CHAPTER 1

Each May through early June, nearly one and a half million, mostly young adults, receive college degrees (NCES, 2000a). The majority of these new graduates began their journey four, five, or even six or more years earlier with a cohort that was more than twice their current number. Completion of one’s baccalaureate degree in modern American culture remains a milestone leading toward an esteemed career, a successful life, or upwardly mobility, yet many chose another course. Because a majority of postsecondary institution’s initial degree aspirants chose not to complete their degree at that institution, researchers concerned with institutional outcomes are interested in identifying factors and evaluating educational programs related to departure decisions of academically capable students.

The volume of retention research is evidence of the historical concern postsecondary institutions at all levels have had regarding student attrition. Departure before degree completion presents substantial psychological, occupational, and economic consequences that affect individuals, our nation’s political economy, and postsecondary institutions in different ways (NCES, 1999a; Tinto, 1993). Not completing one’s degree can limit life and career choices that may have economic as well as personal repercussions. Society as a whole may be deprived of individuals possessing vital interpersonal, technical, or other talents and skills (Bowen, 1977; Leslie & Brinkman, 1988). And, of particular relevance to this study, less than satisfactory enrollment growth may precipitate fiscal ramifications that impact an institution’s academic soundness.

Early student attrition literature indicated that most students left institutions involuntarily. Marks (1967) stated that an appealing conjecture was to trace withdrawal
directly to academic failure. Also, during the era of *in loco parentis* in higher education, administrators wielded extensive authority over students’ behavior. Continued enrollment could be determined by the subjective application of unwritten standards or customs with little consideration for students’ due process rights.

Reviews of research spanning the most recent 40 years, however, tend to paint a contrary, more complex picture of most college student departures. As American higher education enters the 21st Century, current data indicates more students change institutions before graduation than ever before. As many as three-quarters of the most recently enrolled that depart, leave their first institution voluntarily. Some students leave higher education forever (dropout) and some stop attending for a period of time (stopout). Many transfer to other postsecondary institutions immediately. Of all the students that do depart, the majority chooses to do so voluntarily. In fact, nearly 60% of all four-year college students have attended more than one institution and two-thirds of these will, at some point, complete a baccalaureate degree (McCormick, 1997). The importance for each institution to identify and understand those reasons capable students choose to leave is one of the central themes for institutional research.

Over four decades, institutional researchers have sought to construct models and identify factors that play a role in voluntary departure. Some studies have identified student characteristics; other studies have suggested institutional factors, while some have examined factors beyond the campus community that explain student departure. Based upon the most prevalent and extensively studied retention models, institutional, external, and individual student factors all appear to contribute in varying amounts to departure decisions. Leaders concerned with retention issues at specific institutions,
however, remain challenged to identify and address indigenous factors. An institutional goal for such leaders has been to apply research from programs shown to positively affect institutional retention and/or ameliorate the causes of attrition locally.

Institution specific program evaluation is the key to providing quality information that can address local institutional concerns (Dennis, 1998; Hossler & Bean, 1990; Smart, 1994; Tinto, 1993). This study has provided some information useful to local, regional, and other higher education leaders as retention issues are considered and policies are developed. This study examined outcome data obtained from the evaluation of a local retention initiative recognized at many postsecondary institutions as the First Year Experience (FYE) course. This study determined whether differences in several student outcomes could be related to completion of an FYE course.

Statement of the Problem

The goal of this study was to create new knowledge for higher education leaders responsible for enrollment management policy related to subject-based FYE courses. A fundamental policy question among faculty and administrative leaders on many campuses often arises over the allocation of resources for academic support services. Institution specific research is essential to obtain important, quality information needed to address such concerns. The foundation of this study was based upon this premise. The findings of this study provide information that will guide retention programs at University of Nevada, Reno (UNR) and could be useful on other college campuses. Specifically, this study will investigate academic performance (Grade Point Average), student retention (continued enrollment), and student commitment. Outcome data for this study was obtained following
implementation of a campus wide subject-based version of FYE on the UNR campus offered during the fall of 1999.

This study proposed to assess whether differences in academic performance, student retention, and reported commitment were evident for comparable groups of FYE and Non-FYE (NFYE) first semester students. The FYE group was composed of students who completed one of the identified FYE courses during the fall 1999 semester. Students in the NFYE group were an independent group that completed an introductory English course during the same semester. The study also evaluated these outcomes for categories of students within the two comparable groups. These categories were composed of students with specific numbers of nontraditional characteristics. Student characteristics negatively associated with college student persistence toward degree completion have been identified and defined by the National Center for Education Statistics. Local university staff identified an additional characteristic, graduation for a rural Nevada high school, for the FYE evaluation. This study utilized high school size in Nevada to operationally define this characteristic.

Research has suggested that certain student characteristics are negatively associated with student persistence and eventual degree completion. To capture any variance in outcomes across the distribution of students with these characteristics, this study analyzed academic, retention, and commitment data between four groups formed on the basis of the number of identified nontraditional characteristics. The National Center for Education Statistics has used these characteristics to categorize students according to the number they exhibit (see Figure 1). Students who exhibit
none of these factors are categorized as Traditional. Students who exhibit only one factor are categorized as Minimally nontraditional. Students who exhibit two or three of these factors are categorized as Moderately nontraditional students. Highly nontraditional students are those who exhibit four or more of the factors negatively associated with degree completion.

**FIGURE 1.** Percentage Distribution of 1995-96 Beginning Postsecondary Students According to Traditional/Nontraditional Status, by Sector of First Institution Attended

This study explored differences between students who complete a FYE course and a comparable independent group of students who did not. The study utilized academic performance (GPA), retention (continuous enrollment through three semesters), and commitment (self-reported survey data) as outcome measures. Academic and attendance data were obtained from university records. Commitment
data was acquired from student responses to Beginning and End of the Semester questionnaires. Research in the form proposed here should prove valuable to retention policy development locally and could be beneficial nationally.

In order to accomplish these research objectives, this study proposes to answer these research questions:

1. Do significant differences in academic performance (GPA) exist between FYE and NFYE completers?
2. Do significant differences in retention (frequency of continued enrollment) exist between FYE and NFYE completers?
3. Do significant differences in reported commitment exist between FYE and NFYE completers?
4. Do significant differences in academic performance (GPA) exist between the same traditional status categories across FYE and NFYE completers?
5. Do significant differences in retention (frequency of continued enrollment) exist between the same traditional status categories across FYE and NFYE completers?
6. Do significant differences in reported commitment exist between the same traditional status categories across FYE and NFYE completers?

This study proposed to utilize four statistical methods to analyze differences in academic performance, retention over three academic semesters, and commitment at the conclusion of one semester respectively. First, the timeframe typically used in retention studies has been the first year through the initial term (fall) of students’ second year of enrollment. This study analyzed data from FYE and NFYE groups
obtained over a similar period using university data; fall 1999, spring 2000, and fall 2000 semesters. This study employed a multiple analysis of variance statistic (MANOVA) to analyze academic performance data (GPA) from three consecutive semesters (fall 1999, spring 2000, and fall 2000). This statistic will analyze the data between FYE and NFYE groups as well as between traditional status categories within the FYE and NFYE groups using a factorial design.

Secondly, the chi-square statistic was employed to analyze frequencies of student enrollment between the FYE and NFYE groups as well as between traditional status categories within FYE and NFYE groups. Enrollment data from the fall 1999, the spring 2000, and the fall 2000 semesters was used for this analysis. Finally, ordinal level data obtained from student surveys was used to assess commitment to the university (UNR). Responses to commitment items were summed for each student responding on each questionnaire and commitment groups (Very Committed, Committed, Uncommitted, and Very Uncommitted) were organized into quartiles. A non-parametric test, Mann-Whitney, was employed to analyze commitment responses between FYE and NFYE groups. The Kruskal-Wallis non-parametric test was employed to analyze commitment responses between traditional status categories within FYE and NFYE groups.

Rationale for the Study

To begin to address the issue of student retention, institutions must first consider which form of departure they plan to address (dropout, stopout, transfer, etc.). In addition, continuous assessment and a fuller understanding of the factors and circumstances that induce students to leave or encourage them to remain are
necessary to determine institutional policy. Within the last quarter century, a growing number of postsecondary institutions have initiated policies, which indicate their concern to retain, through to graduation, those students who are admitted across academic programs. Growing numbers of these institutions are engaged in assessing program and student measures to improve (formative) and demonstrate (summative) program outcomes at the institutional and individual levels (Smart, 1994).

The FYE course is one student retention intervention that has been flourishing throughout the most recent three decades. FYE courses have received increased attention as a method to manage enrollment as several studies have suggested positive retention and academic performance outcomes for participants. These courses promote an institution’s programs and services and introduce students to career information, academic strategies, and personal development topics. Specifically, FYE course content can focus on academic skills and strategies, knowledge of program requirements and advisement, career education, familiarization with institutional policies and procedures, awareness and utilization of campus resources, developing working relationships with faculty and classmates, and a range of personal growth and health topics. Studies have speculated that these course components may work in ways that draw students into the campus community during students’ initial tenure. These courses may assist some students during an uncertain transition period when they seem most at risk and apt to consider departure as a means of coping with their environment.

The FYE approach has been reported to have the potential to impact students’ academic performance as well as persistence toward graduation (Fidler, 1991; Shanley &
Witten, 1989). A step toward inclusion of FYE content into introductory level subject-based courses, although limited, has begun to appear within the body of retention literature (Maisto & Tammi, 1991; House & Kuchynka, 1997; Sommer, 1997). This is the FYE form that has taken shape on the UNR campus. As there are indications that the subject-based FYE model is an increasing trend, a broader goal of this evaluation will be to compare these courses, in the context of a campus wide implementation of this approach, to independent implementation at the program level.

Students who do not continue to attend following their first or second semester represent a considerable fiscal loss many institutions cannot easily dismiss. An institution’s commitment to address retention issues represents fiscal and human expenditures during a period of high competition for resources. Costs of services that increase students’ academic quality and purport to ameliorate departure must be balanced against their de facto benefits. The commitment to address student retention through subject-based FYE courses represents such a cost. If UNR or any institution is encouraged to initiate efforts to enhance learning or promote retention, it is essential each institution’s return on investment be determined for both students and the institution.

Significance of the Study

Individual and societal benefits from college degree completion have been well documented through economic and technological developments throughout American history (Leslie & Brinkman, 1988). Most students are advised of the potential benefits of postsecondary education from their elementary grades forward and college enrollment of high school graduates has increased from 49% to 63% in the past 20 years. Still, nearly
half of those who do enroll elect not to complete degrees following their arrival on campus. Among college graduates in recent decades, nearly half did not earn their degree from the institution at which they had originally matriculated. The affect of voluntary student out migration on specific postsecondary institutions can be grave. Accountability to funding sources and accreditation organizations, allocation of limited resources, and competition for top teachers, scholars, and students can be shaped by attrition or less than satisfactory enrollment growth. In addition, accrediting organizations and some state legislatures indicated an increased emphasis on learning outcomes. Within this broad context, an evaluation of this apparently unique iteration of First Year Experience courses is an important addition to this area of institutional research.

Student retention is an issue of national as well as institutional concern. The American College Testing Program’s (ACT) institutional survey of 1992 predicted that 30% of academically qualified freshman would dropout of public four-year institutions before entering their sophomore year. Also, less than half of those remaining would complete graduation within six academic years. Tinto (1993) reported that 1.5 million qualified students left their first postsecondary institution voluntarily and over one million (42%) of the 2.4 million who entered for the first time in 1986 left postsecondary education all together. The National Center for Education Statistics (NCES) Condition of Education report on National Education Longitudinal Study found 37% of 1989-90 beginning college students were no longer enrolled in any form of postsecondary education and only 26% had obtained a bachelor’s degree by 1996 (NCES, 1997a).

During the past century, postsecondary enrollment growth has been substantial although not uniform. Postsecondary expansion resulted from direct federal support for
extension and public service through legislation such as the Hatch and Morrill Acts in the 19th Century. Support for capital construction and higher education legislation provided indirect contributions through student tuition assistance and also increased funding for research since World War II that benefited four-year college growth. Even though an increasing percent of citizens overall has achieved access and completed college degrees, the proportion of entrants completing their degrees has declined in all but the most select institutions. Robert Frank (1999) reported in his commentary on American culture, *Luxury Fever*, that more families filed bankruptcy in 1997 than had children complete a college education. This is dramatic and may represent the true measure of education’s worth regarding the effort and commitment that Americans possess regarding a college education. Yet when asked, most parents in the 1990s want their children, and the youth themselves aspire, to attain a college degree.

Other circumstances increased postsecondary enrollments throughout most of the Twentieth Century. Compulsory education laws expanded the secondary school population creating a larger pool from which to draw students for college admission. Competition for students resulted in increasingly liberal college admission, open door policies, at some institutions that encouraged some individuals to be the first in their family to attend college. State and federal tuition assistance, available to a wider spectrum of previously under served Americans also helped less prosperous families support their children’s effort to earn a degree.

Employers have begun to view college education as the norm for job entry and advancement. As a result, greater numbers of students have sought to enhance career options by continuing their education after high school. Presently, high school students
are now bombarded by career education. Tech/Prep, School-To-Careers, career centers and job fairs, school counselors, college recruiters, and parents press students to seek postsecondary education. A result may be greater student concern for limited career prospects or choices if they do not seek a college education. The range of background characteristics for individuals entering postsecondary institutions has undergone changes. Previously under-served ethnically and socially diverse groups have achieved increased access to all forms of postsecondary education. Campuses that promote increased diversity have sought to make higher education more broadly available. Over the past 40 years, institutions have enrolled an increasingly heterogeneous student body.

As postsecondary enrollment has grown, student bodies have become increasingly heterogeneous compared with earlier, more traditional, college students. Throughout the country, these heterogeneous student bodies have exhibited a range of characteristic that was not evidence in previous college going generations. Levine and Cureton’s national survey (1998a) found a substantial proportion of students had characteristics negatively associated with degree completion. Their survey indicated increasingly sporadic enrollment patterns across both traditional and nontraditional groups throughout the 1990s. They found that more students now delay entry, work off campus, are older, attend part-time, are more psychologically damaged, and possess a consumer perspective for service and convenience than in earlier generations.

Since there are limits to what institutions are able to accomplish regarding retention, programmatic choices must be made about how best to address various forms of student departure. Institutional researchers have a sense of what interventions appear to influence student behavior; however, in spite of an extensive body of literature, an
inability to completely understand the full nature of student departure remains. The roots of individual departure have been explored and models have arisen that speak to a theory. Present models clarify the roles campus communities play and suggest how theory may explain student experiences. Educational leaders are cautioned not to apply such models universally however. No specific theory or model can be handed to postsecondary leaders, which explains specifically why different programs are effective at different institutions. Under such circumstances and as studied here, it becomes essential that institutions themselves undertake formative as well as summative evaluations educational programs and determine the most effective approaches within the context of their defined institutional mission.

Limitations of the Study

There are several limitations to this study, which should be taken into consideration:

1. This researcher designed the survey instruments, however consultation with UNR staff contributed to the final versions used in this study. A pre-test of the instruments was not undertaken because the development process limited the time available to print the instruments prior to their planned administration timeframe.

2. Courses in this study were categorized as FYE based upon the content outlined in a syllabus submitted to the Associate Vice-President for Academic affairs and planned use of one of several FYE related text. The extent to which there was variability in content, emphasis on certain content, pedagogical methods, and instructor characteristics were not evaluated. Variability between courses and faculty were not assessed in this study.
3. Students in this study represent a group not affected by a financial incentive implemented during the fall semester 2000 (the Millennium Scholarship). As a result, this additional variable was not need to be controlled and study results are more clearly attributed to FYE courses.

4. This descriptive study was limited to the evaluation of a single public postsecondary institution over three semesters.

Definition of Terms

**Academic Integration.** Academic integration is one concept within longitudinal models of institutional departure, which describes students’ involvement with faculty, course material, and scholarly pursuits of an institution.

**ACT.** The American College Test is one of the two major standardized tests used by postsecondary institutions in determining student admission and placement.

**HS&B/S0.** The High School and Beyond Sophomore longitudinal study (1980-1993) was a study conducted by the National Center for Educational Statistics. A random sample of high school sophomores and their parents or guardians was surveyed periodically over 14 years.

**Chi Square ($\chi^2$).** The chi square method is a statistical method used to determine the significant differences among independent groups when frequencies (nominal data) are in discrete categories. For the purpose of this study, Chi will be used to test differences in retention frequencies between groups.

**Commitment.** Commitment is a variable related to institutional departure found in within longitudinal student departure models. For the purpose of this study, commitment will be assessed as a dependent variable through the survey.
CIRP. The Cooperative Institutional Research Project (CIRP) was begun by Alexander Astin in 1975 to collect national data on new college students. Post-secondary institutions that elect to participate in the project conduct CIRP surveys of new students at the beginning of each fall term and provide that data to the project for compilation.

Enrollment management. Enrollment management, for the purpose of this study, refers to campus wide involvement in the processes of admitting, educating, developing student potential in the best interest of students’ goals and the institution’s mission in order to enhance student retention.

GPA. The GPA indicates student grade point average based on a 4.0 scale.

Highly nontraditional students. Highly nontraditional students, for the purpose of this study, are those students whose demographic data indicate they possess four or more characteristics negatively associated with retention.

Intention. Student intention, for the purpose of this study, refers to commitment. Intentions may also refer to each student’s expressed plan to reenroll in the institution.

Kruskal-Wallis. The Kruskal-Wallis statistic is the non-parametric method used to test ordinal data means among independent groups. For the purpose of this study, Likert Scale survey ordinal data will be used to determine significant differences among multiple groups.
Mann-Whitney. The Mann-Whitney statistic is the non-parametric test of means for ordinal data between groups.

Minimally nontraditional student. Minimally nontraditional students, for the purpose of this study, are those students whose demographic data indicate they possess at least one characteristic negatively associated with retention.

Multivariate Analysis of Variance (MANOVA). MANOVA is a statistical method that tests whether mean differences among several repeated dependent variables. For the purpose of this study MANOVA will be used test differences among three consecutive semester grade point averages.

Moderately nontraditional student. Moderately nontraditional students, for the purpose of this study, are those students whose demographic data indicate they possess two or three characteristics negatively associated with retention.

NAEP. The Nation's Report Card, the National Assessment of Educational Progress, is a congressionally mandated project of the National Center for Education Statistics (NCES), part of the U.S. Department of Education. NAEP is the only national representative and continuing assessment of what America's students know and can do in various subjects.

NCES. The National Center for Education Statistics is a unit within the U.S. Department of Education that collects and analyzes education-related data.

NELS-88. The National Education Longitudinal Study was a research project conducted under the auspice of NCES. This study surveyed a random sample of 1988 high school seniors over a 10-year duration.
NPSAS. The National Post-secondary Student Aid Study was a descriptive summary of 1995-96 beginning postsecondary students conducted by the NCES. The summary included profile data regarding a range of characteristics of students entering two and four year institutions. This project identified and defined nontraditional student characteristics negatively associated with degree completion.

Nontraditional characteristics. Nontraditional characteristics, for the purpose of this study, are student demographic traits, which the literature has determined to be negatively associated with persistence and degree completion (parent education, residential arrangements, dependents, off-campus employment, employment over 20 hours, age over 24 years, ethnicity, high school size, part-time enrollment, alternative diploma, and delayed entry since high school graduation). About one-third of young people at risk for low educational attainment are able to persist in high school and enroll in a four-year college. The NCES has found a negative association between certain factors and persistence toward degree completion. UNR staff has identified rural high school (high school size) as a local factor believed to have a negative association with degree completion. The nine factors to be included in this study are:

- First generation status
- Delayed entry
- Part-time attendance
- Off-campus employment
- Dependents
- Commuters
- Race and Ethnicity
• Age
• High school size

Persistence. Persistence is synonymous with retention. Persistence, for the purpose of this study, refers to students’ continuing academic progress toward earning a bachelor’s degree.

Retention. Retention, for the purpose of this study, refers to student enrollment is subsequent semesters.

SAT. The Scholastic Aptitude Test is one of two major standardized tests used by postsecondary institutions in determining student admissions.

Social integration. Social integration is one concept within longitudinal models of institutional departure. Social integration is a term that describes students’ acceptance of the values and involvement in social aspect of campus life.

Stayouts. Stayouts, for the purpose of this study, refer to students who voluntarily do not continue to enroll for classes at a particular IHE.

Stopouts. Stopouts, for the purpose of this study, refer to students who voluntarily do not reenroll in classes for one or more semesters, but continue pursuit of a course of study in the same IHE during some subsequent term.

SIS. The University of Nevada, Reno’s Student Information System is the computerized student records system from which academic performance and enrollment data will be obtained for this study.

Traditional student. Traditional students, for the purpose of this study, are those students whose demographic data indicate they possess no nontraditional characteristics. Traditional students are typically 18-19 year olds, non-married, childless, high school
graduates for the preceding year before college entrance residing in dormitories and whose parent(s) have had at least some college experience.

Organization of the Study

This initial chapter has outlined an overarching rationale of this study for the reader. This study was couched within its local and national institutional context. Chapter one provided a rationale for the study, the research questions to be addressed, and the methods the study proposes to employ. Subsequent chapters provide a review of institutional research literature related to college student attendance and retention, the methodology and statistics that were employed to complete this study, the results of the analysis, and conclusions based upon those results with implications and recommendations for institutional policy.

Chapter Two provides a rationale for the historical concerns related to student retention as expressed in the literature. This chapter includes the history of college student orientation courses and current applications of this approach across higher education. A summary of the studies that have formed the basis for the development of student departure models, and student retention theory essential to understanding the nature of student departure is presented. The composition of the postsecondary student bodies and the implications of changes in student characteristics are examined. A review of the criteria used to define a student’s traditional status provides documentation for the sub-categories proposed in this study in order to establish the rationale to include these divisions in the analysis. Finally, reviews of the studies that have examined FYE courses similar to those being evaluated in this study are discussed.
Chapter Three discusses the statistical methods this research proposes to employ to assess differences in academic performance, retention, and commitment. This chapter also presents the formation and composition of the groups and sub-groups used in this investigation and the survey instruments that were administered. Chapter Four provides the results of the statistical tests that were used along with other relevant data that was found. Chapter Five discusses the conclusions from these results along with any implications and recommendations for enrollment management policy.