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The Impact of Place of Residence on the Academic Achievement and Retention of First-Time-in-College Students at an Urban Commuter University

Tameria Lee Vickerson

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THE IMPACT OF PLACE OF RESIDENCE ON THE ACADEMIC
ACHIEVEMENT AND RETENTION OF FIRST-TIME-IN-COLLEGE STUDENTS AT
AN URBAN COMMUTER UNIVERSITY

by

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A Dissertation Submitted to the Faculty of
Old Dominion University in Partial Fulfillment
of the Requirements for the Degree of

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ABSTRACT

THE IMPACT OF PLACE OF RESIDENCE ON THE ACADEMIC ACHIEVEMENT AND RETENTION OF FIRST-TIME-IN-COLLEGE STUDENTS AT AN URBAN COMMUTER UNIVERSITY

Tameria Lee Vickerson
Old Dominion University, 2003
Director: Dr. Dana D. Burnett

This study explored the impact of place of residence on the academic achievement and retention of full-time, first-time-in-college students at an urban, public, primarily commuter university in the Southeast. Three groups of subjects were compared to ascertain if any group differences existed in regard to mean freshman grade point average, grades earned in a common course taken (Freshman English I), and retention into the second year of study. The three subject groups that were compared included residential learning community, traditional residence hall, and commuter students.

The subject groups were matched on the demographic characteristics of age, gender, and ethnicity and prior academic achievement in the form of high school grade point average. Scores on the Scholastic Aptitude Test (SAT) were used as a covariate in two separate analyses of covariance (ANCOVA) procedures to test for group differences in academic achievement. Retention into the second year of study was analyzed using a binary logistic regression to compare the expected and observed frequencies of re-enrollment.

The results indicated that there were no differences in academic achievement between the subject groups in terms of mean freshman grade point average. Statistically significant results were obtained when the groups were compared on the mean grade in
Freshman English I. The residential learning community group achieved a significantly higher mean course grade than both the traditional and commuter groups. No group differences were found regarding retention into the second year of study.

Conclusions, implications for future research, and suggestions for administrative consideration are discussed using the information obtained as a result of the analyses.
I dedicate this Dissertation to my mother, Betty J. Vickerson, who has continuously been a wonderful source of strength, support, and encouragement to me throughout my academic studies and my life.

I dedicate this Dissertation to my significant other, Philip B. Cole, who has had unwavering faith in me through the many triumphant and stressful moments, understood the demands on my time, and shared my joys and tears.
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TABLE OF CONTENTS

ABSTRACT

DEDICATIONS ............................................................................................................ iv

ACKNOWLEDGEMENTS ......................................................................................... v

LIST OF TABLES ....................................................................   viii

Chapter

I. INTRODUCTION .............................................................................. 1
   Background and Overview............................................................. 1
   Purpose and Significance of the Study............................................ 8
   Problem Statement ......................................................................... 9
   Definition of Terms ........................................................................... 9
   Research Questions ........................................................................ 11
   Statement of Hypotheses .......................................................... 11
   Assumptions ....................................................................................... 13
   Procedure ........................................................................................... 13
   Study Limitations ........................................................................... 15
   Organization of the Chapters.............................................................. 17

II. LITERATURE REVIEW .................................................................. 18
   Introduction......................................................................................... 18
   Residence Halls.................................................................................. 18
   Residence Hall Development, Mission, and Objectives.. 22
   Residence Hall Students................................................................... 25
   Learning Communities........................................................................ 28
   Learning Community Historical Development.......................... 30
   Learning Community Benefits and Commonalities................. 31
   Learning Community Models............................................................... 33
   Residential Learning Communities.............................................. 36
   Learning Community Students........................................................... 38
   Commuter Students.......................................................................... 42
   Retention............................................................................................... 47
   Variables Related to Retention...................................................... 50
   Retention Strategies and Interventions........................................... 58
   Retention and Place of Residence Research ............................ 62

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LIST OF TABLES

<table>
<thead>
<tr>
<th>TABLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Demographic Characteristics by Gender and Age</td>
<td>95</td>
</tr>
<tr>
<td>2. Demographic Characteristics by Ethnicity</td>
<td>96</td>
</tr>
<tr>
<td>3. Academic Achievement Characteristics</td>
<td>97</td>
</tr>
<tr>
<td>4. Original, Transformed, and Estimated Marginal Means and Standard Deviations for Freshman Grade Point Average</td>
<td>99</td>
</tr>
<tr>
<td>5. Original, Transformed, and Estimated Marginal Means and Standard Deviations for Freshman English I Grade</td>
<td>100</td>
</tr>
<tr>
<td>6. Observed and Expected Retention Frequencies</td>
<td>101</td>
</tr>
</tbody>
</table>
CHAPTER I
INTRODUCTION

Background and Overview

The role of university residence halls in the academic development and retention of college students is ever changing. The residence hall has evolved from merely a place for students to eat, sleep, and study, to a potentially valuable component in their social and academic integration, particularly for first-year students. Gamson (1991) found the most important determinant of college impact is living on-campus. Considerable evidence demonstrates that residing on-campus provides substantial benefits compared to students who commute from off-campus housing (Chickering, 1974; Pascarella & Terenzini, 1991). Several retention studies indicate that students who live in residence halls remain in school at a much higher rate than commuter students (Astin, 1993; Mallette & Cabrera, 1991).

The retention of enrolled students is a major concern for many colleges and universities. The Consortium for Student Retention Data Exchange (CSRDE) reported that the first year retention rate for the 1999 first-time-in-college (FTIC) freshman cohort for public colleges in the U.S. was 79.8% (1999). Tinto (1993) found that for four-year institutions, 26.8% of FTIC students will dropout within the first two years of attendance.

Numerous studies have been conducted over the past few decades to ascertain if place of residence has an impact on such outcome measures as academic achievement and progress, study habits, critical thinking, retention, and extracurricular activity participation. Of these outcome measures, academic achievement, operationally defined
as cumulative grade point average (GPA), has received the largest amount of attention
and is the outcome measure most frequently studied simultaneously with re-enrollment.

A student's grades are a valuable indicator of successful adjustment to the academic
demands of college (Pascarella & Terenzini, 1991). The evidence regarding a
relationship between where college students reside and academic performance is mixed
(Schroeder, Mable, & Associates, 1994). Blimling (1993) discovered that many of the
earlier studies reporting positive academic outcomes for residence hall students, as
compared with students living in various other off-campus residence arrangements, had
not controlled for past academic achievement.

Lum and Alfred (1987) found that full-time student status affected academic
achievement. Pascarella and Terenzini (1998) contended that full-time student status
fostered student learning. Lewallen (1993) reported that the college-environmental
characteristic most positively associated with retention was full-time student status.

The retention and academic achievement of commuter students also has received
considerable attention in recent years. Horn and Berktold (1998) noted that the majority
of college students commute to campus. Of first-year students, approximately 31%
commute to campus (Kuh, 2001). Studies comparing the retention and academic
achievement of groups of commuters with that of resident students have achieved
assorted results. Many of the studies failed to take into consideration specifically where
commuter students lived (Nowack & Hanson, 1985) and treated commuters as a
homogeneous population (Jacoby, 1989). Commuters may live at home with parents or
other relatives, in an apartment or boarding house off-campus, or in university-owned and
managed off-campus housing.
The definition of what constitutes a commuter student has been argued. The most commonly accepted definition of a commuter student is any student whose place of residence while attending college is not in a campus residence hall or in a fraternity or sorority house (Jacoby, 2000). In reality, commuter students constitute more of a heterogeneous population, and further research specifically comparing the different subgroups of commuter students would be advantageous. In addition, the existing models of college student development fail to include factors specifically pertaining to the commuter student experience. It is thought that what works for resident students will work equally well for commuters (National Clearinghouse for Commuter Programs, 1999).

The level of involvement and integration of college students has been studied as it relates to campus residency, retention, and community. Cabrera, Nora, and Castañeda (1993) and Tinto (1993) found that students' academic and social integration in college affects positively their persistence on-campus. Of college and university Presidents surveyed by the Carnegie Foundation, 97% strongly believed in the importance of community and 71% of respondents rated the need for greater effort to build a stronger overall sense of community on their campuses (Boyer, 1990).

Many institutions have begun to explore and develop programs aimed at increasing student retention and academic performance. One such effort involves implementing learning communities, both residential and non-residential in nature. This trend is increasing steadily as institutions of higher learning attempt to become more accountable for the learning environment and overall development of college students. Learning communities offer the student an opportunity to participate in planned activities and
specifically designed curricula that are grounded in the philosophy that the more students are involved and integrated into campus life and coursework, the more apt they will be to persist and achieve academically (Tinto, 1998). Interactions with faculty and student peers is enhanced in learning communities, and students have the opportunity to use the learning community experience as a forum for collaborative learning, building community, and formulating efficient and effective support networks with other learning community students.

The present study explored the impact of place of residence on the academic achievement and retention of full-time, first-time-in-college (FTIC) freshmen at the University of South Florida (USF) in Tampa. USF is an urban, public, primarily commuter university, and the 13th largest university in the country. During academic year 1999-2000, USFs total enrollment was 35,135 including both part- and full-time students (USF 1999-2000 Fact Book). Of this total number, 5,370 were freshman, with 3,237 classified as FTIC students (USF 1999-2000 Fact Book). A total of 1,613 freshmen resided on-campus, with the remainder living in various off-campus accommodations (USF 1999-2000 Fact Book). During academic year 2000-2001, USFs total enrollment increased to 35,890 with 3,516 students classified as FTIC students with 1,795 students residing on-campus (USF 2000-2001 Fact Book).

Three sample groups of students taken from within the FTIC freshman population were compared: special interest housing residential learning community (RLC), traditional residence hall (TRH), and commuters (C) who resided at home with a parent/parents or in other off-campus living arrangements and who commuted to campus.
This study was conducted to determine if differences between the three subject groups were found on academic achievement and retention based upon place of residence.

Existing research provides inconsistent and inconclusive support regarding the positive impact of college student place of residence on various academic, cognitive, and personal outcomes. The quantity of research outcomes on these issues is plentiful. However, few clear and consistent trends from which to draw definitive conclusions are apparent in the literature.

One potential explanation for the lack of consistency in the findings to date may be that some researchers failed to control for differences in past academic performance when comparing different student groups (Braxton, Vesper, & Hossler, 1995; Clodfelter, Furr, & Wachowiak, 1984; Fidler & Moore, 1996; Grayson, 1997; Nowack & Hanson, 1985). Blimling (1989) conducted a meta-analysis of prior studies comparing students living off-campus with on-campus residents. His analysis revealed that most of the studies finding resident achievement to be better than that of off-campus students failed to include statistical or methodological controls to adjust for differences in the past academic performance of the groups.

Pascarella and Terenzini (1991) studied on-campus residents in comparison with commuters to determine the influence of residence on persistence and degree attainment. Pascarella, Bohr, Nora, Zusman, Inman, and Desler (1993) researched measures of critical thinking in their comparison of on-campus residents with commuters. Astin (1977), Chickering (1974), and Pascarella (1984) compiled data regarding levels of involvement for residents and commuters. Kanoy and Woodson Bruhn (1996) compared students residing in a living and learning residence hall with a
matched control group of traditional residence hall students to determine group differences in retention rates and academic achievement. Pike (1999) studied the effects of a residential learning community on students' interaction and gains in learning and intellectual development compared to traditional residence hall students.

Prior research on learning community students is less plentiful than that found for traditional residents and commuters, although some learning community studies were conducted more recently. Few studies comparing "residential" learning community students with residents and commuters, while simultaneously measuring two separate academic achievement outcomes and re-enrollment into the second year of college within the same study, were found. Students "self-selecting" to participate in a learning community may lead researchers to mistakenly believe that outcome measures were affected by place of residence independent of student motivation (Terenzini, Pascarella, & Blimling, 1996).

Regarding the effects of residence on retention, Terenzini and Pascarella (1984) noted that a significant majority of the available studies failed to control for individual differences among students at the time they entered college. Consequently, influences that appear to be attributable to residence may, in fact, be a function of what the students were like prior to entering college.

Residence may have an effect on the performance of first-year students that differs from the effect on later-year students (Brothers & Hatch, 1971). A few studies limited their outcome measures solely to the conclusion of the first semester of study (Belcheir, 1997; Ott, 1988). Since the first semester is generally one of major transition and adjustment, measures taken exclusively at the end of the first semester may not be
sufficient to accurately reflect the true impact of residence on outcome variables. A number of studies restricted their research to include only freshman-level students (Bowman & Partin, 1993; Brister, 1994; Gin, 1995; McGrath & Braunstein, 1997; Riordan, 1997; Wolfe, 1993).

In addition to the type of residence, student development and persistence may be affected by the quality and frequency of peer and student-faculty interactions (Astin, 1993; Pascarella & Terenzini, 1991; Tinto, 1993), new friendships formed (Sottile, Iddings, & McDonough, 1997), employment (Porter, 1991), and satisfaction with the collegiate experience (Gin, 1995). Feldman and Newcomb (1969) contended that the living arrangements of students may be so heterogeneous that they cannot be compared to one another, since college residences vary in size, architectural arrangement, age, and maturity of residents. Collegiate environments also offer diverse demographic features, missions, and policies.

The literature indicates that where students live while enrolled in college has an impact upon retention and achievement measures (Astin, 1983; Gin, 1995; Robinson, 1999; Valente, 1999). In spite of this, the majority of research to date cites trends, and in some cases inconsistencies and conflicting results, in student outcome measures relevant to the impact of collegiate housing on academic achievement and retention making it difficult to draw more definitive overall conclusions. Blimling (1989) noted the need for further research “if conclusions about the positive impact of residence halls are to be accepted and generalized” (as cited in Thompson, Samiratedu, & Rafter, 1993, p. 41).
Purpose and Significance of the Study

The National Center for Education Statistics (NCES) reports a “projected increase of 17% in the traditional college-aged population of 18- to 24-year olds from 1999 to 2011” (NCES, 2001, p. 1). Simultaneously, “members of the baby boom generation will be retiring and our labor force will need an influx of educated and skilled workers” and the “federal financial aid policy is shifting away from need-based grants to loans, tax credits, and other tax incentives” (Kennedy, Harkin, Miller, & Obey, 2002, p. 38). National and state level funding cuts in higher education also are resulting in decisions by colleges and universities to increase student tuition rates to offset the deficit (Kennedy, Harkin, Miller, & Obey, 2002). With new and continuing collegiate students realizing possible tuition increases and decreases in the availability of financial aid, it is imperative that they are provided with educational environments, experiences, and opportunities that they feel are “worth the money.”

Rod Paige, U. S. Secretary of Education, commented that with the increasing college enrollment projected, and the necessity to replace the retiring baby boomers, “educators and policymakers must focus on improving the quality of the education being offered” (as cited in U.S. Department of Education News, 2001, p. 1). By assessing current programmatic efforts and exploring new, colleges and universities may ascertain “what works and what does not work.” As a result, colleges and universities may improve upon their strategies and interventions aimed at increasing the retention and academic achievement of freshman. Many higher education institutions “have come to view the retention of students as the only reasonable course of action to insure their survival, and a
growing number have turned their energies in that direction with a renewed passion” (Tinto, 1993, p. 2).

The University of South Florida (USF) has developed and implemented learning communities, both residential and non-residential in nature, as an aid to increase the retention and academic success of participating freshman and sophomore students. Although classified as primarily a commuter university, USF enrolls both residential and commuting students with diverse ethnic backgrounds and ages. USF seeks to retain and graduate all students, but special emphasis has been placed upon the success of first-time-in-college freshmen.

Problem Statement

This study sought to determine if differences existed when the academic achievement and retention rates of three matched groups of first-time-in-college freshmen were compared with respect to place of residence. The results of the study will contribute to current research in the field and seek to negate or support the noted trends and conclusions found by other researchers. The significance of the research also may provide implications for the modification and improvement of the residential learning community programs offered. The relevant study of traditional residence hall and commuter students may provide colleges and universities with knowledge applicable to curriculum development, academic advising, support service programming, and future strategic planning.

Definitions of Terms

The terms that follow are defined for the purpose of the study:
**Academic Achievement:** two separate measures including the “mean freshman grade point average” for all subjects and the “mean grade” in a common course taken by a significant number of students in each group.

**Common Course:** the course taken (ENC 1101 - Freshman English I) by a significant number of students in each subject group.

**Commuter (C) Student:** a first-time-in-college freshman student residing at home with his/her parent(s) or in other off-campus living arrangements and who commutes to campus at the University of South Florida, and not enrolled in a learning community.

**First-Time-in-College (FTIC) Student:** a student beginning the collegiate experience for the first time and enrolled in a minimum of 12 credit hours of study each semester during the initial year of enrollment (i.e. academic year 1999-2000 or 2000-2001).

**Retention Rate:** the number and percentage of students for each group who re-enrolled for continued attendance at the original institution (USF) by the end of the add/drop period for the Fall semester of the second year of study (i.e., Fall 2000 and Fall 2001).

**Special Interest Housing Residential Learning Community (RLC) Student:** a FTIC freshman student at the University of South Florida enrolled with other RLC students in a theme-based residential learning community curriculum and residing on the same floor of the same residence hall with other RLC students. Students from RLC #10 and RLC #13 were targeted for inclusion in the sample group.

**Traditional Residence Hall (TRH) Student:** a FTIC freshman student residing
on-campus in a traditional residence hall at the University of South Florida and not enrolled in a learning community.

**Research Questions**

The following research questions were investigated in the study:

**Academic Achievement:**

1. Which subject group will earn a higher mean grade point average for the freshman year of study?
2. Which subject group will earn a higher mean grade in the common comparison course?

**Retention Rate:**

1. At the beginning of the second year of study, which subject group will re-enroll for continued attendance at the highest rate?

These questions are integral to further discoveries about the impact of place of residence on the three outcome variables. No prior research exists comparing the three noted groups of college students with regard to all three outcome variables within the same research study.

**Statement of Hypotheses**

The following null and alternate (research) hypotheses were tested in the research study:

**Academic Achievement**

**Freshman Grade Point Average**

Null Hypothesis:

There is no difference in the overall mean grade point average for the freshman
year of study for the three groups studied.

Alternate Hypotheses:

1. RLC students as a group will earn a higher overall mean grade point average for
   the freshman year of study than that earned by TRH students as a group.
2. RLC students as a group will earn a higher overall mean grade point average than
   that earned by C students as a group.
3. TRH students as a group will earn a higher overall mean grade point average than
   that earned by C students as a group.

Freshman English I Grade

Null Hypothesis:

There is no difference in the overall mean grade earned in Freshman English I for
the three groups studied.

Alternate Hypotheses:

1. RLC students as a group will earn a higher mean grade in Freshman English I
   than that earned by TRH students as a group.
2. RLC students as a group will earn a higher mean grade in Freshman English I
   than that earned by C students as a group.
3. TRH students as a group will earn a higher mean grade in Freshman English I
   than that earned by C students as a group.

Retention Rate:

Null Hypothesis:

At the beginning of the second year of study, there is no difference in the total
number of students re-enrolling for continued attendance between the three
subject groups.

Alternate Hypotheses:

1. At the beginning of the second year of study, RLC students as a group will re-enroll for continued attendance at a higher rate than TRH students as a group.
2. At the beginning of the second year of study, RLC students as a group will re-enroll for continued attendance at a higher rate than C students as a group.
3. At the beginning of the second year of study, TRH students as a group will re-enroll for continued attendance at a higher rate than C students as a group.

Assumptions

It was assumed that no student involved in the study changed his/her place of residence during the freshman year. The RLC program requires that participating students remain in the same residence hall as other RLC students for a total of two academic years, and as such, requires participating students to sign one-year housing contracts. The TRH students are also required to sign a one-year housing contract. If any RLC or TRH students changed their residence during the course of the study, it would likely be due to dropping out of college.

It was assumed that mean freshman grade point average (GPA) and the mean grade in Freshman English I were valid measures of academic achievement. The total number of students who re-enrolled for continued attendance for the first semester of the second year of study was assumed to be a valid measure of retention rate.

Procedure

A quantitative, ex post facto design based upon subject characteristics, was employed to compare three groups of FTIC freshmen to determine if differences existed relative to
the impact of place of residence (independent variable) on the two dependent variables of academic achievement and retention rate. The three groups (independent variable levels) that were compared were special interest housing residential learning community (RLC) students, traditional residence hall (TRH) students, and commuter (C) students.

The sample included 95 RLC students, 100 TRH students, and 100 C students. All students were FTIC freshmen beginning the collegiate experience during either the Fall semester of the 1999-2000 academic year or Fall semester of the 2000-2001 academic year. All students were enrolled full-time for at least 12 credit hours of study each semester during the freshman year. The TRH and C students were not participants in any of the special interest housing residential learning communities or non-residential learning community programs offered by the University.

To provide reasonably similar subject groups, the demographic characteristics of age, gender, and ethnicity for the TRH and C students were matched to those possessed by the RLC students. The sample groups were assumed to be comparable due to matching, thus reducing any potential threats related to the initial selection of the subject groups. The study was enhanced further by virtue of including the entire cohort population of RLC students (n=95) that began their collegiate studies either during the Fall 1999 semester or during the Fall 2000 semester. RLC #10 and RLC #13 students constituted the RLC subject group. The students also were matched on the pre-enrollment academic achievement characteristics of high school grade point average and combined Scholastic Aptitude Test (SAT) scores.

Mean freshman grade point average (GPA) and grades earned in the common comparison course (Freshman English I) were collected at the conclusion of the freshman
year (i.e., Spring 2000 and Spring 2001) for all members of each subject group. Retention rate data were collected after the completion of the add/drop period of the second year of study (i.e. Fall 2000 and Fall 2001) for each group of students. All student characteristics and dependent variable data were harvested from the Office of the Registrar’s student database and coded so as not to contain any student information that would make it possible to identify students by name or social security number.

An analysis of covariance (ANCOVA) procedure was employed to analyze the mean freshman grade point average to test for a hypothesis of difference in academic achievement between the subject groups. The Scholastic Aptitude Test (SAT) score was used as a covariate. An ANCOVA with SAT score as the covariate was also used to analyze the mean grade earned in Freshman English I as an additional test for a hypothesis of difference in academic achievement between the subject groups.

A binary logistic regression was employed to predict the re-enrollment of the students for the second year of study. This analysis compares the “expected” re-enrollment frequencies with the actual “observed” frequencies for each subject group. Prior to conducting the analysis, the variable “place of residence” was dummy coded with 0 representing “non-retention” and 1 representing retention for all study subjects.

Study Limitations

1. The study was limited to a single urban institution for two years and included only students classified as full-time, FTIC freshmen in attendance at the University of South Florida for academic years 1999-2000 and 2000-2001. The University of South Florida is a large, urban, public, Research Extensive institution (Carnegie Classification of Institutions of Higher Education, 2001) with a predominantly...
commuter population. Generalizability to other similar institutions with comparable student groups and programs would be appropriate.

2. Students “self-select” for participation into the RLC and are chosen on a first-come, first-serve basis. Because the students specifically applied for, and were admitted to, the RLC, they may have been considered to be more motivated to succeed academically than those residing in traditional residence halls or commuting from off-campus. Therefore, the effects of place of residence may be confounded by motivation.

3. The definition of retention rate used in this study was restricted to continued attendance into the first semester of the second year of study. No consideration was given to whether or not the students re-enrolled for part- or full-time study. Participants who dropped out may have subsequently re-enrolled at the original institution, or at a different college or university, at a later date. Since it was not possible to acquire data pertaining to whether the students re-enrolled in a different institution for the second year of study, no analysis regarding dropout data for these students was performed.

4. No distinctions were made as to whether students dropped out voluntarily or were dismissed for academic reasons.

5. A change in place of residence during the freshman year may have adversely affected the study’s findings. This study assumed that all students maintained their place of residence throughout the freshman year. The databases at the university did not allow for the collection of data to ascertain if the students changed their residence mid-year.
Organization of the Chapters

Chapter I includes the background and overview, problem statement, purpose and significance of the study, definition of terms, research questions and statement of hypotheses, assumptions, procedure and study limitations, and organization of the chapters. Chapter II provides a comprehensive review of the related literature. Chapter III discusses the procedures and methodology used in the study. Chapter IV presents the study's findings and statistical analyses. Chapter V includes a summary of the study, findings, discussion, study limitations, policy implications, recommendations for further research, and conclusion.
CHAPTER II
LITERATURE REVIEW

Introduction

This chapter provides information on the historical development, mission, and objectives of residence halls and learning communities. The benefits, commonalities, and different models of learning communities are addressed. Student demographics and characteristics were examined for residence hall, commuter, and learning community students. General research related to retention and academic achievement follows with specific variables related to each provided. Studies related to place of residence, learning community participation, and other freshman year initiatives are included. The chapter concludes with a summary.

Residence Halls

Sixty-eight percent of all colleges and universities in the U.S. offer some form of student housing (Blimling, 1993). Astin (1977) concluded that the first-year residence hall experience is the single most important factor associated with graduation rates and where a student lives is an important index of involvement. He further contended, "by far the most important environmental characteristic associated with college persistence is living in a dormitory during the freshman year" (Astin, 1983, p. 109).

The Cooperative Institutional Research Program's annual survey of college freshmen in 1990 reported that 66.8% of entering freshmen planned to live in a residence hall during the Fall semester of their first year in college (Dey, Astin, & Korn, 1991). It is estimated that "of the 168 hours available in a week, the new student will spend approximately 70 hours actively engaged in the residence hall living environment" (Hart,
1991, p. 51). Due to the extensive time spent in residence halls, enormous and abundant opportunities exist for institutions to develop and implement programming and support to assist new students in becoming academically successful. However, the impact and value of the residence hall experience decreases significantly after the first or second year of attendance (Chickering, 1974).

Living in a residence hall enhances a college student’s development and leads to more positive student outcomes (Astin, 1977; Pascarella & Terenzini, 1991). A student’s development, as a result of living in a residence hall, can be enhanced by opportunities to become more fully engaged in the academic program due to the close proximity to resources and faculty, and the daily interactions with peers that can serve to support the educational mission. Pascarella and Terenzini (1991) concluded, “living on-campus maximizes opportunities for social, cultural, and extracurricular involvement; and it is this involvement that largely accounts for residential living’s impact on student change” (p. 611).

Student success in college, and thus retention, is determined not only by academic performance, but also by where students live while enrolled (Gin, 1995). Coakley contends, “a significant number of students who leave a college between their first and second year blame it on an unsatisfactory housing experience” (as cited in Smith, 2000, p. 29). Various researchers have supported the notion that residence hall living had a positive impact upon student retention (Robinson, 1999; Schroeder, 1994; Singer & Miwa, 1997; Skahill, 2000; Tinto, 1993; Valente, 1999). Astin (1984) reported that the positive relationship between residence hall living and retention occurred in all types of students, regardless of sex, race, ability, or family background.
Studies supporting residence hall students attaining higher grades than off-campus students have been documented (Grier, 1987; Nowack & Hanson, 1985; Robinson, 1999). Grier (1987) compared 136 resident and commuter students on grade point average. All students were freshman-level participants in the Equal Opportunity Fund program. The residents achieved a significantly higher freshman grade point average than the residents. Robinson (1999) researched possible differences in the grade point averages of three groups of freshman ($n = 4,526$) at a large public university. Residents participating in a first-year experience program, students living in a residence hall with a mixed population of lower- and upper-level students, and non-residence hall students were the study’s comparison groups. Using an ANOVA statistical analysis, the two residential groups attained significantly higher mean freshman grade point averages (2.91 and 2.92) than the commuter group (2.66). In a study comparing 1,302 residence hall freshman with a random sample of 890 commuters, Nowack and Hanson found the residents achieved a significantly higher grade point average (2.64) than the commuters (2.51) using a t-test analysis.

Residents also have been shown to possess greater levels of satisfaction (Astin, 1983; Pascarella, 1984), critical thinking skills (Pascarella, Bohr, Nora, Zusman, Inman, & Desler, 1993), and interaction with peers (Pascarella, 1984) when compared to commuter students. A positive correlation has been found between living in a residence hall and a student’s sense of community (Lounsbury & DeNuie, 1995) and completion of the bachelor’s degree (Pascarella & Terenzini, 1991).

While studying a stratified sample of 100 freshmen residents and 100 commuters residing in off-campus apartments at the University of Southern California, Selby and
Weston (1978) surveyed students and found that in addition to the living situation, student/faculty interactions and the formation of new friendships in college are also important factors in student success. Faculty contact in a residential setting has been shown to contribute to academic and social integration (Pascarella, 1984; Pascarella & Terenzini, 1980). Using path analysis to test a model of the 1975 survey by the Cooperative Institutional Research Program of 9,448 students from 100 colleges and universities, Pascarella (1984) found that residents are more likely than commuters to have higher levels of social integration with peers and faculty. Pascarella and Terenzini (1980) tested Tinto’s model of withdrawal at Syracuse University in 1976 on a random sample of 1,905 students. The students completed a questionnaire at the beginning and end of their freshman year regarding their interactions and relationships with faculty members. In relating the obtained data to persistence, the researchers found that the mean scores of thepersisters were almost one standard deviation higher than the mean scores of the dropouts.

Informal faculty contacts also have been associated with persistence (Mallette & Cabrera, 1991; Tinto, 1993). Mallette and Cabrera (1991) administered the Freshman Experience Survey to 2,954 freshman students at North Carolina State University five weeks prior to the conclusion of the Fall 1983 semester. The researchers found that “programs that focus on interactions with faculty...are likely to reduce the propensity to dropout” (p. 191).

Chickering (1974) and Astin (1977) suggested that the influence of residence halls is realized mainly in the freshman year with successive exposure having less or little influence. Simply by residing on-campus, increased opportunities for becoming involved...
in campus life are plentiful. Even so, residence hall living does not assure worthwhile or full educational experiences for students (Blimling, 1993). For student success to be influenced by the residence hall experience, the environment of residence halls must be structured to reinforce classroom learning and to enhance students’ commitment to college (Schroeder, 1994). Dewey (1916) wrote, “we never educate directly, but indirectly by means of the environment; whether we permit chance environments to do the work, or whether we design environments for the purpose makes a great difference” (p. 22).

Residence Hall Development, Mission, and Objectives

Colleges in the U.S. during the Colonial period were constructed according to the philosophy inherent in the 16th and 17th century residential colleges of England including Cambridge and Oxford. Faculty members supervised students in lieu of parental supervision. This “in loco parentis” concept transferred the authority over students to faculty and other college officials with college presidents and faculty expected to supervise college areas concerning housing, discipline, and academic matters (Schroeder, Mable, & Associates, 1994).

The German influence on American higher education was realized as the 19th century unfolded and many American faculty sought advanced education in Germany. This, combined with faculty members becoming dissatisfied with the increasing amount of student disciplinary concerns and student conflicts (Frederiksen, 1993), led to changes in residential housing offered on U.S. college campuses. Harvard and Yale continued their housing offerings during this time, but the remainder of the country exhibited less interest in housing students.
During the first seven decades of the twentieth century, the construction of residence halls was emphasized (Rong, 1998). A few land grant institutions were under mandate to build residence halls (Fredericksen, 1993). Development of the Public Works Administration contributed to this construction effort by providing loans to colleges from government funds for the construction of residence facilities.

In the 1960s, the Vietnam War and the Civil Rights Movement prompted students to organize and protest their dissatisfaction with the “in loco parentis” philosophy that was so apparent in residence halls (Fenske, 1980). Students lobbied for changes to institutional policies and regulations. As a result, rules governing residence halls were relaxed and many colleges terminated on-campus living requirements, thus allowing students to reside in off-campus housing if they chose (Rong, 1998). However, during the 1970s, economic conditions including inflation resulted in on-campus living becoming more convenient and economical for students. Because of this, many campuses experienced severe shortages in residential facilities to offer students.

Beginning in the early 1990s, widespread implementation of technology caused students to expect more from residence hall facilities and the residential environment. The expectations included increased services and luxuries such as cable television and computer access in residence hall rooms (Frederickson, 1993).

Contemporary residence halls offer students housing which provides a wealth of opportunities for growth and development. This setting can support and sustain students as members of the residential community. The Boyer Commission on Educating Undergraduates in the Research University (1998) wrote, “research universities should
foster a community of learners...large universities must find ways to create a sense of place to help students develop small communities within the larger whole” (p. 5).

Building community among resident students is an important goal for residence hall programs. Demarest (2001) observed that colleges and universities are emphasizing the social and academic interaction among students by designing residence hall space that groups students by common interest or academic area of interest in an effort to “enhance after-hours discussions and the cross-fertilization of ideas among students” (p. 357).

“Effective residence halls are not educationally neutral; they create environments and purposive interventions that are designed to enhance the academic experience and personal lives of students” (Anchors, Douglas, & Kasper, 1993, p.462).

Winston, Anchors, and Associates (1993) suggested residence halls concentrate on the following objectives:

1) Assisting students in becoming literate, liberally educated persons,
2) Promoting student development in becoming responsible, contributing members of multiple communities,
3) Advocating commitment to the ideals of altruism and social justice,
4) Endorsing the cultivation of a healthy lifestyle, both physically and psychologically,
5) Encouraging students to examine their spiritual life, and
6) Challenging students to confront moral and ethical issues.

Living in campus residence halls has been shown to be one of the most significant factors having an impact on the level of students' social integration into college (Tinto, 1975). King (1996) supported this notion with his contention that learning occurs in
social contexts such as classrooms, computer labs, and residence halls. Astin (1993), Chickering (1974), Thomas and Andes (1987), and Thompson, Samiratedu, and Rafter (1993) reported that resident students achieve higher rates of student persistence. Pascarella and Terenzini (1991) concluded,

.....residential living is positively, if modestly, linked to increases in aesthetic, cultural, and intellectual values; a liberalizing of social, political, and religious values and attitudes; increases in self-concept, intellectual orientation, autonomy, and independence; gains in tolerance, empathy, and ability to relate to others, persistence in college; and bachelor’s degree attainment (p. 611).

Despite the obvious positive effects residence halls have on students, residence hall living, in general, has shown little effect on academic achievement (Pascarella & Terenzini, 1991). No significant differences in mean freshman GPA using a t-test analysis were found by Bowman and Partin (1993) when they compared stratified random samples of 40 residents and 40 off-campus students during the Spring 1992 semester. Students who live in residence halls possessing strong academic orientations demonstrate greater achievement than students who reside in traditional halls or off-campus (Blimling, 1993; Terenzini, Pascarella, & Blimling, 1996).

**Residence Hall Students**

In terms of undergraduate level and number, resident students are the minority in higher education. Nonetheless, they continue to be the most studied population. Over two-thirds of all first-year students are residents with the remainder living within driving distance from the institution (Kuh, Gonyea, & Palmer, 2001). Actual student on-campus residency is usually a maximum of two years (Winston, Anchors, & Associates, 1993).
Astin (1977) reported that the likelihood of persistence and graduation of resident students is 12% higher than for students residing off-campus. This may be explained by the fact that the residence hall experience allows students to be in closer proximity to valuable on-campus resources.

Convenient access to the library, faculty, classrooms, laboratories, and trained residence hall staff and programming can enhance student transitions and acclimation to the institution's social, cultural, and educational offerings. Luzzo and McDonald (1996) examined the reasons residence hall students opted to live on-campus. Residents in the study, conducted at a medium-sized university, were surveyed using the On-Campus Housing Questionnaire. Participants cited convenience, opportunity to meet new people, and the ability to be part of the “whole college experience” as most significant in their decision to reside on-campus.

The distinct advantages that residents have over off-campus students has been studied extensively. Chickering (1974) regards resident students as the “haves” and commuters as the “have nots.” He contended, “commuters and residents begin their college careers with an unequal start which strongly favors the resident….the gap between them grows and residents have access to, find, and are forced to encounter diverse experiences and persons who spur them on their way” (p. 85). The amount of time and effort expended by “any student” has an impact upon what they gain from their collegiate experience (Pascarella, 2001).

Residence hall student characteristics have typically been identified in comparison with commuters with residents often viewed more positively than commuters. When comparing differences in the development of residents versus commuters, Chickering and
Kuper (1971) found that the main impact of college occurred during the first two years for residents and the last two years for commuters. Jacoby (2000) observed that the general viewpoint held is that commuters are less committed to academic pursuits compared with their counterparts who live on-campus. However, the National Survey of Student Engagement (NSSE) revealed that commuters were just as apt as residents to be engaged in numerous activities related to learning (Kuh, Gonyea, & Palmer, 2001).

Resident students begin college possessing traits and characteristics that include higher family socioeconomic statuses, educational aspirations, and commitment to the institution as compared to commuter students (Pascarella & Terenzini, 1991). Pascarella (1985) observed that residents came from more educated families, possessed more secondary school extracurricular involvement, and were more apt to be female. During their analysis of results from summarizing studies conducted by the Office of Research of the American Council on Education, Chickering and Kuper (1971) reported that incoming residents possessed better high school grades and admission test scores, broader interests, and were more liberal and open-minded than incoming commuters.

More recently, using interview data, Valente (1999) found that 75 educationally and economically disadvantaged residential students who were freshman during academic year 1995-96 “were just as unsure of educational goals and perhaps more unsure, than were their commuter counterparts” (pp. 50-51). The researcher was interested in determining if the students were “homogeneous” in terms of socioeconomic status and academic preparation. She observed that the commuter subjects in her study had significantly higher SAT scores and more “concrete” academic goals than the resident subjects.
Learning Communities

A learning community has been defined in various ways. Learning communities characterize an "intentional restructuring of students' time, credit, and learning experiences in ways that promote more intentional connections among students, among students and their teachers, and among disciplines" (Levine & Shapiro, 2000, p. 13). Tinto (1997) noted that learning communities "incorporate both academic and social integration." Numerous studies show students more often are retained and become more involved if they participate in a learning community (Shapiro & Levine, 1999; Tinto, 1997). Borden and Rooney (1998) reported the results of an evaluation of several academic support programs, including learning communities, at Indiana University-Purdue University Indianapolis (IUPUI). The rate of retention into the third semester of attendance was significantly higher among learning community participants than non-participants.

Tinto stated, "several communities make up a college campus and it is within the confines of these communities that provisions are made for student integration into the life of the campus" (as cited in Berger, 1997, p. 441). Learning communities create groups of students and faculty that are often smaller than other units on campus (MacGregor, Smith, Matthews, & Gabelnick, 1997) and are an effective way to address fragmentation in the curriculum, particularly within general education (Goodsell Love, 1999).

Large, urban universities are challenged with the goal of facilitating "shared and connected" learning opportunities since these institutions often serve a high population of commuter students who may feel a lack of connection with learning, peers, and with the
university in general (Jacoby, 1992; Tinto, 1993). With the large number of commuting students at Temple University, its learning community programs opted to incorporate the motto of “create a small college atmosphere at a large university” (Shapiro & Levine, 1999). Learning community students at Temple “began to see their peers as partners in the learning process” (p. 175).

The Kellogg Commission on the Future of State and Land-Grant Universities (1997) recommended that colleges and universities “redouble” efforts to improve undergraduate education. The American College Personnel Association (1994) emphasized the importance of connecting and integrating students’ in-class and out-of-class experiences to create seamless learning conditions focused on student learning and academic success. Purposive groupings of students, common course scheduling, significant use of collaborative and cooperative learning experiences, and a sense of integration across disciplines are common components of many learning communities (Goodchild, 1999).

For students participating in learning communities nationwide, the beginning to end-of-quarter retention rates average 10-20% higher than typical institutional averages (Gabelnick, MacGregor, Matthews, & Smith, 1990). In addition to increased retention, other benefits of learning communities include higher academic achievement (MacGregor, 1991), enhanced intellectual and cognitive development (Kellogg, 1999), increased student involvement and motivation (Tinto, 1998), and an opportunity for students to integrate courses in an interdisciplinary manner (Walker, 2001).

Learning communities provide benefits for participating faculty by allowing for the opportunity to work routinely in collaboration with faculty teaching in other disciplines (Lenning & Ebbers, 1999). Contributions to faculty development and revitalization also
have been influenced by the incorporation of learning communities within the undergraduate curriculum (National Learning Communities Project, 2001). Effective learning communities incorporate collaborative efforts of instructional faculty and student affairs professionals and thus provide for a more comprehensive program for student participation (Johnson & Cavins, 1996). They create a unique environment characterized by social and academic belonging and engagement (Shapiro & Levine, 1999), and are particularly advantageous on large and commuter campuses where close personal contacts and community building can be challenging (Lenning & Ebbers, 1999).

Learning Community Historical Development

The structural and pedagogical beginnings of contemporary learning communities are traceable as far back as the 1920s when the educational theorist Alexander Meiklejohn, considered to be the father of the learning community movement, instituted the “Experimental College” at the University of Wisconsin in 1927 (Gabelnick, MacGregor, Matthews, & Smith, 1990). This “first” learning community consisted of an integrated, full-time, two-year, lower-division program on democracy in 5th century Athens and 19th and 20th century America.

Tussman (1969), a student of Meiklejohn’s, created a learning community program at the University of California at Berkeley from 1965-1969. His intent was to eliminate courses as the “basic curricular planning units” and instead view the lower-division curriculum as a “program” as opposed to a “compilation of courses.” Tussman’s learning community was a two-year program with a cohort of students taking a predetermined set of team-taught courses.
Dewey’s contributions to the development of the learning community movement primarily focused on the teaching and learning process, most predominantly student-centered and active learning (Goodsell Love, 1999). Many present day learning communities often support and incorporate Dewey’s student-centered focus. Dewey believed, “education needed to be more purposeful and far less accidental in terms of engaging the learner” (as cited in Gabelnick, MacGregor, Matthews, & Smith, 1990, p. 16). He promoted collaborative learning to “foster community and pose the teacher as more of a facilitator within a group of learners than merely as an outside authority” (Dewey, 1933, p. 59).

**Learning Community Benefits and Commonalities**

In “Involvement in Learning: Realizing the Potential of Higher Education,” a study on the conditions of excellence in higher education (National Institute of Education, 1984), a recommendation was made that every institution of higher learning create learning communities organized around specific intellectual themes or tasks. “Presumably, a relevant and meaningful theme and related courses can be found for any group of students, if one knows groups members’ interests and the curriculum, and plans carefully” (Lenning & Ebbers, 1999, p. 81). Long Beach City College offers the Students and Teachers Achieving Results (STAR) learning community which focuses on high-risk students and links courses through the theme of “college success and survival” that is important to all the students (MacKay, 1996).

Colleges and universities nationwide, primarily over the past twenty years, have offered students the opportunity to enroll in learning community programs to aid students in realizing the academic, intellectual, and social offerings intrinsic in learning.
communities, and to attain academic success. However, learning communities require time to be refined and it has been observed that learning community programs take at least three years to mature (Gabelnick, Matthews, MacGregor, & Smith, 1990).

The vast majority of learning communities have two things in common: shared knowledge and shared knowing (Tinto, 1998). Shared knowledge, Tinto suggested, is an outcome of learning communities resulting from students seeking to “construct a shared, coherent educational experience that is not just an unconnected array of courses” (Tinto, 1998, p. 171). He asserted that learning communities promote higher levels of cognitive complexity that cannot be acquired easily through enrollment in unconnected courses. Shared knowing pertains to students “sharing in the experience of learning as a community of learners” (Tinto, 1998, p. 171). As a result, a student’s intellectual development and appreciation for the learning process is enhanced by engaging in learning in collaboration with other learners. Boyer (1990) associated the search for community with the necessity to find a larger sense of purpose, a “shared vision.”

Dewey (1966), in referring to the relationship between students and teachers, believed in viewing education as a process of “shared inquiry” whereby the teacher’s role is redefined. The teacher becomes a “partner” in a collaborative relationship as opposed to a “transmitter of knowledge.”

Learning communities provide students with small group experiences, integration of the curriculum, academic and social support networks, and socialization opportunities (Shapiro & Levine, 1999). They provide an ideal opportunity for both students and faculty to engage in meaningful experiences where the development and benefits of a support network can be realized. Entries made in course portfolios by students in a
freshman learning community at the University of Arkansas – Little Rock highlight the perceived benefits of participation. One student noted, "the learning community has allowed me to achieve a greater understanding of myself and my role as an individual in society" (Franklin, 2000, p. 45). Another student revealed, "the learning community has taught me to seek the connections between courses and the world around me" (p. 45).

Ideally, learning communities will facilitate increased communication between students and faculty to aid in establishing working relationships around collective interests (Matthews, 1992). Angelo (1997) stated, "teachers and students are all learners and teachers; faculty become designers of learning environments and experiences, rather than transmitters of knowledge in a prescribed manner" (p. 3).

Learning Community Models

Five major learning community models exist, although many variations and "mixed" models suiting the particular and unique needs of students at individual institutions of higher learning have been developed. Some learning communities include a residential component while others do not. The five major learning community models are linked courses (Tinto, 1998), learning clusters (Gabelnick, MacGregor, Matthews, & Smith, 1990), freshman interest groups (Matthews, 1992), federated learning communities (Kellogg, 1999), and coordinated studies (Matthews, 1992).

Linked courses are considered the simplest form of learning community involving the pairing of two common courses (Kellogg, 1999). Typically, one course is content-based while the other is an application course with faculty teaching separately or simultaneously and organizing syllabi and assignments in order that the classes compliment each other. This model provides a shared experience for a cohort of students
focusing on support of the content-based course by enrollment in a skills or application course. Often, a writing course will be linked with a literature course or a mathematics course paired with one in science (Tinto, 1998).

Learning clusters are an expansion of linked courses, typically connecting three or four courses, and often serve as the students' entire course load for a semester or academic year (Gabelnick, MacGregor, Matthews, & Smith, 1990). Frequently, the learning cluster is based upon a theme and involves a seminar component in which the students meet weekly or bi-weekly to discuss class work and shared experiences (Smith, 1991). Learning clusters offer an integrated multi- or interdisciplinary program (Matthews, 1992) and often are based on historical periods, issues, or problems (Kellogg, 1999). Students participating in learning clusters also may experience social events, field trips, or common readings as supplemental components to the curriculum (Kellogg, 1999).

Freshman Interest Groups (FIGs) link three freshmen courses together by a theme and are especially suited for large colleges or universities (Kellogg, 1999). However, FIG students are often not the only students in the courses (Goodsell Love & Tokuno, 1999). FIGs are arranged around pre-major topics, offer a peer-advising component, and were initially developed by staff at the University of Oregon and the University of Washington (Matthews, 1992). Faculty teaching in FIGs do not change the course content or meet regularly, but the students often study together (Matthews, Smith, MacGregor, & Gabelnick, 1996). FIGs have been proven successful in the retention of first-year students (Love, 1994; Tokuno & Campbell, 1992).
The federated learning community (FLC) model is the most complex with a cohort of students taking three theme-based courses in addition to a seminar taught by a Master Learner (Kellogg, 1999). The Master Learner is a faculty member originating from a different discipline than the FLC who is enrolled in the courses with the cohort group of students. The faculty member assists the students in “synthesizing and exploring the opinions and points of view of students from the three courses” (p. 2).

Coordinated studies learning communities entail both students and faculty engaging in full-time, active learning based on an interdisciplinary theme (Lenning & Ebbers, 1999). Coordinated studies most directly resemble the learning community models developed by Meiklejohn and Tussman. They are typically larger and faculty have the opportunity to revamp the entire curriculum (Kellogg, 1999). Coordinated studies curricula provide 16 credits per semester and are team taught by several faculty members in set blocks each week (Gabelnick, MacGregor, Matthews, & Smith, 1990). Themes in coordinated studies learning communities are developed by the faculty and offer opportunities for small group meetings with faculty and student participants discussing assigned readings and incorporating student learning from other courses (Levine & Shapiro, 2000).

Learning communities also have been designed to meet the unique needs of different subpopulations of students. Examples of such learning communities have been designed for such student groups as academically under-prepared, disabled, those with common academic interests such as science or mathematics, and residential students (Goodsell Love & Tokuno, 1999). When targeting under-prepared students, learning community programs have been found to increase course completion rates and academic achievement

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in developmental and college-level courses (National Learning Communities Project, 2001). Since the implementation of the Americans with Disabilities Act, institutions of higher learning are required to provide equal opportunity to students with disabilities (Goodsell Love & Tokuno, 1999). As such, learning communities are an ideal forum for providing college programming aimed at meeting the special academic needs and physical accommodations of targeted students (Goodsell Love & Tokuno, 1999).

**Residential Learning Communities**

Schroeder, Mable, and Associates (1993) concluded, “...the challenge for residence halls is to place a renewed emphasis on promoting student learning through integrating residence hall learning opportunities with the goals and priorities of undergraduate education” (p. 15). Marchese (1993) spoke of an institution’s quality as a function of its contribution to student learning. Learning communities in residence halls, he suggested, can provide the “value-added dimension” by incorporating assorted curricular and co-curricular experiences. However, Marchese (1994) noted, “...residence halls, as currently conceptualized and managed, are not realizing their full educational potential” (pp. xv-xvi).

Residential learning communities (RLCs) deliberately create environments that encourage greater student involvement, enhanced faculty-student interaction, and a more supportive peer climate (Pike, 1999). Using existing data and the College Student Experiences Questionnaire, Pike surveyed 626 freshman residential learning community and traditional residence hall students at a public research university in the Midwest. The RLC students reported greater gains in general education and higher levels of involvement, integration, and interaction than did the traditional residence hall students.
Students participating in the Wakonse residential learning community (RLC), established in the spring of 1993, reported during focus group interviews that they benefited from the RLC in numerous ways including the development of friendships, a sense of belonging, and close interaction with faculty and staff (Schroeder & Hurst, 1996). RLCs also create smaller and more distinct communities within the confines of the larger institutional organization by requiring all participating students to reside in close proximity with each other in the residence halls (Shapiro & Levine, 1999).

Students may gain a sense of identity and be a part of a support network of peers and faculty as a result of RLC participation and living on the same floor of a residence hall (Shapiro & Levine, 1999). Learning community students “spend more time together both inside and outside the classroom” with one learning community student noting, “class continues even after class” (Tinto, 1999, p. 8).

Several institutions have designed and implemented learning community programs that incorporate the residence hall experience, often structuring courses around a “theme” (Durrington & Bacon, 1999; Matthews, Smith, MacGregor, & Gabelnick, 1996). Special interest residential learning communities aim to increase intellectual and social interaction among students, and between faculty and students. “Thematic programs are organized around topics like languages or cultures, academic fields, wellness, and the environment” (Winston, Anchors, & Associates, 1993, p. 252). Students living in residence halls with learning communities that incorporate formal themes were found to spend more time engaged in group study and were more satisfied with general education courses (Clarke, Miser, & Roberts, 1988).
Chickering and Reisser (1993) also suggested the incorporation of learning activities into living units. Brown (1990) contended that the academic mission of the university can be incorporated into the residence halls by designing and implementing special discipline-oriented halls or academic floors. Johnson and Cavins (1996) noted that special living arrangements that have an intentional academic focus aid in retention and support the academic achievement of students who chose to participate in them.

Students living in residence halls with learning communities often demonstrate superior academic performance and skill development compared with commuters or traditional residence hall students (Schroeder & Hurst, 1996). Pascarella, Terenzini, and Blimling (1994) found that students living in residence hall environments that were structured as learning communities had significantly higher levels of involvement in educational activities and interaction with faculty and peers, resulting in higher levels of academic achievement and persistence.

**Learning Community Students**

Data regarding the estimated number of students participating in learning communities in the past or who currently participate does not exist at this time and can only be estimated (MacGregor, personal communication, February 20, 2001). Between 400 and 500 learning community programs are estimated to exist at the collegiate level in the U.S. and the numbers are increasing continually (Smith, 2001). The University of Washington, for example, enrolls approximately 60% of their new, first-year students in Freshman Interest Groups (FIGs) accounting for 2,700-3,000 students each Fall semester (MacGregor, personal communication, February 20, 2001). Other campuses offer only a few learning community programs involving up to 100 students. An on-line learning
community searchable directory as part of the “National Learning Community Project” (NLCP) at Evergreen College has recently been established (MacGregor, personal communication, February 20, 2001).

Most learning community programs recruit broadly from the entering student population, as well as from the entire undergraduate student body (Gabelnick, MacGregor, Matthews, & Smith, 1990). Faculty that teach in learning communities report that students in their programs are generally typical of students on the campus as a whole (Gabelnick, MacGregor, Matthews, & Smith, 1990). Results of a study conducted at Northern Michigan University of freshmen choosing to participate in the First Year Experience learning community found that they were “virtually identical in terms of academic credentials” when compared to students who chose not to participate (Soldner, Lee, & Duby, 1999). A study conducted at North Seattle Community College revealed that students who chose to participate in learning communities were undistinguishable from students who did not enroll (Wilkie & Kuckuck, 1989). ACT scores of Iowa State University learning community students were found to be very similar to those of non-learning community students for academic years 1998-99 and 1999-00 (Doering & Nading, 2001).

Survey data obtained from the Washington Center for Improving the Quality of Undergraduate Education Study conducted during the 1987-88 academic year compared learning community with traditional students. Both groups were found to be similar in age, gender makeup, motivation to complete a four-year degree, and confidence about making friends (Gabelnick, MacGregor, Matthews, & Smith, 1990). An attitudinal survey was administered by the Center comparing these same two student groups. Both
groups were found to be similar in self-motivation, self-satisfaction, attitudes toward competition, and financial well-being (Gabelnick, MacGregor, Matthews, & Smith, 1990).

Pike (1999) compared the background characteristics of survey respondents participating in residential learning communities (RLCs) and students living in traditional residence halls (TRH). Pike found that 66% of the RLC respondents were female compared to 75% of the TRH respondents. RLC students had higher mean ACT composite scores than did traditional residence hall students. However, no differences were found for minority status or mean high school class percentile rank between the two groups. Iowa State University researchers reported that learning community students possessed higher ACT composite scores and high school ranks than control group students in a preliminary analysis of data for learning communities conducted during three academic years (Harris & Dillingham, 1998).

Using an in-house survey instrument to determine perceptions of freshmen in the learning community classes compared to students in non-learning community classes at Northern Kentucky University, 65% of faculty reported more class discussion, regular class attendance, and higher levels of timely submitted and completed assignments by the learning community students (Baker & Pomerantz, 2000). Goodsell Love (1999) found that learning community students were more accountable to each other and their instructors and were less likely to skip class or arrive unprepared as reported by faculty. However, this was not the case with the Brave New World learning community students at the Central Arizona College - Superstition Mountain campus. One faculty member noted the students seemed "unprepared for the kind of scholarly activity the learning
community required” (Ross, Puglia, & Stiers, 1997, p. 3). Irregular student attendance, poor time management, and tardiness to class were problematic issues reported by another faculty member teaching in the learning community (Ross, Puglia, & Stiers, 1997).

The majority of learning community students perform well within this environment. Levine and Tompkins (1996) reported that at Temple University, the largest benefit of learning communities was fewer student withdrawals or incompletes. In a study at the University of Missouri during academic year 1995-96, students living in residential learning communities indicated significantly higher levels of involvement, frequency and quality of intellectual interaction with faculty and peers, and gains in both learning and intellectual development (Lenning & Ebbers, 1999).

The effect of “self-selection” and “volunteerism” are factors to consider when assessing the academic motivation of learning community students. In learning community programs “where participation is limited to a segment of the student population, the impact of self-selection must be considered” (Shapiro & Levine, 1999, p. 177). It can be argued that students opting to participate in a learning community are more motivated to succeed academically. A greater desire to excel in college may affect the initial decision to participate in a learning community upon college entrance.

Students who “self-select” for learning community participation may be different in some way from those students choosing not to participate. “It is inherently more difficult to isolate statistically the outcomes that are attributable to the processes of the program rather than the character of those who chose to participate” (Borden & Rooney, 1998, p. 86). The groups may vary in ways not yet explored and, for those learning communities
that incorporate a housing component, the living arrangement may be confounded by motivation. More highly motivated students tend to apply for admission early and are more likely to obtain space in limited on-campus housing (Thompson, Samiratedu, & Rafter, 1993).

The research methodology utilized by Baker and Pomerantz (2000) in their study of learning communities controlled for entering student characteristics thereby reducing the possible impact of self-selection bias. A control group of students matched to the demographic, academic, and major characteristics of the learning community students was selected. Soldner, Lee, and Duby (1999) compared responses on the Student Orientation Survey administered to all new students at Northern Michigan University for the 1995 and 1996 academic year to determine if any self-selection differences existed between learning community and non-learning community students. They found that the two student groups were similar at the onset of their collegiate experience in terms of their self-perceptions of strengths and weaknesses, attitudes, and expectations of academic performance.

At Illinois State University, more highly motivated students were often likely to be participants in the Connections Learning Communities Program (Harris & Dillingham, 1998). They found that learning community participants entered the university with "better academic track records" and spent more hours studying in comparison with the general university population.

Commuter Students

The Council for the Advancement of Standards for 1999 Commuter Student Programs reported that over 87% of all college students in the U.S. are commuters.
(National Clearinghouse for Commuter Programs, 1999). Of first-year students who commute, most are likely to continue to reside at home with their parents or in housing near campus (Kuh, Gonyea, & Palmer, 2001). As a result of the National Survey of Student Engagement (NSSE) database of responses to the NSSE survey in 2000 and 2001, 4% of first-year students are “walking” commuters and 27% are “driving” commuters (National Survey of Student Engagement, 2001).

The definition of “commuter student” has received considerable attention. Inconsistencies exist with definitions ranging from “any student not living on-campus” (National Clearinghouse for Commuter Programs, 1999) to “any student not living in on-campus housing, fraternities, sororities, or in off-campus housing immediately surrounding the campus” (Rhatigan, 1986). The most commonly accepted definition of what constitutes a commuter student is anyone whose place of residence while attending college is not in a campus residence hall or in a fraternity or sorority house (Jacoby, 2000).

The diversity of commuter student characteristics and their living arrangements often has made studying them difficult. The lack of differentiation between “dependent” commuters (residing at home with parents or other relatives) and “independent” commuters (residing off-campus in non-university owned and operated locations such as apartments and boarding houses) has resulted in inappropriate comparisons between different subpopulations of commuters, and between commuters and residents. “Commuters comprise a very diverse population of students, so what is true for commuters as a group may not hold for individual students or subgroups of commuters” (Kuh, Gonyea, & Palmer, 2001, p. 3). The inconsistencies in definitions used are
problematic and have resulted in erroneous comparisons of students across and within institutions.

Background characteristics of commuter students gathered via research often have portrayed them in a negative manner and researchers have explored the question of whether there were differences between commuting students and residents. Chickering and Kuper (1971) concluded that commuters were less privileged than residents prior to entering college. They believed the gap between commuters and residents grows upon entrance to college and stated, “to them who had more, was given; from them who had less, was taken away” (p. 259).

Johnson (1989) conducted research comparing commuter and resident characteristics and reported that both groups had parents with low educational levels, attempted to combine work with education while in college, and showed a lack of commitment to higher education. Jacoby (2000) contended that, in reality, the educational goals of commuter students are just as high as those of residents. However, they are more often faced with balancing competing commitments including family, work, and other responsibilities. She believes, “they are not less committed to their education; they simply cannot always make education their primary focus” (Jacoby, 2000, p. 5).

Considering the staggering number of commuter students currently attending institutions of higher learning, they are considered by some to be the “neglected majority” (Slade & Jarmul, 1975). This connotation of commuters is especially problematic since Pascarella and Terenzini (1991) estimate that nearly one-third of America’s colleges and universities are commuter campuses.
Members of minority groups and students requiring compensatory education tend to be over-represented in the commuter population (Schroeder, Mable, & Associates, 1994). Horn and Berktold (1998) found the proportion of minority students in the commuter population is significantly higher than in the resident population and reported that more than 45% of all undergraduates are 24 years of age or older and are primarily commuter students. Based upon 105,000 first-year student responses to the National Survey of Student Engagement (NSSE) of 470 four-year colleges and universities in 2000, there were a higher percentage of African-American, Asian, and Hispanic commuter students than residents (Kuh, Gonyea, & Palmer, 2001). This same survey revealed a higher incidence of females, part-time attendees, first-generation students, and students’ age 20 or older among the commuter population as compared with residents. Santana and Nonnamaker’s (1992) research at Fordham University using survey data collected during the Fall 1990 semester revealed that commuters were more likely to be female.

Wilson, Anderson, and Fleming (1987) reported that freshman commuters showed more maladjustment than residents on a self-report measure of intergenerational family relationships. “Freshmen commuters perceived themselves as significantly more fused with their parents than did their residence hall counterparts” (Wilson, Anderson, & Fleming, 1987, p. 232).

Jacoby (1989) discovered a lack of student development models that “specifically” incorporate commuter students. However, she stated, “several theoretical frameworks offer concepts and approaches that are useful in understanding how to effectively involve commuter students in learning” including various environmental and involvement models (p. 7). Knefelkamp and Stewart (1983) stated, “when commuter students are included, it
is within the residential student model and assumes commuters are deficient rather than different from residential students” (p. 69).

Much of the relevant research is based on the idea that the normative college experience is residential with commuters “less legitimate and less worthy of attention” (Jacoby, 1989, p. 2). Beliefs exist that commuters are disinterested or less interested than resident students in their attitudes and perceptions of the total educational experience (Jacoby, 1989). However, Keeling (1999) described commuters as “reinvented students.” He asserted, “students’ lives....are absolutely more complicated today by jobs, debt, and transportation” (p. 4). Other external forces such as family and community also may dominate the daily life of a commuter student (Webb, 1990).

Transportation to and from campus, parking, and time constraints are highly important issues related to the commuter student experience. Commuters reportedly spend between 15 and 20 hours per week on campus (Schuchman, 1974). They frequently schedule their classes into blocks of time, have little time to remain on campus once classes conclude, and often work either full- or part-time (Jacoby, 1992). Because they spend less time on campus, thus reducing their opportunities for social and academic integration, commuter students are at a higher risk for attrition and are often “less visible and less vocal” (Likins, 1986). The influence of peers and peer culture is less intense for commuters and their relationships with faculty members and fellow students is more limited (Schroeder, Mable, & Associates, 1994). For many commuter students, the “first-year experience is limited to whatever happens in their regular classes” (Barefoot, 2000, p. 4).
Retention

Since the beginning of the twentieth century, retention research in American two- and four-year institutions of higher learning has been important. Comparisons have been made of college student retention rates at public- and private-sector colleges and universities, between residential and commuter schools, and at institutions of higher learning located in both rural and urban areas.

Astin, Tsui, and Avalos (1996) reported that students are taking longer to complete college – less than two out of five students graduate in four years. The U.S. Department of Education (1996) reported that 28% of students now require a fifth year to earn a baccalaureate degree. Much of the retention research has focused on freshman- and sophomore-level students to ascertain re-enrollment rates into the second semester of the first year or the first term of the second year (Kanoy & Woodson Bruhn, 1996; Pascarella & Terenzini, 1991; Thompson, Samiratedu, & Rafter, 1993). Upcraft, Gardner, and Associates (1989) argued that student success in college is largely dependent on the freshman year. It is the first year that students must learn to adjust to the academic demands of post-secondary education, cultivate effective study habits and time management, and develop assumptions about, and expectations for, their educational experiences in college (Pascarella, Edison, Whitt, Nora, Hagedorn, & Terenzini, 1996).

Student withdrawal from institutions of higher learning is a serious concern that has a number of important implications for students, as well as college and university administrators. Some national and regional studies have reported that overall, the retention rate has remained relatively consistent (Gaither, 1992; Seidman, 1996). Between 1983 and 1996, the rate of retention decreased by 2.4 percentage points as
reported by the American College Testing Program (as cited in Antley, 1999). Levitz and Noel (1989) found that approximately one-third of the freshmen that enter college are not at the same institution the following year. The likelihood of dropping out of college and of making gains in learning are the greatest for most students during the freshman year (Tinto & Goodsell, 1994).

Research on student retention has assumed a heightened importance due to the considerable competition to retain existing students and recruit new. College administrators are quick to acknowledge that it is more cost effective to retain current students than to recruit new ones to replace those who dropout. By the beginning of the 1990s, student enrollments began a significant decline, giving increased impetus to retention efforts (Gin, 1995). Tinto (1993) described high rates of attrition during the first year of college reporting that 28.5% of students entering four-year collegiate institutions depart by the end of the first year. He also found that more students leave college prior to degree completion than stay (Tinto, 1987).

Ethnic minorities have shown the greatest increase in college enrollment in the past ten years. African-American enrollment has shown an increase of 63.1%, the rate of Hispanic student enrollment has grown by 53.3%, while Caucasian enrollment only rose by 6.6% (ACT Program, 1997).

Student attrition represents several types of loss for both students and collegiate institutions. The loss of time and money by students is obvious when they do not persist to degree attainment. The energy expended, and time devoted by the institution and its employees, also can be significant. Opportunities are not realized for students denied admission due to lack of space and resources. The departing student’s ability to develop
his/her potential within the collegiate environment is limited and the possible effect on a student’s self-esteem by not completing a significant life goal can be dramatic (Moores & Klas, 1989). The notion of “academic Darwinism” with its implication that only the fittest students survive and flourish, has been debated in regard to whether the institution or the student is responsible for a student’s success (Gardner, 2001).

Most premature departures from college occur during the first two years of study with the highest withdrawal during the first term (Gabelnick, MacGregor, Matthews, & Smith, 1990). Levitz and Noel (1989) identified the first six weeks of college as a critical time in the successful transition of first-year students. Frequently, students leave without allowing themselves the opportunity to adjust to the new demands of college life (Tinto, 1987).

Behavior related to withdrawal “is the result of an extremely complex set of influences that are not yet completely understood” (Pascarella, 1982, p. 89). The literature is plentiful with research citing early withdrawal causes. Tinto (1996) generated seven causes for student withdrawal: academic difficulty, adjustment difficulties, goals, commitments, financial inadequacies, incongruence, and isolation. He further noted there is no “single prevailing reason” to explain why students opt to prematurely depart from college.

Bean (1980) noted that not all student attrition is bad. He contended there may be very legitimate reasons for a student to leave college. Kuh (2001) stated,

...in some instances it is advantageous for both a student and the institution if the student decides to leave college. Some students are not intellectually or socially mature enough at a given point in time to use the institution’s resources for learning
in appropriate ways and it would be a mistake...to reduce academic expectations so that students who are not willing or able to perform at appropriate levels remain enrolled...neither students nor the institution benefit in the long run if students are not held accountable when they abridge value-driven institutional codes of behavioral conduct inside or out the classroom (p. 31).

R. Sargent Shriver, former Director of the Peace Corps, compared dropout to “burn out” and referenced the possible necessity of the student taking a break from college in order that upon return he or she may be more “revitalized” and committed to completing college (Youn, 1992).

Variables Related to Retention

Variables that correlate positively with student retention include on-campus residence (Blimling, 1993; Pascarella & Terenzini; 1991; Tinto; 1987), learning community participation (Levine & Tompkins, 1996; Pascarella, Terenzini, & Blimling, 1994; Tinto, Russo, & Kadel, 1994), and full-time student status (Lewallen, 1993). Milem and Berger (1997) found that early involvement with other students and faculty appeared to reduce attrition. Tharp (1993) found the most important variable in explaining retention was the number of first semester hours taken. The more hours for which a student enrolled, the more likely that he or she would persist.

A central theme in theoretical retention models is that student background characteristics are an important variable construct in influencing retention. In a study of the Fall 1977 entering freshman class that was conducted at the University of Illinois at Chicago Circle, pre-enrollment traits were most useful in distinguishing students who persisted from those who did not (Pascarella, Duby, Miller, & Rasher, 1981). Compared
with the dropouts, the persisters were younger and possessed higher levels of high school academic achievement.

Christensen (1990) and Stoecker, Pascarella, and Wolfle (1988) found that being female was positively related to retention. A reduced path model was used to predict persistence for a sample of 250 freshmen from a large, urban, primarily commuter institution between 1979 and 1981 (Pascarella, Duby, & Iverson, 1983). The researchers conducted longitudinal research and collected data at three points in time. Even with controls applied for all other model variables, they found that women were significantly more likely to persist than men.

Numerous researchers supported the correlation between gender and retention and reported higher baccalaureate completion rates for women than men (Astin, 1993; Daly & Breegle, 1989; Galicki & McEwen, 1989; Lewallen, 1993; York, Bollar, & Schoob, 1993). However, Moores and Klas (1989) and Walton (1992) found conflicting results in terms of gender and determined that the gender of the student was not significantly related to retention.

Research on ethnic background and its potential relationship to retention often compares African-American students with Caucasian students (Galicki & McEwen, 1989; Murtaugh, Burns, & Schuster, 1999; Starke, 1994). Lichtman, Bass, and Ager (1989) studied first-time-in-college freshmen that entered college between 1979 and 1985 and found that 57% of African-American students dropped out, as opposed to 38% of Caucasian students. Controlling for family socioeconomic status, academic ability, and educational aspirations, Astin (1975) found that African-Americans were significantly less likely to drop out if they were attending predominantly African-American
institutions. In a study of first-time, degree-seeking African-American residential and Caucasian commuter students at an historically Black institution, returning students were significantly more likely to be Caucasian (McDaniel & Graham, 1999).

Galicki and McEwen (1989) reported that freshmen African-American students dropped out at significantly higher rates than Caucasian students in a study of 3,272 students conducted at a predominantly Caucasian institution. However, when comparing students of similar age, grade point average, gender, and residency status, Murtaugh, Burns, and Schuster (1999) found that African-American students were less likely to withdraw than Caucasian students. Lewallen (1993) reported that being Caucasian is positively associated with retention.

Fredda (2000) found similar dropout rates for Caucasian and African-American students (15% vs. 13%) and equal dropout rates of 6% for both the Hispanic and Asian student groups after the completion of the first semester of study. In spite of this, dropout rates for the sophomore year changed with Caucasian, African-American, and Hispanic students all dropping out at similar rates (35% vs. 37% vs. 35%) and Asian students dropping out at the lowest rate (11%).

During a study to investigate the validity of Tinto’s model of college withdrawal, high school grade point average was found to correlate positively to persistence at a four-year commuter institution (Pascarella & Chapman, 1983). Astin (1993) reported that high school grades and college admission test scores are predictors of retention. Combined scores on the Scholastic Aptitude Test (SAT) and a student’s socioeconomic status were shown to correlate to student persistence in a study by McGrath and Braunstein (1997) of 632 full-time freshmen who were enrolled for the 1994-95 academic
year. The researchers found that the higher the socioeconomic status of a student's parents, the more likely he/she was to persist.

Less research has been conducted to determine the relationship between age and retention, in comparison with other variables showing a relationship to retention. The traditional-aged student, 18 to 22 years of age, has become the minority. Fewer than one in six, and possibly one in ten, undergraduates fit the traditional pattern of attending full-time, being 18 to 22 years old, and living on-campus (Chickering & Kytle, 1999). Chait (1998) reported that 18- to 24-year old high school graduates enrolled in college comprise only 42% of all students attending institutions of higher learning.

In 1998, the Chronicle of Higher Education reported that 31.2% of students are 25-44 years old, 20.7% are 45-64 years old, and 12.7% are 65 or older (as cited in Chickering & Kytle, 1999). Although the number of older students attending college has increased, most of the retention research has been conducted on traditional-aged students (Peltier, Laden, & Matranga, 1999). Often, research outcomes support a higher rate of retention of younger students as opposed to older students (Price, 1993; Windham, 1994). Tinto (1987) wrote, “the situation with older students is, in many respects, not unlike that of minority students...older students are much more likely to have significant work or family responsibilities which constrain their involvement in the life of college” (p. 73).

Astin (1975) reported that nontraditional students have higher dropout rates than traditional students as an outcome of his study of 171 undergraduates from a university serving mainly commuter students. However, Johnson (1997) noted, “many of the same factors that contribute to the successful retention of traditional campus-based students are also significant for commuters” (p. 6). Feldman (1993) found the risk of dropping out
was correlated with young students age 20-24. In contrast, in a study at Patrick Henry Community College in Virginia, Mohammadi (1994) found higher attrition rates after one year for students age 23-35 and 45-50.

A first-generation student is an individual who is the first in his/her family to attend a postsecondary institution (Hsiao, 1992). The National Center for Education Statistics (2000) reported that first-generation college students comprised 47% of the new students enrolled in all institutions of higher education during the 1995-96 academic year. Using data from the 1995 Beginning Postsecondary Students database, Duggan (2001) reported that first-generation students were less likely to live on-campus than second-generation students (50% vs. 70%). Thayer (2000) reviewed some of the recent literature regarding the retention of first-generation students and found that, in general, they are “likely to persist at lower rates than their non-first-generation peers” (p. 5).

Research on the relationship between first-generation college students and retention has been studied yielding contradictory results. Riehl (1994) found that first-generation freshmen at Indiana State University were less likely to return for their second year of study. Martinez (1999) found that students whose parents completed a 4-year degree persisted in greater numbers than students whose parents did not have a degree. However, Elkins (1996) reported that first-generation freshman students were not at a greater risk of attrition from the first to second semester than their second-generation counterparts at a 4-year, public institution. Whitley (1999) found no significant differences in retention rate of first-generation students when compared to second-generation students during the 1994 academic year at the University of North Carolina at Greensboro.
Duggan (2001) contends that the differences in the persistence of first-generation students may be due to their "lower levels of social capital." Perna (2000) wrote, "social capital may take the form of information-sharing channels and networking, as well as social norms, values and expected behaviors" (p. 119). First-generation students can be at a disadvantage because they may be unaware of college search and admission requirements or because their parents do not possess college experience and hence, are unable to assist them in navigating the collegiate experience (Duggan, 2001). Bowman and York-Anderson (1991) found differences between first- and second-generation students in regard to their knowledge of college, personal commitment, and level of family support with first-generation students being disadvantaged in most cases.

The variable most strongly associated with persistence is the undergraduate grade point average (Astin, 1972). However, students possessing acceptable grade point averages continue to depart from institutions of higher learning without graduating. Johnson (1997) found that retained students earned higher grade point averages than dropouts. Bean (1985) reported that low grade point average during the freshman and sophomore years was more influential in a student’s decision to drop out than in the junior and senior years.

In their examination of potential retention predictors among freshmen who enrolled for the 1995-95 academic year and who subsequently voluntarily withdrew, McGrath and Braunstein (1997) discovered that first semester grade point average was a significant predictor of retention. Gillock (1998) obtained similar results in her study of 552 freshman grade point averages. Compared to dropouts, persisters had higher first-semester grades. Gillock suggested that persisters placed a higher value on academics.
than dropouts. First-time-in-college students at Nova Southeastern University were studied by Fredda (2000) with returning students achieving significantly higher grade point averages than dropouts for the Fall 1999 semester (2.88 vs. 1.32). Ruddock, Hanson, and Moss (1999) found a larger percentage of students who dropped out had grade point averages below 2.00 than did students who persisted, even though the two groups were matched on high school performance and SAT scores. Pascarella and Terenzini (1991) and Astin (1993) asserted that academic achievement could be the strongest predictor for completion of a bachelor's degree.

Forty-three percent of all American college students attend part-time (Chait, 1998). However, Lewallen (1993) reported that the college environmental characteristic most positively associated with retention was full-time student status. McDaniel and Graham (1999) studied 1,949 first-time, degree seeking freshmen and found that compared to withdrawing students, returning students were more likely to attend college full-time.

Somers (1995) observed a higher incidence of retained students who studied full-time vs. part-time in her research of first-time-in-college students during the Fall semester of 1993 at a public university. Somers concluded that part-time students were more likely to have "irregular attendance patterns" making it more difficult for these students to persist. Or, the institution may be unintentionally discouraging persistence of part-time students through course scheduling patterns that made it challenging to complete a degree through continuous attendance.

The retention of working college students has been researched. Some students find it financially necessary to work either part- or full-time while attending college. They may be employed in work-study programs on-campus to assist in fulfilling tuition
requirements or in off-campus establishments to earn money for personal spending or to supplement limited funds provided by parents. Regardless, if students are working in addition to going to school, the time that remains to devote to study is lessened.

Brooks-Leonard (1991) conducted a study of the retention of 796 first-time-in-college students attending both part- and full-time and found 43.5% of students working full-time were retained and 72.1% of students working part-time were retained. Ironically, for those students who were not employed, only 62.1% were retained. However, as defined by Brooks-Leonard, retention rate was defined as continued attendance from the first to the second semester.

In a study at the University of California at Berkeley conducted in 1988, Haigh (1991) reported that student employment had little effect on persistence. In a study to predict the traits of college students most prone to dropping out at an historically African-American institution, McDaniel and Graham (1999) found that Caucasian commuter students were more apt to be retained and worked either full-or part-time compared to African-American residence hall students (76% vs. 31%).

A student’s housing choice has been found to relate to persistence with mixed results. Astin (1993) and Pascarella and Terrenzini (1991) found that living on-campus improved retention. Ruddock, Hanson, and Moss (1999) studied two matched groups of 747 students each who were first-time-in-college students during the Fall 1996 semester. Using a t-test analysis, the researchers found that more non-persisters (48.6%) than persisters (41.31%) reported living on-campus.

Astin (1975) found that the dominant theme in retention research was that decisions
to persist are related to the interactions that take place between the student and the institution. According to Tinto (1987),

it is the daily interaction of the person with other members of the college in both the formal and informal academic and social domains of the college and the person’s perception or evaluation of the character of those interactions that in large measure determine decisions as to staying or leaving (p. 127).

Data resulting from a recent longitudinal study at a private, residential university in the Southeast by Berger (1997) showed that first-year persistence was affected by a student’s sense of community in the residence halls. However, the study results were limited by the fact that persistence was not based on re-enrollment, but determined by the student’s own assessments about their plans to continue in school.

Informal peer group associations, participation in extracurricular activities, and interactions with faculty and administrators are important mechanisms of social integration (Tinto, 1975). Graduates from the state of Maryland system of higher education were found to have greater rates of participation in extracurricular activities than non-graduates (Daly & Breegle, 1989). Bean and Metzner (1985) investigated the difference in the dropout process between traditional and nontraditional (commuter, and/or part-time, and/or older) students. They suggested that nontraditional students are influenced more by the external environment than by the “social integration variables affecting traditional student attrition” (p. 485).

Retention Strategies and Interventions

Many colleges and universities have developed and implemented retention programs in an attempt to reduce the rate of student attrition. Efforts designed to improve the
quality of student experiences are beneficial to the institution and serve to attract and retain students. Tinto (1990) described successful retention programs as those which "reinforce the important foundations of higher education and the fostering of communities of persons whose work is to ensure the social and intellectual development of its members" (p. 47).

One purpose of retention studies is to determine if the implementation of different programmatic strategies assist in retaining students who are academically capable, desire to continue in college, and who would benefit from the educational program offered by the institution (Beal & Pascarella, 1982; Terenzini, 1982). The largest proportion of institutional departure occurs in the first year and prior to the beginning of the second year (Tinto, 1993). Because of this, many institutional policies aimed at reducing student attrition focus on the first-year student in an attempt to provide a worthwhile freshman year experience that will serve to increase integration into the social and academic life of college.

One effort to improve retention is "front loading" (Levitz & Noel, 1989). Front loading consists of placing the strongest, most student-centered people, programs, and services in the freshman year. By doing so, a strong foundation may be built at a crucial point in a student's college career that will provide direction and support for academic success and persistence throughout the remaining undergraduate experience.

Retention initiatives include improved advising, expanded orientation sessions, tutoring and developmental education efforts, peer mentoring, new residence hall arrangements, and freshman seminars (Upcraft, Gardner, & Associates, 1989). Residential, high-risk, and new students benefit the most from retention programs (Beal
& Noel, 1980). Minority student retention programs tend to be focused on remedial interventions and the literature on the effect of retention programming for commuters is difficult to find (Wolfe, 1991).

Significant relationships between various orientation experiences and persistence from freshman to sophomore year, and to graduation, have been found (Farr, Jones, & Samprone, 1986; Fidler & Hunter, 1989). Pascarella and Terenzini (1991) contended that the first semester freshman seminar was the most consistently effective program for producing retention. The effect of an orientation course on the retention rates of first-time-in-college freshmen for the first two years of attendance was studied by Strumpf and Hunt (1993). Freshman who participated in the orientation course were retained into the sophomore year at a significantly higher rate (79%) than those students who indicated an interest in the course but were not permitted to enroll (66%).

The effect of a “study skills improvement course” on entering freshmen identified as possessing inadequate study habits and/or skills was conducted at the University of Illinois at Chicago (Henderson, 1991). The course was found to have significant direct effects on the rate of freshmen to sophomore retention. Similarly, freshman enrolled in the “College Seminar” at Ramapo College that included study skills, communication and interpersonal skills, stress management, and career planning were compared with non-participants (Starke, 1994). Retention rates were found to be higher for those students enrolled in the seminar.

A “student mentoring program” at Indiana University - Purdue University Indianapolis was found to have a significant impact on the retention of participating students (Borden, Burton, Evenbeck, & Williams, 1997). Student retention increased by
15% for participants as compared to non-participants. Young, Backer, and Rogers (1989) found that participants in an "early advising and scheduling system" for prospective freshmen had lower attrition rates at the completion of the first semester of attendance than did non-participants (24% vs. 38%).

Hopson (1990) studied the Minority Assistance Program (MAP) at the University of South Carolina for the 1987 and 1988 entering freshman classes. The goal of the program was to assist African-American entering freshmen to become integrated into campus life and thus, to improve both academic achievement and retention rates. Two cohorts, both which included MAP participants and non-participants, were followed from entry through Spring 1990. The results indicated that MAP participants were retained each semester at higher rates, although significant differences were found only for the 1988 cohort.

Regarding retention strategies for first-generation college students, Chase (2000) reported that the impact of academic support groups for first-generation freshmen at a comprehensive mid-western university had a positive impact upon the retention of participants as compared with first-generation non-participants. Duggan (2001) found that not participating in a study group with other students lessened the chances of persistence of first-generation students to the second year. First-generation students reported spending fewer hours studying weekly than second-generation students although first-generation students were more apt to participate in orientation programs (Terenzini, Springer, Yaeger, Pascarella, & Nora, 1996). The research was limited by the fact that it represented data collected from 2,685 students of which only 825 were first-generation.
students from 23 colleges and universities nationwide that were “selected purposively and not at random” (Terenzini et al., 1996, p. 15).

Retention and Place of Residence Research

Numerous researchers have determined that a relationship exists between residence and retention (Astin, 1975, 1977, 1993; Blimling, 1993; Chickering, 1974; Mallette & Cabrera, 1991; Pascarella & Terenzini, 1991; Schroeder, 1994; Tinto, 1993; Valente, 1999). Astin (1983) found that dormitory residents were less likely to drop out and more likely than commuters to attain the baccalaureate in four years. He further discovered that living in a campus residence hall was related positively to retention regardless of gender, race, ability, or family background. Chickering (1974) also found that living on-campus aided in student retention. Pascarella and Terenzini (1991) and Blimling (1993) found that residence hall living is the single most consistent within-college determinant of educational impact.

Astin (1977) contended, “persistence is enhanced by living in a dormitory, by involvement in the campus environment, and by receiving major support from parents” (p. 110). Living on-campus has been found to exhibit a statistically significant positive influence on persistence and completion of the bachelor’s degree (Pascarella & Terenzini, 1991). Even when controls are applied for differences in past academic performance, aptitude, socioeconomic status, and other factors associated with educational attainment, students who live in residence halls consistently persist and graduate at significantly higher rates than non-resident students (Pascarella & Chapman, 1983; Velez, 1985).

Ample evidence exists linking on-campus living to positive effects on a number of student outcomes, including persistence (Astin, 1993; Blimling, 1993; Schroeder, 1994;...
Tinto, 1993). Several retention studies have indicated that students who live in residence halls persist at a much greater rate than do commuter students (Mallette & Cabrera, 1991; Pascarella & Chapman, 1983; Pascarella, Terenzini, & Wolfle, 1986).

Residence life programs that offer diverse living arrangements, often built around academic themes or homogeneous groupings, tend to achieve higher student retention rates than usual (Schroeder, 1993). These units typically are characterized by high degrees of student involvement, peer support, influence, and social stability (Schroeder, 1993). Leadership development, women in science and engineering, and substance free housing are common themes that have been successfully incorporated into contemporary college residence halls (Johnson & Cavins, 1996).

Skahill (2000) examined the role of social support networks in student persistence among residential and commuter students at an urban technical arts college for a twelve week period. Commuter students were found to have the highest rate of attrition from the study and from school in general. A study by Fidler and Moore (1996) compared the effects of living on-campus and participating in a freshman orientation seminar on freshman dropout rates from 1986 to 1993. They reported that both living on-campus and participating in the freshman seminar reduced freshman dropout rates as compared to students who did neither.

A study by Grier (1987) involved the analysis of data obtained from two groups of students participating in Educational Opportunity Fund (EOF) programs in New Jersey. One group of EOF students resided on-campus and the other lived off-campus. Grier reported that fewer EOF residents than EOF non-residents withdrew from college. A study conducted at the University of Maryland at College Park in 1989 revealed that the
re-enrollment rates for residents were higher than for commuters (as cited in Valente, 1999). Murtaugh, Burns, and Schuster (1999) used survival analysis to model the retention of 8,867 undergraduate students at Oregon State University between 1991 and 1996. Residents were found to have higher retention rates than commuters.

Astin (1977) found freshman residence hall students persisted to a greater extent than did freshman commuters who lived at home with their parents. Thompson, Samiratedu, and Rafter (1993) reported that living on-campus, as compared to commuting, was associated with higher retention (72.5% vs. 64.3%). Pascarella, Bohr, Nora, Zusman, Inman, and Desler (1993) found that, regardless of race, gender, or condition of admittance, retention was higher among students living on-campus as compared with off-campus students. A study of residents and commuters was conducted at the University of Maryland at College Park of first-time-in-college, full-time students beginning their studies in 1981 and 1982 (Galicki & McEwen, 1989). The residence hall students persisted at a significantly higher rate than the commuter students.

Controlling for background characteristics, Evenbeck and Williams (1998) examined the retention rates of learning community students in a team-taught, first-year seminar in a linked subject-matter course. They reported significantly higher retention rates for the learning community students compared with students taking the course taught by traditional instruction methods. A residential learning community at the University of Missouri-Columbia implemented in 1995, and designed as a freshman interest group (FIG), resulted in significantly higher persistence rates for FIG students as compared to students in traditional residence halls (Pike, Schroeder, & Berry, 1997).
Project Renaissance at the State University of New York at Albany is a residential learning community whereby first-year student participants are housed in the same residence hall, attend classes together for at least 6 hours weekly, and are taught using a multi-disciplinary approach. Analyzing survey and quantitative data, Singer and Miwa (1997) determined that the project increased student retention and recruitment and provided the feel of a "close knit community" in a large university environment.

The residential learning communities at the University of Nebraska were developed for first-time, first-year students and provided a shared academic and social experience. Students were enrolled in two common courses and participated in shared co-curricular activities. For academic year 1999-00, the overall retention rate for all first-year students into the second year of study was 82% compared with a 90% retention rate for the residential learning community students (Gregory, 2002).

A few studies did not show a relationship between place of residence and retention (Conner, 1991; Riordan, 1997; Wasson, 1993). Comparing the re-enrollment rates of dependent commuters to residence hall students into their third year of study at the University of Maryland at College Park, no significant differences in re-enrollment rates were found, with the exception of one semester (Maryland Longitudinal Study, 1989). Conner (1991) studied the retention of 360 African-American students who were freshmen during the 1984-85 academic year at Southern Illinois University at Carbondale. He reported that collegiate residence was not a significant predictor of persistence.

A study by Ruddock, Hanson, and Moss (2000) revealed that commuters were more often retained than residents. When comparing a matched sample of first-time-in-college
students at a major research university on high school rank, SAT score, major, ethnicity, gender, and on-campus vs. off-campus housing, they found that more "leavers" reported residing on-campus than "stayers" (48.6% vs. 41.31%).

Research comparing the retention of first-generation students with traditional students in regard to place of residence is limited. Wasson (1993) compared first-generation students living in residence halls offering programming designed to improve freshman retention with first-generation students living in other campus residence halls that did not offer the programming. No significant differences in retention were found between the two student groups.

In an analysis of research from 1966 to 1987, Blimling (1989) noted the varied findings concerning residence hall influences on both achievement and retention. "His analysis documented the need for additional research in this area if conclusions about their positive impact are to be accepted and generalized" (as cited in Thompson, Samiratedu, & Rafter, 1993, p. 41).

Academic Achievement

The academic achievement of college students has been studied extensively and is the outcome measure most often studied (Astin, 1993). Often, freshman-level academic achievement has received the greatest amount of attention (Abadie, 1998; Johnson, 1991; Mallette & Cabrera, 1991; Tinto, 1997; Wolfe, 1991) and is the outcome measure most frequently studied simultaneously with re-enrollment (Boudreau & Cromrey, 1994; Dochen, 1993; McManus, 1992; Riordan, 1997; Thompson, Samiratedu, & Rafter, 1993; Valente, 1999). Pascarella and Terenzini (1991) and Astin (1993) suggested that academic achievement could be the strongest predictor for completion of a bachelor's
degree. Tinto (1993) also argued that learning is linked to persistence. The more students learn, the more apt they are to remain in college.

Some students are unable to meet the minimum academic standards of the institution or they lack the skills to adjust to more rigorous college-level academic work. Many students leave college due to insufficient academic skills or poor study habits (Tinto, 1996). Gains students realize from their college experience may depend upon effort expended and involvement in other “educationally purposeful activities” (Pascarella, 2001). Students who are unchallenged intellectually may prematurely depart from an institution of higher learning not because they failed academically, but due to their desire to receive a more worthwhile education at a different institution (Tinto, 1996). Student incongruence and isolation are both common in the first year of college (Tinto, 1996). Students may not feel they belong socially or academically. They may believe that the institution has failed them by not providing for their needs and growth by delivering a poorly designed academic program.

Many freshmen students share traits unique to their generation including inadequate academic preparation (Strommer, 1995). Even though students realize the importance of a college degree, many are not naturally inclined toward academic work or highly motivated to accomplish it. However, departures for academic reasons still represent only 30-35% of all departures nationally (Tinto, 1996).

Not all students possess the level of commitment necessary to perform academically in the collegiate environment. They may not realize the importance of frequent study or regular class attendance and the impact these have on academic achievement and progress in college (Tinto, 1996). Only 34% of freshmen study at least six hours a week,
a decrease from 56% who studied that much a decade ago (Higher Education Research Institute, 1998). Student responses to the 1999 HERI Survey reflect that 40.2% of freshmen study less than three hours per week and 17.1% report studying less than one hour per week. Nonetheless, students appear to want high grades for low return of effort (Levine & Cureton, 1998).

Variables Related to Academic Achievement

Academic achievement has shown to be related to such variables as peer group (Astin, 1992; Chickering & Reisser, 1993; Pascarella & Terenzini, 1991), involvement in extracurricular activities (Marji, 1993), enrollment status (Lum & Alfred, 1987; Pascarella & Terenzini, 1998), and gender (Carmichael, 1986; Colert, 1984; Wolfe, 1991). Additionally, evidence supporting the relationship between achievement and race (Hsia, 1985; Trippi & Baker, 1989), credits completed (Stupka, 1993), learning community participation (Pike, 1999; Pike, Schroeder, & Berry, 1997; Windschitl, 1998), and residence (Thompson, Samiratedu, & Rafter, 1993) have been documented.

A student’s grades, i.e. grade point average, are a valuable indicator of successful adjustment to the academic demands of college (Pascarella & Terenzini, 1991). Freshman grade point average is a regularly used research criterion since “the courses that freshmen take are more similar and less variable than at any other year in college, thus minimizing comparability issues that occur with grades” (Camara & Echternacht, 2000, p. 3). However, grades can be affected by study habits, personal motivation, organization, and quality of effort (Pascarella & Terenzini, 1991).

Research regarding the impact of employment on learning is mixed. No relationship was found when comparing work experiences and student’s subsequent gains in reading, math, or critical thinking skills (Pascarella, Bohr, Nora, Desler, & Zusman, 1994). Astin
(1993) found that grades could be impacted negatively by full-time employment. Employment that was related to a student’s major had a positive effect on grade point average in a study by Haigh (1991) at the University of California at Berkeley.

College grades can be influenced by the nature of the dominant peer culture with which the student interacts (Chickering & Reisser, 1993). According to Astin (1992), “the student’s peer group is the single most potent source of influence on growth and development during the undergraduate years” (p. 398). In a study of 138 students exploring roommate relationships, Waldo (1986) found grade point average at the conclusion of the freshman year was “positively related to students’ experience of higher-quality relationships with their roommates” (p.22). The Interpersonal Relationship Scale was administered after the completion of the Fall semester. Student responses were assessed and a correlation coefficient of .20 was obtained between freshman grade point average and roommate relationship.

Extracurricular activity involvement has been shown to correlate with academic success (Astin 1985). However, the literature contains little consistent evidence suggesting that extracurricular activity involvement has a direct impact on a student’s academic or intellectual development (Pascarella & Terenzini, 1991). Rooney (1996) found no significant relationship between extracurricular involvement and grade point average following the completion of the second academic year in his study of 684 college freshmen. Nonetheless, in a study of randomly selected undergraduate students at the University of Maryland at College Park, Marji (1993) reported the intensity of involvement in extracurricular activities was correlated positively with academic achievement. Inman and Pascarella (1997) found a positive coefficient for
extracurricular involvement and cognitive development during college as a result of an analysis of data compiled from six institutions representing both resident and commuter students.

Limited resources and the desire to produce successful graduates have led college educators and administrators to consider valid and efficient predictors of academic success. Astin (1993) stated, “the two most potent predictors of academic achievement are the student’s high school grade point average and scores on college admissions tests” (p. 187). Ramist, Lewis, and McCamley-Jenkins (1993) concluded that on average, 54% of the predictive weight was on SAT scores and 46% was on high school grade point average.

At a study conducted at Utah Valley State College of 409 freshmen students, Beecher and Fischer (1999) reported that scores on the American College Test (ACT) and high school grade point average were significant predictors of first-year grade point average and completion of the freshman year. Knapp (1984) found a significant relationship between high school grade point average and standardized test scores on college academic performance.

Lum and Alfred (1987) found full-time student status affected academic achievement, although Ott (1988) reported no significant difference in the predicted probability of academic dismissal between part- and full-time students. However, Ott’s research was limited to results obtained after only one semester of attendance. Pascarella and Terenzini (1998) contended full-time student attendance fostered learning.

Relationships between gender and college academic achievement have been documented (Carmichael, 1986; Colert, 1984). Wolfe (1993) conducted research of five
groups of first-time, full-time freshmen at a four-year, predominantly non-residential public institution. As a result of using a one-way analysis of variance statistical analysis, Wolfe reported that females achieved higher freshman year cumulative grade point averages than males (2.60 vs. 2.38). In a study of the effects of gender on scholastic performance, Head, Walker, and Lindsey (1989) reported that gender did not affect college grade point average. A more recent study by Beecher and Fischer (1999) at the Utah Valley State College supported the findings of Head et al. Gender was not found to be a significant predictor of college success as measured by grade point average.

Ethnicity has been shown to relate to academic achievement at the college level. Trippi and Baker (1989) found that residing in a residence hall where there were many other African-American students was related positively to the academic performance of African-American female freshmen. However, no significant differences were found in grade point averages when Fields (1991) compared African-American students who lived on-campus with those who did not. Lucas (1989) compared the mean grade point averages of Caucasian, Asian, Hispanic, and African-American students at Harper College and reported that the Caucasian group achieved higher grade point averages than the other three groups (2.53 vs. 2.44 vs. 2.14 vs. 1.98). Hsia (1985) reported a positive correlation between Asian ethnicity and college academic performance.

Pascarella and Terenzini (1991) completed an extensive review of the research and concluded, "a large part of the impact of college is determined by the extent and content of one’s interactions with major agents of socialization on campus, namely, faculty members and student peers" (p. 620). Milem and Berger (1997) found that the amount of contact with faculty may affect positively student grades. Astin (1992) supported
Pascarella and Terenzini's contention regarding the importance of the student's peer group in influencing growth and development during college. Chickering and Reisser (1993) concluded that peer group influences are primary agents in promoting student learning and personal development.

Pascarella and Terenzini's (1978) research revealed that the frequency of student discussions with faculty on intellectual or course matters had the strongest partial correlations with both freshman grade point average and self-perception of intellectual growth. Astin (1977) found that compared to commuters, resident students had more interaction with faculty and peers. Blimling's (1993) research revealed residents interacted more frequently with faculty and peers in informal settings than did commuter students.

Billson and Terry (1982) and Nunez and Cuccaro-Alamin (1998) contend that first-generation students may have lower levels of academic and social integration than their counterparts whose parents attended college. Terenzini, Rendon, Upcraft, Millar, Allison, Gregg, and Jalomo (1994) found that first-generation students deferred involvement in the social systems of college until they were assured that they could perform adequately academically. The researchers also reported that first-generation students found it more difficult to adapt to the social and academic systems of college than did other students (Terenzini et al., 1994).

In a study of the impact of academic support groups on 53 first-generation freshmen, Chase (2000) found that grade point averages were affected positively by support group participation. Riehl (1994) reported that the predicted first semester grades for first-
generation freshmen at Indiana State University were lower than those received by a comparison group of freshman in the general population (2.34 vs. 2.45).

Research has shown that learning communities can be an effective means of increasing student involvement in learning, resulting in higher levels of student performance (Levine & Thompkins, 1996; Tinto, Russo, & Kadel, 1994). In a nationwide study of learning communities, Gabelnick, MacGregor, Matthews, and Smith (1990) found that learning community students gained an appreciation of collaborative learning and other students’ perspectives, intellectual connections, and a new awareness of their own process of learning.

Students participating in a learning community whereby they enrolled in classes, seminars, and social activities together were reported to achieve improved academic performance in a study by Schroeder and Hurst (1996). While comparing residential learning community (RLC) students with traditional residence hall (TRH) students, Pike (1999) found RLC students reported significantly greater gains in general education than did TRH students. However, in an analysis of data from 2,678 students at the University of Missouri – Columbia of RLC students, Pike, Schroeder, and Berry (1997) found that participation in the RLC did not improve students’ academic achievement directly, but did “indirectly improve students’ success by enhancing their incorporation into college” (p. 609).

Learning community students at Temple University received higher grades on average than students in non-learning community sections of the same course (Levine & Tompkins, 1996). At a study conducted at Brigham Young University on the effects of
an experiential learning program, participants received higher first semester grade point averages when compared to the general freshman population (Isakson & Call, 1991).

The number of credits earned by college students has been examined in relation to participation in special programming initiatives designed to improve academic performance. Johnson and Romanoff (1999) found that participants in the Russell Scholars Program earned more mean credit hours each semester than a control group (22.56 vs. 19.31). In a longitudinal study of the effects of a first semester student success course on credits earned at Sacramento City College, Stupka (1993) reported participants earned significantly more credits on average than those earned by a matched control group of participants not enrolled in the course.

Thompson, Samiratedu, and Rafter (1993) found a significant difference in the mean number of credits earned in their comparison of 2,579 first-time-in-college resident and commuter students at the completion of the freshman year at a public university. Residents earned 2.6 more credits than did off-campus students participating in the study. Two other studies comparing residents with commuters found no significant differences in the number of credit hours accumulated (James, 1990; Valente, 1999). However, the research conducted by James (1990) included only African-American students at a predominantly White university. Valente’s (1999) subjects were participants in the Educational Opportunity Fund program that includes only students who are educationally and economically disadvantaged. Therefore, the subject group members for these three studies are not necessarily similar and comparable.
Academic Achievement and Place of Residence Research

Research by several scholars has demonstrated that academic success is enhanced through the experience of living in a residence hall (Astin, 1977; Blimling, 1989; Kuh, 1995; Pascarella & Terenzini, 1991; Schroeder, Mable, & Associates, 1994). "The vast majority of researchers reporting on the impact of living on-campus versus commuting from home hypothesize that living on-campus will maximize opportunities for social, cultural, and extracurricular involvement......and will account for residential living's impact on various indices of student development" (Pascarella, Terenzini, & Blimling, 1994, p. 25).

Most evidence on the intellectual influence of place of residence focuses on academic achievement, operationally defined as cumulative grade point average (Pascarella, Bohr, Nora, Zusman, Inman, & Desler, 1993). Blimling (1989) found that residence hall students had higher grades than commuters. However, he advised against generalizing the results since a small number of institutions were included in the analyses. Terenzini, Pascarella, and Blimling (1996) contended that because a wide range of residential living arrangements exist, residential living has shown a weak effect on achievement. Students living in residence halls with strong academic orientations have exhibited greater achievement than other students (Blimling, 1993; Terenzini et al., 1996).

Mixed outcomes exist from research investigating where students reside and the impact on academic performance (Schroeder, Mable, & Associates, 1994). Earlier studies that showed positive academic outcomes for students living in a residence hall, compared with those living in off-campus housing arrangements, often failed to control
A growing body of evidence suggests that the learning advantages of living in a residence hall may derive less from the place of residence than from the nature of the activities and interpersonal interactions with faculty and peers they promote (Terenzini, Pascarella, & Blimling, 1996).

Blimling (1993) discovered that many of the earlier studies reporting positive academic outcomes for residence hall students had not controlled for past academic achievements. His findings were contrary to conclusions drawn by researchers who controlled for past academic performance and found that residents achieved better academically than commuters (Brister, 1994; Pascarella, Bohr, Nora, Zusman, Inman, & Desler, 1993; Robinson, 1999). In some studies, Blimling found residence hall students outperformed commuters academically, but “the fail-safe number associated with this meta-analysis....was too small for one to consider this finding stable; therefore, these results are inconclusive” (p. 308). A study by Thompson, Samiratedu, and Rafter (1993) determined that at-risk students living on-campus showed significantly higher grade point averages than at-risk students residing off-campus. However, the researchers did not control for high school achievement which may have had an effect on college grade point average.

Reporting on his findings from a literature review of studies published between 1966 and 1993, and which were based upon empirically designed research and controlled for past academic performance, Blimling (1993) concluded that students living in residence halls did not achieve better academically than students living with parents off-campus.
Further, he found, "students living in residence halls achieved only marginally better academic performance than students living in fraternity and sorority houses" (p. 287).

Brister (1994) reported that on-campus students had significantly higher adjusted grade point averages than off-campus students at the University of Alabama during the 1991-92 academic year. Bowman and Partin (1993) found that residents obtained higher grade point averages as compared to commuters, although the results were not significant.

When comparing residents, students living in off-campus apartments, and other commuters, and after controlling for group differences, Delucchi (1993) found that commuting had a positive influence on grade point average as compared to residing in an apartment near campus. Commuter students had grade point averages .19 points higher than students residing in apartments. Chickering and Kuper (1971) reported that students residing in private, off-campus housing achieved higher grades than predicted while the grades of residents and dependent commuters fell below the predicted level. They also found that dependent commuters were less likely to study full-time than was predicted on the basis of their entering characteristics.

Resident students had significantly larger freshman year gains in critical thinking than commuters in a study conducted by Pascarella, Bohr, Nora, Zusman, Inman, and Desler (1993). The research was conducted using data collected from 210 incoming freshman students at a large university in Chicago and controlled for pre-college cognitive level, academic motivation, age, work responsibilities, and enrollment.

Special living arrangements with an intentional academic focus, such as learning communities, have shown to have a significant positive impact upon achievement...
Tinto and Goodsell Love (1995) conducted a longitudinal study at LaGuardia Community College and found that learning community students “outperformed students in the comparison classes and this was the case despite their having lower grade point averages in high school” (p. 62). The learning benefits were even more distinct when students were involved in learning communities that were incorporated into the housing programs.

In a study of the effects of residential learning communities (RLCs), Pike (1999) observed that freshman RLC students reported substantially higher gains in learning and intellectual development than did students in traditional residence halls. The “Russell Scholars Program” (RSP), a residential learning community at the University of Southern Maine, was studied and a cohort group of RSP students was compared with a matched control group randomly selected from the greater university population (Johnson & Romanoff, 1999). RSP students as a group earned a mean grade point average of 2.57 while non-RSP students earned a mean grade point average of 2.32.

Students participating in the residential “Key Academic Learning Community” at Colorado State University together were enrolled in a cluster of courses consisting of three core curriculum courses. Longitudinal analysis over five years showed that student cohort groups earned higher grade point averages than non-participants (Thayer, 2000). A learning community that included a housing component was conducted at Purdue University during academic year 1999-00. Participants earned higher grades than eligible and comparable non-participants (Koch & Christenson, 2002).
Summary

A review of the literature provides evidence that college students residing on-campus compared to commuters achieve higher grade point averages, earn more credits, and are retained at a higher rate. In particular, residential learning communities were shown to provide beneficial environments for students to experience increased student support, peer interaction, and academic and social integration into the academic climate of institutions of higher learning, particularly for first-year students. It was suggested that structuring the residence hall environment to reinforce classroom learning and enhance commitment to college may influence student success. Higher retention rates may also result from learning community involvement.

The majority of earlier studies compared residents with commuter students without specifically determining “where” commuter students resided off-campus. The commuter subject groups were treated as a “homogeneous” population. Nonetheless, residents were shown to outperform commuters on grade point average measures, re-enrollment rates, and number of credits successfully completed. The tendency for commuters to spend less time on-campus was suggested to have reduced their opportunity for social and academic integration and thus, had a negative impact upon their achievement and retention. More recent research comparing residents with commuters has shown mixed results.

Research involving learning community students is less abundant as compared to that conducted on traditional residents and commuters. Fewer studies were found comparing “residential” learning community students with traditional residents and commuters. The majority of research focused upon comparing an assortment of “non-residential” learning
community students and programs with either traditional residents, commuters, or both
groups.

Some of the earlier research conducted failed to control for student background and
pre-enrollment characteristics, and past academic performance, when comparing different
student groups. A few studies limited their outcome measures solely to the conclusion of
the first semester of study.
CHAPTER III
METHODOLOGY

Overview

This chapter details how the study was constructed including the purpose, research methodology and design used, restatement of research questions, and the null/alternate hypotheses tested. The institutional setting, population, and subject group matching criteria are included. The chapter describes the special interest housing residential learning community (RLC), traditional residence hall (TRH) and commuter (C) demographic and academic achievement characteristics, data collection methods, and statistical analyses used.

Purpose of the Study

The purpose of this study was to determine if differences exist for two separate measures of academic achievement and one measure of retention between three groups of full-time, first-time-in-college (FTIC) freshmen residing in either a special interest housing residential learning community (RLC), a traditional residence hall (TRH), or at home with a parent/parents or in other off-campus living arrangements and commuting to campus (commuters/C) at the University of South Florida in Tampa. The impact that “place of residence” had upon these three outcome variables, for the three student sample groups, will provide new information, contributing to current knowledge in the field.

Inconsistencies in the outcomes based upon research to date on this relationship are apparent. The outcome of the study may provide further evidence to either support or negate the existence of a relationship between place of residence and academic achievement and retention measures.
Research Methodology

A quantitative, *ex post facto* design based upon subject characteristics was utilized to compare three groups of full-time, FTIC freshmen to determine if differences exist relative to the impact of place of residence on academic achievement and retention rate. Each student’s “place of residence” was determined prior to conducting the study and collecting the relevant data. The three student sample groups were matched on the three demographic characteristics of age, gender, and ethnicity in an attempt to equate the groups, since it is not feasible to assign subjects to groups randomly or to directly manipulate the independent variable. The groups also were matched on the pre-enrollment academic achievement characteristics of high school grade point average and Scholastic Aptitude Test (SAT) combined scores in an attempt to equate the groups in terms of academic achievement.

Research Design

The independent variable (subject characteristic) for the study was “place of residence” with three levels: special interest housing residential learning community (RLC), traditional residence hall (TRH), and commuter (C). The dependent variables included two academic achievement measures and one retention rate measure. The three sample groups were compared to determine if any differences were found.

Academic achievement was measured using two separate measures: “mean freshman grade point average (GPA)” and “mean grade for the common course taken” (ENC 1101 – Freshman English I) for each sample group. Retention rate was determined by comparing the number and percentage of students re-enrolling for continued attendance.
for each subject group following completion of the add/drop period for the Fall semester of the second year of study (i.e., Fall 2000 and Fall 2001).

Subjects for the sample groups were selected from the overall FTIC, full-time status student population at the University of South Florida during academic years 1999-2000 and 2000-2001. The RLC group included 95 students constituting the entire cohort of students participating in two RLCs for the noted academic years (RLC #10 and RLC #13). Fifty students were accepted into each academic year RLC program. However, five students subsequently opted not to participate in the program, reducing the size of the intended subject group from 100 to 95. One hundred students made up the TRH group and the C group was comprised of 100 students. None of the TRH or C sample group participants were enrolled in any of the learning community programs (residential or non-residential) offered by the University during academic years 1999-2000 or 2000-2001.

Research Questions

The following research questions were investigated:

**Academic Achievement:**

1. Which subject group will earn a higher mean grade point average for the freshman year of study?

2. Which subject group will earn a higher mean grade in the common comparison course?

**Retention Rate:**

1. At the beginning of the second year of study, which subject group will re-enroll for continued attendance at the highest rate?
Statement of Hypotheses

The following hypotheses were tested in the study:

Academic Achievement:

Freshman Grade Point Average

Null Hypothesis:

There is no difference in the overall mean grade point average for the freshman year of study for the three groups studied.

Alternate Hypotheses:

1. RLC students as a group will earn a higher mean grade point average for the freshman year of study than that earned by TRH students as a group.

2. RLC students as a group will earn a higher mean grade point average for the freshman year of study than that earned by C students as a group.

3. TRH students as a group will earn a higher mean grade point average for the freshman year of study than that earned by C students as a group.

Freshman English I Grade

Null Hypothesis:

There is no difference in the overall mean grade earned in Freshman English I for the three groups studied.

Alternate Hypotheses:

1. RLC students are a group will earn a higher mean grade in Freshman English I than that earned by TRH students as a group.

2. RLC students as a group will earn a higher mean grade in Freshman English I than that earned by C students as a group.
3. TRH students as a group will earn a higher mean grade in Freshman English I than that earned by C students as a group.

Retention Rate:

Null Hypothesis:

At the beginning of the second year of study, there is no difference in the total number of students re-enrolling for continued attendance between the three subject groups.

Alternate Hypotheses:

1. At the beginning of the second year of study, RLC students as a group will re-enroll for continued attendance at a higher rate than TRH students as a group.
2. At the beginning of the second year of study, RLC students as a group will re-enroll for continued attendance at a higher rate than C students as a group.
3. At the beginning of the second year of study, TRH students as a group will re-enroll for continued attendance at a higher rate than C students as a group.

Institutional Setting

The University of South Florida in Tampa served as the institutional setting for the study. The University of South Florida (USF) is a public, state-funded university that in 1998 acquired the designation of “Research Extensive” (Carnegie Classification of Institutions of Higher Education, 2001). One of Florida’s eleven State University System institutions of higher learning, USF is located in an urban area on the central west coast of Florida and serves primarily a commuter population. Founded in 1956, it is the first university in the nation to be “created wholly in the 20th century” and is the largest metropolitan university in the southeastern United States (USF 1999-2000 Fact Book).
USF is classified as one of the top 50 public research universities in the country (USF 1999-2000 Undergraduate Catalog) and offers programs at three regional campuses in St. Petersburg, Sarasota, and Lakeland, in addition to the main campus in Tampa. Learning centers located in downtown Tampa, New Port Richey, and northern Pinellas County also provide student’s access to USFs academic programs, academic instruction, and support services. The university offers students access to 206 undergraduate, masters, specialist, and doctoral programs, including the M.D. (USF 1999-2000 Fact Book).

The student body at USF is diverse, with more than 26% minority students (USF 1999-2000 Fact Book). The total enrollment for academic year 1999-2000 was 35,135 students (USF 1999-2000 Fact Book) and for academic year 2000-2001, 35,890 students were enrolled (USF 2000-2001 Fact Book). U.S. News On-Line (2001) reported that in 1999-2000, USF had an average freshman retention rate of 77%, a graduation rate of 46%, and a 72% acceptance rate for admission.

Population

During the 1999-2000 academic year, 3,237 USF students were classified as FTIC freshmen (USF 1999-2000 Fact Book). Of this number, 2,787 were full-time freshmen and 450 were part-time attendees (USF 1999-2000 Fact Book). USFs entering freshmen, both FTIC and others, had an average high school grade point average of nearly 3.5 and a SAT combined score of approximately 1100 (USF 1999-2000 Fact Book). Both the mean and median age of all freshmen at USF during this academic year (5,370 students) was 19 years, with a breakdown of 43% male and 57% female. Student housing reported
that 1,613 freshmen resided on-campus, with the balance residing in various off-campus living arrangements (USF 1999-2000 Fact Book).

Academic year 2000-2001 realized an increase of FTIC students to 3,516 with 3,035 classified as full-time and 481 part-time (USF 2000-2001 Fact Book). On average, USFs entering freshman population had an average high school grade point average of 3.52 and a SAT combined score of approximately 1100 (USF 2000-2001 Fact Book). The mean and median age of all freshmen at USF during this academic year was 19 years, with a breakdown of 41% male and 59% female. During this academic year, 1,795 freshmen resided on-campus with the remainder living in various off-campus living arrangements (USF 2000-2001 Fact Book).

The population from which this study’s three sample groups was chosen included the 2,787 full-time, FTIC freshman population for academic year 1999-2000 and the 3,035 full-time FTIC freshman population for academic year 2000-2001. The TRH student group was chosen from the FTIC freshman population residing on-campus. The cohort group of 95 FTIC students comprising the entire population of the RLCs for academic years 1999-2000 and 2000-2001 constituted the RLC sample group. One hundred FTIC students residing at home with a parent/parents or in other off-campus living arrangements and who commuted to campus constituted the C sample group. All three groups included only students taking courses at the Tampa campus of the university.

Subject Group Matching

To equate the groups for similarity, the 100 TRH and 100 C subject comparison group students were matched to the original 100 RLC students who were accepted into the program on the three demographic characteristics of age, gender, and ethnicity to
decrease any potential threats to the initial selection of the comparison groups.
Additionally, the students also were matched on the pre-enrollment academic
achievement characteristics of high school grade point average and Scholastic Aptitude
Test (SAT) combined scores. Some students selected for inclusion in the study opted to
take the American College Test (ACT) in lieu of the SAT. For these students, the ACT
scores were converted to equivalent SAT scores.

The names of the students in the RLC cohort sample group were provided to the
Office of Undergraduate Admissions by the University Housing Office for the collection
of data from the On-Line Access Student Information System (OASIS) regarding SAT or
ACT scores, high school grade point averages, age, gender, and ethnicity. Collected RLC
student data was used by the Office of the Registrar to select 100 students residing in
traditional residence halls on-campus whose demographic and academic achievement
characteristics matched those possessed by the RLC group subjects to constitute the TRH
sample group. This same procedure was used to select 100 students residing at home
with a parent/parents or in other off-campus living arrangements and who commuted to
campus to constitute the C sample group. The demographic characteristics data for the
295 students were provided to this researcher and did not include student names, social
security numbers, or any other information that would allow for the identification of any
of the study participants.

Residential Learning Community Program

USF first implemented a "prototypical" non-residential learning community during
academic year 1995-96 in an effort to increase freshman retention rates, improve the
performance of minority students, incorporate writing across the curriculum, expand
communication skills including writing and researching, and to establish a productive academic climate promoting collaboration, diversity appreciation, and the scholarly exchange of ideas (FIPSE Proposal, 1994). A unique model for the University's learning communities, entitled the "Flexible Learning Community Model," was developed as a guide for the creation and implementation of the initial and subsequent learning communities at USF. This model incorporates new technologies to transform "how" and "what" students are taught.

The first "residential" learning community (RLC) was initiated at USF during academic year 1998-99 as an optional two-year program for students to be enrolled in a variety of common courses for the first two years of study. The participants were required to reside together on the same floor of the same on-campus residence hall during the freshman and sophomore years of study.

Admission to the RLC is voluntary and students requesting admission are required to submit a "Residential Learning Community Application" as a supplement to the student housing contract following acceptance for admission to the University. Applications are reviewed, and determinations made, on a "first-come, first-serve" basis. To qualify for RLC participation, interested FTIC students must be eligible to take Freshman English I. Participating students must sign a letter of commitment addressing the nature and responsibility of the RLC.

Each academic year, a total of three learning communities are formed, with one designated as a "residential" learning community. The remaining two learning communities are open to students regardless of where they choose to live, whether on- or off-campus. Each learning community is limited to a maximum of 50 student
participants. At the conclusion of two years of study, RLC students will have satisfied all of the General Education requirements other than natural science and math. RLC students enroll in two common courses during the Fall semesters and three shared courses during the Spring semesters, comprising a total of 15 credit hours of shared course scheduling for each of the two academic years.

This study’s RLC sample group of 95 students began their studies at USF during either academic year 1999-2000 or 2000-2001. Academic year 1999-2000 was the second year that an RLC option was offered at USF. The RLC is one of several innovative “special interest housing programs” at USF for students desiring to live, and take courses with, others possessing similar interests. Students from RLC #10 and RLC #13 were used as the subject group members for the RLC group.

During the academic years for which the data were collected (1999-2000 and 2000-2001), RLC students were housed in suite-style accommodations in Delta Hall, one of eleven on-campus residence halls. Two students roomed together in each bedroom of a four-bedroom suite in Delta Hall. Two study areas and one common bathroom were provided for the 8 students who shared the suite. Each floor in Delta Hall provided a shared kitchen and lounge area. Delta Hall is centrally located on campus and provides for easy access and close proximity to the library, bookstore, classrooms, and student union (Marshall Center).

The theme of RLC #10 initiated during academic year 1999-2000 was “Looking for Community.” This RLC “explored the loss of community in modern America and ways of recapturing feelings of belonging and purpose in the 21st century” (USF Learning Community Ten, 1999). First semester common courses taken by students participating
in RLC #10 were Social Sciences Perspectives I and Historical Perspectives I. Freshman English I, Biology for Learning Communities, and Non-Western Societies and Culture were the common courses taken during the second semester of the freshman year (USF Learning Community Ten, 1999). Some RLC students were not required to take Freshman English I due to being placed in an "advanced" English course or they earned credit for the course via a College Level Examination Program (CLEP) test. All common courses were scheduled on either Monday's or Wednesday's.

The theme of RLC #13 initiated during academic year 2000-2001 was "Creating Identity Through Cultural Rituals." This RLC "examined the theme of identity through cultural rituals" (USF Learning Community Thirteen, 2000). First semester common courses taken by students participating in RLC #13 were Arts Connections and Historical Perspectives I. Freshman English I, Social Sciences Perspectives I, and Library and Internet Research Skills were the common courses taken during the second semester of the freshman year. Again, some RLC students were not required to take Freshman English I for the reasons previously stated. For the RLC subject group, 60 students enrolled in Freshman English I. All common courses were scheduled on either Tuesday's or Thursday's.

Traditional Residence Hall Accommodations and Student Characteristics

The TRH students began their studies at USF either during academic year 1999-2000 or 2000-2001. They were not participants in any of the learning community programs offered by USF and 82 students enrolled in the common course, Freshman English I. The TRH students were residents of Beta Hall which is a traditional-style residence hall offering double occupancy housing with two students sharing each room. Fifty students
on each floor shared a common bathroom. Study rooms and kitchen facilities were located on each floor of the hall. Beta Hall students had access to the Argos Complex that provided a 24-hour study lounge, computer lab, and café. This hall is centrally located on campus to provide close proximity to the library, bookstore, classrooms, and student union (Marshall Center).

Commuter Student Accommodations and Characteristics

The C students resided at home with a parent/parents or in other off-campus living arrangements and commuted to campus. The exact commute distance from their off-campus home to campus was not taken into consideration. However, commuter students were selected that resided within any of ten designated zip code areas, all of which were a minimum of four miles from the main campus boundaries. Like the TRH students, none of the C students were enrolled in any of the learning community programs offered by USF. Seventy-three students in this subject group enrolled in the common course, Freshman English I.

Data Collection

Freshman grade point averages for the 295 study participants and grades earned in Freshman English I for the 215 students who enrolled in the course were collected and used for ascertaining “academic achievement” at the conclusion of the freshman year (i.e., Spring 2000 and Spring 2001) by the Office of the Registrar, using the OASIS system. The data were coded so as not to reveal any names, social security numbers, or other information that might identify any of the participants and forwarded to this researcher.

The Office of the Registrar collected data to determine if each of the 295 students
re-enrolled for continued attendance at the conclusion of the add/drop period for the Fall semester of the second year of study (i.e., Fall 2000 and Fall 2001) and forwarded the data to this researcher. The enrollment status for the second year of study (i.e. part- or full-time study) was not taken into consideration.

**Statistical Analyses**

An analysis of covariance (ANCOVA) procedure was employed to analyze the mean freshman grade point average to test for a hypothesis of difference in academic achievement between the subject groups. The Scholastic Aptitude Test (SAT) score was used as a covariate. An ANCOVA with SAT score as the covariate also was used to analyze the mean grade earned in Freshman English I to test for a hypothesis of difference in academic achievement between the subject groups. A binary logistic regression was employed to predict the re-enrollment of the students for the second year of study. This analysis compares the “expected” frequencies with the actual “observed” frequencies.

Student demographic characteristics, high school academic achievement data, and the outcomes and interpretation of the statistical analyses utilized will be presented in Chapter IV. Chapter V includes a summary, findings, discussion, study limitations, policy implications, recommendations for future research, and the conclusion.
CHAPTER IV
STATISTICAL ANALYSES AND FINDINGS

Introduction

The impact of place of residence upon the academic achievement and retention of first-time-in-college students at an urban, public, primarily commuter university was explored. Three groups of students were compared including residential learning community (RLC), traditional residence hall (TRH), and commuters (C). All subjects began their study at USF during academic year 1999-2000 or 2000-2001. Three research questions were posed to test three separate hypotheses that the residential learning community students would outperform the two comparison groups on overall mean freshman grade point average, mean grade earned in a comparison course (Freshman English I), and retention into the second year of study using various quantitative analyses.

The demographic and high school background academic achievement characteristics for each subject group are described in this chapter. The mean freshman grade point average, mean Freshman English I grades, and the number and percentage of retained students to the second year of study by group also are provided. The results of the statistical analyses of the hypotheses are reported.

Subject Group Background Characteristics

The demographic characteristics of the subjects included gender, age, and ethnicity. The academic achievement characteristics included combined Scholastic Aptitude Test (SAT) score and high school grade point average. All subjects were first-time-in-college students enrolled full-time for the freshman year and entered the institution during academic year 1999-2000 or 2000-2001.
Demographic Characteristics

The three subject groups included RLC students \( n=95 \), TRH students \( n=100 \), and C students \( n=100 \). Table 1 reflects the number of students in each group by gender and age:

Table 1

Demographic Characteristics by Gender and Age

<table>
<thead>
<tr>
<th>Housing</th>
<th>( n )</th>
<th>Male</th>
<th>Female</th>
<th>18</th>
<th>19</th>
<th>20</th>
<th>21</th>
<th>22</th>
<th>23 and over</th>
</tr>
</thead>
<tbody>
<tr>
<td>RLC</td>
<td>95</td>
<td>35</td>
<td>60</td>
<td>0</td>
<td>10</td>
<td>42</td>
<td>37</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>TRH</td>
<td>100</td>
<td>38</td>
<td>62</td>
<td>6</td>
<td>61</td>
<td>29</td>
<td>3</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>C</td>
<td>100</td>
<td>59</td>
<td>41</td>
<td>3</td>
<td>31</td>
<td>30</td>
<td>27</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Total ( (N) )</td>
<td>295</td>
<td>132</td>
<td>163</td>
<td>9</td>
<td>102</td>
<td>101</td>
<td>67</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>% of ( N )</td>
<td>44.7</td>
<td>55.3</td>
<td>3.1</td>
<td>34.6</td>
<td>34.2</td>
<td>22.7</td>
<td>3.4</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

The average age of all study participants was 20. This age is closely comparable to the institutional average of 19 for entering freshman for both academic years of the study. The age range of the subjects was 18 to 45 years, although only six students in the study were 23 years of age or older. The percentage breakdowns by gender of 44.7% male and 55.3% female are closely indicative of the institutional averages of 43% male and 57% female for entering freshman for academic year 1999-2000 and 41% male and 59% female for academic year 2000-2001.

Table 2 reflects the ethnicity of the students in each group:

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Table 2

Demographic Characteristics by Ethnicity

<table>
<thead>
<tr>
<th>Housing</th>
<th>n</th>
<th>Asian</th>
<th>Black</th>
<th>Hispanic</th>
<th>Unknown</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td>RLC</td>
<td>95</td>
<td>5</td>
<td>20</td>
<td>8</td>
<td>1</td>
<td>61</td>
</tr>
<tr>
<td>TRH</td>
<td>100</td>
<td>4</td>
<td>18</td>
<td>8</td>
<td>8</td>
<td>62</td>
</tr>
<tr>
<td>C</td>
<td>100</td>
<td>11</td>
<td>9</td>
<td>16</td>
<td>0</td>
<td>64</td>
</tr>
<tr>
<td>Total (N)</td>
<td>295</td>
<td>20</td>
<td>47</td>
<td>32</td>
<td>9</td>
<td>187</td>
</tr>
<tr>
<td>% of N</td>
<td></td>
<td>6.8</td>
<td>15.9</td>
<td>10.8</td>
<td>3.1</td>
<td>63.4</td>
</tr>
</tbody>
</table>

The combined percentage by minority for Asian, Black, and Hispanic students (33.5%) of the study N is 7.5 percentage points higher than that of the total entering freshman class representation of approximately 26% minority students at the institution for both academic years 1999-2000 and 2000-2001. The ethnicity of nine students was unknown representing 3.05% of the total study sample size.

Academic Achievement Characteristics

Table 3 depicts the high school grade point average (GPA) and SAT combined score ranges and means by group:
Table 3

Academic Achievement Characteristics

<table>
<thead>
<tr>
<th>Housing</th>
<th>n</th>
<th>Range</th>
<th>Mean</th>
<th>Range</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>RLC</td>
<td>95</td>
<td>2.10-4.00</td>
<td>3.21</td>
<td>660-1260</td>
<td>1009</td>
</tr>
<tr>
<td>TRH</td>
<td>100</td>
<td>2.30-4.00</td>
<td>3.32</td>
<td>760-1360</td>
<td>1005</td>
</tr>
<tr>
<td>C</td>
<td>100</td>
<td>2.60-4.00</td>
<td>3.40</td>
<td>780-1340</td>
<td>1021</td>
</tr>
</tbody>
</table>

The high school GPA range including all three subject groups was 2.10 - 4.00 and the overall mean range was 3.21 - 3.40. The overall mean high school GPA for entering freshman for academic years 1999-2000 and 2000-2001 was 3.5. The difference in means for the RLC, TRH, and C subject groups respectively was .29, .18, and .10 less than the institutional average for academic years 1999-2000 and 2000-2001.

The SAT combined score range including all three subject groups was 660 - 1360 and mean score range was 1009 - 1021. For students who opted to take the American College Test (ACT) for admission consideration in lieu of the SAT, the ACT scores were converted to equivalent SAT scores. The RLC, TRH, and C group averages were lower than the institutional average of 1100 for academic years 1999-2000 and 2000-2001 by 91, 95, and 79 respectively.

Quantitative Analyses

Freshman Grade Point Average (GPA)

An analysis of covariance (ANCOVA) using the SAT score as a covariate was used to analyze group differences in mean freshman grade point average (GPA). Because the freshman GPA variable was negatively skewed (Sk = -1.232) and the kurtosis was...
positive (Ku = 1.550), the grade scores were transformed to induce the distribution to normality and stabilize variances across groups. The distribution was first reflected by adding one to the maximum score, then subtracting the original scores from this sum. Reflecting the distribution maintains the same shape as the original, except the skewness becomes positive (Sk = .254) and the kurtosis remains positive (Ku = .140). The log10 was then computed for the reflected variable and used in subsequent inferential analyses that required normally distributed errors and homogeneous group variances (Tabachnick & Fidell, 2000).

The ANCOVA for Freshman GPA of the transformed data yielded no statistically significant differences between the subject groups, $F(2, 292) = .314, p = .731$. The significance level of .05 was used throughout this study as the criterion for inferring the existence of an effect. Levene’s Test of Equality of Error Variances was conducted to test homogeneity prior to data transformation, $F(2, 292) = 2.892, p = .057$ and after data transformation, $F(2, 292) = 2.205, p = .112$.

Table 4 depicts the original and estimated marginal means, and standard deviations prior to and after data transformation for Freshman GPA:
Table 4

<table>
<thead>
<tr>
<th>Housing</th>
<th>n</th>
<th>Original Mean</th>
<th>Est. Marginal Mean</th>
<th>Transformed Mean</th>
<th>Est. Marginal Mean</th>
<th>SD</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>RLC</td>
<td>95</td>
<td>2.55</td>
<td>2.55</td>
<td>1.34</td>
<td>1.34</td>
<td>.95</td>
<td>.149</td>
</tr>
<tr>
<td>TRH</td>
<td>100</td>
<td>2.64</td>
<td>2.64</td>
<td>1.35</td>
<td>1.35</td>
<td>.71</td>
<td>.120</td>
</tr>
<tr>
<td>C</td>
<td>100</td>
<td>2.64</td>
<td>2.64</td>
<td>1.35</td>
<td>1.35</td>
<td>.87</td>
<td>.153</td>
</tr>
</tbody>
</table>

The mean freshman GPAs both before and after data transformation reflected that the TRH and C subject groups performed at an equivalent level, while the RLC group performed at a lower level, although none of the group differences were statistically significant.

**Freshman English I Grade**

An analysis of covariance (ANCOVA) using the SAT scores as a covariate was used to analyze group differences in the grades earned by the subject group participants in the common comparison course, Freshman English I. Sixty RLC subjects, 82 TRH subjects, and 73 C subjects enrolled in Freshman English I during their initial year of study. Prior to data transformation, the Freshman English I grade variable was negatively skewed (Sk = -1.318) and the kurtosis was positive (Ku = 2.087). After data transformation, the skewness became positive (Sk = .436) and the kurtosis became negative (Ku = -.769).

The ANCOVA for Freshman English I prior to data transformation did not result in statistically significant differences between the subject groups, $F(2,212) = 1.726$,.
Levene's Test of Equality of Error Variances was conducted to test homogeneity prior to data transformation, $F(2, 212) = 1.853, p = .159$. After data transformation, the results of the ANCOVA yielded statistically significant differences between the subject groups, $F(2, 212) = 3.506, p = .032$ and Levene's Test was conducted to test homogeneity after data transformation, $F(2, 212) = 5.294, p = .006$.

Table 5 depicts the original and estimated marginal means, standard deviations, and standard errors prior to and after data transformation for Freshman English I Grade:

<table>
<thead>
<tr>
<th>Housing</th>
<th>n</th>
<th>Original Mean</th>
<th>Est. Marginal Mean</th>
<th>SD</th>
<th>Transformed Mean</th>
<th>Est. Marginal Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>RLC</td>
<td>95</td>
<td>3.42</td>
<td>3.43</td>
<td>.86</td>
<td>1.55</td>
<td>1.55</td>
<td>.198</td>
</tr>
<tr>
<td>TRH</td>
<td>100</td>
<td>3.19</td>
<td>3.19</td>
<td>.76</td>
<td>1.48</td>
<td>1.48</td>
<td>.168</td>
</tr>
<tr>
<td>C</td>
<td>100</td>
<td>3.24</td>
<td>3.23</td>
<td>.75</td>
<td>1.43</td>
<td>1.43</td>
<td>.175</td>
</tr>
</tbody>
</table>

Prior to data transformation, the analysis revealed that the RLC group outperformed both the TRH and the C subject groups although the results were not statistically significant. The C subject group also outperformed the TRH subject group although the results were not statistically significant. After data transformation, the RLC subject group outperformed the TRH subject group with the result showing statistical significance at the .012 level. The RLC subject group outperformed the C subject group with the result showing statistical significance at the .038 level. The TRH subject group outperformed the C subject group although the results were not statistically significant.
RLC students outperformed the TRH and C students on this measure despite the fact that they possessed lower high school GPA and SAT scores.

Retention

Binary logistic regression (BLR) was used to ascertain group differences for retention into the second year of study. BLR analysis compares the “expected” frequencies with the actual “observed” frequencies of retention for each group. The observed and expected frequencies of retention and non-retention and percentage by group are included in Table 6:

Table 6

<table>
<thead>
<tr>
<th>Housing</th>
<th>n</th>
<th>Observed</th>
<th>Expected*</th>
<th>Observed</th>
<th>Expected*</th>
<th>% Retained</th>
</tr>
</thead>
<tbody>
<tr>
<td>RLC</td>
<td>95</td>
<td>15</td>
<td>14</td>
<td>80</td>
<td>81</td>
<td>84</td>
</tr>
<tr>
<td>TRH</td>
<td>100</td>
<td>14</td>
<td>16</td>
<td>86</td>
<td>84</td>
<td>86</td>
</tr>
<tr>
<td>C</td>
<td>100</td>
<td>18</td>
<td>17</td>
<td>82</td>
<td>83</td>
<td>82</td>
</tr>
</tbody>
</table>

*Expected figures are rounded to the nearest whole number.

The TRH subject group was retained at the highest percentage (86%) of the three groups with an expected retention rate of 84%. For comparison purposes, the TRH subject group was used as the intercept and showed the most relationship to retention of the three subject groups, Wald (.620), \( p = .733 \) although not at a statistically significant level. The RLC subject group was retained at the second highest percentage (84%) of the three groups with an expected retention rate of 81%. Membership in the RLC subject group had a small, negative relationship to retention, \( B (-.069) \), Wald (.028), \( p = .868 \) with no statistical significance. The C subject group was retained at the lowest
percentage rate (82%) of the three groups with an expected retention rate of 83%. The C subject group membership yielded a small, negative relationship to retention, B (-.294), Wald (.543), \( p = .461 \) with no statistical significance.
CHAPTER V
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

College student residence and its impact on academic and retention outcomes has been researched extensively. Living in a residence hall is described as the most beneficial environment for a new college student (Astin, 1983; Pascarella & Terenzini, 1991). Residential learning communities combine the residence hall experience with the opportunity for additional support from student peers in terms of group study opportunities, living within close proximity of fellow classmates, and attending common courses together (Pike, 1999; Shapiro & Levine, 1999). Compared to living in a traditional residence hall or commuting to campus, residential learning communities offer the opportunity for furthering student’s integration into campus life by providing a forum for collaborative learning and community building.

However, the research to date reflects inconsistent and inconclusive evidence regarding the positive impact of college student place of residence on various outcomes. Few clear and consistent trends from which to draw definitive conclusions are apparent. The lack of consistency in the literature may be explained by the use of methodologies that failed to control for differences in the past academic performance of students. Research regarding “residential” learning communities is not as abundant as that which exists regarding “non-residential” learning communities, traditional residence hall living, and commuting.

The purpose of this study was to explore the impact of place of residence on the academic achievement and retention of first-time-in college students at an urban, public,
primarily commuter university. Three groups of matched subjects were included in the study including residential learning community (RLC), traditional residence hall (TRH), and commuter (C). The students were matched on demographic characteristics and prior academic achievement with all subjects enrolled full-time. Two measures were collected including freshman grade point average (GPA) and grades earned in a common comparison course, Freshman English I, which was taken by a significant number of students in each of the subject groups, to test academic achievement group differences. Re-enrollment into the second year of study was measured to test for subject group differences in retention.

Findings

One of the three primary research questions in this study tested the null hypothesis for the impact of place of residence on academic achievement in the form of mean freshman GPA. The quantitative findings resulting from an ANCOVA analysis revealed no statistically significant differences between the subject groups and therefore, the null hypothesis was not rejected. The results indicated that place of residence did not have an impact on this measure of academic achievement for the subjects included in the study.

The alternate hypothesis that students living in a RLC environment would earn a statistically significant higher group mean freshman GPA than the TRH and C students was not supported. Therefore, the alternate hypotheses were rejected. The alternate hypothesis that the TRH subject group would outperform the C subject group was also rejected since the group did not attain a higher mean freshman GPA. The TRH and C subject groups performed minimally higher than the RLC group although there was no statistically significant difference favoring any one subject group.
The second primary research question concerning academic achievement was tested to determine if place of residence had an impact on the mean Freshman English I grade earned by each subject group. The ANCOVA analysis yielded statistically significant differences between the subject groups. Therefore, the null hypothesis was rejected and provided evidence that place of residence affected this measure of academic achievement. Using transformed data in the analysis, the RLC subjects earned a significantly higher mean Freshman English I grade (1.55) as a group than the subjects in the TRH (1.48) group \( (p = .012) \) and the C (1.43) group \( (p = .038) \). Since statistically significant differences were observed between the subject groups when the common course, Freshman English I, was held constant, it can be assumed that there was an advantage for residence (RLC). However, statistically significant results between two variables does not infer causation. It is not possible from this study to conclude that place of residence "caused" subject group differences on this measure of academic achievement. It can only be concluded that a relationship exists.

The alternate hypothesis that the RLC group would outperform the TRH group was accepted. The alternate hypothesis that the RLC group would outperform the C group also was accepted. However, the alternate hypothesis that the TRH group would outperform the C group was rejected since the groups exhibited very little difference in the group means and the difference was not statistically significant.

The third primary research question tested the impact of place of residence on retention into the second year of study. The quantitative findings in the form of a binary logistic regression indicated no statistically significant differences between the groups on the "expected" versus the "observed" frequencies of retention. Therefore, the null
The hypothesis was not rejected. The students in the TRH group were retained at the highest rate (86%) with the RLC subjects retained at a rate of 84%. The C subjects were retained at the lowest rate (82%). However, because the results were not statistically significant, the alternate hypothesis that the RLC group would outperform the TRH group was rejected. The alternate hypotheses that the RLC and TRH groups would outperform the C group also were rejected.

Discussion

For the RLC subjects, a higher level of demand for student participation in the RLC curriculum and expected responsibility level may have contributed to a lower level of academic performance as measured by freshman GPA in comparison to that expected of the TRH and C subjects. However, this potential dependent variable was not considered in this study. Gabelnick, MacGregor, Matthews, and Smith (1990) suggest that "grade point comparisons provide an indicator of student performance, but they do not do justice to the multidimensional development evident in learning community students...these programs generally offer students a more intellectually complex environment" (p. 65).

The students in the three subject groups did not take "precisely the same courses" throughout the freshman year of study. The RLC group members took a minimum of four common courses during the freshman year of study. However, the remaining courses this group enrolled in, and the difficulty level of the courses, is unknown. The courses taken by the TRH and C group members, and the associated difficulty level of the courses, was also unknown. It is possible that the subjects across all three groups were enrolled in different courses with various degrees of difficulty.
Learning community students at the University of Arkansas – Little Rock during academic year 1998-99 were surveyed at the beginning and end of the first semester of program participation. At the beginning of the semester, the students thought the linked courses would make learning “much easier.” However, by the conclusion of the semester, “slightly less than half...realized that connected learning did not equate to easier learning” (Franklin, 2000, p. 54). Franklin (2000) assumed that as “traditional-aged, entering freshmen straight from high school, these students may have defined easier as a learning experience with little individual commitment of time and energy” (p. 54). She further noted, “even with academically prepared students in the learning community, connected learning was a concept so foreign that they needed to observe integrated knowledge in action to fully understand connected learning” (p. 58).

Although the impact of place of residence did not result in statistically significant differences in mean freshman GPA between the subject groups, living in a residential learning community may have had other effects related to intellectual development that were not investigated in this study. Pascarella and Terenzini (1991) suggested that other areas of general cognitive growth may be fostered that are not directly linked to a student’s academic experience and outcomes as a result of living in a residence hall.

Gabelnick, MacGregor, Matthews, and Smith (1990) suggest that learning communities “require time to be refined” and have observed that “learning community programs take at least three years to mature” (p. 50). RLCs were first implemented at USF during academic year 1998-99. The two RLC cohorts included in this study (#10 and #13) were the second and third “residential” learning communities offered at USF and were conducted during only the second and third academic year of implementation.
This fact may help explain the lesser performance realized by the RLC subject group in terms of mean freshman GPA.

The “theme” for each RLC may not have proven to be what was expected by the students upon their decision to participate. As a result, this may have impacted upon the student’s interest level, subsequent motivation to excel, or in RLC student groupings which were too homogeneous in nature. Residence programs which incorporate themes may serve as a disadvantage if “homogeneous” group assignments are a result in lieu of “heterogeneous” group assignments (Grimm, 1993). Clarke, Miser, and Roberts (1988) found, “involvement in thematic halls appeared to reduce both interest in career development and satisfaction with friendships, perhaps because thematic halls attracted students with a fairly narrow view of their purpose” (p. 11). They questioned whether thematic halls “isolated students whose interests are already narrow” and concluded that the students “appeared to be serious scholars, but they also reported little commitment or satisfaction outside of classes” (p. 11).

RLC students completed Freshman English I during the second semester of the academic year. The residence hall experience, coupled with the opportunity to more fully develop their writing skills in other courses during the first semester, may have contributed to the higher performance. It was not possible to know which of the two semesters of the first year that the TRH and C students were enrolled in Freshman English I. If some, or a great majority of, these students took the course during their first semester in college they would not have had the benefit of time and skill development necessary to perform at the level attained by the RLC students. Comments by learning community students who completed a Rhetoric and Writing course at the University of
Arkansas – Little Rock indicated that the course “experiences and assignments...led to
the sharpening of their writing, communication, and critical thinking skills” (Franklin,
2000, pp. 44-45).

Freshman English faculty teaching in a residential learning community at the
University of Nebraska – Lincoln formally met weekly to discuss student progress and
course content (Bergstrom, 1999). The success of the students in the course was
attributed partly to the faculty members collaborative work, active role in student
learning, and level of involvement. Using an exit questionnaire, Bergstrom noted, “more
than 80% of the students expressed satisfaction with their English class in terms of
learning, challenge, and preparation for future university courses” (p. 4). The students
also revealed a “near unanimous satisfaction with their experience in the residence halls
and with one another” (p. 6).

Since Freshman English I was a course in which the RLC students were co-enrolled,
these students may have felt more at ease with their peer classmates resulting in higher
academic performance. Residential learning community students who were
co-enrolled in communications courses that included in-class writing assignments were
surveyed at Temple University. The students “revealed that they were more comfortable
asking questions, participating in discussions, and seeking out teachers for assistance in
learning communities than in non-learning communities courses” (Levine & Tompkins,
1996, p. 2) and “knowing the other students made it easier to participate in discussions
and in-class writing assignments” (Tinto & Goodsell Love, 1995, p. 83).

Gabelnick, MacGregor, Matthews, and Smith (1990) found that English faculty at
colleges and universities were attracted to learning communities partly due to the active
learning methods and cross-curricular thinking and writing. Faculty motivation and interest to participate as instructors in the learning community sections of the Freshman English I courses at USF may have contributed to the success of the RLC group’s measure of academic achievement.

Since the RLC students “self selected” to participate in the RLC, their motivation to succeed academically may have affected the Freshman English I grade earned. The RLC students may have taken more rigorous courses during their high school or first semester of collegiate study that may have included additional writing assignments. This study did not take specific high school curriculum into consideration. Borden and Rooney (1998) argue that self-selection is “part and parcel of such programs and should not be artificially or statistically removed from any evaluation.” It is unknown if the issue of self-selection was a factor in this study’s findings.

Both the TRH and RLC subject group members were retained at higher rates than the C group members although the group differences were not statistically significant. One may infer that the on-campus environment may in some way have contributed to the retention of the TRH and RLC students. Living within close proximity to campus resources and peers may have been beneficial to the RLC and TRH students in a way not investigated by this study. The common courses taken by the RLC students may have “bound them together with multiple and strong social and intellectual threads” (Gabelnick, MacGregor, Matthews, & Smith, 1990, p. 63). The C students did not necessarily have the benefit of taking multiple courses together over the course of the first year and hence, this could have had an impact on their retention into the second year.
of study. The opportunity for enhanced peer interaction and group study may not have been as apparent.

Tinto (1987) observed, “membership in at least one supportive community, whatever its relationship to the center of campus life, may be sufficient to ensure persistence” (p. 68). The “departure arises from individual isolation, specifically from the absence of sufficient contact between the individuals and other members of the social and academic communities of the college” (p. 64). The RLC and TRH students may have experienced this type of benefit that was sufficient enough to contribute to higher retention levels than the C students experienced. Although there were no statistically significant differences in retention between the groups, all three were retained at a higher rate than the average institutional USF freshman retention rate of 77% (U.S. News On-Line, 2001).

Limitations of the Study

While interpreting the results of the study, the methodology, sample, and analyses performed should be considered. This study involved a single institution with samples taken from two academic years. It was limited to full-time, first-time-in-college freshman at an urban, public, primarily commuter institution in the Southeast. Generalization to other comparable institutions with similar student groups, housing options, and learning community programs is appropriate. Students in the RLC group “self-selected” for participation. The possibility that these students were more academically motivated may have impacted upon the results. The RLC students were enrolled in Freshman English I during the second semester of study. This may have enhanced the possibility that the RLC students would excel on this dependent variable measure. It is not known which semester the TRH and C students took the course. No
distinctions were made as to whether students voluntarily dropped out or whether they were dismissed for academic reasons.

The quantitative measures for academic achievement were defined narrowly as freshman GPA and grade earned in a common course, Freshman English I. Other measures of cognitive performance were not included in this study. The retention measure was taken at the beginning of the second year of study without regard to whether the student was continuing on a full- or part-time basis. A sample bias may have affected the student’s choice of where to reside during the first year of study since compared with the number of students attending the institution, on-campus housing availability at USF is limited.

**Implications, Recommendations for Future Research, and Conclusion**

This study adds to the growing body of research regarding the influence of place of residence on academic achievement and retention. Previous studies have shown inconsistent outcomes in terms of the impact of place of residence on various measures of academic achievement. The prediction that the RLC subject group would outperform the TRH and C subject groups on the mean grade earned in a common course provides support for the positive impact of place of residence on academic achievement. The lack of statistically significant group differences on mean freshman GPA and retention into the second year of study provides evidence that participating in the RLC did not provide an advantage to these students on these two measures. However, the RLC may have benefited the students in other ways not explored in this study. This study’s research outcomes will add to the current research that both supports and negates the benefits of residence hall living. Additional research on the impact of “residential” learning
communities and other forms of collegiate housing will serve to further contribute to the current research in the field.

A longitudinal study using these subjects may reveal statistically significant findings in academic achievement if one were to collect and analyze mean grade point average data after the completion of the second and/or third year(s) of college attendance or upon graduation. Since the RLC at the institution studied is a two-year program, a measure taken at the beginning of the third year of study might reveal statistically significant, useful results. However, a researcher would need to provide methodological controls to ensure that students did not change their place of residence during the course of the study.

Comparisons of grades earned in other courses taken by the majority of the student’s in each group could be made to determine if residence affected the achievement in different subject areas such as mathematics, humanities, or science courses while being cognizant of the specific place of residence. The RLC subject group academic achievements could be compared with a group of “non-residential” learning community students to further determine if residence had an impact on achievement. Students residing in other types of on-campus housing offerings such as apartment-style options could also be compared to RLC students.

Since “residential” learning communities were not offered until academic year 1998-99 at this institution, research comparing the impact of place of residence should be conducted after the RLC program has been operational for a longer period of time. Administering RLC participant surveys and conducting focus groups to gather data on the perceived value of the “residential” aspect of the learning community and the overall residence hall environment may allow the university to make any necessary changes to
the program based upon participant input. Conducting further quantitative and qualitative program analyses may also reveal worthwhile results. These types of analyses may serve to provide useful data that may be used to increase program effectiveness or further benefit the students from an academic and retention standpoint. The impact of place of residence on peer and faculty interaction, student satisfaction and commitment, and social and academic integration may also yield beneficial information for consideration.

The faculty, advisors, and students who constitute the group who make the decisions regarding which students are granted admission to the RLC may benefit from re-evaluating the criteria that are used in making the admission determination. Institutional evaluations of the RLC programs and residence hall “environments” may be valuable to ascertain if current operating procedures and support services offered are adequate. Structural changes may need to be made to the residence halls in which the RLCs are located. The residential environment must be purposeful and residence halls must connect with the curriculum (Riordan, 1997). Faculty involved in the RLC curriculums may need enhanced training or new faculty and/or program advisors may need to be considered who may have an impact on the residential and overall learning community experience.

“Shared learning” to achieve “connected learning” must remain an important consideration by administrators and faculty in the further development of learning communities while being aware that many freshman are not sufficiently “prepared for the time investment required of group work” (Franklin, 2000, p. 57). Successful methods for the further integration of in-class and out-of-class experiences should be researched and appropriate strategies implemented.
Similar longitudinal retention rate measures should be considered at various future points during the student’s collegiate study to ascertain if place of residence over a longer timeframe such as after the sophomore year of study impacted retention. A comparison of the subject’s graduation rates may provide useful data with the same caution regarding the possibility that the students moved to other types of housing options such as an on-campus student moving off-campus or vice versa.

Out-of-class educational experiences can be impacted by learning that is “cumulative, rather than catalytic” (Pascarella & Terenzini, 1991). It may be difficult to isolate the impact of any one variable, such as place of residence, on different academic and retention measures. The specific effects of place of residence may not have been evident immediately or measured by the variables used in this study. It may be worthwhile to investigate the number of credits successfully completed and student’s academic standings to ascertain further if a relationship between place of residence and academic achievement exists since “the factors associated with student attrition and achievement are complex and highly interwoven” (Gabelnick, MacGregor, Matthews, & Smith, 1990, p. 65).

Other variables in the student’s backgrounds and current time demands such as working part-time or participating in extracurricular activities may account for differences between the groups. However, subjects in this study were not surveyed regarding these issues. Therefore, it is not known if these or other issues had any impact upon the dependent variables measured in this study. Gruenewald (2002) conducted a survey analysis of learning community and non-learning community students at Iowa State University. The learning community students reported spending more time
participating in community service and volunteer work and the non-learning community students reported spending more time in paid work.

This research will provide university administrators and faculty with research outcomes that reveal whether the RLCs are effective in terms of academic achievement and retention, and as a worthwhile residence option for new students. USF must provide prospective students with accurate and comprehensive information and data outcomes relevant to the impact that living in the RLC has had in the past on academic achievement measures. By doing so, students may make informed and appropriate decisions prior to considering participation in the RLC. USF should also inform students that the data provided was obtained shortly after the initial implementation of the RLCs. If subsequent data proves more significant to show either positive or neutral benefits of the RLC, that information should be shared with prospective RLC applicants. If further positive academic results are obtained as a result of RLC participation, USF may consider offering more than one “residential” learning community each academic year since each RLC allows participation by only fifty students equating to a very small percentage of USFs annual FTIC population.

Administrators and faculty must be mindful of improving the on-campus living experience for students, regardless of their choice of residence “type” during the collegiate experience. The effect that place of residence has on the academic mission of the university also must be considered in providing equivalent and effective student services and support to students regardless of whether they are residents or commuters. The academic mission of colleges and universities is to promote learning and a better quality of life for “all” students whether they choose to participate in a structured on-
campus programmatic effort such as a residential learning community, opt to reside in a traditional residence hall, or commute to campus.
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