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The Effect of Residential Housing on Graduation Rates among Students at a Rural Mississippi Community College

Arna A. Nance

The effect of residential housing on graduation rates among students at a rural Mississippi community college

By

Arna Nance

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By

Arna Nance

Approved:

_____

Stephanie B. King
(Major Professor)

_____

William M. Wiseman
(Committee Member)

_____

Arthur D. Stumpf
(Committee Member)

_____

James E. Davis
(Committee Member/Graduate Coordinator)

_____

Richard L. Blackbourn
Dean
College of Education

Name: Arna Nance

Date of Degree: May 6, 2016

Institution: Mississippi State University

Major Field: Community College Leadership

Major Professor: Stephanie B. King

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Graduation rates in community colleges in academic programs are declining, which negatively impacts funding for these institutions. Enrollment processes of community colleges, and the ease of transferring credit hours, deter students from meeting criteria for graduation.

The objective of this study is to determine the effect that residential housing has on graduation rates among community college students in Mississippi. The study used a quantitative, cross-sectional research design to look at graduation rates over a 2-year period of time to study graduation rates of residential and commuter students controlling for other demographic characteristics

A higher percentage of commuter students (18%) graduated within normal time than did residential students (11%). Graduation rates of 150% of time was approximately the same (35%). Subsequently, more residential students (54%) than commuter students (49%) graduated at 200% time.

DEDICATION

I would like to dedicate this to my daughter, Danielle Nance, who has been my biggest cheerleader since she has been able to speak. I could not have done this without her pushing me forward. I would also like to dedicate this to my parents, Thaddeus and Dianne Sanders, for never giving up on me, and believing that I could accomplish everything I set out to do, even when I did not know how I would do it. Thanks for being my village. I would also like to thank my brother, Dwayne Sanders, for being my biggest critic at times, and providing me with the motivation to always be "the best." I would also like to take time to thank my grandmother, Hattie Lee Sanders, who I know is smiling down on me from Heaven. Thank you for setting such high standards for me. I often think of my first grade homework assignment when I told you I wouldn't make; you assured me I would go further than I could ever imagine, and that was true. Philippians 4:13 "I can do all things through Christ who strengthens me."

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To thank each and every teacher, professor, and mentor that has made a positive impact on my life, it is true that teachers touch lives in ways unimaginable, and I am a living witness.

A sincere thanks to all my classmates in this program who also understand "the struggle" and made it out alive. I also want to thank a very special friend, Raymon Williams, who is one of the two most encouraging, positive people I know; the other person is Dan Coleman. Thanks for everything.

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CHAPTER I

INTRODUCTION

Over the past century since the first community college was established, higher education has evolved substantially, and likewise has its student population. Historically, the public has perceived schooling as an avenue for upward mobility and a contributor to the community's wealth (Cohen, Brawer, & Kisker, 2013). This holds true still today; however, the community college population has changed significantly from a Caucasian male-dominated student body to encompass more diversity crossing gender, racial, and ethnic lines. In doing so, community colleges have undergone a paradigm shift in an attempt to accommodate all students within a reasonable geographic region. In 1972, Cohen (2013) studied the relationship between community colleges within a state, its population density, and its area to find that upwards of 95% of the population was in commuter distance, typically within 50 miles of the community college, which is considered a reasonable distance (Cohen, Brawer, & Kisker, 2013). This created a new culture of commuter student population that would essentially change the face of the American community college.

Statement of the Problem

The problem of this research study is the extent to which there is a difference in graduation rates between commuter and residential community college students. Factors that affect college students' persistence and lead to low graduation rates may include lack

of social and academic integration, limited student-faculty contact in community colleges, socioeconomic factors, and outside distractions that affect commuter retention (Deil-Amen, 2011). The United States Department of Education (2011) reports that in 2008, 12.2% of community college students completed 2-year programs within 100% of normal completion time, 22% within 150% of normal completion time, and 27.5% within 200% of normal completion time.

Purpose of the Study

The purpose of this study was to attempt to determine if community college students who live within residential housing facilities have better graduation rates than those students who commute to class each day with consideration given to demographic characteristics, socioeconomic factors, and academic performance factors. Theoretically, students tend to succeed academically when they are fully emerged in an academic learning community (Pascarella & Terenzini, 2005). Student development theory seeks to describe the changes, growth, and development that students undergo as a result of being enrolled in an institution of higher learning (Barefoot, 1998). Hence, students tend to perform differently when they are surrounded with people who have similar goals. In a study conducted on residential living on rural community college campuses, it was determined that living on campus was an integral part of a positive "college experience" (Miller, 2005). It fosters such traits as persistence and independence, as well as indirectly elicits change. Thus, a need exists to conduct a comparative study between two demographics of students (i.e., students living on campus and those not living on campus) at a rural community college. Though this is a single campus study, its goal is to develop

a better understanding of traditional aged students at a rural Mississippi community college.

Research Questions

1. What are the demographic characteristics (i.e., gender, race, age at graduation, program of study, campus of graduation, developmental education coursework taken or not, receiving federal aid or not receiving federal aid) of commuter and residential students?
2. Is there a difference in the percentage of commuter and residential students who graduated within normal completion time (i.e., two years), 150% of completion time, and 200% of normal completion time?
3. Is there a relationship between residential and commuter student groups by completion time when controlling for the following factors: gender, race, age at graduation, developmental education coursework taken or not, and receiving federal aid or not receiving federal aid?

Definition of Terms

1. *Commuter students* are those whose place of residence while attending college is not in a residence hall, sorority, or fraternity house (Jacoby, 2000).
2. *Developmental education* is a comprehensive process that focuses on the social, emotional, and intellectual growth and development of students through tutoring, counseling, academic advisement, as well as coursework (National Association for Developmental Education, 2011).

3. *Normal completion* time is also referred to as the normal time to degree, or to obtain a degree, and assumes full-time, continuous enrollment. This usually refers to two years in community colleges (United States Department of Education, 2010).

Theoretical Framework

Although student integration theory has evolved greatly since the studies of Tinto in 1975, integration can be more commonly described as the involvement and immersion into all aspects of college life. Tinto's (1975) model of student integration has been advanced and used throughout the years to study college student retention. The theory indicates that students who socially integrate into campus communities increase their commitment to the institution and are more likely to graduate (Tinto, 1975). As applied in this study, this theory holds that the independent variable student living status (i.e., residential or commuter) is expected to influence or explain the dependent variable graduation rate because students who immerse themselves into campus communities, in this instance residential housing, are more likely to commit to the institution, and therefore, matriculate within a normal timeframe.

Overview of Method

In this study, the independent variables were residential living status and demographic characteristics, and the dependent variable was graduation rate. This study used pre-existing data from students enrolled in academic programs of study at a rural community college in Mississippi to determine if residential living status had an effect on graduation rate.

Delimitations

1. The method utilized for collecting data in this study was student records provided by the office of data management and records, with implications that student records are accurate.
2. The study used the student population within a specified time period from a rural Mississippi community college.
3. The study included data from a 2-year time period beginning in spring 2011 and included each commencement semester until spring 2013.

Significance of Study

The primary purpose of this study was to focus on the importance of retention and graduation rates in Mississippi community colleges. Government funding is tied to community college graduation and retention rates to ensure an adequate amount of students matriculate to substantiate the amount of tax dollars fueled into higher education (Juszkiewicz, 2014). Educational reform relies heavily on studies of this nature to accurately report effective budgetary expenditures.

This study also allows community college practitioners to gain a concise understanding of the necessity to fully implement, with fidelity, retention programs early enough that they truly meet the needs of students in an effort to positively impact graduation rates. The Association of College and University Housing Officers-International conducted a survey in 2002 to examine the impact residential living has on various student outcomes. Results indicated that residential students were more likely than non-residential students to have positive peer interaction, persistence, and report a

smooth transition to college. Additionally, the study showed residential student to have better academic achievement and participate in more civic engagement.

CHAPTER II

REVIEW OF LITERATURE

This section will discuss the history of community college in Mississippi and how it has transitioned over the years. It also discusses traditional students and non-traditional students, and it compares residential and commuter students. Academic underpreparedness is also an issue that will be discussed in this section in relation to students because it is a common concern in the community college.

History of Community Colleges in Mississippi

Community colleges began in the early 1900s to meet a need that existed in higher education that would appeal to the student who was not prepared to go away to college, yet they still needed to take advantage of what college had to offer. In Mississippi, community colleges primarily evolved from high schools that offered college credit and were often agricultural high schools as well (Fatherree, 2010). In 1908, and with a provision in 1910, the Mississippi state legislature allowed counties to establish agricultural high schools with dormitories that would house both male and female students. These schools would function as an extension of the high school with concentrations for male students in agriculture and for female students in home economics in conjunction with other academic coursework to complete the first two years of college. Because of its unique design, these schools did not charge tuition but consequently did charge room and board fees for those who took advantage of

dormitories. Throughout history, these agricultural high schools stood the test of time, even though federal infrastructure and the evolution of highway systems took students away from these schools that later became college credit bearing junior colleges. In 1928, state legislation handed down the governance of junior colleges by the State Commission of Junior Colleges, which later became the Mississippi Community College Board (Fatherree, 2010). The end of World War II created a shift in emphasis within junior colleges to move toward career and technical education (Vaughn, 2006). These programs changed the demographics of junior colleges to include more nontraditional students than beforehand. Therefore, junior college became an inaccurate description of what these institutions embodied. Community college became a more befitting name for these institutions of higher learning, so in 1987, all but one of Mississippi's 15 junior colleges, Jones County Junior College, changed their names from junior college to community college.

The need to attend some college in this nation's trying economic times creates a vital role for the community college in higher education. There are many factors that affect degree attainment and retention, of which some can be controlled by the institution, while others cannot. Some of those factors include, but are not limited to, residential status (i.e., on-campus or off-campus), part-time enrollment status or full-time enrollment status, students who arrive underprepared, and socioeconomic factors (Institute for Higher Education Policy, 2000).

Traditional Students

Each year, community colleges are tasked with increasing enrollment of entering freshman, all while retaining students who are currently enrolled. Many colleges have

retention programs in place; however, those programs do not necessarily ensure student attrition merely because of the existence of those programs. These programs must capture students within a timely manner and possess personnel who nurture the relationship necessary to meet the needs of students.

Traditional students must maintain a certain amount of varied academic coursework and social undertakings, which often include extracurricular activities, in order to be successful in college (Astin, 1993). Vaughn (1995) suggests that college students who are well-rounded are often those who matriculate successfully through college within a normal period of time. He goes on to state that students must possess the ability to set and attain goals, all while exhibiting successful time management.

Non-Traditional Students

The term non-traditional is used to cover an array of student characteristics that include residential status, age, and socioeconomic factors. The community college typically serves a large number of non-traditional students (age 21 or older), many of whom often work full time jobs, have family obligations, or both (Vaughn, 2006). The diversity in the community college is unparalleled. Students from many age groups, ethnic groups, socioeconomic backgrounds, and skill levels can be found on a typical community college campus because of the diversity of the academic needs of its learners.

Various studies have been conducted using Bean and Metzner's (1985) model to evaluate the impact of various factors that affect student retention at community colleges in regard to nontraditional students. As it stands, there are four general sets of variables that impact attrition, which include academic performance, intent, student characteristics, and environmental variables not controlled by the institution. Deil-Amen (2001) found

that environmental factors impacted attrition for nontraditional students more than social interaction, which was found to affect attrition of traditional students.

Social integration also proved to be an issue associated with nontraditional students primarily because of the limited amount of time this demographic of students spend on campus. Borglum and Kubala (2000) conducted a survey to study the amount of time commuter and nontraditional students spend on campus excluding time spent in class. It was found that 80% of commuter students spent less than four hours on campus outside of class, of which 40% of those students spend no additional time on campus.

Residential Students

The existence of residence halls essentially has been to speak to the existence of and educate the "whole student" (Cohen, 1998). Over the past five decades, a paradigm shift has come about to move from *in parentis loco,* to enforce student control, towards the necessity of student development, which created a more active role to emphasize student and academic affairs. Consequently, student affairs and academic affairs have long been running alongside each other, but not necessarily in concert with each other where academic affairs tend to the student's cognitive development, while students affairs tends to the affective growth (Pascarella & Terenzini, 1994).

There are some advantages to residential living that lend to academic development of students. Academic integration, interaction with faculty, social integration, social interaction with peers, and on-campus activities are advantages that residential students have over commuter students (Pascarella & Terenzini, 1983). Commuter students tend to have limited access to integration because they have limited availability and spend less time on campus. Integration creates a different dynamic for

residential students where college is considered both school and home, while commuter students have two differing locations for school and home. Tinto (1993) suggests that students who live on campus have higher persistence and graduation rates than those who live off campus for this reason.

Commuting Students

Mississippi's 82 counties are divided in 15 districts to represent each community college within the state, where six counties support two districts (Mississippi Community College Board, 2014). With these colleges being strategically placed throughout the state, students who choose to commute, or drive to campus each day, are within a reasonable driving distance of each campus. With a large part of the state being rural, many students choose to commute. This dynamic creates a culture of students who are not fully integrated in the educational institution. Frenette (2006) states that this is especially the case with community college students because of the sheer design of the institution. The existence of many career technical programs in most community colleges appeal to students who tend to live off campus. Moreover, these programs often consist of a clinical aspect, which must be completed by the student in a face-to-face setting. Vaughn (1995) indicates that when students are far removed from the institution, their life is easily interrupted by attending class, which often hinders graduation.

Studies Comparing Residential and Commuting Students

This section looks to address the topic of commuter and residential student comparisons derived from the work of Chickering (1974) work, *Commuting verses Residential Students*. This study was conducted from data collected on 5,351 freshman

enrolled students from 270 2-year and 4-year institutions, both private and public. The students were randomly selected from a pool of 38,000 students, and their attitudes and behaviors were studied. Multiple regression analyses were used with this group at the end of their freshman year and another group of 169,190 within the next freshmen at the end of the following year (Chickering, 1974).

There were three areas found in which there was significant difference in residential and commuter students: college entry characteristics, overall student experience, and educational consequences. Within these three areas, there were numerous differences identified among the two groups. College entry characteristics data indicated that parental income and education was lower for commuter students, where high school grade point average was higher in residential students, as was National Merit Scholarships. In regard to college experience, more residential students were likely to become involved in Greek letter organizations, intramural sports, and other social organizations on campus. In terms of financial responsibility, more commuter students relied on college savings or worked to pay for college, whereas residential students relied more on parental financing or student loans to cover the cost of college. When looking at educational consequences, more specifically persistence, more commuter students reported that they would not return fulltime another year, if at all, and more were ultimately dissatisfied with their college experience.

Although his studies included 2-year as well as 4-year institutions, Chickering (1974) went on to state that, "Perhaps the most striking about these diverse studies is the consistency of the results. Whatever the institution, whatever the group, whatever the data, whatever the methods of analyses, the findings are the same" (p. 84).

Gender

Over the last 25 years, studies have reported an increase in non-traditional enrollment of female students in institutions of higher learning throughout various programs of study. According to Frehill (2000), more women are in an academic track in high school than men; therefore, it is more likely that they enter college immediately following high school, and complete within normal time as well.

One area to view more closely is the gap that exists in gender of traditional and nontraditional student enrollment (Timerong, 2002). Timerong (2002) referenced larger gains in nontraditional female enrollment than traditional female enrollment. Satheree (2002) attributes this increase to role reversal or role "conflict" that has taken place with more women entering the workplace as a result of being the primary caregiver for many families.

Academic Underpreparedness

Variables that affect academia, such as first semester grade point average, enrollment status, and course load taken, all act as predictors of college success (Bean & Mentzer, 1985). Furthermore, Bean and Mentzer (1985) go on to assert that student persistence is affected by these variables simply because they determine how the student interacts with the institution. Late enrollment has proven to have a negative impact on student persistence as well. Students who enroll late tend to have lower grade point averages in addition to lower persistence according to Smith, Street, and Olivarez (2002). Because of the nature of community colleges' open enrollment policies, many students tend to enroll late, which makes it difficult to ensure courses are available with adequate teaching staff to teach them.

According to Cohen and Brawer (2013), the increasing number of lower-ability students among community college entrants generates a large number of developmental education students, which poses a problem with funding for which community colleges are struggling. Harris (1998) with the National Center for Educational Statistics defined developmental education as "coursework that is designed to correct skills deficiencies in writing, reading, and mathematics that are essential for college study" (p. 93). This prescription of coursework in intended to prepare students who are academically underprepared for college coursework. Predictors of academic underpreparedness are typically college placement tests, such as ACT or SAT.

Developmental education at the college in this study is primarily prescribed based on four established levels and is assigned based on American College Testing (ACT) sub-scores or COMPASS, an ACT product for non-traditional students, mathematics and English scores. Bettinger, Evans, and Pope (2011) state that sub-scores provide better predictions of success than composite scores. Levels are prescribed at the college based on these test scores to qualify a student for developmental coursework in an attempt to prepare students for college credit bearing coursework.

As it stands, the bulk of funding for community college comes from federal, state, and local taxes (Vaughn, 2006). Because state taxes make up the larger part of this funding, state officials are often skeptical. There are many who misunderstand the concept of open admissions, thinking that it allows anyone to enter programs of choice whether requirements have been met or not. Consequently, the community college provides an opportunity for students to prepare themselves to enter their programs of choice, and developmental coursework provides a means for this to happen.

Developmental education, in contrast to remedial education, is comprehensive in nature. The National Association of Developmental Education (2011) states that many factors are inclusive in developmental education, such as academic advisement, counseling, and tutorial services or labs, which focus more on the enhancement of the whole student.

Developmental education plays a major role in the community college. Twombly and Townsend (2001) define remedial education as courses that are offered at the postsecondary level and whose content is generally considered "precollege." Criticisms of the ineffectiveness of schools date back to the late nineteenth century to say that schools "teach people to read and write, but fail to teach them to think" (Cohen & Brawer, 1996, p. 247). Even well into the 1990s, President Clinton set forth the *Goals 2000, Educate America Act,* which set goals for every adult in the workplace to be literate. School requirements for secondary graduation led students towards only learning what is taught. College admissions requirements traditionally may not necessarily align with secondary education requirements simply because of the nature of how each institution has been established (U.S. Department of Education, 2010).

Historically, primary education and colleges were established first, and then years later the need for secondary education became apparent (Fatherree, 2010). Therefore, college coursework was far more difficult than secondary coursework because they were not initially designed in a progressive nature. Remedial education became the solution for the gap that exists between secondary and college coursework. Consequently, the nature of the community college makes it a catch all for students who often have not done

well in high school or are not quite prepared for admission in 4-year institutions (Townsend & Twombley, 2001).

Summary

The community college in Mississippi has evolved since its beginnings in the early 1900s, and it is ever changing to meet the needs of its student body. Traditional students turn out of high school each year to face new challenges all while increasing numbers of nontraditional students continue to further their education, which creates a vast diversity among the community college student body. Residential students take advantage of opportunities that student service departments attempt to provide for commuter student through innovative efforts. Yet, academic underpreparedness continues to plague the community college population, which proves to be an underlying issue that contributes to dwindling graduation rates nationwide. The rationale as to exactly why college graduation rates continue to decrease is an issue that is arguably one of the most important issues in community college education (Smith, 2002).

CHAPTER III

METHOD

This chapter will discuss the method and techniques utilized, which will include a description of the research design, which was developed to explore how being a commuter or residential student may affect graduation rates in community colleges. Research questions will also be presented in this chapter to be followed by a description of the process for which students were chosen to participate in the study, procedures for data collection, and the facility at which the research was conducted. The chapter will conclude with a data analysis section.

Research Design

The study employed a quantitative, cross-sectional research design with the independent variables residential status and demographic characteristics and the dependent variable graduation. This research study sought to determine if residing on campus had an effect on graduation rates within a rural Mississippi community college setting. This method was chosen for this study primarily because it allows researchers to compare many different variables at the same time when collecting data for this purpose of yielding statistical analysis. Secondary data were collected to reduce errors associated with self-reporting. The advantage of using pre-existing data is that it provides a more diverse population which includes all graduates who meet predetermined criteria rather

than those who were accessible to be surveyed or through other methods of data collection (Good & Harding, 2003).

Research Questions

1. What are the demographic characteristics (i.e., gender, race, age, program of study, campus of graduation, developmental education coursework taken or not, receiving federal aid or not receiving federal aid) of commuter and residential students?
2. Is there a difference in the percentage of commuter and residential students who graduated within normal completion time (i.e., two years), 150% of completion time, and 200% of normal completion time?
3. Is there a relationship between residential and commuter student groups by completion time when controlling for the following factors: gender, race, age at graduation, developmental education coursework taken or not, and receiving federal aid or not receiving federal aid?

Research Site

Participants for this study came from a rural community college located in central Mississippi. Students who had been enrolled in academic programs of study on a campus where residential housing is available to students, but is not required, was chosen. This site was chosen because it is the largest, most comprehensive, and most heavily populated in the state, and it offers the most diverse student body.

Participants

For this study, student records were obtained from the office of admissions and records of a rural community college in Mississippi. To obtain data, a letter was sent to the director of institutional research requesting permission to conduct on-campus research. Records were requested for students who graduated between May 2011 and May 2013 and only included academic students aged 18-25. Permission was also obtained from the Mississippi State University Institutional Review Board, (Appendix A).

This study analyzed graduation rates within a 2-year period of time, which is considered a "normal time" for graduation within 2-year institutions for students enrolled in associate degree programs. The population of graduates was utilized to gather a diverse balance of records for the study.

Instrumentation

This study utilized pre-existing data obtained from student records of graduates from a rural community college in Mississippi from May 2011 until May 2013. Characteristics that were included in this study included gender, race, age, program of study, campus of graduation, developmental coursework status (developmental education courses taken or not), and financial status (receiving federal aid or not), and residential living status (residential or commuter). The student population records were used to ensure equal possibility of subjects being chosen.

Data Collection Procedures

Before beginning the data collection process, approval from Mississippi State University' Institutional Review Board was obtained by the researcher. After these measures were taken, pre-existing data were obtained from the Office of Institutional Research and Effectiveness at the college.

Data Analysis Procedures

This researcher compiled data and statistically analyzed it using IBM SPSS and Microsoft Excel. The data for each research question were analyzed as described below.

Research question one: What are the demographic characteristics (i.e., gender, race, age at graduation, program of study, campus of graduation, developmental education coursework taken or not, receiving federal aid or not receiving federal aid) of commuter and residential students? Categorical clarifications are necessary to further understand the study. Gender was either male or female; race was black, white, Asian, Hispanic, or other specified; and age was either 18, 19, 20, 21, 22, 23, 24, or 25. The campus of graduation was specified by branch name, and the program of study was specified by name. Developmental coursework status was either taken or not taken, and federal aid status was receiving federal aid or not. Frequencies and percentages were used to analyze the data to answer this question.

Research question two: Is there a difference in the percentage of commuter and residential students who graduated within normal completion time (i.e., two years), 150% of completion time, and 200% of normal completion time? In this question, frequencies and percentages were used where the dependent variables were completion time (normal

time, 150% of normal time, and 200% of normal time) and independent variable was residential status (i.e., commuter or residential students).

Research question three: Is there a relationship between residential and commuter student groups by completion time when controlling for the following factors: gender, race, age at graduation, developmental education coursework taken or not, and receiving federal aid or not receiving federal aid? In this question, a logistical regression test was used with the dependent variables of completion time (1-6 semesters, 7-9 semesters, and 9-12 semesters) and independent variables of residential status and demographic characteristics. Independent variables include gender, race, age, developmental coursework or not, and federal aid status (receiving federal aid or not).

CHAPTER IV

DATA ANALYSIS AND RESULTS

Chapter four presents the results of the statistical analysis of the data of this study. This study examined if residing on a college campus had an effect on the graduation rates within a rural Mississippi community college setting. This study utilized pre-existing data obtained from student records across a 2-year period of time. There were 1309 students included in the study. Demographic and geographic variables (branch campus) were analyzed to determine their relationship to graduation rates.

This study used logistical regression to determine the relationship between two groups of community college graduates: (a) graduates who lived on campus and (b) graduates who were commuters and five variables utilized to explore how being a residential or commuter student may affect graduation rates: (a) age (b) race (c) gender (d) developmental coursework or not and (f) financial aid used or not while considering the number of terms in attendance.

This study employed a quantitative, cross-sectional regression research design with the independent variables residential status and demographic characteristics, and the dependent variable graduation. The Statistical Package for Social Sciences (SPSS) software (Version 21) was used to conduct the analysis on the data collected.

Research Questions

Research question one: *What are the demographic characteristics (i.e., gender, race, age at graduation, program of study, campus of graduation, developmental education coursework taken or not, receiving federal aid or not receiving federal aid) of commuter and residential students?* Tables 1-4 provide data used to examine research question one. Frequency and percentage analyses revealed that there were 1,309 residential and commuter graduates over a 2-year period between spring 2011 and spring 2013. As illustrated in Table 1, of those in the study, 33.9% were male and 66.0% were female. Forty percent were white, 55.2% were black, and 0.04% were Hispanic, Asian, or no race identified. There were 0.5% age 18 at graduation, 8.3% age 19, 31.5% age 20, 24.1% age 21, 14.7% age 22, 9.5% age 23, 6.4% age 24, and 5.0% age 25. In Table 2, programs of study declared reveal that 75.2% were in a general program of study; 12.6% in health sciences; 3.3% in business administration; 2.7% in behavioral sciences; 2.5% in elementary education and reading; 1.2% in music, arts, and theatre; 1.1% in biology; 0.9% in engineering; and 0.5% in English and history. Table 3 illustrates the percentage of students at each campus. As seen in Table 4, graduates who took developmental coursework accounted for 48.7%, while 51.3% did not take developmental coursework. Additionally, 70.5% of graduates received financial aid, whereas 29% did not receive financial aid.

Table 1

Demographic Characteristics of Graduates

	Frequency	**Percentage**
Male	445	33.9
Female	864	66.0
White	528	40.3
Black	723	55.2
Asian	14	1.1
Hispanic	11	0.1
2 or more	9	0.7
unidentified	24	1.8
18 years old	6	0.5
19 years old	108	8.3
20 years old	412	31.5
21 years old	316	24.1
22 years old	193	14.7
23 years old	124	9.5
24 years old	84	6.4
25 years old	66	5.0

Table 2

Frequencies of program of study

	Frequency	Percentages
Business Administration	43	3.3
Engineering	12	0.9
English and History	7	0.5
Behavioral Sciences	35	2.7
Health Sciences	165	12.6
Music, Art, and Theater	16	1.2
Elementary Ed. And Reading	32	2.5
General Program of Study	985	75.2

Table 3

Frequencies of Campus Attended

	Frequency	Percentage
Main Campus	682	52.1
Campus 1	112	8.6
Campus 2	47	3.6
Campus 3	188	14.4
Campus 4	267	20.4
Campus 5	13	1.0

Table 4

Frequencies of Developmental Coursework and Financial Aid Status

	Frequency	Percentage
Dev. Ed	638	48.7
No Dev. Ed.	671	51.3
Financial Aid	923	70.5
No Financial Aid	386	29.4

The second research question asks: *Is there a difference in the percentage of commuter and residential students who graduated within normal completion time (i.e., two years), 150% of completion time, and 200% of normal completion time or more?* Table 5 reveals that the percentage of students in the study who were residential was approximately 44.9%, and the percentage who were commuter was approximately 55.1%. Of the residential students, 10.8% graduated within normal time, 35.2% graduated within 150% of normal time, and 53.9% graduated within 200% of normal time. Of the commuter students, 17.7% graduated within normal time, 33.5% graduated within 150% of normal time, and 48.8% graduated within 200% of normal time.

Table 5

Frequencies of Residential Status

Residential Status	Frequency	Percentage
Residential	588	44.9
Normal Time	64	10.8
150%	207	35.2
200%	317	53.9
Commuter	721	55.1
Normal Time	128	17.7
150%	238	33.5
200%	352	48.8

The third research question asks: *Is there a relationship between residential and commuter student groups by completion time when controlling for the following factors: gender, race, age at graduation, developmental education coursework taken or not, and receiving federal aid or not receiving federal aid?* The results of the full regression model comparing students who were residential graduates and other comparison groups predicted 39.1% of the outcome variables, as a group, statistically contributed to the model, and explained 6% of the variance (Cox & Snell = .006, Wald $\chi^2 = 15.781$). The results of the full regression model comparing commuter students who were graduates and other comparison groups predicted 60.8% of the outcome variables, as a group, statistically contributed to the model, and explained 11.8% of the variance (Cox and Snell

= .118, Wald χ^{2} = .33.083), which accounted for differences within gender, race and groups. Results of the statistical analysis are illustrated in Table 6.

Table 6

Logistic Regression: Graduates by Residential Status

Variable	B	S.E.	Wald	df	Sig.	Exp(B)	CI/LL	CI/UL
Commuter	-.322	.056	33.083	1	.000	.725		
1-6 Sem.			1.898	2	.387			
7-9 Sem.	.175	.136	1.649	1	.997	1.192	.912	1.557
10-12 Sem.	.006	.218	.001	1	.199	1.006	.657	1.542
Residential	-.318	.080	15.781	1	.000	.728		
1-6 Sem.			7.414	2	.025			
7-9 Sem.	.110	.120	.839	1	.360	1.116	.883	1.411
10-12 Sem.	-.318	.188	4.832	1	.028	.661	.457	.956
Gender	-.444	.128	12.060	1	.001	.642	.500	.824
Race (1)	1.009	.147	47.101	1	.000	2.744	2.057	3.661
Race (2)	-.577	.673	.735	1	.391	.561	.150	2.101
Race (3)	.744	.626	1.414	1	.234	2.105	.617	7.181
Race (4)	.396	.738	.288	1	.591	1.486	.350	6.318
Race (5)	.722	.431	2.804	1	.094	2.086	.884	4.789
Age	-.370	.045	68.652	1	.000	.691	.633	.754
Pell	-.036	.152	.056	1	.813	.965	.716	1.299
Dev. Ed	-2.53	.139	3.331	1	.068	.777	.592	.1.019

Note. CI= confidence interval; LL=lower limit, UL= upper limit, SE= standard error, Sem= Number of semesters.

CHAPTER V

SUMMARY, IMPLICATIONS, AND RECOMMENDATIONS

Introduction

This chapter presents a summary of the research study. This discussion begins with a summary of the findings, followed by the conclusions drawn from the study's findings. The chapter also includes limitations, implications for practice, and recommendations for further research. This study was conducted to examine if residing on a college campus has an effect on the graduation rates within a rural Mississippi community college setting. The population consisted of students enrolled at one community college.

1. What are the demographic characteristics (i.e., gender, race, age at graduation, program of study, campus of graduation, developmental education coursework taken or not, receiving federal aid or not receiving federal aid) of commuter and residential students?
2. Is there a difference in the percentage of commuter and residential students who graduated within normal completion time (i.e., two years), 150% of completion time, and 200% of normal completion time?
3. Is there a relationship between residential and commuter student groups by completion time when controlling for the following factors: gender, race, age

at graduation, developmental education coursework taken or not, and receiving federal aid or not receiving federal aid?

Summary of Results

Research question one asked, "*What are the demographic characteristics (i.e., gender, race, age at graduation, program of study, developmental education coursework taken or not, receiving federal aid or not receiving federal aid) of commuter and residential students?"* The study participants included more females, blacks, twenty-year-olds, students who received degrees in general programs of study, those who did not take developmental coursework, and students who did receive financial aid.

There were several demographic characteristics that were considered in this study. Of all the participants (n=1,309), there were 864 female students within the study. In terms of race, black students consisted of 723 graduates, while 20-year-old students represent the largest age group of graduates in the study. A majority of the participants were general program of study majors who graduated from the main campus. There were a large number of students who received financial aid (n=923), yet slightly over half (n=671) were not required to take developmental coursework.

Conclusion 1

Financial aid is an important factor for students who have graduated, and perhaps it is so because many students attend community college for cost savings to receive college credit to transfer to 4-year institutions, which is shown in the large number of participants who major in general programs of study and will declare academic majors at a later date.

Research question two asked, "*Is there a difference in the percentage of commuter and residential students who graduated within normal completion time (i.e., two years), 150% of completion time, and 200% of normal completion time?"*

Overall, commuter students graduated at higher percentages at normal time at 17.7%, where residential students completed at 10.8% of normal time. Contrarily, there were slightly larger percentages of residential students to complete within 150% of normal time at 35.2% than commuter students who completed at 33.5%. Following that same trend, higher percentages of residential students also completed within 200% of normal time than commuter students at 53.9% and 48.8% respectively.

Conclusion 2

Residential students potentially graduate at higher percentages at 150% and 200% of normal time because of student integration and perceived cohorts that students within residential housing form among themselves. These students possibly graduate at higher rates over normal time also because of federal financial aid standards that identify normal graduation time at six semesters, therefore financial aid drives motivation for completion as well.

Research question three asked, *"Is there a relationship between residential and commuter student groups by completion time when controlling for the following factors: gender, race, age at graduation, developmental education coursework taken or not, and receiving federal aid or not receiving federal aid?"*

The strongest relationship exists between race and gender of these groups of participants, which was indicated by an increase in variance of 11%, which indicated significance. The stronger relationship existed between black and white, but not other

race and ethnic groups. This indicates that race and gender have an effect on student completion time more than residential housing status. Additionally, age is a significant factor, where older students are less likely to graduate; however, when controlling for financial aid and developmental coursework, there is no significant difference.

Conclusion 3

These relationships possibly exist between race and gender groups and are not affected by residential housing status because of internal factors rather than external factors. There could be other demographic or academic factors that affect completion rate of these students outside the scope of this study.

Discussion of Findings

Demographic Characteristics

According to Frehill (2000) in regard to gender characteristics of college students, more female students enter college immediately out of high school than their male counterparts. The study coincided with Frehill (2000) in that females presented as the highest group in regard to gender. Similarly, Astin (1993) reported that traditional students were more likely to persist, and graduate within normal time, which was revealed in the data as well.

Additionally, the study coincides with Astin (1993) which states that traditional students tend to be more "well-rounded" which leads to successful matriculation through college within normal time. The study supports Astin's work in that it represented the largest percentage of participants to complete within normal time to be age twenty.

In agreement with Bettinger, Evans, and Pope (2011), the study proved that developmental education coursework that is prescribed based on sub-scores rather than ACT scores acts as a better predictor of academic underpreparedness, which positively impacts graduation rates where students are not taking unnecessary coursework that hinders normal completion time. The study was conducted at an institution that uses sub-scores as well as COMPASS testing to prescribe developmental coursework. Consequently, larger percentages of participants did not require developmental coursework who graduated within normal completion time.

Completion Time

In reporting for commuter and residential students who graduated within normal time, the data contradicted Tinto's 1975 theory of student integration and much of Pascarella and Terranzini's (1994) work. There are several factors that could have affected the outcome, such as dual enrollment programs that allow high school students to receive college credit. Additionally, there could be variables that were not accounted for within the study that may have been identified through surveys, rather than the use of pre-existing data.

In reporting the data for those who graduated within 150% and 200% of normal time, the data coincided with Tinto's (1975) model of student integration as well as Pascarella and Terranzini's (1994) work.

Relationships between Student Groups

The data revealed that gender and race made significant contributions to graduation rates of commuter and residential students, which coincides with Frehill

(2000) which states that a growing demographic of college students include females. To go a step further, these new increases in female enrollment could be attributed to Satheree's (2002) work which suggests an increase in "role reversal" or conflict that has taken place with more women entering the workforce as a result of being the primary caregiver for many households. Significant differences existed between black and white race groups, but no significant differences between other races was specified.

Limitations of the Study

There are a few limitations the researcher came across in this study. The study was performed using data from one rural community college. The researcher reached out to other community colleges in Mississippi but was not contacted back in a timely manner. Additionally, the researcher used pre-existing data collected outside of the control of the researcher. A population was used to maintain diversity among participants; however, this process could have possibly included some outliers which may affect outcomes.

General Recommendations for Practitioners and Policymakers

This study can serve as a guide for student services departments on community college campuses. Student graduation rates are lower on community college campuses because many students tend to transfer in lieu of graduating.

The study revealed a growing percentage of female college graduates. Therefore, funding should be explored to create materials and programs to recruit male students in the community college. These programs could be online or distance programs to meet the needs of students who may not be able to attend on-campus classes.

Recommendations for Future Research

Low graduation rates of residential students requires more creative strategies in an attempt to increase retention. Further research relating to increasing graduation rates is necessary to maintain and increase funding at the community college level. Community colleges must seek opportunities to collaborate with 4-year institutions to form more two plus two programs that require graduation of community college students to advance towards the baccalaureate degree. Further studies for implementing best practices for student integration are also important for student retention. The current study provides demographic results for graduates and should be utilized as a means for targeting specific groups for recruitment purposes.

This study can be expounded upon by comparing demographic characteristics of participants to the overall population of student graduates.

Summary

Chapter V summarized the research study findings and presented conclusions drawn by the researcher. Each of the research questions were examined in more detail. A discussion of the study findings was compared to other extant research studies. Implications of the research study were presented for institutions to place in practice. In addition, limitations to the study were acknowledged. The chapter concluded with recommendation for researchers interested in the future study of the effects of residential housing on graduation rates at the community college.

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APPENDIX A

IRB APPROVAL LETTER

Arna Nance <aan71@msstate.edu>

Fwd: Study 15-104: The effect of residential housing on graduation rates among students at a rural Mississippi community college

1 message

Arna Nance <aan71@msstate.edu> Tue, Feb 9, 2016 at 3:55 AM

To: Arna Nance <arnasanders@gmail.com>, Arna Nance <aan71@msstate.edu>

---------- Forwarded message ----------

From: <nmorse@orc.msstate.edu>

Date: Tue, Mar 24, 2015 at 3:55 PM

Subject: Study 15-104: The effect of residential housing on graduation rates among students at a rural Mississippi community college

To: aan71@msstate.edu

Cc: nmorse@orc.msstate.edu, sking@colled.msstate.edu

Protocol Title: The effect of residential housing on graduation rates among students at a rural Mississippi community college

Protocol Number: 15-104

Principal Investigator: Ms. Arna Nance

Date of Determination: 3/24/2015

Qualifying Exempt Category: 45 CFR 46.101(b)(4)

Dear Ms. Nance:

The Human Research Protection Program has determined the above referenced project exempt from IRB review.

Please note the following:

- Retain a copy of this correspondence for your records.

- Only the MSU staff and students named on the application are approved as MSU investigators and/or key personnel for this study.

- The approved study will expire on 5/31/2016, which was the completion date indicated on your application. If additional time is needed, submit a continuation request. (SOP 01-07 Continuing Review of Approved Applications)

- Any modifications to the project mu! st be reviewed and approved by the HRPP prior to implementation. Any failure to adhere to the approved protocol could result in suspension or termination of your project.

- Per university requirement, all research-related records (e.g. application materials, letters of support, signed consent forms, etc.) must be retained and available for audit for a period of at least 3 years after the research has ended.

- It is the responsibility of the investigator to promptly report events that may represent unanticipated problems involving risks to subjects or others.

This determination is issued under the Mississippi State University's OHRP Federal wide Assurance #FWA00000203. All forms and procedures can be found on the HRPP website: www.orc.msstate.edu.

Thank you for your cooperation and good luck to you in conducting this research project. If you have questions or concerns, please contact me at nmorse@orc.msstate.edu or cal! l 662-325-5220.

Finally, we would greatly appreciate your feedback on the HRPP approval process. Please take a few minutes to complete our survey at https://www.surveymonkey.com/s/PPM2FBP.

Sincerely,

Nicole Morse, CIP

IRB Compliance Administrator

cc: Stephanie King (Advisor)

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