.

²Philip Kotler, Marketing for Nonprofit Organizations (Englewood Cliffs, N.J., 1975), p. x.

³National Center for Education Statistics, Projections of Educational Statistics to 1984-85 (Washington, D.C., 1979), p. 124.

⁴Carnegie Council on Policy Studies in Higher Education, Three Thousand Faces: The Next Twenty Years in Higher Education (San Francisco, 1980), p. 32.

⁵Carol Frances, College Enrollment Trends: Testing the Conventional Wisdom Against the Facts (American Council on Education, Washington, D.C., 1980), p. 46.

⁶David W. Breneman, The Coming Enrollment Crisis: What Every Trustee Must Know (Washington, D.C., 1982), p. 9.

⁷Jerome E. McCarthy, Basic Marketing: A Managerial Approach (Homewood, Ill., 1975), p. 694.

⁸Fred J. Alexander, "Administrative Opinions Concerning Utilization of Marketing Strategies in Management of Higher Education Institutions in the United States" (unpub. Ed.D. dissertation, Memphis State University, 1978), p. 183.

⁹Edward T. White, "The Development of a Handbook for Marketing the Community College" (unpub. Ed.D. dissertation, Virginia Polytechnic Institute, 1980), p. 73.

¹⁰John Anthony Brown, "The Role of Academic Programs in Institutional Marketing," in David W. Barton, Jr. (ed.), Marketing Higher Education: New Directions for Higher Education, Vol. 6, No. 1 (1978), p. 3.

¹¹Patrick E. Murphy and Richard A. McGarrity, "Marketing Universities: A Survey of Student Recruitment Activities," College and University Journal, Vol. 53 (1978), p. 253.

¹²Kotler, Marketing for Nonprofit Organizations, p. x.

¹³Ibid., p. ix.

¹⁴Ibid., p. x.

¹⁵Philip Kotler, "Applying Marketing Theory to College Admissions," A Role for Marketing in College Admissions (New York, 1976), p. 57.

¹⁶Ibid., pp. 56-66.

¹⁷Charles R. Fowler, "Making Marketing Work: How a Coordinated Approach Improved a College's Enrollment, Retention, and Public Image," CASE Currents, Vol. 9, No. 10 (1983), pp. 20-22.

¹⁸Ibid.

¹⁹Christopher Lovelock and Michael L. Rothchild, "Uses, Abuses, and Misuses of Marketing in Higher Education," Marketing in College Admissions: A Broadening of Perspectives (New York, 1980), p. 45.

²⁰Ibid, p. 47.

²¹John A. Lucas, Developing a Total Marketing Plan: New Directions for Institutional Research (Washington, D.C., 1979), p. 87.

²²Ibid.

²³John J. Gardiner and Ali Nazari-Robati, "Student Attrition Research: Implications for Retention Strategies," NASPA Journal, Vol. 20, No. 3 (1983), p. 26.

²⁴Ernest R. Leach, "Implementing the Marketing Process," Community and Junior College Journal, Vol. 48 (1977), pp. 20-24.

²⁵Dennis L. Johnson, "New Tools for the Creative Manager," Community and Junior College Journal, Vol. 20 (1980), pp. 28-32.

²⁶Barbara S. Uehling, "Marketing and the Future of Institutions," Marketing in College Admissions: A Broadening of Perspectives (New York, 1980), pp. 132-147.

²⁷Philip Kotler and Sidney J. Levy, "Broadening the Concept of Marketing," Journal of Marketing, Vol. 33 (1969), pp. 10-15.

²⁸Margaret C. Weirich, "A Marketing Case History Profile," in David W. Barton, Jr. (ed.), Marketing Higher Education: New Directions for Higher Education, Vol. 6, No. 1 (1978), pp. 65-76.

²⁹Webster New Collegiate Dictionary, ed. Henry Bosley Woolf (Springfield, Mass., 1979).

³⁰Vincent Tinto, "Dropout From Higher Education: A Theoretical Synthesis of Recent Research," Review of Educational Research, Vol. 45, No. 1 (1975), p. 91.

³¹Alexander W. Astin, Predicting Academic Performance in College (Free Press, New York, 1971), pp. 174-201.

³²Alexander W. Astin and R. J. Panos, The Educational and Vocational Development of College Students (American Council on Education, Washington, D.C., 1969), pp. 9-21.

³³Robert G. Cope, "Types of High Ability Dropouts Who Continue in College," The North Central Association Quarterly, Vol. 44, No. 2 (Fall, 1969), pp. 253-256.

³⁴Richard C. Devecchio, "Characteristics of Nonreturning Community College Freshmen," Journal of College Student Personnel, Vol. 13, No. 5 (September, 1972), pp. 429-432.

³⁵Donald K. Pumroy, "Cigarette Smoking and Academic Achievement," The Journal of General Psychology, Vol. 77 (July, 1967), pp. 31-34.

³⁶Alexander Astin, Preventing Students From Dropping Out (San Francisco, 1977), p. 45.

³⁷Carl Simpson, , A Dropout is a Dropout . . . A Comparison of Four Different Types of University Dropouts (California University Institute for Research in Social Behavior, Berkeley, 1977), p. 4. (ERIC Document Reproduction Service No. ED 153 543)

³⁸D. L. Coker, Diversity of Intellectual and Non-intellectual Characteristics Between Persisting and Non-persisting Students Among Campuses (Office of Education, Washington, D.C., 1968). (ERIC Document Reproduction Service No. ED 033 645)

³⁹K. A. Feldman and M. Newcomb, The Impact of College Students (Vol. 1) (San Francisco, 1969).

⁴⁰V. S. Sexton, "Factors Contributing to Attrition in College Populations: Twenty-five Years of Research," Journal of General Psychology, Vol. 12 (1965), pp. 301-326.

⁴¹B. M. Suddarth, "Factors Influencing the Graduation of Freshmen Who Enroll at Purdue University." (Unpublished report, Purdue University, June, 1957).

⁴²M. Thompson, "Admission Information as Predictors for Graduation" (unpub. master's thesis, Cornell University, 1953).

⁴³R. G. Cope and W. Hannah, Revolving College Doors: The Causes and Consequences of Dropping Out, Stopping Out, and Transferring (New York, 1975), p. 79.

⁴⁴Richard Rinehart, "Assessing Successful Articulation of Transfer Students," New Directions for Community Colleges (San Francisco, 1972), p. 43.

⁴⁵Astin, Preventing Students From Dropping Out, p. 46.

⁴⁶G. D. Demos, "Analysis of College Dropouts--Some Manifest and Covert Reasons," Personnel and Guidance Journal, Vol. 46 (1964), pp. 681-684.

⁴⁷A. G. Nelson, "College Characteristics Associated with Freshman Attrition," Personnel and Guidance Journal, Vol. 44 (1969), pp. 290-298.

⁴⁸R. J. Panos and A. W. Astin, "Attrition Among College Students," American Educational Research Journal, Vol. 5 (1968), pp. 57-72.

⁴⁹Tinto, "Dropout From Higher Education: A Theoretical Synthesis of Recent Research," pp. 89-125.

⁵⁰Cope and Hannah, Revolving College Doors: The Causes and Consequences of Dropping Out, Stopping Out, and Transferring, p. 81.

⁵¹Ibid.

⁵²W. C. Blanchfield, "College Dropout Identification: A Case Study," Journal of Experimental Education, Vol. 40 (1970), pp. 1-4.

⁵³J. E. Rossman and B. A. Kirk, "Factors Related to Persistence and Withdrawal Among University Students," Journal of Counseling Psychology, Vol. 17 (1970), pp. 56-62.

⁵⁴Astin, Predicting Academic Performance in College, pp. 174-201; Financial Aid and Persistence, p. ; and Preventing Students From Dropping Out, p. 45.

⁵⁵C. Waller, "Research Related to College Persistence," College and University, Vol. 38 (1964), pp. 281-294.

⁵⁶T. J. Pantages and C. F. Creedon, "Studies of College Attrition: 1950-1975," Review of Educational Research, Vol. 48 (1978), pp. 49-101.

⁵⁷E. Marks, "Student Perceptions of College Persistence, and Their Intellectual, Personality, and Performance Correlates," Journal of Educational Psychology, Vol. 58 (1967), pp. 210-221.

⁵⁸H. W. Sewell and V. P. Shah, "Socioeconomic Status, Intelligence, and the Attainment of Higher Education," Sociology of Education, Vol. 40 (1967), pp. 1-23.

⁵⁹J. W. Trent and J. Ruyle, "Variation, Flow, and Patterns of College Attendance," College and University, Vol. 41 (1965), pp. 61-76.

⁶⁰Feldman and Newcomb, The Impact of College Students, p. .

⁶¹David H. Kamens, "The College 'Charter' and College Size: Effects in Occupational Choice and College Attrition," Sociology of Education, Vol. 44 (Summer, 1971), pp. 280-286.

⁶²Irving Rootman, "Voluntary Withdrawal From a Total Adult Socialization Organization: A Model," Sociology of Education, Vol. 45 (Summer, 1972), pp. 261-268.

⁶³William G. Spady, "Dropouts From Higher Education: Toward an Empirical Model," Interchange, Vol. 2 (July, 1970), pp. 49-58.

⁶⁴Tinto, "Dropout From Higher Education: A Theoretical Synthesis of Recent Research," pp. 103-119.

⁶⁵Ibid., pp. 89-129.

⁶⁶Ibid.

⁶⁷Ibid.

⁶⁸Frank R. Kermerer, Victor J. Baldrige, and Kenneth C. Green, Strategies for Effective Enrollment Management (Washington, D.C., 1982), pp. 102-103.

⁶⁹Ibid.

⁷⁰S. S. Peng and W. B. Feters, "College Student Withdrawal: A Motivational Problem." Paper presented at the meeting of the American Educational Research Association (New York, 1977). (ERIC Document Reproduction Service No. ED 148 206)

⁷¹L. G. Felice, "Black Student Dropout Behavior: Disengagement From School Rejection and Racial Discrimination." Paper presented at the meeting of the American Educational Research Association, (1980). (ERIC Document Reproduction Service No. ED 185 181)

⁷²W. Hannah, "Personality Differentials Between Lower Division Dropouts and Stay-ins," Journal of College Student Personnel, Vol. 12 (1971), pp. 16-19.

⁷³O. T. Lenning, P. E. Beal, and K. Sauer, "Attrition and Retention: Evidence for Action and Research," (National Center for Higher Education Management Systems, Boulder, Colo., 1980), pp. 96-98.

⁷⁴Lee Noel, "First Steps in Starting a Campus Retention Program," in Lee Noel (ed.), Reducing the Dropout Rate, New Directions for Higher Education, Vol. 5, No. 3 (1978), pp. 87-98.

⁷⁵Tom Keys, , Final Report of the Ad Hoc Committee on Student Retention (Unpublished report, Oklahoma State University, 1981), p. 3.

⁷⁶Carol Ann Schmitz, "A Follow-up Study of Residents Who Voluntarily Withdrew from Oklahoma State University" (unpub. master's thesis, Oklahoma State University, 1980), p. 5.

⁷⁷Ibid., p. 48.

⁷⁸Ruth H. Krieger and Stephen Miller, Students Who Are Accepted But Do Not Attend Classes At Oklahoma State University (Unpublished report for the Office of Student Academic Services, Oklahoma State University, 1985), p. executive summary.

⁷⁹Stephen Miller and Ruth Krieger, Fall to Spring Retention Study (Unpublished report for the Office of Student Academic Services, Oklahoma State University, 1985), p. 1.

⁸⁰Ibid., p. Implications and Strategies.

⁸¹Gardiner and Nazari-Robati, "Student Attrition Research," p. 32.

CHAPTER III

METHOD AND PROCEDURE

The purpose of this chapter is to describe the population, the sample, the survey instrument, data collection, and data analysis used in responding to the research questions identified in Chapter I.

Population and Sample

The population of this study included freshmen and sophomores enrolled at Oklahoma State University (OSU) between 1984 and 1986 and freshmen and sophomores who were previously enrolled at OSU during 1984 to 1986. The sampling for this survey included 500 students who were enrolled during this period and 700 former students. The students were selected by random sample as individuals to represent the larger groups from which they were selected.

The students were chosen by a random sampling method. Gay defines random sampling as "the process of selecting a sample in such a way that all individuals in the defined population have an equal and independent chance of being selected for the sample."¹

Gay also noted:

Random sampling is the best single way to obtain a representative sample. No technique, not even random sampling, guarantees a representative sample, but the

probability is higher for this procedure than for any other.²

The random sampling, which included names and addresses, was provided by the Office of Institutional Research at OSU with permission of the Office of the Assistant Vice-President for Student Academic Services.

Instrument

Descriptive research was utilized in this study with a survey or questionnaire serving as the data-obtaining instrument. Gay explains the survey method:

A survey is an attempt to collect data from members of a population in order to determine the current status of that population with respect to one or more variables. Populations may be broadly defined, such as the American voting public, or narrowly defined, such as all parents of school-age children in Teenytown, USA. Determining 'current status . . . with respect to some variable' may involve assessment of a variety of types of information such as attitudes, opinions, characteristics, and demographic information.³

The instrument used in this study included 21 questions and was a modified version of a survey developed by Carol L. Everett at Pennsylvania State University in 1979.⁴

Even though the survey instrument basically has already been used and validated, this survey was submitted to expert judges to be tested for validity and reliability. The importance of reliability was explained by Gay:

Basically, reliability is the degree to which a test consistently measures whatever it measures. The more reliable a test is, the more confidence we can have that the scores obtained from the administration of the test are essentially the same scores that would be obtained if the test were readministered.⁵

In order to assess the reliability of the questionnaire, it was administered to a test group of graduate students currently enrolled at OSU.

Data Collection

Data were collected through two questionnaires. A 21-item questionnaire was sent to students who had left OSU, and a 13-item questionnaire was sent to students currently enrolled. The questions dealt with: 1) students' perceptions of their major, academic advisor, and the quality of classroom instruction; 2) participation in extracurricular activities; 3) types of residential experiences; 4) interactions with various counseling services; 5) methods of financing educational costs; and 6) goal commitments and educational expectations.

A follow-up survey was used in cases in which a student did not respond to the initial mail-out. This follow-up encouraged participation and stressed the importance of the data to Oklahoma State University (Appendix A).

Data Analysis

Analysis of the data involved descriptive statistics for most of the survey and Chi-Square when comparing groups for selected questions of the questionnaire.

ENDNOTES

¹L. R. Gay, Educational Research: Competencies for Analysis and Application (Columbus, Oh., 1981), p. 85.

²Ibid., p. 88.

³Ibid., p. 155.

⁴Carol L. Everett, An Analysis of Student Attrition at Penn State (Unpublished report, The Pennsylvania State University Office of Planning and Budget, Planning and Research Group, University Park, Penn., 1979).

⁵Gay, Educational Research: Competencies for Analysis and Application, p. 116.

CHAPTER IV

ANALYSIS OF THE DATA

The purpose of this study was to analyze the attrition/retention situation at Oklahoma State University (OSU) among freshman and sophomore students. To help assess the causes of attrition and retention, the following questions were asked:

1. What are the characteristics and concerns of first- and second-year students who stay at OSU?

2. What are the characteristics and concerns of first- and second-year students who leave OSU?

3. Are there any differences in the characteristics and concerns of first- and second-year students who stay at OSU and those who leave OSU?

4. What policy changes might be recommended for OSU as a result of this analysis?

In order to assess the situation, two survey questionnaires were used. One instrument was sent to 700 students who left OSU, while another survey was mailed to 500 students who were still enrolled at OSU between 1984 and 1986.

After the initial mailing, 148 students who left OSU responded, with 43 surveys not delivered. This left 509 other students available for the follow-up mailing. The follow-up mailing produced 79 respondents for a total of 227 students or 32 percent return.

Of the students enrolled between 1984 and 1986, 164 responded to the first mailing and 70, answered the follow-up mailing. Twenty-seven surveys were not delivered, and 309 students were available for the follow-up. As a result, 234 students enrolled between 1984 and 1986 responded, producing a 47 percent return.

Because the OSU Office of Institutional Research was unable to share phone numbers, a follow-up via telephone to non-respondents was not possible (Appendix B). However, according to Miller and Smith, a comparison of early and late respondents was still possible. They explain:

Research has shown that late respondents are often similar to nonrespondents. Thus, one way to estimate the nature of the replies of nonrespondents is through late respondents. Late respondents are statistically compared to early respondents using the evaluation data to justify generalizing from the respondents to the sample.

If data on the characteristics are unavailable, available evaluation data can be used with this technique. Respondents can be dichotomized into those that respond early and those that respond late. These two groups can be compared statistically to determine differences between the groups. With late respondents assumed typical to nonrespondents, if no differences are found, then respondents are generalized to the sample. If differences are present, data are weighted proportionately for determining the statistics to describe the sample.¹

When looking at the two groups, students who left OSU and students who stayed, comparing early respondents with late respondents within the two groups, and using Chi-Square at the .05 level, there was no significant difference between the early respondents and the late respondents (Appendix C).

Students in both groups were asked to answer questions regarding: 1) students' perceptions of their major, academic advisor, and the quality of classroom instruction; 2) participation in extracurricular activities; 3) types of residential experiences; 4) interactions with various counseling services; 5) methods of financing educational costs; and 6) goal commitments and educational expectations.

Students Who Stayed

In answering the first question regarding characteristics and concerns of first- and second-year students who stayed at OSU, it appeared that those students were involved in the total university experience.

A profile of a student who stayed seems to include a student who is involved in a social sorority/ fraternity, one who is sure about completing a degree at OSU, he/she is relatively pleased with the quality of instruction and advising, is involved in extracurricular activities, is willing to work part-time to help support their education but relies on additional support from parents or a spouse. Forty-four percent of the students who replied had lived on-campus in a dorm, and another 28 percent had lived in a sorority or fraternity house.

Students who stayed were pleased with the quality of instruction and advising at OSU. Ninety-four percent were at least moderately satisfied with the quality of instruction,

and the majority rated advising above average, with regard to advisor availability and advisor's performance in class scheduling and selection.

One noticeable characteristic of students who stayed was that the majority had already selected a major and were pleased with that selection. Forty-three percent admitted changing majors at least once, but that decision seemed to be a positive influence regarding their stay at OSU.

Also noticeable was the involvement of those students in extracurricular activities. In each of the ten categories, the majority of the students who stayed were at least slightly to moderately involved.

In addition, this group was confident of goals since 83 percent listed intentions to complete their degree at OSU while 73 percent of the students noted that OSU was their university of first choice.

Students who stayed took advantage of the various areas of counseling, with financial counseling and career counseling being the most popular.

Financing their education was important to students who stayed. Although several worked part-time either on- or off-campus, the majority (73 percent) relied more on parental or spousal support than any other category of financial assistance.

Students Who Left

When examining the characteristics and concerns of first- and second-year students who left OSU, it was apparent that although some of the respondents were involved in aspects of the total college experience, many were not. Of the students who left, only a small percentage (14 percent) lived in a social fraternity or sorority house, while the majority (56 percent) lived in a dorm for at least a short time.

Eighty-four percent of the students who left showed at least moderate satisfaction with the quality of instruction, 71 percent were at least moderately satisfied with their advisor with regard to class scheduling and selection, and 68 percent were at least moderately satisfied with the availability of their advisor.

Twenty-four percent of the students who left entered OSU without a definite major, and another 16 percent were not at least moderately satisfied with their major. Seventy-one students (32 percent) changed their majors while at OSU, and 16 of those students changed majors two or more times.

Although the students who left were involved in extracurricular activities, the group showed more involvement in intramurals or sports clubs than any other area.

The majority of students (70 percent) entered OSU with intentions of completing their degrees, while 10 percent did not intend to finish a degree program and 20 percent did not know. Oklahoma State University was listed as the first

choice of an educational institution by 80 percent of those who left.

When rating the helpfulness of counseling services at OSU, the students who left were not pleased. Of the various counseling services offered: (i.e., career counseling, psychological counseling, financial counseling, academic counseling [other than advisor], and other types of counseling), only career counseling was rated moderately helpful or better by at least 48 percent of the students.

Students who left were willing to work to help finance their education, however, the majority (68 percent) relied on support from parents or spouses, e.g., 58 percent of those students financed 81 percent or more of the total cost of their last semester through support from parents or spouse.

Comparison of Students Who Left with Students Who Stayed

After comparing the data from students who left OSU with the data from those students who stayed at OSU using different variables, there was a significant difference, via Chi-Square at the .05 level, in 12 of those variables (Appendix D).

The significant differences in answers or responses were found in the following categories: 1) where they lived or live at OSU; 2) perceptions of the quality of instruction at OSU; 3) perceptions of advisors at OSU; 4) attitude toward major field of study; 5) involvement in extracurricular acti-

vities at OSU; 6) degree goals; and 7) how they financed their last semester at OSU. Two categories; 1) was OSU your first choice for a college or university; and 2) perceptions toward counseling at OSU, produced no significant differences.

Students were given the choice of five selections in describing student residences while at OSU. The choices were dorm, home, apartment/room/trailer, sorority/fraternity, and other residence. Type of residence was a strong and significant contributor in the two groups in both off-campus living, such as apartment/room/trailer, and on-campus living when it involved residing in a sorority/fraternity.

Forty-four percent of those students who stayed at OSU lived in an apartment/room/trailer compared to 28 percent of those students who left. Clearly, living in a sorority/fraternity had a positive effect upon persistence. Twenty-eight percent of those students who remained at OSU lived or had lived in a sorority or fraternity compared to just 14 percent of the total dropout group (Appendix D, Tables IX and X).

The results of this study do not support Astin's contention that the most important environmental characteristic associated with college persistence is living in a dormitory during the freshman year.² There was not a significant difference in the two groups with regard to living in a dorm (Appendix D, Tables IX and X).

Data dealing with how students perceived the quality of instruction at OSU revealed a significant difference between the two groups. Respondents were asked to rate the quality of instruction on a scale of one to five with one being least satisfactory and five being most satisfactory. Students who stayed at OSU rated the quality of instruction noticeably higher than did the students who left. Ninety-four percent of the persistors rated instruction as either satisfactory or better than satisfactory, while 84 percent of the students who left gave the same rating (Appendix D, Tables IX and XI).

When rating instruction as less than satisfactory, the students who left were least satisfied, with 17 percent of the group showing disapproval while only 7 percent of the students who stayed rated the quality of instruction below average (Appendix D, Tables IX and XIX).

Although not a great variance, there was a difference in how the two groups rated faculty/academic advisor with regard to assistance in class selection and scheduling. They were asked to rate the advisors on a scale of one to five, with one being least satisfactory and five being most satisfactory. Students who stayed gave a more favorable rating than did those who left (Appendix D, Tables XII and XIX).

Perhaps one of the most revealing areas of the study dealt with the major field of study. The two groups were asked questions about three different aspects of their major. They were asked whether they had chosen a major,

whether they had changed majors, and if so, how many times, and how satisfied, using the one to five scale, they were with their major (Appendix D, Tables XIII and XIX).

There was a significant difference in responses in each of the three areas. With regard to selecting a major, the students who had majors and stayed (89 percent) outnumbered those who left having majors (76 percent), and those students who stayed also changed majors more often than those who left. Of those students who stayed and changed majors, 30 percent changed more than once.

The student's satisfaction with his/her major was based on how the respondent felt about his/her major with regard to curriculum content and number of courses offered. Results showed that students who stayed were more satisfied with their major than those who left OSU (Appendix D, Tables XIII and XIX).

These data seem to support Tinto's contention that the more a student is integrated into the academic system of the institution the better chance that student has of staying at the institution.³

Tinto's integration theory is also supported by this study when considering extracurricular activities of students. Results showed that more students who stayed were involved in extracurricular activities than those students who left. Appendix D, Table XIV shows that of ten categories,

students who stayed outnumbered those who left in all but two areas.

Students were asked to describe their involvement in extracurricular campus activities and rate that involvement on a scale of one to five with one being least involved and five being very involved. Categories included residence hall organizations, student council, professional fraternities or honor societies, special interest organizations (e.g., language clubs, theatre groups, wildlife societies), national organizations, religious or spiritual groups, social sororities or fraternities, student government, intramurals or sports clubs, and other organizations or activities.

Although more students who stayed were involved, just two of the categories showed a significant difference using Chi-Square at the .05 level (Appendix D, Tables IX, XIV, and XIX). Students who stayed were noticeably more involved in student council activities than those who left, and the students who stayed also participated more in social fraternities or sororities than those who left.

Somewhat surprisingly, the Chi-Square analysis did not indicate a significant difference between the two groups with regard to participation in intramurals or sports clubs. These activities were popular with both groups, with more than 50 percent of each group listing at least moderate involvement.

The survey also asked students whether they intended to complete their degrees when they enrolled at OSU. A

significantly greater proportion of students who stayed (83 percent) indicated their intention to complete their degrees than did those students who left (70 percent). When asked if OSU was their first choice as a higher education institution, there was not a significant difference between the two groups (Appendix D, Tables IX, XV, and XVI).

Perceptions of five categories of counseling was another area respondents were asked to assess. They were instructed to rate, on a one to five scale, with five being most helpful, how helpful psychological, career, financial, academic, and other types of counseling have been at OSU. None of the five categories showed a significant difference between the two groups.

Career, financial, and academic counseling other than advisement were the three areas in which students received the most help (Appendix D, Table IX). When rating the usefulness of the counseling, the average ratings of the students who stayed were consistently higher than those of the students who left (Appendix D, Table XIX).

Both groups of students were asked to estimate how they financed their last semester at OSU by using eight different categories of financial support. The categories were: on-campus work; savings; employer support; loans; scholarships; off-campus work; parents and/or spouse support; and work-study programs. They were also asked to estimate the percentage of the total cost that each category funded and to estimate the

number of hours spent in working on- or off-campus (Appendix D, Table XVIII).

A significant difference between the two groups was seen in the amount of support from parents or spouses and in the number of hours worked off-campus. More students who stayed received support from parents or spouses than did those who left, and 42 percent of those who stayed financed at least 81 percent or more of the total semester cost with money from home (Appendix D, Tables IX and XVIII). Although more students who stayed worked at an off-campus job than did those who left, almost 68 percent of those who left worked 20 hours or more off-campus (Appendix D, Tables IX and XVIII).

Savings, loans, and scholarships were key areas of support for both groups, but more students who stayed relied on them than those who left. For example, 26 percent of those who stayed were on some form of scholarship compared to just 12 percent of those students who left (Appendix D, Tables IX and XVIII). These data seem to support Astin's contention that having a scholarship or any kind of campus job was associated with large reductions in attrition rates.⁴

Data-Suggested Policy Changes

Retaining students is a process that is influenced by every aspect of an institution. Recommending "stop-gap" or "quick-fix" programs will not solve retention problems. Before OSU can seriously address its attrition/retention

problem, more in-depth research should be done in each of the areas affecting students during their college experience. The quality of programs within each of the various aspects of a student's educational life is important to retention. Retention programs designed to retain students for the sake of the institution might work for a short time, however, Tinto disagrees with that strategy:

I will argue that the primary goal of effective retention programs should not be merely that more students be retained but that they be further educated. An institutional concern for retention, without regard to the question of the education of students, is a misplaced concern. It leads institutions to consider their own immediate interests--keeping students--without regard either to their own long-term educational interests or those of students. It is striking, though not surprising, that those institutions concerned with student welfare and with the quality of students' social and intellectual development retain students and attract those students more likely to be retained.⁵

Although OSU already has many ways of working with students to achieve student retention, the following policy changes are suggested based on the findings of this study:

1. Membership and participation in a social sorority or fraternity is a definite plus for retention. Therefore, better promotion of the Greek system through recruitment material is encouraged.

2. The quality of instruction, especially at the freshman level, is vital for retention. More emphasis should be placed on teaching; quality instruction should be given higher value when tenure, promotion, and salary increase decisions are made.

3. Faculty should be rewarded for outstanding service with regard to advising. Not every teacher can be a good advisor, and good ones should be recognized.

4. More emphasis should be given to career counseling or advising before the student enrolls at OSU or a comprehensive orientation program should at least be available upon enrollment.

5. Although Oklahoma State University has an excellent extra-curricular activity program, however, emphasis should be placed on ways to increase faculty/student interaction through these activities.

6. More emphasis with regard to degree goals and commitment should be made when screening students before enrollment, thus producing a better university/student "fit."

7. Counseling services are traditionally underused by college students. Therefore, it is suggested that more extensive orientation programs be developed to inform and encourage students to take advantage of the various services. More emphasis should be placed on taking the services to the students through residence halls, sororities and fraternities, and information booths at various functions.

8. The ability to finance a college education is becoming more difficult, therefore, more emphasis should be given to better educating students, before enrollment, about the total cost and the details connected with paying that cost. Students who realistically cannot finance the cost of

an education at OSU should be assisted in locating another institution (e.g., a community/junior college) which would be less expensive.

Although the previously mentioned suggestions are given in order to help the OSU retention effort, it is understood that, before they can be seriously considered or implemented, they must be weighed against alternative strategies that relate to other institutional priorities. Investing in additional retention efforts or programs is a decision that must be compared to the cost of improving recruitment efforts.

Implementing a successful retention program begins with the administration and a commitment to a philosophy that centers around the importance of the student's educational success. Even though each institution is unique and each retention program will have unique features, a central philosophy and commitment is vital. Noel explains:

In short, I have found that the real excitement today is taking place in institutions that understand the needs of their students who are coming in and then set into place programs, services, people, and attitudes designed to increase the competency base, knowledge, and skills of those students. Retention is highest at institutions that are committed to delivering the kind of educational experience that leads to learning and success. This is not surprising, for when students sense that they are learning, growing, developing, maturing, they will keep returning term after term for more of the same.⁶

ENDNOTES

¹L. E. Miller and K. L. Smith, "Handling Nonresponse Issues," Journal of Extension, Vol. 21 (1983), pp. 45-50.

²Alexander W. Astin, Preventing Students From Dropping Out (San Francisco, 1977).

³Vincent Tinto, "Dropout From Higher Education: A Theoretical Synthesis of Recent Research," Review of Educational Research, Vol. 54 (1975), pp. 89-125.

⁴Astin, p. .

⁵Vincent Tinto, "Dropping Out and Other Forms of Withdrawal From College," Increasing Student Retention, (San Francisco, 1985), p. 29.

⁶Lee Noel, Randi Levitz, Diana Saluri and Associates, "Increasing Student Retention," Increasing Student Retention (San Francisco, 1985), p. 24. •

CHAPTER V

FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

The study was obviously limited by its single-year sample. The tracking of students throughout the entire college experience would provide a more accurate picture of the attrition/retention situation at Oklahoma State University (OSU). Although the study did not produce any startling results, the following findings were discovered, and the following conclusions and recommendations may be made on the basis of these findings.

Findings

Of the students who lived in a dorm, more were students who stayed than who left. However, there was no significant difference in the two groups using Chi-Square at the .05 level.

Almost the same number of each group lived at home, thus producing no significant statistical difference. Of the students who lived in an apartment/room/trailer, more were students who stayed than who left. The results did show a significant statistical difference using Chi-Square at the .05 level. Of the students who lived in a sorority or fraternity house, more were students who stayed than those who left. This produced a significant difference using Chi-Square at the

.05 level. The results of students living in some other form of housing did not produce any significant statistical difference (Appendix D, Tables IX and X).

Students who left rated the quality of instruction at a lower level than did those who stayed. The results produced a significant difference at the .05 level (Appendix D, Tables IX and XI).

Students who left rated their advisor, with regard to class scheduling and selection, at a lower level than did those students who stayed. There was a significant difference at the .05 level. Students from both groups gave basically the same rating of advisors, with regard to availability, producing no significant statistical difference (Appendix D, Tables IX, XII, and XIX).

Of the students who declared a major, a higher percentage were students who stayed. The results produced a significant difference at the .05 level. Of the students who showed at least moderate satisfaction with their major, more were students who stayed. There was a significant difference at the .05 level. Of the students who changed majors at least twice, more were students who left. The results produced a significant difference at the .05 level (Appendix D, Tables IX, XIII, and XIX).

There was not a significant difference between the two groups regarding level of involvement in a residence hall organization. But, of the students who participated in the

college student council, more were students who stayed. Results produced a significant difference at the .05 level (Appendix D, Tables IX, XIV, and XIX).

There was no significant difference between the two groups in the level of involvement in an ethnic organization. Nor was there a significant difference between the two groups in the level of involvement in a religious or spiritual group (Appendix D, Tables IX, XIV, and XIX).

Of the students who participated in a social sorority or fraternity, more students who stayed listed more involvement than did those students who left. The results produced a significant difference at the .05 level (Appendix D, Tables IX, XIV, and XIX).

There was not a significant difference between the two groups regarding the level of involvement in student government, and there was no significant difference between the two groups regarding level of involvement in intramural sports or a sports club or in other types of extracurricular activities (Appendix D, Tables IX, XIV, and XIX).

Of the students who intended to complete their degrees at OSU, more were students who stayed. Of the students who were not sure about completing their degrees, more were students who left. There was a significant difference at the .05 level (Appendix D, Tables IX and XI). There was no significant difference between the two groups regarding listing OSU as the first college choice (Appendix D, Tables IX and XVI).

There was no significant difference between the two groups when rating the helpfulness of psychological counseling at OSU. Although there was not a significant difference between the two groups when rating the helpfulness of career counseling, of the students who received career counseling, more were students who stayed (Appendix D, Tables IX, XVII, and XIX).

Even though there was no significant difference between the two groups when rating helpfulness of financial counseling, of the students who received career counseling, more were students who stayed. There was no significant difference between the two groups when rating the helpfulness of academic counseling (other than advisor), and there was no significant difference between the two groups when rating the helpfulness of other types of counseling (Appendix D, Tables IX, XVII, and XIX).

When comparing the two groups with regard to the percentage of financial support gained from on-campus work, there was no significant difference (Appendix D, Tables IX and XVIII).

Although there was no significant difference between the two groups when comparing the number of hours worked per week on-campus, of the students who worked more than 20 hours a week on-campus, more were students who left (Appendix D, Tables IX and XVIII).

There was no significant difference between the two groups when comparing percentage of financial support from savings. Nor was there a significant difference between the two groups when comparing percentage of financial support from an employer (Appendix D, Tables IX and XVIII).

Although there was no significant difference between the two groups when comparing percentage of financial support from loans, more students who received loans were students who stayed (Appendix D, Tables IX and XVIII).

Although there was no significant difference between the two groups when comparing percentage of financial support from scholarships, of the students receiving scholarships, more were students who stayed (Appendix D, Tables IX and XVIII).

There was no significant difference between the two groups when comparing percentage of financial support from off-campus work. However, there was a significant difference between the two groups when comparing the number of hours worked off-campus. Of the student working off-campus more than 20 hours per week, more were students who left, thus producing a significant difference at the .05 level (Appendix D, Tables IX and XVIII).

There was a significant difference between the two groups when comparing percentage of financial support from parents and/or spouses. Of the students who received support from home, more were students who stayed. However, of the students who received more than 60 percent of financial support from

parents or spouses, more were students who left. Results produced a significant difference at the .05 level (Appendix D, Tables IX and XVIII).

There was no significant difference between the two groups when comparing percentage of financial support from a work-study program (Appendix D, Tables IX and XVIII).

Conclusions

On the basis of the previous findings, and in order to help the student retention effort at OSU, the following conclusions can be reached.

1. Because research indicated that students who live in and are members of a social sorority or fraternity have a better chance of staying enrolled at OSU, and as living on-campus does not necessarily mean a student has a better chance of staying enrolled at OSU, it was concluded that the holding power of the Greek system at OSU needs to be assessed and those aspects of the Greek system that translate into holding power could then be applied to the dorm system when feasible, as the dorms do not seem to have holding power (for example, a big brother/sister being assigned to incoming freshmen living in the dorm to help the student achieve a better student/university fit and make the transition to college easier).

2. According to the research, students who are involved in extracurricular activities have a better chance of staying enrolled at OSU, therefore, perhaps a broader base of

activities are needed for students (e.g., more clubs and organizations).

3. Results of the study showed that those students who seem to be sure about their intentions to complete a degree at OSU and those students who receive career and financial counseling while at OSU, have a better chance of staying enrolled at OSU. These data seem to support the idea that career counseling is a vital part of achieving a good university/student fit. Therefore, it would seem beneficial to encourage as many students as possible, especially freshmen, to take advantage of counseling services.

4. Being able to pay for a college education is often difficult; therefore, students are forced to work to earn money to help defray expenses. This study supports the idea that students who work more than 20 hours per week either on- or off-campus are more likely to leave OSU. It may be concluded that students should be counseled when first enrolling to alert them to the possibility of having difficulty in school if they work more than 20 hours per week.

Recommendations

Policy

The following policy recommendations are made based on the results of the study:

1. Promotion of the Greek system should be emphasized in recruiting materials.

2. More emphasis should be placed on quality teaching, especially at the freshman level.

3. Faculty should be rewarded for outstanding service with regard to advising.

4. More emphasis should be given to career counseling or advising before the student enters OSU.

5. Emphasis should be placed on ways to increase faculty/student interaction through extracurricular activities.

6. More emphasis should be placed on screening students before enrollment, with regard to degree goals and commitment, to produce a better university/student "fit."

7. More emphasis should be placed on encouraging students to take advantage of the various OSU counseling services.

8. More emphasis should be given to better educate students, before enrollment, about the total cost of OSU and the details connected with paying that cost.

Future Studies

This study attempted to assess the student attrition/retention situation at OSU. It is obvious that analyzing just freshmen and sophomores does not give a complete picture of the retention situation. Therefore, these future studies are recommended:

1. A longitudinal study of the entire four-year college experience at OSU and other institutions.
2. An in-depth study examining each aspect of a student's college experience (e.g., the effects of dorm living on student retention).
3. A study of freshmen and sophomores at a residential junior college to compare those students to like students at OSU.
4. A college-by-college analysis to compare and contrast student retention among various disciplines.

A SELECTED BIBLIOGRAPHY

- Alexander, Fred J. "Administrative Opinions Concerning Utilization of Marketing Strategies in Management of Higher Education Institutions in the United States." (Unpub. Ed.D. dissertation, Memphis State University, 1978.)
- Astin, Alexander W. "Freshman Characteristics and Attitudes: A National Profile Based on Responses of 187,000 Students Who Entered College in the Fall of 1980." The Chronicle of Higher Education, 1981, 7.
- Astin, Alexander W. Predicting Academic Performance in College. New York: Free Press, 1971, pp. 174-201.
- Astin, Alexander W. Preventing Students From Dropping Out. San Francisco: Jossey-Bass, 1977, p. 45.
- Astin, Alexander W. and R. J. Panos. The Educational and Vocational Development of College Students. Washington, D.C.: American Council on Education, 1969, pp. 9-21.
- Blanchfield, W. C. "College Dropout Identification: A Case Study," Journal of Experimental Education, 40, 1970, pp. 1-4.
- Breneman, David W. The Coming Enrollment Crisis: What Every Trustee Must Know. Washington, D.C.: Association of Governing Boards of Universities and Colleges, 1982.
- Brown, John Anthony. "The Role of Academic Programs in Institutional Marketing." In David W. Barton, Jr. (Ed.), Marketing Higher Education: New Directions for Higher Education, 6, 1 (1978), p. 7-22.
- Carnegie Council on Policy Studies in Higher Education. Three Thousand Futures: The Next Twenty Years in Higher Education. Iowa City, Ia. and Boulder, Colo.: American College Testing Program and National Center for Higher Education Management Systems, 1980.
- "Changing Numbers in High School Graduating Classes." The Chronicle of Higher Education, January 7, 1980, p. 8.

- Coker, D. L. Diversity of Intellectual and Non-intellectual Characteristics Between Persisting and Non-persisting Students Among Campuses. Washington, D.C.: Office of Education, 1968. (ERIC Document Reproduction Service No. ED 033 645)
- Cope, Robert G. "Types of High Ability Dropouts Who Continue in College." The North Central Association Quarterly, 44, 2 (Fall, 1969), pp. 253-256.
- Cope, R. G. and William Hannah. Revolving College Doors: The Causes and Consequences of Dropping Out, Stopping Out, and Transferring. New York: John Wiley & Sons, 1975, p. 79.
- Cutlip, Scott M. "Advertising Higher Education: The Early Years of College Public Relations." College and University Journal, 9 (1970), p. 21-28.
- Demos, G. D. "Analysis of College Dropouts--Some Manifest and Covert Reasons." Personnel and Guidance Journal, 46 (1964), pp. 681-684.
- Devecchio, Richard C. "Characteristics of Nonreturning Community College Freshmen." Journal of College Student Personnel, 13, 5 (September, 1972), pp. 429-432.
- Dollar, Douglas O. "A Study of the Relationship Between Marketing Orientations and Enrollments at Selected Community, Junior and Technical Colleges." (Unpub. Ed.D. dissertation, Oklahoma State University, 1983.)
- Everett, Carol L. "An Analysis of Student Attrition at Penn State." (Unpublished report for the Pennsylvania State University Office of Planning and Budget, Planning and Research Group, 1979.)
- Feldman, K. A. and M. Newcomb. The Impact of College Students. Vol. 1. San Francisco: 1969.
- Felice, L. G. "Black Student Dropout Behavior: Disengagement From School Rejection and Racial Discrimination." Paper presented at the meeting of the American Educational Research Association, 1980. (ERIC Document Reproduction Service No. ED 185 181)
- Fife, Jonathan D. Student Retention Strategies. ERIC/Higher Education Research Report No. 8. Washington, D.C.: American Association for Higher Education, 1980.
- Fowler, Charles R. "Making Marketing Work: How a Coordinated Approach Improved a College's Enrollment, Retention, and Public Image." CASE Currents, 9, 10 (1983), pp. 20-22.

- Frances, Carol. College Enrollment Trends: Testing the Conventional Wisdom Against the Facts. Washington, D.C.: American Council on Education, 1980.
- Gardiner, John J. and Ali Nazari-Robati. "Student Attrition Research: Implications for Retention Strategies." NASPA Journal, 20, 3 (1983), p. 26.
- Gathers, Emery George. "A Retention and Attrition Study of Horizontal Transfer, Vertical Transfer, and Native Students at a Selected University." (Unpub. Ed.D. dissertation, Oklahoma State University, 1982.)
- Gay, L. R. Educational Research: Competencies for Analysis and Application. Columbus, Oh.: 1981.
- Hannah, William. "Personality Differentials Between Lower Division Dropouts and Stay-ins." Journal of College Student Personnel, 12 (1971), pp. 16-19.
- Hatch, Charles Winthrop. "A Procedure for Predicting Freshman Retention: An Institution Specific Approach." (Unpub. Ph.D. dissertation, University of South Carolina, 1983.)
- Johnson, Dennis L. "New Tools for the Creative Manager." Community and Junior College Journal, 20 (1980), pp. 28-32.
- Kamens, David H. "The College 'Charter' and College Size: Effects in Occupational Choice and College Attrition." Sociology of Education, 44 (Summer, 1971), pp. 280-286.
- Kermerer, Frank R., Victor J. Baldridge, and K. C. Green. Strategies for Effective Enrollment Management. Washington, D.C.: American Association of State Colleges and Universities, 1982.
- Keys, Tom, et al. "Final Report of the Ad Hoc Committee on Student Retention" (Unpublished report, Oklahoma State University, 1981.)
- Kotler, Philip. Marketing for Nonprofit Organizations. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1975.
- Kotler, Philip. "Applying Marketing Theory to College Admissions." A Role for Marketing in College Admissions. (Paper presented at the Colloquium on College Admissions, Fontana, Wis., May 16-18, 1976.) New York: College Entrance Examination Board, 1976.
- Kotler, Philip and Sidney J. Levy. "Broadening the Concept of Marketing." Journal of Marketing, 33 (1969), pp. 10-15.

- Krieger, Ruth H. and Stephen Miller. "Students Who Are Accepted But Do Not Attend Classes At Oklahoma State University" (Unpublished report for the Office of Student Academic Services, Oklahoma State University, 1985.)
- Leach, Ernest R. "Implementing the Marketing Process." Community and Junior College Journal, 48 (1977), pp. 20-24.
- Lenning, O.T., P. E. Beal, and K. Sauer. "Attrition and Retention: Evidence for Action and Research." Boulder, Colo.: National Center for Higher Education Management Systems, 1980.
- Lovelock, Christopher H. and Michael L. Rothchild. "Uses, Abuses, and Misuses of Marketing in Higher Education." Marketing in College Admissions: A Broadening of Perspectives. (Papers presented at the Colloquium on Marketing, Student Admissions, and the Public Interest, Racine, Wisc., November 7-9, 1979.) New York: College Entrance Examination Board, 1980.
- Lucas, John A. Developing a Total Marketing Plan: New Directions for Institutional Research. San Francisco: Jossey-Bass, 1979.
- Marks, E. "Student Perceptions of College Persistence, and Their Intellectual, Personality, and Performance Correlates." Journal of Educational Psychology, 58 (1967), pp. 210-221.
- McCarthy, Jerome E. Basic Marketing: A Managerial Approach. Homewood, Ill.: Richard D. Irwin, Inc., 1975.
- Miller, L. E. and K. L. Smith. "Handling Nonresponse Issues," Journal of Extension, 21 (1983), pp. 45-50.
- Miller, Stephen and Ruth Krieger. "Fall to Spring Retention Study" (Unpublished report for the Office of Student Academic Services, Oklahoma State University, 1985.)
- Murphy, Patrick E. and Richard A. McGarrity. "Marketing Universities: A Survey of Student Recruitment Activities." College and University Journal, 53 (1978), p. 253.
- National Center for Education Statistics. Projections of Educational Statistics to 1984-85. Washington, D.C.: National Center of Educational Statistics, 1979.
- Nelson, A. G. "College Characteristics Associated with Freshmen Attrition." Personnel and Guidance Journal, 44 (1969), pp. 290-298.

- Noel, Lee. "Increasing Student Retention," Increasing Student Retention. San Francisco: Jossey-Bass, 1985.
- Noel, Lee. "First Steps in Starting a Campus Retention Program." In Lee Noel (Ed.), Reducing the Dropout Rate, New Directions for Higher Education. San Francisco: Jossey-Bass, 1978.
- Panos, R. J. and A. W. Astin. "Attrition Among College Students." American Educational Research Journal, 5 (1968), pp. 57-72.
- Pantages, T. J. and C. F. Creedon. "Studies of College Attrition: 1950-1975." Review of Educational Research, 48 (1978), pp. 49-101.
- Peng, S. S. and W. B. Fetters. "College Student Withdrawal: A Motivational Problem." (Paper presented at the meeting of the American Educational Research Association, New York, 1977). (ERIC Document Reproduction Service No. ED 148 206)
- Pumroy, Donald K. "Cigarette Smoking and Academic Achievement." The Journal of General Psychology, 77 (July, 1967), pp. 31-34.
- Rinehart, Richard. "Assessing Successful Articulation of Transfer Students." New Directions for Community Colleges, (1972), p. 43.
- Rootman, Irving. "Voluntary Withdrawal From a Total Adult Socialization Organization: A Model." Sociology of Education, 45 (Summer, 1972), pp. 261-268.
- Rossman, J. E. and B. A. Kirk. "Factors Related to Persistence and Withdrawal Among University Students." Journal of Counseling Psychology, 17 (1970), pp. 56-62.
- Schmitz, Carol Ann. "A Follow-up Study of Residents Who Voluntarily Withdrew from Oklahoma State University." (Unpub. master's thesis, Oklahoma State University, 1980.)
- Sewell, H. W. and V. P. Shah. "Socioeconomic Status, Intelligence, and the Attainment of Higher Education." Sociology of Education, 40 (1967), pp. 1-23.
- Sexton, V. S. "Factors Contributing to Attrition in College Populations: Twenty-five Years of Research." Journal of General Psychology, 12 (1965), pp. 301-326.

- Simpson, Carl, et al. A Dropout is a Dropout . . . A Comparison of Four Different Types of University Dropouts. Berkeley: California University Institute for Research in Social Behavior, 1977. (ERIC Document Reproduction Service No. ED 153 543)
- Spady, William G. "Dropouts From Higher Education: Toward an Empirical Model." Interchange, 2 (July, 1970), pp. 49-58.
- Spuhler, Robert H. "Assessing Student Retention Within a Public University: Development of New Responses." (Unpub. Ed.D. dissertation, University of Southern California, 1983.)
- Suddarth, B. M. Factors Influencing the Graduation of Freshmen Who Enroll at Purdue University. (Unpublished report, Purdue University, June, 1957.)
- Thompson, M. "Admission Information as Predictors for Graduation." (Unpub. master's thesis, Cornell University, 1953.)
- Tinto, Vincent. "Dropout From Higher Education: A Theoretical Synthesis of Recent Research," Review of Educational Research, 54 (1975), pp. 89-125.
- Tinto, Vincent. "Dropping Out and Other Forms of Withdrawal From College." In Increasing Student Retention. San Francisco: Jossey-Bass, 1985.
- Trent, J. W. and J. Ruyle. "Variation, Flow, and Patterns of College Attendance." College and University, 41 (1965), pp. 61-76.
- Uehling, Barbara S. "Marketing and the Future of Institutions." Marketing in College Admissions: A Broadening of Perspectives. (Papers presented at the Colloquium on Marketing, Student Admissions, and the Public Interest, Racine, Wisc., November 7-9, 1979). New York: College Entrance Examination Board, 1980.
- Waller, C. "Research Related to College Persistence." College and University, 38 (1964), pp. 281-294.
- Wolf, Henry Bosley. (Ed.). Webster New Collegiate Dictionary. Springfield, Mass.: 1979.
- Weirich, Margaret C. "A Marketing Case History Profile." In David W. Barton, Jr. (Ed.), Marketing Higher Education: New Directions for Higher Education. San Francisco: Jossey-Bass, 1978.
- White, Edward T. "The Development of a Handbook for Marketing the Community College." (Unpub. Ed.D. dissertation, Virginia Polytechnic Institute, 1980.)

APPENDICES

APPENDIX A
CORRESPONDENCE AND QUESTIONNAIRES SENT
TO POPULATION SAMPLE



Oklahoma State University

DEPARTMENT OF EDUCATIONAL ADMINISTRATION
AND HIGHER EDUCATION

STILLWATER, OKLAHOMA 74078
309 CUNDERSEN HALL
(405) 624-7244

Dear Former OSU Student:

My doctoral study, in conjunction with Oklahoma State University, is concerned with reasons that people have for staying and leaving institutions of higher education.

You recently received a survey containing questions dealing with reasons why you chose to leave OSU. In order to make this a valid study, it is very important that you take a few minutes to answer the questions.

I am sending another copy of the questionnaire, together with a self-addressed envelope in hopes that you will complete it promptly. Please ignore this reminder if you have already completed the questionnaire.

Your help and cooperation are greatly appreciated.

Sincerely,

Tim McElroy
Doctoral Student

Dr. Hazel Scott
Assistant Vice-President
for Student Academic Services





Oklahoma State University

DEPARTMENT OF EDUCATIONAL ADMINISTRATION
AND HIGHER EDUCATION

STILLWATER, OKLAHOMA 74078
309 GUNDERSEN HALL
(405) 624-7244

Dear Former OSU Student:

I am writing to ask you for your help with the enclosed questionnaire. My doctoral study, in conjunction with Oklahoma State University, is concerned with reasons that people have for staying and leaving institutions of higher education.

As a student who left OSU, your help is needed with the enclosed survey. By completing the survey, you will help OSU better serve future generations of students and perhaps even help yourself if you choose to return one day.

Your help and cooperation are greatly appreciated.

Sincerely,

A handwritten signature in cursive script that reads "Tim McElroy".

Tim McElroy
Doctoral Student

A handwritten signature in cursive script that reads "Hazel J. Scott".

Dr. Hazel Scott
Assistant Vice-President
for Student Academic Services





Oklahoma State University

DEPARTMENT OF EDUCATIONAL ADMINISTRATION
AND HIGHER EDUCATION

STILLWATER, OKLAHOMA 74078
309 GUNDERSEN HALL
(405) 624-7244

Dear OSU Student:

My doctoral study, in conjunction with Oklahoma State University, is concerned with reasons that people have for staying and leaving institutions of higher education.

You recently received a survey containing questions about various aspects of your stay at OSU. In order to make this a valid study, it is very important that you take a few minutes to answer the questions.

I am sending another copy of the questionnaire, together with a self-addressed envelope in hopes that you will complete it promptly. Please ignore this reminder if you have already completed the survey.

Your help and cooperation are greatly appreciated.

Sincerely,

A handwritten signature in cursive script that reads "Tim McElroy".

Tim McElroy
Doctoral Student

A handwritten signature in cursive script that reads "Hazel J. Scott".

Dr. Hazel Scott
Assistant Vice-President
for Student Academic Services





Oklahoma State University

DEPARTMENT OF EDUCATIONAL ADMINISTRATION
AND HIGHER EDUCATION

STILLWATER, OKLAHOMA 74078
309 GUNDERSEN HALL
(405) 624-7244

Dear Student:

I am writing, in conjunction with Oklahoma State University, to ask you for your help with the enclosed questionnaire.

As someone who has chosen OSU as your higher education institution, I hope that you will take a few minutes to answer the enclosed questions. By doing so, you will help OSU find ways to better serve you and future students (and help a deserving graduate student with his doctoral dissertation!)

Your help and cooperation are greatly appreciated.

Sincerely,

A handwritten signature in black ink that reads "Tim McElroy".

Tim McElroy
Doctoral Student

A handwritten signature in black ink that reads "Hazel J. Scott".

Dr. Hazel Scott
Assistant Vice-President
for Student Academic Services



STUDENT SURVEY

1. Where have you lived while attending Oklahoma State University? How many terms each?

____Dorm ____Home ____Apt/Room/Trailer ____Sorority/Fraternity ____Other

2. How would you rate the overall quality of instruction you have received at OSU; that is, such things as teaching ability of your professors, class size, and so on, using a scale of one to five? One is least satisfactory and five most satisfactory. (Please circle)

1 2 3 4 5

3. How would you rate your faculty/academic advisor on a scale of one to five with regard to.... One is least satisfactory and five is most satisfactory. (Please circle)

helping you with class selection and scheduling availability?	1	2	3	4	5
	1	2	3	4	5

4. Do you have a major? (yes-no) ____ If "no," proceed to next question. If "yes," how satisfied are you with your major; that is, curriculum content, number of courses, and so on, using the scale one to five? One is least satisfactory, and five is most satisfactory. (Please circle)

1 2 3 4 5

5. What extracurricular activities do you participate in at OSU, and how would you rate your involvement, on a scale of one to five, one being the least and five being very active? (Please circle)

Resident hall organization	1	2	3	4	5	Religious or spiritual group	1	2	3	4	5
College student council	1	2	3	4	5	Social sorority or fraternity	1	2	3	4	5
Professional fraternity or honor society	1	2	3	4	5	Student government	1	2	3	4	5
Special interest organization	1	2	3	4	5	Intramurals or sports club and recreation-related group	1	2	3	4	5
Nationality organization	1	2	3	4	5	Other _____	1	2	3	4	5

6. Have you changed majors while at OSU? How many times? (Please circle)

1 Yes 2 No Number of times _____

7. Do you intend to complete your degree at OSU? (Please circle)

1 Yes 2 No 3 Do not know

8. Was OSU your first choice as an institution of higher learning? (Please circle.)

1 Yes 2 No What was first choice? _____

9. Have you received any counseling while enrolled at OSU; and, if so, how helpful was it? Use one as least satisfactory and five as most satisfactory. (Please circle)

Psychological counseling	1	2	3	4	5	Financial counseling	1	2	3	4	5
Career counseling	1	2	3	4	5	Academic counseling (other than advisor)	1	2	3	4	5
Other	1	2	3	4	5						

10. Are you thinking about dropping out or stopping out? (Please circle)

1 Yes 2 No If so, why?

11. How did you finance your last semester of school? Can you break it down into percentages?

- | | |
|--|---|
| <input type="checkbox"/> On-campus, part-time work
How many hours per week? _____ | <input type="checkbox"/> Off-campus, part-time work
How many hours per week? _____ |
| <input type="checkbox"/> Savings (Summer Job) | <input type="checkbox"/> Support from parents or spouse |
| <input type="checkbox"/> Employer support | <input type="checkbox"/> College Work Study Program |
| <input type="checkbox"/> Loan | <input type="checkbox"/> Scholarships |

12. What expectations of OSU did you have that are not being fulfilled?

13. Do you think there is anything OSU could do to.....
(student specific)

(if applicable)
(if applicable)

- ... help you overcome academic difficulties?
- ... aid you in solving financial problems?
- ... change your mind about transferring?
- ... encourage you to remain at the University?

11. How did you finance your last semester of school? Can you break it down into percentages?

- | | |
|--|---|
| <input type="checkbox"/> On-campus, part-time work
How many hours per week? _____ | <input type="checkbox"/> Off-campus, part-time work
How many hours per week? _____ |
| <input type="checkbox"/> Savings (summer job) | <input type="checkbox"/> Support from parents or spouse |
| <input type="checkbox"/> Employer support | <input type="checkbox"/> College Work Study Program |
| <input type="checkbox"/> Loan | <input type="checkbox"/> Grants (BEOG, SEOG, Pell, etc.) |
| <input type="checkbox"/> Scholarships | |

12. What do you feel were the causes for your leaving OSU? To what would you attribute your problems? What do you feel were the main problems that brought about your decision to withdraw? (More than one answer may be checked.)

- | | | |
|---------------|--|---|
| A. Academic | <input type="checkbox"/> Unhappy with major | <input type="checkbox"/> Change in career goals |
| | <input type="checkbox"/> Low grades | <input type="checkbox"/> Transferred to another institution |
| | <input type="checkbox"/> Dissatisfied with quality of instruction | <input type="checkbox"/> Found courses too difficult |
| | <input type="checkbox"/> Boredom | <input type="checkbox"/> Job interfered with studies |
| | <input type="checkbox"/> Needed more career-oriented courses | <input type="checkbox"/> Extracurricular activities interfered with studies |
| | <input type="checkbox"/> Major courses not available | <input type="checkbox"/> Needed temporary break from studies |
| | <input type="checkbox"/> Desired program not available | <input type="checkbox"/> Undecided about choice of major |
| | <input type="checkbox"/> Other (please specify): _____ | |
| B. Financial | <input type="checkbox"/> Financial aid was not sufficient | <input type="checkbox"/> Could not get a bank loan |
| | <input type="checkbox"/> Workstudy program terminated | <input type="checkbox"/> OSU is too expensive or could not afford OSU |
| | <input type="checkbox"/> Problems with VA benefits | <input type="checkbox"/> Poor "return on investment" expectations |
| | <input type="checkbox"/> Other financial aid not received | <input type="checkbox"/> Savings exhausted - had to return to a full-time job |
| | <input type="checkbox"/> Other (please specify): _____ | |
| C. Employment | <input type="checkbox"/> Scheduling conflict between job and studies | <input type="checkbox"/> Accepted a full-time job |
| | <input type="checkbox"/> Could not find a job while in school | <input type="checkbox"/> Enlisted in military service |
| | <input type="checkbox"/> Other (please specify): _____ | |
| D. Personal | <input type="checkbox"/> Desired to live at home | <input type="checkbox"/> Found studying too time-consuming |
| | <input type="checkbox"/> Difficulty commuting to campus | <input type="checkbox"/> Fulfilled my personal educational goals |
| | <input type="checkbox"/> Family moved out of the area | <input type="checkbox"/> Marriage or pregnancy |
| | <input type="checkbox"/> Parental expectations were too great | <input type="checkbox"/> Disciplinary problem |
| | <input type="checkbox"/> Home responsibilities were too great | <input type="checkbox"/> Child care not available |
| | <input type="checkbox"/> Illness or accident | <input type="checkbox"/> Lack of motivation or uncertainty about goals |
| | <input type="checkbox"/> Inability to adjust to a large university | |
| | <input type="checkbox"/> Other (please specify): _____ | |

13. To whom did you talk about withdrawing? You may circle more than one.

- | | |
|-------------------------|---------------------------------|
| 1 Academic advisor | 6 Other students |
| 2 Faculty advisor | 7 Resident advisor |
| 3 College dean's office | 8 Exit interview |
| 4 Family | 9 No one |
| 5 Counselor | 10 Other (please specify) _____ |

When did you talk? (month/semester) _____

14. Would you have dropped out if you had known what you know now? (Please circle)

1 Yes 2 No 3 Do not know (Comments): _____

15. Were there problems caused by the University which you felt resulted in your withdrawal?

1 Yes 2 No

16. Do you plan to return to college in the near future? (Please circle)

1 Yes 2 No 3 Undecided Where? _____

17. What were your reasons for choosing OSU in the first place?

18. What expectations of OSU did you have that were not fulfilled?

19. Do you think there was anything OSU could have done to.....(be student specific)

- help you personally?
- help you overcome academic difficulties?
- aid you in solving financial problems?
- change your mind about transferring?
- encourage you to remain at OSU?

20. Is there anything OSU can do now to help?

21. Do you hope to return to OSU at any time in the future? (Please circle)

1 Yes 2 No 3 Undecided If so, when? _____

APPENDIX B

CORRESPONDENCE FROM INSTITUTIONAL
RESEARCH OFFICE



Oklahoma State University

OFFICE OF INSTITUTIONAL RESEARCH

STILLWATER, OKLAHOMA 74078
WHITEHURST HALL 301
(405) 624-6897

March 19, 1987

Mr. Tim McElroy
Box 5, Station 1
Miami, Oklahoma 74354

Dear Mr. McElroy:

I would like to clarify the problem which you have experienced with your data request for the list of names used for your survey. When you requested the list of students who were freshmen or sophomores and who did not return to OSU the following fall semester, we decided that you wanted a random sample. I gave you a list and address labels for those two groups. At that time you had all the information which you required for your survey. Later, however, you requested another set of labels for a follow-up mailing.

The procedure for generating random samples requires a seed factor in the random number generator program. I found I had not kept a copy of the program with the "seed number" which was used to generate the random sample for your survey. Without this number I was unable to recreate the same random sample which had been originally generated for you. Therefore, I could not reproduce the same list for a second set of labels. The same reason exists as to why I could not give the home phone numbers of the random sample which was generated for you.

I am not sure that permission would have been given by Dr. Scott for me to release the phone numbers if I could have generated them for your sample. Oklahoma State University's policy on release of information to any individual is based on information that is printed in the OSU student directory. The permanent phone numbers of students are not listed in that directory.

I am sorry I was unable to help you with your problem of following up by telephoning the students you surveyed or with a second mailing.

Sincerely yours,

Murriel L. Gilliam
Assistant Director

MLG:gj



APPENDIX C

CHI-SQUARE TABLES COMPARING EARLY
RESPONDENTS WITH LATE
RESPONDENTS

TABLE I
RESULTS OF CHI-SQUARE TESTS FOR STUDENTS WHO LEFT OSU

ER=EARLY RESPONDENTS, LR=LATE RESPONDENTS

Question Number	Question Context	% of Students From Each Group Answering Question		Chi-Square Statistics	Degrees of Freedom	Significance Values	Significant Symbols	
		ER	LR				**Sig. at .01	*Sig. at .05
1-A	Where lived at OSU- Dorm	ER 54%	LR 59%	0.41736	1	0.5183		
1-B	Where lived at OSU- Home	ER 14%	LR 10%	0.44187	1	0.5062		
1-C	Where lived at OSU- Apt/Rm/ Trailer	ER 29%	LR 25%	0.19665	1	0.6574		
1-D	Where lived at OSU- Sorority/ fraternity	ER 14%	LR 13%	0.01371	1	0.9068		
1-E	Where lived at OSU- Other	ER .03%	LR .04%	0.00265	1	0.9589		
2	What do first term after OSU	ER 100%	LR 100%	8.15489	4	0.0861		
3	Rate quality of instruction	ER 99%	LR 97%	1.62242	4	0.8048		
4-A	Rate advisor/ class selection and scheduling	ER 100%	LR 96%	2.80259	4	0.5914		
4-B	Rate advisor/ availability	ER 94%	LR 90%	3.00456	4	0.5571		
5-A	Have a major/ Yes or No	ER 99%	LR 96%	2.08870	1	0.1484		
5-B	If Yes/ How rated	ER 75%	LR 66%	10.63519	4	0.0310	*	(see Table II)

TABLE I (Continued)

Question Number	Question Context	% of Students From Each Group Answering Question		Chi-Square Statistics	Degrees of Freedom	Significance Values	Significant Symbols	
		ER	LR				**Sig. at .01	*Sig. at .05
6-A	Extracurricular activities/ rate participation/ Resident hall organization	ER 56%	LR 49%	7.94270	4	0.0937		
6-B	Extracurricular activities/ rate participation/ College student council	ER 40%	LR 37%	3.36365	3	0.3389		
6-C	Extracurricular activities/ rate participation/ Prof. fraternity or honor society	ER 41%	LR 41%	3.87425	4	0.4233		
6-D	Extracurricular activities/ rate participation/ Special interest organization	ER 49%	LR 51%	2.35523	4	0.6707		
6-E	Extracurricular activities/ rate participation/ Nationality organization	ER 38%	LR 39%	3.33631	3	0.3426		
6-F	Extracurricular activities/ rate participation/ Religious or spiritual group	ER 45%	LR 42%	6.61558	4	0.1577		

TABLE I (Continued)

Question Number	Question Context	% of Students From Each Group Answering Question		Chi-Square Statistics	Degrees of Freedom	Significance Values	Significant Symbols **Sig. at .01 *Sig. at .05
		ER	LR				
6-G	Extracurricular activities/ rate participation/ Social sorority/ fraternity	51%	56%	6.73299	4	0.1507	
6-H	Extracurricular activities/ rate participation/ Student government	40%	38%	1.79441	4	0.7735	
6-I	Extracurricular activities/ rate participation/ Intramural sport or sports club	60%	57%	1.92628	4	0.7493	
6-J	Extracurricular activities/ rate participation/ Other activities	32%	33%	1.44517	4	0.8363	
7-A	Change majors at OSU/ Yes or No	99%	97%	1.29978	2	0.5221	
7-B	Number of times changed/ 1,2, or 3	32%	29%	1.55342	2	0.4599	
8	Intend to complete degree at OSU/ Yes - No Did not know	100%	100%	2.59192	2	0.2736	
9	OSU first college choice/ Yes or No	100%	100%	1.47935	1	0.2239	

TABLE I (Continued)

Question Number	Question Context	% of Students From Each Group Answering Question		Chi-Square Statistics	Degrees of Freedom	Significance Values	Significant Symbols **Sig. at .01 *Sig. at .05
		ER	LR				
10-A	Rate counseling services/ Psychological counseling	19%	.08%	9.82845	4	0.0434	* (see Table III)
10-B	Rate counseling services/ Career counseling	34%	19%	4.26954	4	0.3708	
10-C	Rate counseling services/ Other types of counseling	12%	.04%	3.09615	3	0.3770	
10-D	Rate counseling services/ Financial counseling	25%	20%	2.92402	4	0.5706	
10-E	Rate counseling services/ Academic counseling	31%	22%	2.74658	4	0.6011	
11-A	Percentage of support for financing last semester at OSU On-campus, part time work	.09%	.05%	1.51071	4	0.8247	
11-B	Percentage of support for financing last semester at OSU On-campus, part time work Hours worked per week	.09%	.05%	0.42059	4	0.54118	

TABLE I (Continued)

Question Number	Question Context	% of Students From Each Group Answering Question		Chi-Square Statistics	Degrees of Freedom	Significance Values	Significant Symbols **Sig. at .01 *Sig. at .05
		ER	LR				
11-C	Percentage of support for financing last semester at OSU/Savings	ER 32%	LR 28%	1.08055	4	0.8973	
11-D	Percentage of support for financing last semester at OSU/Employer support	ER .03%	LR .03%	6.00000	3	0.1116	
11-E	Percentage of support for financing last semester at OSU/Loan	ER 16%	LR 22%	6.26097	4	0.1805	
11-F	Percentage of support for financing last semester at OSU/Scholarships	ER 11%	LR 14%	3.89305	4	0.4207	
11-G	Percentage of support for financing last semester at OSU/Off-campus, part time work	ER 20%	LR 19%	2.26703	4	0.6868	
11-H	Percentage of support for financing last semester at OSU/Off-campus, part time work Hours worked per week	ER 15%	LR 16%	0.00000	1	1.0000	

TABLE I (Continued)

Question Number	Question Context	% of Students From Each Group Answering Question		Chi-Square Statistics	Degrees of Freedom	Significance Values	Significant Symbols **Sig. at .01 *Sig. at .05
		ER	LR				
11-I	Percentage of support for financing last semester at OSU/ Support from parents and spouse	ER 69%	LR 66%	5.00184	4	0.2871	
11-J	Percentage of support for financing last semester at OSU/ College Work Study Program	ER .03%	LR .04%	5.86667	2	0.0532	

TABLE II

CHI-SQUARE COMPARISON OF ACADEMIC MAJOR - STUDENTS
WHO LEFT OSU

Satisfied With Major				
Count	Row Pct.	Col. Pct.	Row Total	
		Early Respondents	Late Respondents	
1	1 14.3 .9	6 85.7 11.5	7 4.3	
2	13 65.0 11.7	7 35.0 13.5	20 12.3	
3	35 72.9 31.5	13 27.1 25.0	48 29.4	
4	38 67.9 34.2	18 32.1 34.6	56 34.4	
5	24 75.0 21.6	8 25.0 15.4	32 19.6	
Column Total	111 68.1	52 31.9	163 100.0	
<u>CHI-SQUARE</u>	<u>D.F.</u>	<u>SIGNIFICANCE</u>	<u>MIN E.F.</u>	<u>CELLS WITH E.F. < 5</u>
10.63519	4	0.0310	2.233	2 of 10 (20.0%)
NUMBER OF MISSING OBSERVATIONS = 64				

TABLE III

CHI-SQUARE COMPARISON OF COUNSELING SERVICES - STUDENTS WHO LEFT OSU

Count		Psychological Counseling		Row
Row	Pct.	Early Respondents	Late Respondents	Total
Col.	Pct.			
1	24 92.3 85.7	2 7.7 33.3	26 76.5	
2	1 33.3 3.6	2 66.7 33.3	3 8.8	
3	1 50.0 3.6	1 50.0 16.7	2 5.9	
4	1 100.0 3.6		1 2.9	
5	1 50.0 3.6	1 50.0 16.7	2 5.9	
Column Total	28 82.4	6 17.6	34 100.0	
<u>CHI-SQUARE</u>	<u>D.F.</u>	<u>SIGNIFICANCE</u>	<u>MIN E.F.</u>	<u>CELLS WITH E.F. < 5</u>
9.82845	4	0.0434	0.176	9 of 10 (90.0%)

NUMBER OF MISSING OBSERVATIONS = 193

TABLE IV
RESULTS OF CHI-SQUARE TESTS FOR STUDENTS WHO STAYED AT OSU

ER=EARLY RESPONDENTS, LR=LATE RESPONDENTS

Question Number	Question Context	% of Students From Each Group Answering Question		Chi-Square Statistics	Degrees of Freedom	Significance Values	Significance Symbols **Sig. at .01 *Sig. at .05
		ER	LR				
1-A	Where lived at OSU- Dorm	ER 64%	LR 64%	0.00000	1	1.0000	
1-B	Where lived at OSU- Home	ER 11%	LR 14%	0.24443	1	0.6210	
1-C	Where lived at OSU- Apt/Rm/ Trailer	ER 41%	LR 50%	1.12509	1	0.2888	
1-D	Where lived at OSU- Sorority/ fraternity	ER 28%	LR 29%	2.35922	2	0.3074	
1-E	Where lived at OSU- Other	ER .06%	LR .03%	0.49753	1	0.4806	
2	Rate quality of instruction	ER 99%	LR 100%	2.42634	4	0.6579	
3-A	Rate advisor/ class selection and scheduling	ER 100%	LR 97%	1.02708	4	0.9057	
3-B	Rate advisor/ availability	ER 91%	LR 91%	0.79682	4	0.9389	
4-A	Have a major/ Yes or No	ER 100%	LR 100%	0.10765	1	0.7428	
4-B	If Yes/ How rated	ER 89%	LR 86%	1.04006	4	0.9037	

TABLE IV (Continued)

Question Number	Question Context	% of Students From Each Group Answering Question		Chi-Square Statistics	Degrees of Freedom	Significance Values	Significant Symbols	
		ER	LR				**Sig. at .01	*Sig. at .05
5-A	Extracurricular activities/ rate participation/ Resident hall organization	ER 54%	LR 49%	2.70963	4	0.6075		
5-B	Extracurricular activities/ rate participation/ College student council	ER 52%	LR 37%	7.84501	4	0.0974		
5-C	Extracurricular activities/ rate participation/ Prof. fraternity or honor society	ER 60%	LR 36%	9.84347	4	0.0431	*	(see Table V)
5-D	Extracurricular activities/ rate participation/ Special interest organization	ER 62%	LR 53%	5.17073	4	0.2702		
5-E	Extracurricular activities/ rate participation/ Nationality organization	ER 48%	LR 34%	6.16755	4	0.1870		
5-F	Extracurricular activities/ rate participation/ Religious or spiritual group	ER 58%	LR 50%	13.25809	4	0.0101	*	(see Table VI)
5-G	Extracurricular activities/ rate participation/ Social sorority/ fraternity	ER 62%	LR 56%	8.16896	4	0.0856		

TABLE IV (Continued)

Question Number	Question Context	% of Students From Each Group Answering Question		Chi-Square Statistics	Degrees of Freedom	Significance Values	Significant Symbols **Sig. at .01 *Sig. at .05
		ER	LR				
5-H	Extracurricular activities/ rate participation/ Student government	50%	37%	7.03418	4	0.1341	
5-I	Extracurricular activities/ rate participation/ Intramural sport or sports club	71%	64%	3.99797	4	0.4063	
5-J	Extracurricular activities/ rate participation/ Other activities	20%	11%	5.50161	4	0.2396	
6-A	Change majors at OSU/ Yes or No	99%	100%	5.53236	1	0.0187	* (see Table VII)
6-B	Number of times changed/ 1,2, or 3	38%	54%	0.94032	2	0.6249	
7	Intend to complete degree at OSU/ Yes-No-Did not know	100%	100%	2.75615	2	0.2521	
8	OSU first college choice/ Yes or No	99%	100%	3.92496	1	0.0476	* (see Table VIII)
9-A	Rate counseling services/ Psychological counseling	18%	13%	8.64799	4	0.0705	

TABLE IV (Continued)

Question Number	Question Context	% of Students From Each Group Answering Question		Chi-Square Statistics	Degrees of Freedom	Significance Values	Significant Symbols **Sig. at .01 *Sig. at .05
		ER	LR				
9-B	Rate counseling services/ Career counseling	ER 35%	LR 37%	3.38431	4	0.4957	
9-C	Rate counseling services/ Other types of counseling	ER 10%	LR .07%	4.01858	3	0.2595	
9-D	Rate counseling services/ Financial counseling	ER 37%	LR 29%	2.75088	4	0.6003	
9-E	Rate counseling services/ Academic counseling	ER 24%	LR 30%	7.72497	4	0.1022	
10-A	Percentage of support for financing last semester at OSU/ On-campus, part-time work	ER .09%	LR .01%	1.06667	2	0.5866	
10-B	Percentage of support for financing last semester at OSU/ On-campus, part-time work Hours worked per week	ER .07%	LR .01%	1.0000	3	0.92308	

TABLE IV (Continued)

Question Number	Question Context	% of Students From Each Group Answering Question		Chi-Square Statistics	Degrees of Freedom	Significance Values	Significant Symbols	
		ER	LR				**Sig. at .01	*Sig. at .05
10-C	Percentage of support for financing last semester at OSU/ Savings	ER 46%	LR 51%	3.55592	4	0.4694		
10-D	Percentage of support for financing last semester at OSU/ Employer support	ER	LR	(Statistics cannot be	computed)			
10-E	Percentage of support for financing last semester at OSU/ Loan	ER 24%	LR 23%	2.24412	4	0.6910		
10-F	Percentage of support for financing last semester at OSU/ Scholarships	ER 30%	LR 16%	1.06836	3	0.7847		
10-G	Percentage of support for financing last semester at OSU/ Off-campus, part time work	ER 22%	LR 17%	0.76575	4	0.9430		
10-H	Percentage of support for financing last semester at OSU/ Off-campus, part time work Hours worked per week	ER 18%	LR 16%	0.17335	1	0.6772		

TABLE IV (Continued)

Question Number	Question Context	% of Students From Each Group Answering Question		Chi-Square Statistics	Degrees of Freedom	Significance Values	Significant Symbols **Sig. at .01 *Sig. at .05
		ER	LR				
10-I	Percentage of support for financing last semester at OSU/ Support from parents and spouse	72%	76%	4.43454	4	0.3504	
10-J	Percentage of support for financing last semester at OSU/ College Work Study Program	.07%	.03%	3.11111	2	0.2111	

TABLE V

CHI-SQUARE COMPARISON OF EXTRACURRICULAR ACTIVITIES -
PARTICIPATION IN PROFESSIONAL FRATERNITY OR HONOR
SOCIETY - STUDENTS WHO STAYED AT OSU

Professional Fraternity or Honor Society				
Count				
Row Pct.	Early Respondents	Late Respondents	Row Total	
Col. Pct.				
1	59 77.6 60.2	17 22.4 68.0	76 61.8	
2	6 54.5 6.1	5 45.5 20.0	11 8.9	
3	9 100.0 9.2		9 7.3	
4	12 80.0 12.2	3 20.0 12.0	15 12.2	
5	12 100.0 12.2		12 9.8	
Column Total	98 79.9	25 20.3	123 100.0	
<u>CHI-SQUARE</u>	<u>D.F.</u>	<u>SIGNIFICANCE</u>	<u>MIN E.F.</u>	<u>CELLS WITH E.F. < 5</u>
9.84347	4	0.0431	1.829	4 of 10 (40.0%)
NUMBER OF MISSING OBSERVATIONS = 111				

TABLE VI

CHI-SQUARE COMPARISON OF EXTRACURRICULAR ACTIVITIES -
 PARTICIPATION IN RELIGIOUS OR SPIRITUAL GROUPS -
 STUDENTS WHO STAYED AT OSU

		Religious Or Spiritual Group		
Count	Row Pct.	Early Respondents	Late Respondents	Row Total
Col. Pct.				
1		49 81.7 51.6	11 18.3 31.4	60 46.2
2		5 35.7 5.3	9 64.3 25.7	14 10.8
3		20 80.0 21.1	5 20.0 14.3	25 19.2
4		11 68.8 11.6	5 31.3 14.3	16 12.3
5		10 66.7 10.5	5 33.3 14.3	15 11.5
Column Total		95 73.1	35 26.9	130 100.0
<u>CHI-SQUARE</u>	<u>D.F.</u>	<u>SIGNIFICANCE</u>	<u>MIN E.F.</u>	<u>CELLS WITH E.F. < 5</u>
13.25809	4	0.0101	3.769	3 of 10 (30.0%)
NUMBER OF MISSING OBSERVATIONS = 104				

TABLE VII
 CHI-SQUARE COMPARISON OF ACADEMIC MAJOR -
 STUDENTS WHO STAYED AT OSU

Changed Major				
Count				
Row Pct.	Early Respondents	Late Respondents	Row Total	
Col. Pct.				
No	101 76.5 62.0	31 23.5 44.3	132 56.7	
Yes	62 61.4 38.0	39 38.6 55.7	101 43.3	
Column Total	163 70.0	70 30.0	233 100.0	
<u>CHI-SQUARE</u>	<u>D.F.</u>	<u>SIGNIFICANCE</u>	<u>MIN E.F.</u>	<u>CELLS WITH E.F. < 5</u>
5.53236	1	0.0187	30.343	None
NUMBER OF MISSING OBSERVATIONS = 1				

TABLE VIII

CHI-SQUARE COMPARISON OF INSTITUTIONAL CHOICE -
STUDENTS WHO STAYED AT OSU

OSU First Choice				
Count				
Row Pct.	Early Respondents	Late Respondents	Row Total	
Col. Pct.				
Yes	113 66.1 69.3	58 33.9 82.9	171 73.4	
No	50 80.6 30.7	12 19.4 17.1	62 26.6	
Column Total	163 70.0	70 30.0	233 100.0	
<u>CHI-SQUARE</u>	<u>D.F.</u>	<u>SIGNIFICANCE</u>	<u>MIN E.F.</u>	<u>CELLS WITH E.F. < 5</u>
3.92496	1	0.0476	18.627	None

NUMBER OF MISSING OBSERVATIONS = 1

APPENDIX D

CHI-SQUARE TABLES COMPARING STUDENTS
WHO LEFT WITH STUDENTS WHO STAYED

TABLE IX

RESULTS OF CHI-SQUARE TESTS FOR STUDENTS WHO LEFT
OSU VS. STUDENTS WHO STAYED AT OSU

SL=STUDENTS WHO LEFT, SS=STUDENTS WHO STAYED

Question Number	Question Context	% of Students From Each Group Answering Question		Chi-Square Statistics	Degrees of Freedom	Significance Values	Significant Symbols	
		SL	SS				**Sig. at .01	*Sig. at .05
1-A	Where lived at OSU - Dorm	SL 56%	SS 64%	2.86449	1	0.0906		
1-B	Where lived at OSU - Home	SL 13%	SS 12%	0.01500	1	0.9025		
1-C	Where lived at OSU - Apt/Rm/Tra	SL 28%	SS 44%	12.53044	1	0.0004	**	(see Table II)
1-D	Where lived at OSU - Sorority/fraternity	SL 14%	SS 28%	15.09271	2	0.0005	**	(see Table II)
1-E	Where lived at OSU - Other	SL .03%	SS .05%	0.75635	1	0.3845		
2	Rate quality of instruction	SL 99%	SS 99%	30.78810	4	0.0000	**	(see Table III)
3-A	Rate advisor/class selection and scheduling	SL 99%	SS 99%	11.09415	4	0.0255	*	(see Table IV)
3-B	Rate advisor/availability	SL 93%	SS 91%	9.10236	4	0.0586		
4-A	Have a major/ Yes or No	SL 98%	SS 100%	12.07978	1	0.0005	**	(see Table V)
4-B	If Yes/ How rated	SL 72%	SS 88%	23.40464	4	0.0001	**	(see Table V)

TABLE IX (Continued)

Question Number	Question Context	% of Students From Each Group Answering Question		Chi-Square Statistics	Degrees of Freedom	Significance Values	Significant Symbols	
		SL	SS				**Sig. at .01	*Sig. at .05
5-A	Extracurricular activities/ rate participation/ Resident hall organization	SL 54%	SS 53%	9.29387	4	0.0542		
5-B	Extracurricular activities/ rate participation/ College student council	SL 39%	SS 48%	10.28843	4	0.0358	*	(see Table VI)
5-C	Extracurricular activities/ rate participation/ Prof. fraternity or honor society	SL 41%	SS 53%	8.89831	4	0.0637		
5-D	Extracurricular activities/ rate participation/ Special interest organization	SL 49%	SS 59%	5.30365	4	0.2575		
5-E	Extracurricular activities/ rate participation/ Nationality Organization	SL 38%	SS 44%	6.92867	4	0.1397		
5-F	Extracurricular activities/ rate participation/ Religious or spiritual group	SL 44%	SS 56%	2.69967	4	0.6093		

TABLE IX (Continued)

Question Number	Question Context	% of Students From Each Group Answering Question		Chi-Square Statistics	Degrees of Freedom	Significance Values	Significant Symbols	
		SL	SS				**Sig. at .01	*Sig. at .05
5-G	Extracurricular activities/ rate participation/ Social sorority/ fraternity	SL 53%	SS 60%	12.47133	4	0.0142		
5-H	Extracurricular activities/ rate participation/ Student government	SL 39%	SS 46%	6.70258	4	0.1525		
5-I	Extracurricular activities/ rate participation/ Intramural sport or sports club	SL 59%	SS 69%	1.28131	4	0.8645		
5-J	Extracurricular activities/ rate participation/ Other activities	SL 32%	SS 18%	2.33913	4	0.6737		
6-A	Change majors at OSU/ Yes or No	SL 99%	SS 99%	8.33416	2	0.0155	*	(see Table V)
6-B	Number of times changed/ 1,2, or 3	SL 31%	SS 43%	12.30728	2	0.0021	**	(see Table V)
7	Intend to complete degree at OSU/ Yes- No- Did not know	SL 100%	SS 100%	11.88369	2	0.0026	**	(see Table VII)
8	OSU first college choice/ Yes or No	SL 100%	SS 99%	2.23557	1	0.1349		

TABLE IX (Continued)

Question Number	Question Context	% of Students From Each Group Answering Question		Chi-Square Statistics	Degrees of Freedom	Significance Values	Significant Symbols	
		SL	SS				**Sig. at .01	*Sig. at .05
9-A	Rate counseling services/ Psychological counseling	SL 15%	SS 17%	2.03070	4	0.7301		
9-B	Rate counseling services/ Career counseling	SL 29%	SS 36%	3.59594	4	0.4634		
9-C	Rate counseling services/ Other types of counseling	SL .09%	SS .09%	6.23845	4	0.1820		
9-D	Rate counseling services/ Financial counseling	SL 23%	SS 34%	3.96756	4	0.4104		
9-E	Rate counseling services/ Academic counseling	SL 28%	SS 26%	1.46551	4	0.8327		
10-A	Percentage of support for financing last semester at OSU/ On-campus, part-time work	SL .08%	SS .07%	6.47619	4	0.1663		
10-B	On-campus, part-time work Hours worked per week	SL .07%	SS .06%	0.06396	1	0.8003		

TABLE IX (Continued)

Question Number	Question Context	% of Students From Each Group Answering Question		Chi-Square Statistics	Degrees of Freedom	Significance Values	Significant Symbols	
		SL	SS				**Sig. at .01	*Sig. at .05
10-C	Percentage of support for financing last semester at OSU/Savings	31%	47%	4.35421	4	0.3602		
10-D	Percentage of support for financing last semester at OSU/Employer support	.03%	.004%	2.91667	3	0.4047		
10-E	Percentage of support for financing last semester at OSU/Loan	18%	24%	7.67864	4	0.1041		
10-F	Percentage of support for financing last semester at OSU/Scholarships	12%	26%	6.85340	4	0.1438		
10-G	Percentage of support for financing last semester at OSU/Off-campus, part-time work	19%	21%	8.33947	4	0.0799		
10-H	Off-campus, part-time work/Hours worked per week	15%	17%	9.51167	1	0.0020	**	(see Table X)

TABLE IX (Continued)

Question Number	Question Context	% of Students From Each Group Answering Question		Chi-Square Statistics	Degrees of Freedom	Significance Values	Significant Symbols	
		SL	SS				**Sig. at .01	*Sig. at .05
10-I	Percentage of support for financing last semester at OSU/ Support from parents and spouse	SL 68%	SS 73%	13.84033	4	0.0078	**	(see Table X)
10-J	Percentage of support for financing last semester at OSU/ College Work Study Program	SL .04%	SS .06%	1.11310	2	0.5732		

TABLE X

CHI-SQUARE COMPARISON OF RESIDENTIAL EXPERIENCES -
STUDENTS WHO LEFT VS. STUDENTS WHO STAYED AT OSU

Dorm			
Count			
Row Pct.	Students who left	Students who stayed	Row Total
Col. Pct.			
0	100 54.3 44.1	84 45.7 35.9	184 39.9
1	127 45.8 55.9	150 54.2 64.1	277 60.1
Column Total	227 49.2	234 50.8	461 100.0

<u>CHI-SQUARE</u>	<u>D.F.</u>	<u>SIGNIFICANCE</u>	<u>MIN E.F.</u>	<u>CELLS WITH E.F. < 5</u>
2.86449	1	0.0906	90.603	None

NUMBER OF MISSING OBSERVATIONS: = 0

TABLE X (Continued)

Home			
Count	Students who left	Students who stayed	Row Total
Row Pct.			
Col. Pct.			
0	198 49.0 87.2	206 51.0 88.0	404 87.6
1	29 50.9 12.8	28 49.1 12.0	57 12.4
Column Total	227 49.2	234 50.8	461 100.0

<u>CHI-SQUARE</u>	<u>D.F.</u>	<u>SIGNIFICANCE</u>	<u>MIN E.F.</u>	<u>CELLS WITH E.F. < 5</u>
0.01500	1	0.9025	28.067	None

NUMBER OF MISSING OBSERVATIONS = 0

TABLE X (Continued)

Apartment/Room/Trailer				
Count				
Row Pct.	Students who left	Students who stayed	Row Total	
Col. Pct.				
0	164 55.6 72.2	131 44.4 56.0	295 64.0	
1	63 38.0 27.8	103 62.0 44.0	166 36.0	
Column Total	227 49.2	234 50.8	461 100.0	
<u>CHI-SQUARE</u>	<u>D.F.</u>	<u>SIGNIFICNANCE</u>	<u>MIN E.F.</u>	<u>CELLS WITH E.F. < 5</u>
12.53044	1	0.0004	81.740	None
NUMBER OF MISSING OBSERVATIONS = 0				

TABLE X (Continued)

Sorority/Fraternity			
Count			
Row Pct.	Students who left	Students who stayed	Row Total
Col. Pct.			
0	196 53.8 86.3	168 46.2 71.8	364 79.0
1	31 32.3 13.7	65 67.7 27.8	96 20.8
Column Total	227 49.2	234 50.8	461 100.0

CHI-SQUARE D.F. SIGNIFICANCE MIN E.F. CELLS WITH E.F. < 5
 15.09271 2 0.0005 0.492 2 of 6 (33.3%)
 NUMBER OF MISSING OBSERVATIONS = 0

TABLE X (Continued)

Other			
Count	Students who left	Students who stayed	Row Total
Row Pct.			
Col. Pct.			
0	220 49.8 96.9	222 50.2 94.9	442 95.9
1	7 36.8 3.1	12 63.2 5.1	19 4.1
Column Total	227 49.2	234 50.8	461 100.0

<u>CHI-SQUARE</u>	<u>D.F.</u>	<u>SIGNIFICANCE</u>	<u>MIN E.F.</u>	<u>CELLS WITH E.F. < 5</u>
0.75635	1	0.3845	9.356	None

NUMBER OF MISSING OBSERVATIONS = 0

TABLE XI

CHI-SQUARE COMPARISON OF QUALITY OF INSTRUCTION - STUDENTS
WHO LEFT VS. STUDENTS WHO STAYED AT OSU

Count			Row
Row Pct.	Students who left	Students who stayed	Total
Col. Pct.			
1	11 78.6 4.9	3 21.4 1.3	14 3.1
2	26 68.4 11.6	12 31.6 5.2	38 8.3
3	83 44.9 37.1	102 55.1 43.8	185 40.5
4	84 42.4 37.5	114 57.6 48.9	198 43.8
5	20 90.9 8.9	2 9.1 .9	22 4.8
Column Total	224 49.0	233 51.0	457 100.0

CHI-SQUARE D.F. SIGNIFICANCE MIN E.F. CELLS WITH E.F. < 5

30.78810 4 0.0000 6.862 None

NUMBER OF MISSING OBSERVATIONS = 4

TABLE XII

CHI-SQUARE COMPARISON OF ACADEMIC ADVISOR - STUDENTS
WHO LEFT VS. STUDENTS WHO STAYED AT OSU

Class Scheduling & Selection			
Count			Row
Row Pct.	Students who left	Students who stayed	Total
Col. Pct.			
1	27 60.0 12.1	18 40.0 7.8	45 9.9
2	38 54.3 17.0	32 45.7 13.8	70 15.4
3	51 45.9 22.8	60 54.1 25.9	111 24.3
4	40 37.4 17.9	67 62.6 28.9	107 23.5
5	68 55.3 30.4	55 44.7 23.7	123 27.0
Column Total	224 49.1	232 50.9	456 100.0

CHI-SQUARE D.F. SIGNIFICANCE MIN E.F. CELLS WITH E.F. < 5

11.09415 4 0.0255 22.105 None

NUMBER OF MISSING OBSERVATIONS = 5

TABLE XII (Continued)

Availability			
Count			Row
Row Pct.	Students who left	Students who stayed	Total
Col. Pct.			
1	28 65.1 13.3	15 34.9 7.0	43 10.1
2	39 55.7 18.6	31 44.3 14.5	70 16.5
3	45 42.1 21.4	62 57.9 29.0	107 25.2
4	44 44.0 21.0	56 56.0 26.2	100 23.6
5	54 51.9 25.7	50 48.1 23.4	104 24.5
Column Total	210 49.5	214 50.5	424 100.0

CHI-SQUARE D.F. SIGNIFICANCE MIN E.F. CELLS WITH E.F. < 5

9.10236 4 0.0586 21.297 None

NUMBER OF MISSING OBSERVATIONS = 37

TABLE XIII

CHI-SQUARE COMPARISON OF ACADEMIC MAJOR - STUDENTS WHO LEFT VS. STUDENTS WHO STAYED AT OSU

Selected A Major			
Count			
Row Pct.	Students who left	Students who stayed	Row Total
Col. Pct.			
No	53 67.1 23.9	26 32.9 11.1	79 17.3
Yes	169 44.8 76.1	208 55.2 88.9	377 82.7
Column Total	222 48.7	234 51.3	456 100.0

CHI-SQUARE D.F. SIGNIFICANCE MIN E.F. CELLS WITH E.F. < 5

12.07978 1 0.0005 38.461 None

NUMBER OF MISSING OBSERVATIONS = 5

TABLE XIII (Continued)

Count Row Pct. Col. Pct.	Satisfied With Major		Row Total
	Students who left	Students who stayed	
1 87.5 4.3	7	1 12.5 .5	8 2.2
2 66.7 12.3	20	10 33.3 4.9	30 8.1
3 54.5 29.4	48	40 45.4 19.4	88 23.8
4 33.9 34.4	56	109 66.1 52.9	165 44.7
5 41.0 19.6	32	46 59.0 22.3	78 21.1
Column Total	163 44.2	206 55.8	369 100.0

CHI-SQUARE D.F. SIGNIFICANCE MIN E.F. CELLS WITH E.F. < 5
23.40464 4 0.0001 3.534 2 of 10 (20.0%)

NUMBER OF MISSING OBSERVATIONS = 92

TABLE XIII (Continued)

Changed Major				
Count				
Row Pct.	Students who left	Students who stayed	Row Total	
Col. Pct.				
No	151 53.4 67.4	132 46.6 56.7	283 61.9	
Yes	71 41.3 31.7	101 58.7 43.3	172 38.0	
Column Total	224 49.0	233 51.0	455 100.0	
<u>CHI-SQUARE</u>	<u>D.F.</u>	<u>SIGNIFICANCE</u>	<u>MIN E.F.</u>	<u>CELLS WITH E.F. < 5</u>
8.33416	2	0.0155	0.980	2 of 6 (33.3%)
NUMBER OF MISSING OBSERVATIONS = 4				

TABLE XIII (Continued)

Count Row Col.	Number Of Times Major Changed		Row Total	
	Pct. Pct.	Students who left Students who stayed		
1	55 44.0 77.5	70 56.0 70.0	125 73.1	
2	6 18.8 8.5	26 81.3 26.0	32 18.7	
3	10 71.4 14.1	4 28.5 4.0	14 8.2	
Column Total	71 41.5	100 58.5	171 100.0	
<u>CHI-SQUARE</u>	<u>D.F.</u>	<u>SIGNIFICANCE</u>	<u>MIN E.F.</u>	<u>CELLS WITH E.F. < 5</u>
12.30728	2	0.0021	5.813	None
NUMBER OF MISSING OBSERVATIONS = 290				

TABLE XIV

CHI-SQUARE COMPARISON OF EXTRACURRICULAR ACTIVITIES - STUDENTS WHO LEFT VS. STUDENTS WHO STAYED AT OSU

Resident Hall Organization			
Count			
Row Pct.	Students who left	Students who stayed	Row Total
Col. Pct.			
1	49 41.2 40.2	70 58.8 56.9	119 48.6
2	17 50.0 13.9	17 50.0 13.8	34 13.9
3	22 56.4 18.0	17 43.4 13.8	39 15.9
4	23 60.5 18.9	15 39.5 12.2	38 15.5
5	11 73.3 9.0	4 26.7 3.3	15 6.1
Column Total	122 49.8	123 50.2	245 100.0

CHI-SQUARE D.F. SIGNIFICANCE MIN E.F. CELLS WITH E.F. < 5
 9.29387 4 0.0542 7.469 None

NUMBER OF MISSING OBSERVATIONS = 216

TABLE XIV (Continued)

Count		College Student Council		Row
Row	Pct.	Students who left	Students who stayed	Total
Col.	Pct.			
1	80 48.2 90.9	86 51.8 76.8	166 83.0	
2	2 33.3 2.3	4 66.7 3.6	6 3.0	
3	5 38.5 5.7	8 61.5 7.1	13 6.5	
4	1 11.1 1.1	8 88.9 7.1	9 4.5	
5		6 100.0 5.4	6 3.0	
Column Total	88 44.0	112 56.0	200 100.0	
<u>CHI-SQUARE</u>	<u>D.F.</u>	<u>SIGNIFICANCE</u>	<u>MIN E.F.</u>	<u>CELLS WITH E.F. < 5</u>
10.28843	4	0.0358	2.640	5 of 10 (50.0%)
NUMBER OF MISSING OBSERVATIONS = 261				

TABLE XIV (Continued)

Professional Fraternity or Honor Society				
Count	Students who left	Students who stayed	Row Total	
Row Pct.				
Col. Pct.				
1	74 49.3 79.6	76 50.7 61.8	150 69.4	
2	4 26.7 4.3	11 73.3 8.9	15 6.9	
3	6 40.0 6.5	9 60.0 7.3	15 6.9	
4	5 25.0 5.4	15 75.0 12.2	20 9.3	
5	4 25.0 4.3	12 75.0 9.8	16 7.4	
Column Total	93 43.1	123 56.9	216 100.0	
<u>CHI-SQUARE</u>	<u>D.F.</u>	<u>SIGNIFICANCE</u>	<u>MIN E.F.</u>	<u>CELLS WITH E.F. < 5</u>
8.89831	4	0.0637	6.458	None

TABLE XIV (Continued)

Special Interest Organization				
Count				
Row Pct.	Students who left	Students who stayed	Row Total	
Col. Pct.				
1	54 50.0 48.2	54 50.0 39.1	108 43.2	
2	14 56.0 12.5	11 44.0 8.0	25 10.0	
3	14 41.2 12.5	20 58.8 14.5	34 13.6	
4	15 34.1 13.4	29 65.9 21.0	44 17.6	
5	15 38.5 13.4	24 61.5 17.4	39 15.6	
Column Total	112 44.8	138 55.2	250 100.0	
<u>CHI-SQUARE</u>	<u>D.F.</u>	<u>SIGNIFICANCE</u>	<u>MIN E.F.</u>	<u>CELLS WITH E.F. < 5</u>
5.30365	4	0.2575	11.200	None
NUMBER OF MISSING OBSERVATIONS = 211				

TABLE XIV (Continued)

Count Row Pct. Col. Pct.	National Organization		Row Total	
	Students who left	Students who stayed		
1	79 49.4 90.8	81 50.6 79.4	160 84.7	
2	3 27.3 3.4	8 72.7 7.8	11 5.8	
3	1 16.7 1.1	5 83.3 4.9	6 3.2	
4		3 100.0 2.9	3 1.6	
5	4 44.4 4.6	5 55.6 4.9	9 4.8	
Column Total	87 46.0	102 54.0	189 100.0	
<u>CHI-SQUARE</u>	<u>D.F.</u>	<u>SIGNIFICANCE</u>	<u>MIN E.F.</u>	<u>CELLS WITH E.F. < 5</u>
6.92867	4	0.1397	1.381	6 of 10 (60.0%)
NUMBER OF MISSING OBSERVATIONS = 272				

TABLE XIV (Continued)

Count Row Pct. Col. Pct.	Religious Or Spiritual Group		Row Total	
	Students who left	Students who stayed		
1	55 47.8 55.6	60 52.2 46.2	115 50.2	
2	11 44.0 11.1	14 56.0 10.8	25 10.9	
3	16 39.0	25 61.0	41 17.9	
4	10 38.5 10.1	16 61.5 12.3	26 11.4	
5	7 31.8 7.1	15 68.2 11.5	22 9.6	
Column Total	99 43.2	130 56.8	229 100.0	
<u>CHI-SQUARE</u>	<u>D.F.</u>	<u>SIGNIFICANCE</u>	<u>MIN E.F.</u>	<u>CELLS WITH E.F. < 5</u>
2.69967	4	0.6093	9.511	None
NUMBER OF MISSING OBSERVATIONS = 232				

TABLE XIV (Continued)

		Social Sorority Or Fraternity		
Count				
Row Pct.		Students who left	Students who stayed	Row Total
Col. Pct.				
1	71 53.8 59.2	61 46.2 43.3	132 50.6	
2	6 66.7 5.0	3 33.3 2.1	9 3.4	
3	10 52.6 8.3	9 47.4 6.4	19 7.3	
4	11 35.5 9.2	20 64.5 14.2	31 11.9	
5	22 31.4 18.3	48 68.6 34.0	70 26.8	
Column Total	120 46.0	141 54.0	261	
<u>CHI-SQUARE</u>	<u>D.F.</u>	<u>SIGNIFICANCE</u>	<u>MIN E.F.</u>	<u>CELLS WITH E.F. < 5</u>
12.47133	4	0.0142	4.138	2 of 10 (20.0%)
NUMBER OF MISSING OBSERVATIONS = 200				

TABLE XIV (Continued)

		Student Government		
Count				
Row	Pct.	Students who left	Students who stayed	Row Total
Col.	Pct.			
1		75 50.0 84.3	75 50.0 69.4	150 76.1
2		3 27.3 3.4	8 72.7 7.4	11 5.6
3		6 37.5 6.7	10 62.5 9.3	16 8.1
4		3 30.0 3.4	7 70.0 6.5	10 5.1
5		2 20.0 2.2	8 80.0 7.4	10 5.1
Column Total		89 45.2	108 54.8	197 100.0
<u>CHI-SQUARE</u>	<u>D.F.</u>	<u>SIGNIFICANCE</u>	<u>MIN E.F.</u>	<u>CELLS WITH E.F. < 5</u>
6.70258	4	0.1525	4.518	3 of 10 (30.0%)
NUMBER OF MISSING OBSERVATIONS		=	264	

TABLE XIV (Continued)

Intramurals Or Sports Club				
Count				
Row Pct.	Students who left	Students who stayed	Row Total	
Col. Pct.				
1	34 49.3 25.4	35 50.7 21.5	69 23.3	
2	11 45.8 8.2	13 54.2 8.0	24 8.1	
3	27 47.4 20.1	30 52.6 18.5	57 19.3	
4	30 44.8 22.4	37 55.2 22.8	67 22.6	
5	32 40.5 23.9	47 59.5 29.0	79 26.7	
Column Total	134 45.3	162 54.7	296 100.0	
<u>CHI-SQUARE</u>	<u>D.F.</u>	<u>SIGNIFICANCE</u>	<u>MIN E.F.</u>	<u>CELLS WITH E.F. < 5</u>
1.28131	4	0.8645	10.865	None
NUMBER OF MISSING OBSERVATIONS = 165				

TABLE XIV (Continued)

Other Activities				
Count				
Row	Pct.	Students who left	Students who stayed	Row
Col.	Pct.			Total
1	33 67.3 45.2	16 32.7 39.0	49 43.0	
2	2 66.7 2.7	1 33.3 2.4	3 2.6	
3	10 76.9 13.7	3 23.1 7.3	13 11.4	
4	8 61.5 11.0	5 38.5 12.2	13 11.4	
5	20 55.6 27.4	16 44.4 39.0	36 31.6	
Column	73	41	114	
Total	64.0	36.0	100.0	
<u>CHI-SQUARE</u>	<u>D.F.</u>	<u>SIGNIFICANCE</u>	<u>MIN E.F.</u>	<u>CELLS WITH E.F. < 5</u>
2.33913	4	0.6737	1.079	4 of 10 (40.0%)
NUMBER OF MISSING OBSERVATIONS = 347				

TABLE XV

CHI-SQUARE COMPARISON OF DEGREE INTENTIONS - STUDENTS
WHO LEFT VS. STUDENTS WHO STAYED AT OSU

Count Row Pct. Col. Pct.	Intended To Complete Degree		Row Total
	Students who left	Students who stayed	
Yes	160 45.1 70.5	195 54.9 83.3	355 77.0
No	22 56.4 9.7	17 43.6 7.3	39 8.5
Did not know	45 67.2 19.8	22 32.8 9.4	67 14.5
Column Total	227 49.2	234 50.8	461 100.0

<u>CHI-SQUARE</u>	<u>D.F.</u>	<u>SIGNIFICANCE</u>	<u>MIN E.F.</u>	<u>CELLS WITH E.F. < 5</u>
11.88369	2	0.0026	19.204	None
NUMBER OF MISSING OBSERVATIONS =			0	

TABLE XVI

CHI-SQUARE COMPARISON OF INSTITUTIONAL CHOICE - STUDENTS WHO LEFT VS. STUDENTS WHO STAYED AT OSU

OSU First Choice			
Count			
Row Pct.	Students who left	Students who stayed	Row Total
Col. Pct.			
Yes	181 51.4 79.7	171 48.6 73.4	352 76.5
No	46 42.6 20.3	62 57.4 26.6	108 23.5
Column Total	227 49.3	233 50.7	460 100.0

CHI-SQUARE D.F. SIGNIFICANCE MIN E.F. CELLS WITH E.F. < 5
 2.23557 1 0.1349 53.296 None
 NUMBER OF MISSING OBSERVATIONS = 1

TABLE XVII

CHI-SQUARE COMPARISON OF COUNSELING SERVICES - STUDENTS
WHO LEFT VS. STUDENTS WHO STAYED AT OSU

Psychological Counseling				
Count				
Row	Pct.	Students who left	Students who stayed	Row
Col.	Pct.			Total
1		26 47.3 76.5	29 52.7 74.4	55 75.3
2		3 60.0 8.8	2 40.0 5.1	5 6.8
3		2 66.7 5.9	1 33.3 7.7	3 4.1
4		1 25.0 2.9	3 75.0 7.7	4 5.5
5		2 33.3 5.9	4 66.7 10.3	6 8.2
Column Total		34 46.6	39 53.4	73 100.0

CHI-SQUARE D.F. SIGNIFICANCE MIN E.F. CELLS WITH E.F. < 5
2.03070 4 0.7301 1.397 8 of 10 (80.0%)

NUMBER OF MISSING OBSERVATIONS = 388

TABLE XVII (Continued)

Career Counseling				
Count				
Row Pct.	Students who left	Students who stayed	Row Total	
Col. Pct.				
1	24 51.1 36.9	23 48.9 27.4	47 31.5	
2	10 40.0 15.4	15 60.0 17.9	25 16.8	
3	16 43.2 24.6	21 56.8 25.0	37 24.8	
4	9 31.0 13.8	20 69.0 23.8	29 19.5	
5	6 54.5 9.2	5 45.5 6.0	11 7.4	
Column Total	65 43.6	84 56.4	149 100.0	
<u>CHI-SQUARE</u>	<u>D.F.</u>	<u>SIGNIFICANCE</u>	<u>MIN E.F.</u>	<u>CELLS WITH E.F. < 5</u>
3.59594	4	0.4634	4.799	1 of 10 (10.0%)
NUMBER OF MISSING OBSERVATIONS = 312				

TABLE XVII (Continued)

Financial Counseling				
Count				
Row Pct.	Students who left	Students who stayed	Row Total	
Col. Pct.				
1	28 44.4 52.8	35 55.6 43.8	63 47.4	
2	8 36.4 15.1	14 63.5 17.5	22 16.5	
3	6 24.0 11.3	19 76.0 23.8	25 18.8	
4	7 50.0 13.2	7 50.0 8.8	14 10.5	
5	4 44.4 7.5	5 55.6 6.3	9 6.8	
Column Total	53 39.8	80 60.2	133 100.0	
<u>CHI-SQUARE</u>	<u>D.F.</u>	<u>SIGNIFICANCE</u>	<u>MIN E.F.</u>	<u>CELLS WITH E.F. < 5</u>
3.96756	4	0.4104	3.586	1 of 10 (10.0%)
NUMBER OF MISSING OBSERVATIONS = 328				

TABLE XVII (Continued)

Academic Counseling (other than advisor)				
Count				
Row	Pct.	Students who left	Students who stayed	
Col.	Pct.		Row Total	
1		27 55.1 42.9	22 44.9 36.7	49 39.8
2		12 57.1 19.0	9 42.9 15.0	21 17.1
3		11 47.8 17.5	12 52.2 20.0	23 18.7
4		8 44.4 12.7	10 55.6 16.7	18 14.6
5		5 41.7 7.9	7 58.3 11.7	12 9.8
Column Total		63 51.2	60 48.8	123 100.0

CHI-SQUARE D.F. SIGNIFICANCE Min E.F. CELLS WITH E.F. < 5
 1.46551 4 0.8327 5.854 None

NUMBER OF MISSING OBSERVATIONS = 338

TABLE XVII (Continued)

		Other Counseling		
Count	Row Pct.	Students who left	Students who stayed	Row Total
Col. Pct.				
1	13 40.6 61.9	19 59.4 86.4	32 74.4	
2	2 100.0 9.5		2 4.7	
3	4 80.0 19.0	1 20.0 4.5	5 11.6	
4	2 66.7 9.5	1 33.5 4.5	3 7.0	
5		1 100.0 4.5	1 2.3	
Column Total	21 48.8	22 51.2	43 100.0	

CHI-SQUARE D.F. SIGNIFICANCE MIN E.F. CELLS WITH E.F. < 5
 6.23845 4 0.1820 0.488 8 of 10 (80.0%)
 NUMBER OF MISSING OBSERVATIONS = 418

TABLE XVIII

CHI-SQUARE COMPARISON OF FINANCING LAST SEMESTER AT OSU -
STUDENTS WHO LEFT VS. STUDENTS WHO STAYED AT OSU

Percentage of Support By On-Campus, Part-Time Work			
Count			
Row Pct.	Students who left	Students who stayed	Row Total
Col. Pct.			
Below 20%	4 33.3 22.2	8 66.7 50.0	12 35.3
21 to 40%	11 71.4 55.6	4 28.4 25.0	15 41.2
Above 40%	3 33.3 22.3	4 66.7 25.0	7 23.4
Column Total	18 52.9	16 47.1	34 100.0

<u>CHI-SQUARE</u>	<u>D.F.</u>	<u>SIGNIFICANCE</u>	<u>MIN E.F.</u>	<u>CELLS WITH E.F. < 5</u>
6.47619	4	0.1663	3.471	4 of 6 (66.7%)

NUMBER OF MISSING OBSERVATIONS = 427

TABLE XVIII (Continued)

Number Of Hours Worked On-Campus, Part-Time Job			
Count			
Row Pct.	Students who left	Students who stayed	Row Total
Col. Pct.			
Below 20 hrs. per. week	14 53.8 82.4	12 46.3 92.3	26 86.7
Over 20 hrs. per week	3 75.0 17.6	1 25.0 7.7	4 13.3
Column Total	17 56.7	13 43.3	30 100.0

<u>CHI-SQUARE</u>	<u>D.F.</u>	<u>SIGNIFICANCE</u>	<u>MIN E.F.</u>	<u>CELLS WITH E.F. < 5</u>
0.06396	1	0.8003	1.733	2 of 4 (50.0%)

NUMBER OF MISSING OBSERVATIONS = 431

TABLE XVIII (Continued)

Percentage Of Support With Savings				
Count				
Row Pct.	Students who left	Students who stayed	Row Total	
Col. Pct.				
Below 20%	29 36.3 41.4	51 63.8 45.9	80 44.2	
21 to 40%	18 32.7 25.7	37 67.3 33.3	55 30.4	
41 to 60%	11 44.0 15.7	14 56.0 12.6	25 13.8	
61 to 80%	5 55.6 7.1	4 44.4 3.5	9 5.0	
81 to 100%	7 58.3 10.0	5 41.7 4.5	12 6.6	
Column Total	70 38.7	111 61.3	181 100.0	
<u>CHI-SQUARE</u>	<u>D.F.</u>	<u>SIGNIFICANCE</u>	<u>MIN E.F.</u>	<u>CELLS WITH E.F. < 5</u>
4.35421	4	0.3602	3.481	2 of 10 (20.0%)
NUMBER OF MISSING OBSERVATIONS = 280				

TABLE XVIII (Continued)

Percentage Of Support From Employer Support				
Count	Students who left	Students who stayed	Row Total	
Row Pct.	Col. Pct.			
Below 20%	1 50.0 16.7	1 50.0 100.0	2 28.6	
21 to 40%	1 100.0 16.7		1 14.3	
41 to 60%	1 100.0 16.7		1 14.3	
61 to 100%	3 100.0 50.0		3 42.9	
Column Total	6 85.7	1 14.3	7 100.0	
<u>CHI-SQUARE</u>	<u>D.F.</u>	<u>SIGNIFICANCE</u>	<u>MIN E.F.</u>	<u>CELLS WITH E.F. < 5</u>
2.91667	3	0.4047	0.143	8 of 8 (100.0%)
NUMBER OF MISSING OBSERVATIONS = 454				

TABLE XVIII (Continued)

Percentage Of Support From Loans			
Count			
Row Pct.	Students who left	Students who stayed	Row Total
Col. Pct.			
Below 20%	11 61.1 26.8	7 38.9 12.5	18 18.6
21 to 40%	14 40.0 34.1	21 60.0 37.5	35 36.1
41 to 60%	8 32.0 19.5	17 68.0 30.4	25 25.8
61 to 80%	3 25.0 7.3	9 75.0 16.1	12 12.4
81 to 100%	5 71.4 12.2	2 28.6 3.6	7 7.2
Column Total	41 42.3	56 57.7	97 100.0

CHI-SQUARE D.F. SIGNIFICANCE MIN E.F. CELLS WITH E.F. < 5
 7.67864 4 0.1041 2.959 2 of 10 (20.0%)
 NUMBER OF MISSING OBSERVATIONS = 364

TABLE XVIII (Continued)

Percentage Of Support By Off-Campus, Part-Time Work				
Count				
Row	Pct.			Row
Col.	Pct.	Students who left	Students who stayed	Total
Below 20%		14 40.0 31.8	21 60.0 43.8	35 38.0
21 to 40%		10 47.6 22.7	11 52.4 22.9	21 22.8
41 to 60%		7 43.8 15.9	9 56.3 18.8	16 17.4
61 to 80%		4 40.0 9.1	6 60.0 12.5	10 10.9
81 to 100%		9 90.0 20.5	1 10.0 2.1	10 10.9
Column Total		44 47.8	48 52.2	92 100.0
<u>CHI-SQUARE</u>	<u>D.F.</u>	<u>SIGNIFICANCE</u>	<u>MIN E.F.</u>	<u>CELLS WITH E.F. < 5</u>
8.33947	4	0.0799	4.783	2 of 10 (20.0%)
NUMBER OF MISSING OBSERVATIONS = 369				

TABLE XVIII (Continued)

Number Of Hours Worked Off-Campus, Part-Time Job

Count Row Pct. Col. Pct.	Students who left	Students who stayed	Row Total
Below 20 hrs. per week	12 29.3	29 70.7	41 54.7
Over 20 hrs. per week	23 67.6 65.7	11 32.4 27.5	34 45.3
Column Total	35 46.7	40 53.3	75 100.0

<u>CHI-SQUARE</u>	<u>D.F.</u>	<u>SIGNIFICANCE</u>	<u>MIN E.F.</u>	<u>CELLS WITH E.F. < 5</u>
9.51167	1	0.0020	15.867	None
NUMBER OF MISSING OBSERVATIONS = 386				

TABLE XVIII (Continued)

Percentage Of Support From Scholarships			
Count			Row
Row Pct.	Students who left	Students who stayed	Total
Col. Pct.			
Below 20%	10 34.5 35.7	19 65.5 31.1	29 32.6
21 to 40%	10 35.7 35.7	18 64.3 29.5	28 31.5
41 to 60%	4 17.4 14.3	19 82.6 31.1	23 25.8
61 to 80%	2 28.6 7.1	5 71.4 8.2	7 7.9
81 to 100%	2 100.0 7.1		2
Column Total	28 31.5	61 68.5	89 100.0

CHI-SQUARE D.F. SIGNIFICANCE MIN E.F. CELLS WITH E.F. < 5
 6.85340 4 0.1438 0.629 4 of 10 (40.0%)

NUMBER OF MISSING OBSERVATIONS = 372

TABLE XVIII (Continued)

Percentage Of Support From Parents And Spouse			
Count			
Row Pct.	Students who left	Students who stayed	Row Total
Col. Pct.			
Below 20%	14 43.8 9.1	18 56.3 10.5	32 9.8
21 to 40%	18 38.3 11.7	29 61.7 17.0	47 14.5
41 to 60%	33 47.1 21.4	37 52.9 21.6	70 21.5
61 to 80%	13 28.9 8.4	32 71.1 18.7	45 13.8
81 to 100%	76 58.0 49.4	55 42.0 32.2	131 40.3
Column Total	154 47.4	171 52.6	325 100.0

CHI-SQUARE D.F. SIGNIFICANCE MIN E.F. CELLS WITH E.F. < 5
 13.84033 4 0.0078 15.163 None

NUMBER OF MISSING OBSERVATIONS = 136

TABLE XVIII (Continued)

Count Row Pct. Col. Pct.	Percentage Of Support From College Work Study		Row Total	
	Students who left	Students who stayed		
Below 20%	2 25.0 25.0	6 75.0 42.9	8 36.4	
21 to 40%	4 50.0 50.0	4 50.0 28.6	8 36.4	
41 to 60%	2 33.3 25.0	4 66.7 28.6	6 27.3	
Column Total	8 36.4	14 63.6	22 100.0	
<u>CHI-SQUARE</u>	<u>D.F.</u>	<u>SIGNIFICANCE</u>	<u>MIN E.F.</u>	<u>CELLS WITH E.F. < 5</u>
1.11310	2	0.5732	2.182	4 of 6 (66.7%)
NUMBER OF MISSING OBSERVATIONS = 439				

TABLE XIX

RATINGS OF EXTRACURRICULAR ACTIVITIES, COUNSELING SERVICES
AND ACADEMIC CLIMATE

	Students/Stayed			Students/Left			Degrees of Freedom	Chi-Squared Value	Significance
	N	Mean*	SD	N	Mean*	SD			
<u>Extracurricular Activities</u>									
Intramurals or Sports Club	208	2.567	1.907	182	2.291	1.889	4	1.28131	0.8645
Special Interest Organization	208	1.788	1.808	182	1.423	1.633	4	5.30365	0.2575
Student Government	208	.909	1.276	182	.665	.936	4	6.70258	0.1525
Professional fraternity or Honor Society	208	1.178	1.478	182	.769	1.093	4	8.89831	0.0637
Student Council	208	.865	1.196	182	.566	.708	4	10.28843	0.0358**
Religious or spiritual group	208	1.452	1.605	182	1.099	1.407	4	2.69967	0.6093
Social sorority or fraternity	208	1.990	2.026	182	1.467	1.694	4	12.47133	0.0142**
Residence hall organization	208	1.130	1.329	182	1.626	1.623	4	9.29387	0.0542
Nationality organization	208	.716	1.041	182	.593	.867	4	6.92867	0.1397
Other activities	208	.611	1.474	182	1.093	1.730	4	2.33913	0.6737
<u>Counseling Services</u>									
Career counseling	134	1.649	1.628	225	.702	1.321	4	3.59594	0.4634
Academic counseling (other than faculty advisor)	134	1.127	1.577	225	.627	1.230	4	1.46551	0.8327
Other counseling	134	.231	.682	225	.164	.608	4	6.23845	0.1820
Financial counseling	134	1.291	1.440	225	.489	1.102	4	3.96756	0.4104
Psychological counseling	134	.507	1.095	225	.231	.701	4	2.03070	0.7301
<u>Academic Climate</u>									
Overall Quality of Instruction	234	3.415	.702	224	3.339	.966	4	30.78810	0.0000**
Helpfulness of Faculty Advisor with Career Plans	234	3.440	1.249	226	3.345	1.413	4	11.09415	0.0255**
Availability of Faculty Advisor	234	3.150	1.496	226	3.040	1.570	4	9.10236	0.0586
Satisfaction with Major	234	3.449	1.482	221	2.602	1.8084	4	23.40464	0.0001**

*Means for Extracurricular Activities indicate degree of participation, 1= least active, 5= most active. Means for Counseling Services variables indicate helpfulness of service, 1= least helpful, 5 = most helpful. Means for Academic Climate range from 1 = least satisfactory, 5 = most satisfactory.

** Significant difference using Chi-Square at the .05 level.

APPENDIX E

OTHER DATA COLLECTED BUT NOT COMPARED
BETWEEN STUDENTS WHO LEFT AND
STUDENTS WHO STAYED

Results of Data Collected from Students
Who Left But Not Compared With
Students Who Stayed

The purpose of this study was to analyze the attrition/retention situation at Oklahoma State University (OSU) by comparing characteristics and concerns of students who stayed at OSU with students who left. Although the study did compare the two groups, data were also collected that could not be compared.

Students who left were asked to reply to eleven questions dealing with categories such as:

1. What did you do after leaving OSU?
2. What were the causes for your leaving OSU?
3. To whom did you talk about withdrawing?
4. Would you have dropped out if you had known what you know now?
5. Were there problems caused by the University which you felt resulted in your withdrawal?
6. Do you plan to return to college in the near future?
7. What were the reasons for choosing OSU in the first place?
8. What expectations of OSU did you have that were not fulfilled?
9. Do you think there was anything OSU could have done to help you personally, to help you overcome academic difficulties, to aid you in solving financial problems, to change

your mind about transferring, to encourage you to remain at OSU?

10. Is there anything OSU can do now to help?

11. Do you hope to return to OSU at any time in the future?

When looking at the responses, the following data were collected from the 227 students who left:

When responding to the question: What did you do during the first term you left OSU, 95 students were at another school, five in military service, 93 were working, four took time to travel, ten were homemakers, 11 were unemployed, and seven were doing other things.

When asked what they were doing presently, the students answered that 95 were still in school, eight were in the military, 98 were working, three were traveling, nine were homemakers, three were unemployed, and six were doing something else.

Respondents were given a choice of four different categories, academic, financial, employment, and personal, when responding to the questions: What do you feel were the causes for your leaving OSU; to what would you attribute your problems; and what do you feel were the main problems that brought about your decision to withdraw? More than one answer from each category could be checked. The results by category were:

Academic

Thirty-seven respondents stated they were unhappy with their major; 96 left because of low grades; 17 were dissatisfied with the quality of instruction; 47 listed boredom as a reason for leaving; 22 needed more career-oriented courses; ten listed that major courses were not available; 14 noted that a desired program was not available; 26 noted other academic reasons for leaving; 22 had a change in career goals; 63 transferred to another institution; 15 found courses too difficult; 23 noted that a job interfered with studies; 28 admitted that extracurricular activities interfered with studies; 40 needed a temporary break from studies; and 40 stated that being undecided about a choice of a major led to their leaving.

Financial

Thirty-five students noted that financial aid was not sufficient; three had their work-study program terminated; one listed problems with Veterans Administration (VA) benefits; 22 left because other financial aid was not received; 26 listed other financial reasons; three withdrew because they could not get a bank loan; 32 believed that OSU was too expensive or they could not afford OSU; nine thought that they were receiving a poor return on investment by attending OSU; and 41 exhausted all their savings and they had to return to a full-time job.

Employment

Twenty-five students left because of job scheduling conflicting with their studies; 23 left because they could not find a job while in school; 12 listed other employment problems; 21 left OSU to accept a full-time job; and eight enlisted in the military service.

Personal

Twenty-one students left OSU because they desired to live at home; three noted difficulty in commuting to campus; 12 left because their families moved out-of-state or out of the area; 20 admitted they left because parental expectations were too great; 21 students left OSU because home responsibilities were too great; 12 left due to illness or an accident; 29 admitted that they left because they could not adjust to a large university; 44 listed other personal reasons; 18 found studying too time-consuming; four left because they had already fulfilled their personal educational goals; 21 had to leave because of marriage or pregnancy; 15 left because of disciplinary problems; one cited child care not being available as a reason for leaving; and 77 listed a lack of motivation or uncertainty about goals as their reason for withdrawing.

The students were given ten categories and asked: To whom did you talk about withdrawing? The results were:

Twenty-eight talked to an academic advisor; ten talked to a faculty advisor; five visited with someone in the college dean's office; 104 talked to family members before deciding to

leave OSU; 12 talked to a counselor; 85 talked to other students about the decision; eight talked to a resident advisor; one went through an exit interview; 75 admitted they did not talk to anyone; and 20 listed other people.

When asked to list the time of year they talked to someone about leaving, students answered: 63 listed either in the spring or second semester at OSU; and 21 listed either in the fall or first semester at OSU.

Respondents were also asked: Would you have dropped out if you had known what you know now? One-hundred and twenty-two responded by saying yes, 51 answered no, and 40 did not know.

When looking at the results of the question: Were there problems caused by the University which you felt resulted in your withdrawal, the former students responded with 59 stating yes and 157 stating no.

One-hundred seventy-eight students noted that they planned to return to college in the near future and just ten planned not to return. Twenty-five were undecided about their college plans. Of the respondents who were going to return to a college, 47 are returning to OSU; 25 were leaving Oklahoma to attend another college; 14 listed a junior college as the next college of choice; 25 were going to enroll at Oklahoma University (OU); and 21 were going to a state regional university.

The former students had several reasons for choosing OSU in the first place, but the answers were divided into four

categories. The categories and results are: Good academic programs/good university, 26; parents or family went there, 17; friends went there, nine; and campus location and friendly atmosphere, 25.

The question: What expectations of OSU did you have that were not fulfilled, produced the following answers by category: Good academic programs or curriculum, 12; good teachers or instruction, 10; graduate assistant/foreign teaching assistants, six; and caring faculty and advisor, 20.

Respondents were also asked to answer the question: Do you think there was anything OSU could have done to: 1) help you personally, 37 answered yes and 64 answered no; 2) help you overcome academic difficulties, 60 answered yes and 44 answered no; 3) aid you in solving financial problems, 31 answered yes and four answered no; 4) change your mind about transferring, 12 answered yes and 74 answered no; and 5) encourage you to remain at OSU, 32 answered yes and 62 answered no.

When asked: Is there anything OSU can do now to help, the respondents answered with 51 saying yes and 112 answering no.

Eighty-five students noted that they hoped to return to OSU in the future, while 71 stated they would not return to OSU and 67 were undecided.

Results of Data Collected From Students Who
Stayed But Not Compared With Students
Who Left

The purpose of this study was to analyze the attrition/retention situation at OSU by comparing characteristics and concerns of students who stayed at OSU with students who left. Although the study did compare the two groups, data were also collected that was not compared.

Students who stayed were asked to reply to two questions that were not compared to the students who left. They were: What expectations of OSU did you have that are not being fulfilled, and do you think there is anything OSU could do to (if applicable): 1) help overcome academic difficulties; 2) aid you in solving financial problems; 3) change your mind about transferring; and 4) encourage you to remain at the University?

When looking at the responses, the following results were collected from the 234 students who stayed.

In responding to the question: What expectations of OSU did you have that are not being fulfilled, the three main areas of concern were: (1) better instruction/better teachers, 22 responded; 2) more financial aid counseling, six responded; and 3) better advising and academic counseling, eight responded.

Fifty-three students felt that OSU could help them overcome academic difficulties; 48 thought OSU could help them solve financial problems; only four students thought OSU could

do something to change their minds about transferring; and 17 felt that OSU could do something to encourage them to remain at OSU.

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STUDENTS REMAINING AT AND LEAVING OKLAHOMA STATE
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