# The Educational Attainment of Minority Learners who Attended 2-Year Colleges Compared to Caucasian Students 

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The educational attainment of minority learners who attended 2-year colleges compared to Caucasian students

## By

Angel N. Skinner

> A Dissertation
> Submitted to the Faculty of Mississippi State University in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy in Community College Leadership in the Department of Leaderships and Foundations

Mississippi State, Mississippi
May 2013

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The educational attainment of minority learners who attended 2-year colleges compared to Caucasian students

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In this educational study, Caucasian and minority learners' grade point averages and overall academic success were examined at learning institutions. Several minorities experienced problems with completing college courses at universities and community colleges. Individuals from various racial backgrounds had school enrollment issues compared to Caucasian students without these same issues. This analysis revealed factors that contributed to these learners' decreased academic attainment. For this study, racial groups were the focus along with their need to improve their impoverished conditions. Minority students needed more educational services such as peer tutoring and academic counseling. These services offered learners the opportunity to expand their educational knowledge and support system (Cohen \& Brawer, 2003; Engstrom \& Tinto, 2008;

Lotkowski, Robbins, \& Noeth, 2004). Also, rural and non-rural community colleges and universities were emphasized in this research analysis. In rural areas, minorities had a difficult way of life compared to non-rural regions. For example, Hispanics in a rural community in Ellis, Iowa experienced lower wages. Within Ellis, Iowa, Hispanics had limited employment growth and college degrees (Carr \& Kefalas, 2009). Also, this
research focused on Caucasian and minority learners' who attended a junior college. Mississippi's community colleges were assessed for students' academic performances.

In this examination, the one-way analysis of variance was selected to analyze the minority and Caucasian groups' statistical data. In addition, the Welch, Post Hoc, and Tukey HSD tests were used to examine the racial groups in this educational study. For this study, only data from Mississippi State University was used for academic purposes. These learners were from 15 different Mississippi community colleges and the students transferred to Mississippi State University. In this study, the minorities and Caucasians transferred to Mississippi State University in the fall semester of 2011. Learners' first semester cumulative grade point averages were analyzed. Comparing Caucasians with African Americans and Caucasians with Hispanics showed significant differences between their statistical scores.

This study ended with suggestions to further evaluate minorities' grade point averages and social economic status. Recommendations included: college incentives for low income students and single parents. These students needed to attend educational programs such as learning workshops.

## DEDICATION

I contribute all of my education and career to Judy and Judah!
Thanks!

## ACKNOWLEDGEMENTS

I want to thank my mother for all of her support and love in this long process. Before I graduated from high school, my beloved dad died at a young age; therefore, I was upset with this sudden loss. My father stored all my school dreams on his wall and believed in me. After his death, I was a lost young woman with no direction, but my faith helped me with everything. To the committee members, thank you for teaching me the importance of rural colleges in Mississippi. Thanks to Dr. Davis and Dr. Stumpf, I benefited from all of the challenging community college courses, research classes, and group discussions. The leadership courses taught me how to maintain academic excellence on all levels of my career. To Dr. King and Dr. Wiseman, thank you for teaching me the value of education within rural regions in the United States.

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## CHAPTER I

## INTRODUCTION

At community colleges and universities, administrators help minority and Caucasian students reach their academic goals. Nevertheless, Cohen \& Brawer (2003) found minority learners lack the same educational background compared to the Caucasian population. For this study, different research studies were reviewed to determine minority learners' academic needs and the reasons they leave institutions of learning (Cohen \& Brawer, 2003; Duggan \& Williams, 2011; Ryken, 2006; Uwah, McMahon, \& Furlow, 2008). Four minority groups were examined to determine their educational attainment:

- African Americans
- Asian Americans
- Hispanics
- Native Americans

It was found that African Americans obtained fewer college degrees than Caucasian groups. During school, minorities who abandoned college experienced the following issues:

- Limited financial stability
- Child-care problems
- Worked 40 hours a week or more (Cohen \& Brawer, 2003)

Two-year college administrators offered students the opportunity to increase their grades and provided them with the knowledge to attend a 4-year institution. Regardless of the school officials' efforts, minority students had the lowest academic success rates compared to Caucasian students (Cohen \& Brawer, 2003; Engstrom \& Tinto, 2008; Greene, Marti, \& McClenney, 2008; Lotkowski, Robbins, \& Noeth, 2004).

## Statement of Problem

This study explored minority students' grade point averages and academic attainment compared to Caucasian learners. Several studies revealed that individuals with different racial backgrounds had fewer degrees than Caucasians (Cohen \& Brawer, 2003; Engstrom \& Tinto, 2008; Greene et al., 2008; Lotkowski et al., 2004). These studies were vital to education because the researcher discussed the importance of implementing more outreach programs. In the past, these educational programs helped students achieve academic excellence. Also, innovative measures were needed to improve minority students' success rates at institutions of higher learning. Within the articles, educational gaps were identified which further emphasized the importance of this analysis (Engstrom \& Tinto, 2008; Greene et al., 2008; Lotkowski et al., 2004).

## Purpose of the Study

The purpose of the study was to examine minority students' statistical scores and to determine ways to assist with increasing their college grades. In reviewing the literature, the researcher found that minority learners had limited resources to attend college compared to Caucasian students (Greene et al., 2008; Lotkowski et al., 2004; Song \& Elliott, 2011). This information illustrated how minorities faced economic
hardships, which related to fewer degrees at learning institutions (Cohen \& Brawer, 2003; Engstrom \& Tinto, 2008; Greene et al., 2008; Lotkowski et al., 2004).

## Research Questions

Question 1: Is there a statistical difference as measured by grade point averages (GPAs) at Mississippi State University (MSU) between Caucasians and Native Americans?

Question 2: Is there a statistical difference as measured by GPAs at MSU between Caucasians and African Americans?

Question 3: Is there a statistical difference as measured by GPAs at MSU between Caucasians and Asian Americans?

Question 4: Is there a statistical difference as measured by GPAs at MSU between Caucasians and Hispanics?

Question 5: Is there a statistical difference as measured by GPAs at MSU between Caucasians and all 4 minority groups?

## Definitions of Terms

Definitions were used to clarify any information that related to key concepts of this research.

1. Community-a town or area where individuals gather and reside (Carr \& Kefalas, 2009; Flora \& Flora, 2008)
2. Junior college-an institution of higher learning that offers 2-year degrees and certificates (Cohen \&Brawer, 2003)
3. Poverty-limited material goods in society as set by government guidelines (Probst et al., 2002)
4. Rural-small areas with a decreased population size located in a country setting (Flora \& Flora, 2008)
5. Urban-larger areas with an increased population size located in a city setting (Flora \& Flora, 2008)
6. University-an institution of learning that grants 4-year and advanced degrees (Cohen \& Brawer, 2003)
7. Grants-financial support for qualified students who attend accredited colleges (Cohen \& Brawer, 2003)

## Conceptual Framework

The variables of this study were minority and Caucasian transfer students at MSU. Several minority students failed to complete their courses compared to Caucasians. These learners had increased dropout rates at junior colleges and universities due to financial and educational problems (Cohen \& Brawer, 2003; Engstrom \& Tinto, 2008). The researcher explored ways to improve these individuals' overall success and addressed the variables in the study.

## Theoretical Framework

Tinto's theory was the focus of this analysis, and the researcher emphasized the importance of his theory regarding education. Tinto (2003) examined students' educational development and academic outcomes on all levels. Over time, Tinto examined how students collaborated with their instructors and other students within the
classroom. Learners were taught the value of engaging and discussing all college problems with administrators and teachers. Therefore, these types of collaboration programs fostered a positive learning environment for students (Tinto, 2003). Tinto's model helped students gain academic success, and the researcher offered solutions to the students' college problems related to Tinto's theory.

## Overview of Methodology

Causal-comparative research or ex post facto was applied to this study and the information and data were from MSU. The one-way analysis of variance (ANOVA) was used to explore the significant differences of the 5 groups' scores (Gay, Mills, \& Airasian, 2006). Also, ANOVA tested the Caucasians', African Americans', Asian Americans', and Hispanics' statistical scores. In additional, the researcher reported other relevant results such as the Welch and Post hoc.

## Delimitations

The researcher examined only data from MSU. Also, this study remained in the boundaries of Mississippi's public junior colleges. Within these delimitations, the analyses examined the first semester of community college transfer students at Mississippi State University. Minority issues were assessed in the educational study; therefore, these individuals were identified based on their transition from a junior college to Mississippi State University. An additional delimitation was that minorities represented a smaller sample size as compared to Caucasians.

## Significance of the Study

For this study, each minority group was examined to determine overall academic achievement. For example, Caucasian learners completed college at a higher rate compared to African Americans, Hispanics, Asian Americans, and Native Americans. The researcher explained the significance of studying different racial issues and offered ideas to help minority students improve their academic performances. Minorities had problems with completing their educational goals because of limited resources. This researcher discussed the significance of assisting minority students with achieving educational success. In the past, scholars who explored these types of topics were from the following disciplines:

- Cultural Studies
- Sociology
- Economics
- Social work

Professionals in these disciplines benefited from these studies by examining the minority students' struggles at higher institutions of learning. Scholars (Cohen \& Brawer, 2003; Engstrom \& Tinto, 2008; Greene et al., 2008; Lotkowski et al., 2004) offered solutions to these individuals' problems, and further studies needed evaluations. The analysis in the present study discusses the importance of examining minority students' struggles at institutions of higher learning.

## Organization of Study

In this study, the researcher examined disadvantaged groups and Caucasian learners at institutions of advanced learning. In five chapters, the researcher discussed the
significance of minority issues related to academic developments. In Chapter I, some background information was given based on minority and Caucasian students' overall achievement within education. Chapter II covered the literature that explored rural and non-rural students' problems; therefore, several of these individuals were unsuccessful at completing college. Topics included the following:

- Rural communities
- Economic factors
- Minority students
- Degree completions

In Chapter III, the one-way analysis of variance was selected as the statistical method of analysis for this research and other statistical data. Also, Chapter III described how the researcher gathered valuable and significant materials to conduct the study, such as permission letters. In Chapter IV, the Research Questions were examined to determine the minority and Caucasian learners' grade point averages and college success. Chapter V ended with results that offered solutions to these minorities' problems, and further studies needed evaluations.

## CHAPTER II

## THE REVIEW OF RELATED LITERATURE

## Introduction

This section discussed the general information of chapter II in this research study. Learners from various social statuses were examined to determine their higher learning needs. For example, minority students experienced problems such as

- family issues;
- decreased college degrees;
- lower college enrollment; and
- impoverished conditions.

At universities, several of these learners lacked a college degree; however, Caucasian students had obtained college degrees (Cohen \& Brawer, 2003). Also, several studies in the literature review focused on administrators from rural and non-rural community colleges. The additional studies concentrated on learners' academic progressions and success rates at institutions of higher learning (Boswell, 2004; Hanson, 2009; Kennamer \& Katsinas, 2011). Minorities who resided in rural communities were analyzed in relation to these students' decreased graduation rates. For this study, other important factors were addressed in the literature.

## Hispanics and Education

Song and Elliott (2011) explored the significance of helping minority students reach their academic goals. In the United States, most employers expected individuals to have educational backgrounds. Hispanics' college performances were lower than Caucasian students' performances. However, female Hispanics attended college at a much higher rate than male Hispanics. Song and Elliott (2011) examined the Hispanics' financial earnings and house ownership to determine their academic success. In this research, most immigrants owning their residences invested in their children's college education. The parents had financial stability, and they supported their children through college. Nevertheless, only a small percentage of minorities own their homes in the United States. Hispanics had the following issues that effected housing:

- Insufficient understanding of the housing system
- Communication problems (deficient in English)
- Decreased material goods
- Modest resources

About $70 \%$ of the Hispanic high school graduates attended an institution of higher learning. At these colleges, most of these individuals were traditional students (25 years old or less) with a decreased number of non-traditional students. However, less than $30 \%$ completed educational degrees and reached their academic goals (Song \& Elliott, 2011). However, most parents earned less than $\$ 40,000$ a year, and the minorities were from lower to middle class environments. Students who did not attend college were unemployed, lower class high-school dropout males with uneducated parents (Song \& Elliott, 2011).

In their research, Person and Rosenbaum (2006) explored the common academic problems that the Hispanic population faced in trying to obtain college education. The minority students attended higher learning institutions at a high rate; however, the students failed to complete their coursework. This group had a decrease in educational achievement compared to Caucasian learners (Cohen \& Brawer, 2003; Person \& Rosenbaum, 2006). Person and Rosenbaum (2006) gathered data from individuals who studied

- technology;
- nursing; and
- administration.

Students attended community colleges for several reasons such as

- lower tuition;
- attaining short-term degrees; and
- shorter distances from their homes.

In the Person and Rosenbaum (2006) study, Hispanics attended college only if their relatives were active learners at the same institution. For example, individuals engaged in college activities if their siblings were participants at the college. However, approximately $20 \%$ or less of Caucasian students finalized a college decision based on relations. Minority students needed close individuals to explain college procedures. These students with relatives at the educational institutions were not as knowledgeable concerning basic college information. Actually, individuals who lacked personal association were more educated about coursework and the curriculum (Person \& Rosenbaum, 2006). However, Hispanic students were more involved when administrators
offered Hispanic groups or clubs to help with the learners' needs. These individuals desired to participate in educational clubs with members who recognized their academic issues (Person \& Rosenbaum, 2006).

Leinbach and Bailey (2006) explored Hispanic students at 4-year universities and community colleges in New York and examined their academic issues. The number of New York residents expanded significantly, and these individuals were of Hispanic descent. This minority group was employed at the following positions:

- Construction laborers
- Plant managers
- Welders
- Plumbers

Leinbach and Bailey (2006) evaluated how the administrators were helping these students reach their educational goals. New York schools represented more than 10 universities and five 2-year institutions. In this college process, most minority students attended a community college first followed by a 4 -year college. These minority students had problems achieving academic excellence and had lower grades and a decreased social status. In this examination, students were explored based on the following:

- Academic progression
- 2-year or 4-year school development
- Graduation rates

According to Leinbach and Bailey (2006), minority students preferred community colleges; however, these students attended the New York 4-year colleges at lower rates (nearly 47\%). At universities, Caucasian learners' enrollment was higher compared to
minority students who experienced academic problems. Out of the minority groups, most community college students were of Hispanic ancestry or origin. In New York, most students who attended 2-year colleges were Hispanic or African American. Four-year degrees assisted graduates financially and with personal development. However, several minorities failed to obtain a 4-year degree. Furthermore, African Americans had a lower number of 4-year degrees than Caucasians. Examples of common problems that minority students encountered were

- economic issues;
- child-care problems;
- lack of communication skills; and
- limited knowledge of college programs (Leinbach \& Bailey, 2006).

Hispanics attended community colleges at increased rates over universities, but these individuals were ineffective at completing a 2-year degree. Compared to Caucasians, most Hispanics did not graduate from community colleges. Hispanic learners had poor grades at community colleges and universities than Caucasian students. These individuals did complete their English courses at the 2-year college level; however, these academic factors were troublesome for the researchers. Also, Hispanics completed less coursework and classes compared to other minority students (Leinbach \& Bailey, 2006).

In an academic study, Mangan (2011) investigated Hispanic students involving their educational outcomes and academic advances. School officials at a community college in Texas encouraged secondary students to attend college and reach their college ambitions. Pupils were learning about the significance of college at a young age and grade level (first). At one Texas institution, Hispanic students were most of the
enrollment (over 90\%), and these disadvantaged individuals needed grants and loans for college. Mangan (2011) stated that "migrant farm workers pass through the region during the fall and winter to harvest citrus crops, uprooting their children from the local schools and moving on when the season is over" (p.1). Many of these people resided in impoverished living conditions and worked at low paying jobs. Because of the close proximity to Mexico, the most poverty-stricken Hispanics dwelled in Texas; furthermore, these individuals did not complete high school. In grades $\mathrm{K}-12$, school officials promoted college at all levels of education, reinforcing to younger students the value of college. For example, a grade school student shared concerns about college academics, and this individual desired to be a professional. However, this little boy was troubled by the cost of school and his jobless family members. In Texas, male Hispanics rarely attended college with a rate of roughly $4 \%$ or less. In the age range of $20-22$, students decided that college was the right choice for them. Therefore, Hispanic attendance increased by approximately $14 \%$ or more at most learning institutions (Mangan, 2011). College administrators encouraged students to attend institutions of learning; as a result, this motivation helped students realize the importance of degree attainment. Hispanic learners preferred 2-year colleges; however, these individuals were unsuccessful at accomplishing the academic requirements. Therefore, school officials desired to increase minority students' participation in college because of the students' lack of concern for the education system. The reasons Hispanic males were unconcerned with the educational system included

- limited college funds;
- lack of knowledge of college; and
- underpaid family members.

For example, Hispanic male learners lacked academic excellence on all levels of education; furthermore, these individuals had limited accomplishments at 4-year institutions. In first grade, school officials explained to students and their families the importance of attending college. These individuals needed to understand the significance of education and economic growth within their communities (Mangan, 2011).

## African American Male Learners and Education

Wood and Turner (2011) discussed the importance of understanding the African American male learners' educational needs at 2-year and 4-year institutions. This minority group did not complete their second year at most community colleges. For example, Wood and Turner stated that less than 17\% of African American male students earned a community college degree. Most community college learners did not participate in educational clubs, organizations, and campus associations. At universities, these individuals were active members at different associations and college group.

This educational study focused on minority learners'

- grades;
- attendance; and
- family involvement.

In the academic study by Wood and Turner (2011), students were African American males who were ages 23 or older and had completed high school. African Americans in the Wood and Turner study (2011) stated that instructors who were practical in teaching methods helped them complete their college courses. For example, learners desired one-on-one contact or communication with their instructors and advisors.

Most of these students enjoyed the pleasant atmosphere of the community college and the instructors' dedication to the learners. Also, instructors communicated with the students in a positive way; the professionals explained to learners campus policies. Minorities understood that the instructors desired for them to learn at the highest educational level. Before college life, these individuals had negative views concerning college instructors and did not desire to communicate with these professionals. These minority learners were worried about their new 2-year college experience; therefore, these individuals were concerned with their grades. At this institution, the teaching staff tackled all academic problems before the minority students had classroom problems. The instructors explained to students the importance of education and relieved their doubts about college. These educators focused and concentrated on each student and assisted low achieving minorities. Most of these students believed that the instructors were attentive to all educational matters. Minority students desired instructors who enjoyed teaching and communicating with them. School officials explained to the teaching staff the importance of supporting minorities. African Americans believed that this 2-year institution maintained educational goals and standards for different racial groups. In order to assist minorities, professionals were offered

- seminars;
- workshops;
- discussion groups; and
- tutorials.

Instructors had to understand minority learners' low grades and failure rates at community colleges and universities. This study by Wood and Turner (2011) revealed
that students who had open communication with each instructor were more interested in completing college.

Perrakis (2004) studied male minority and Caucasian groups and the students' overall development at institutions of learning. At community colleges, administrators had a decrease in male learners' enrollment, and most of these individuals failed to accomplish their educational dreams.

Cohen and Brawer (2003) found that male minority students experienced low graduation rates on all college levels (2-year and 4-year institutions). Females earned more academic degrees compared to the male population at colleges and universities.

In the analysis, Perrakis (2004) examined Los Angeles, California, 2-year colleges and viewed the African American learners' achievement. For mainly African Americans, 2-year colleges were the number one preference of education (Perrakis, 2004).Most African Americans were unsuccessful at the college level because of their societal troubles and concerns. African Americans had decreased university attendance rates and employment opportunities. For example, minority students who remained at community colleges for more than 5 years did not complete their 2-year degree. However, these learners finished their first year of college experiencing positive selfworth, increased self-esteem, encouragement, excellent role models, and increased instructor interaction (Perrakis, 2004).

In this study, Perrakis, (2004) examined over 4,000 students who were minority and Caucasian. For example, African Americans, when compared to Caucasians, were unsuccessful at high levels of mathematics. Therefore, Caucasian students had increased community college grades versus minorities. The minority and Caucasian groups desired
to complete their 2-year degrees, and these individuals had similar academic goals. Unlike the minority students, Caucasian learners displayed higher educational grades and social skills. Perrakis (2004) suggested students attend the following:

- Seminars
- Social clubs
- Enrichment classes

Throughout the years, administrators have experienced a slow rate in enrollment of male learners. School officials needed to understand the importance of helping African Americans achieve academic success (Cohen \& Brawer, 2003; Perrakis, 2004).

## Minority Learners and Education

Orozco, Alvarez, and Gutkin (2010) analyzed over 300 learners at 2-year institutions in California and explained the significance of the community college system. In the literature, these scholars examined the importance of advising and encouraging minority learners to succeed at the 2-year level. Often, these learners were employed with a 30-hour or more work schedule, and they had limited time for class assignments. Minorities completed short-term educational degrees compared to Caucasian students who earned academic credits and attended 4-year colleges.

Orozco et al. (2010) emphasized the importance of advising and directing minorities in their college journey. The individuals in their study attended over eight junior colleges and discussed their personal experiences at 2-year institutions. The following represented the students:

- Freshmen students, 30\% or more
- Employed students, $40 \%$
- Foreign born students, $35 \%$ or more (Orozco et al., 2010)

Orozco et al. (2010) stated that Hispanic students needed academic help at community colleges. Short-term certificates allowed Hispanics to quickly obtain certification for careers that assisted them in finding secure employment. The English services alleviated the language barriers endured at two-year institutions. Technology courses were also administered to provide Hispanic students with busy schedules the ability to work and attend classes as needed (Figure 1).


Figure 1. Minority learners involvement
Note: Majority of these programs involved Hispanic students at institutions of learning.

In this research study, most of the students ( $50 \%$ or more) had language issues and registered for English courses at the community colleges. Out of this Hispanic group, approximately $11 \%$ had been in the United States for less than 10 years; therefore, these individuals faced several academic issues. At these California colleges, the learners were
between the ages of 21 and 50. Several Hispanics attended nearly all of these 2-year colleges. Also, minorities least desired academic advising for their educational needs compared to Caucasian students. Most Native Americans did not search for advising from the teaching staff or asked for instructors' assistance. This study was conducted to better understand minority students' advising issues (Orozco et al., 2010). For example, students were unable to attend advising sessions because of

- campus problems;
- day care issues;
- grades (hour overload); and
- or financial (employment) issues.

Orozco et al. (2010) discussed the characteristics of instructors' feedback. This encouraged Hispanic students to pursue their educational goals. The instructors understood the Hispanic concerns and help them to achieve academic success. Thus, Hispanic students and instructors relationship was enhanced with positive communication (Figure 2).


Figure 2. Positive feedback from instructors
Note: This study was conducted by Orozco et al. (2010) in response to the classroom observations of the minority learners (Continued).

In addition, faculty members were sensitive to these individuals' backgrounds and encouraged them to reach their educational dreams (Orozco et al., 2010). Several students failed to benefit from the advising programs and services at these 2-year colleges. For example, learners discussed issues with the academic advisor less than three times a semester. Individuals who participated in the minority programs maintained positive feedback concerning their instructors. Therefore, these racial groups failed to develop one-on-one interaction with most faculty members and staff. However, students enjoyed

- educational seminars;
- a course about the college; and
- Basic English classes.

Several of the minorities desired to complete their 2-year degrees and disliked short-term programs. These individuals expressed the need for more academic classes instead of beginner courses or certificates. More than $19 \%$ of the minority students
believed that instructors did not understand their traditions and personal issues. Staff members needed to assist these individuals with verbal communications. Instructors had to establish a friendly environment for all learners and teach them the importance of respecting others. This study examined

- Caucasian and minority students;
- short-term programs; and
- advising troubles.

However, these individuals expressed the value of communicating with the instructors and learning all educational concepts to advance to the next level (Orozco et al., 2010).

Rowan-Kenyon, Bell, and Perna (2008) explored Caucasian and minority learners' earnings and wages to determine their degree completion at the community colleges. In this study, scholars examined wealthy and underprivileged students to uncover their overall success. Individuals who were poverty-stricken failed to reach the academic criterion; therefore, several of these students had difficulties with college life. More affluent individuals instead of impoverished groups desired to attend these educational institutions. Destitute parents had issues with the college system and needed help understanding the importance of college. Families' income levels determined the young students' educational outcome and completion at 2-year institutions or universities. These poor individuals experienced limited access to employment and limited knowledge of the community college process. For example, numerous Hispanic parents lacked information concerning English courses and other services (RowanKenyon et al., 2008). Disadvantaged families had limited knowledge of college information, were insufficient in the English language, and had limited income.

In this research, scholars studied learners from the following states:

- Georgia
- Pennsylvania
- Maryland
- California
- Florida

These learners were in Grade 9 and Grade 12 in the secondary systems;
furthermore, these individuals answered questions regarding college. Rowan-Kenyon et al. (2008) had to determine if the students' parents influenced their decision to attend 2year or 4-year institutions. Several of these families desired for their children to reach their academic ambitions. However, parents of low earning status had limited knowledge about advanced courses compared to individuals who graduated. For example, wealthy families understood the significance of education and set aside financial support for college. Working class parents explained to their children funding for college was a group effort; therefore, these students helped pay their school expenses. Lower wage families complained about the cost of college; therefore, several parents were unable to assist their children in furthering their education. Teachers at these secondary institutions shared limited knowledge of college to the students' parents. These parents desired more information regarding grants and English courses for their children (Rowan-Kenyon et al., 2008). For example, school advisors offered families college information guides in their native language and encouraged minority learners to attend advanced institutions. Rowan-Kenyon et al. discussed that people with financial difficulties had problems meeting with advisors to explore all academic issues. Many of these families worked in
the evenings; as a result, these individuals were concerned with employment. At these schools, teachers and advisors worked together to provide students with the financial options for junior and senior institutions. For example, professionals offered families weekend discussions on the topic of college; therefore, these underprivileged individuals found time to attend the seminars. Also, these students enjoyed receiving degree information, and their parents were excited about the higher institution guidelines. For example, Hispanic parents desired more college tours and opportunities to learn basic requirements. Also, these individuals favored 2-year institutions because of the convenience and location. Also, Rowan-Kenyon et al. (2008) emphasized the regions that offered incentives to high school graduates. School officials encourage minority students to apply for these programs. Academic advisors were there to explain these incentives to minorities and the importance of these grants and services. The students located in these regions were able to attend college based on these special grants, but these individuals had to maintain excellent grades (Figure 3).


Figure 3. States with special incentives and grants for secondary graduates
Note: Rowan-Kenyon et al. (2008) examined areas with scholarly awards and initiatives for higher learning.

The students located in these regions were able to attend college based on these special grants, but these individuals had to maintain excellent grades (Rowan-Kenyon et al., 2008). These learners secured their schooling by inquiring about loans and other options. Minorities asked questions regarding educational opportunities and the 2yearinstitutions admittance process. The working class believed that community colleges were the right selection for their relatives. Students attended junior colleges for the following reasons:

- cost;
- location; and
- grants.

In California, children of Hispanic farmers had insufficient time to attend college seminars and other activities (Rowan-Kenyon et al., 2008). These parents experienced problems with academic standards and goals because of

- manual work;
- decreased wages;
- communication issues;
- working in extreme temperatures;
- and poverty-stricken conditions.

In this analysis, families needed to understand each educational option, and several of these individuals explored the reasons to attend 2-year institutions. For minorities, community college advisors and instructors helped with grant information online. Also, administrators supported and helped students with their learning problems (RowanKenyon et al., 2008).


Figure 4. Academic issues faced by Hispanic learners
Note: Within the Georgia areas, researchers Bohon, Macpherson, and Atiles (2005) focused on the above issues.

Bohon, Macpherson, and Atiles (2005) studied Hispanics for a number of years and discussed problems with school officials and minority students' families (Figure 4). This group was located in over five Georgia regions, and several of these people were from rural and non-rural counties. Hispanics were in the following locations in Georgia:

- Liberty
- Whitfield
- Hall
- DeKalb

Hispanics arrived to Georgia in significant numbers, and Florida also had an incline of this minority group. In this academic study, several of the Hispanic families had limited education and resources.

Bohon et al. (2005) discussed the states where Hispanics left and became Georgia residents. Hispanics moved to this region for better educational, economical, and employment reasons. They had large families and lower wages (Figure 5).


Figure 5. The minorities arrived to Georgia from these areas.
Note: This was a representative of regions with an increase of minority population.

Hispanics experienced the following difficulties:

- Nonparticipating parents in academic activities
- Hispanic children failing to attend school
- Limited resources such as housing
- Decreased earnings
- Language difficulties
- Farming jobs

With these troubles, Hispanics had little expectations to complete secondary and postsecondary academic institutions. Hispanic families experienced problems with comprehending the curriculum standards of secondary institutions. School officials offered these parents the option of attending workshops to introduce them to the educational process. This minority group faced hardships in trying to give their children excellent educations (Bohon et al., 2005). In Hispanic traditions between mothers and fathers, mothers were required to be active in all school activities. However, the fathers maintained the financial aspects of the living expenses; therefore, these individuals did not help with school issues. These parents were therefore unsuccessful at attending these workshops because of

- younger children at home that had to be cared for;
- language problems;
- employment; or
- unavailability of funds.

Several of the parents found the meetings unproductive because of their language issues and economic hardships. School officials supported these workshops and taught minorities the importance of

- 2-year and 4-year institutions;
- attendance;
- grades; and
- positive interaction with instructors.

Children of farm workers had problems with completing school; their parents desired for their children to work and assist them financially (Bohon et al., 2005). This
group worked at different farming communities and briefly worked in America.
Employment benefited these impoverished individuals, and college life was unrealistic for the farm workers (Bohon et al., 2005).

In addition, administrators needed to hire diverse staff to assist the minority learners with their academics. With Hispanic professionals, this group was able to discuss problems with the instructors. For example, the multicultural staff members translated messages in both Spanish and English. The multicultural staff assisted with

- language;
- comprehension levels; and
- meeting the parents' needs.

These multicultural individuals assisted the minorities in the educational process and supported all school efforts (Bohon et al., 2005). Nevertheless, young Hispanic learners were absent from school life and remained employed as farm workers. The disadvantaged students desired better social environments and educational success for themselves. Also, the Hispanic youth had children to care for at home, and this hardship created academic issues (Bohon et al., 2005). Young Hispanic parents were married before the age of 18, and people of this culture encouraged early unions. For this reason, these individuals refused to attend school and preferred manual labor. The children had trouble with both employment and the educational system. As a result, minorities selected employment to assist with building Hispanic communities and finances. Students who desired to attend college were unaware of different services offered to Hispanics. In this academic study, advisors had limited information regarding these learners' needs. For example, a minority association helped students understand the community college and
university application procedures. Under the following conditions, students were funded for college if they

- completed secondary coursework in Georgia;
- maintain A or B grades; and
- were born in America.

Several of these Hispanics lacked the requirements for this program and funding from these colleges (Bohon et al., 2005).

## Rural Issues in the United States

Carr and Kefalas (2009) examined a rural area located in Ellis, Iowa, and explored the different financial and social aspects of this community. Carr and Kefalas stated the following:

Scattered throughout the nation, thousands of towns find themselves twenty, ten, or even five years away from extinction because there are too few taxpayers, consumers, and workers to keep going. In a twenty-first-century world, acquiring human capital through education and training brings with it the promise of socioeconomic and geographic mobility, and so that flight of the country-side's young people is also a brain drain. (p. 2-4)

Carr and Kefalas (2009) discovered the issues that students faced in non-urban communities. These areas often have a small population and restricted infrastructure. Therefore, in these communities, unemployment rates were high and most residents did not have a college degree (Figure 6).

## Decreased employment

## Fewer people

## Limited college degrees

Figure 6. Results of some rural communities
Note: An illustration of a small town's inadequate opportunities for the younger generation.

Carr and Kefalas (2009) explained the importance of studying these rural issues and problems in the United States. Also, Carr and Kefalas said:

The youth exodus is a zero-sum phenomenon: it benefits the destination cities and hurts the regions that migrants flee. For every thriving metropolis now, there are dozens of agro industrial brain-drain areas where economic growth has stalled. As seismic shifts in agricultural and manufacturing made firms and farms outsource and automate, rural regions witnessed a collapsing demand for labor. (p. 5) For many, rural communities helped individuals settle closer to their relatives and friends. Because of the financial issues, several farm children attended school and searched for better employment opportunities. For example, agricultural workers were offered low wages; therefore, these individuals represented lower numbers of employees located in small regions. In this academic study, some of the parents and children improved and
enhanced their personal development in the United States. However, rural people had problems with the little demand for farm workers. With the increased number of factories, most individuals desired to work in these settings instead of the agricultural business. The industrialized employment vanished suddenly and left individuals uncertain of their financial stability. In the end, several of these jobs were shipped overseas, and rural individuals discovered several problems or issues. Carr and Kefalas (2009) stated the following:

Spend time in the middle of the nation, in one of the thousands of small towns where the hollowing-out process has taken hold, and you see a growing chasm between the people leaving and the ones who remain. Fueling the out-migration trends is a regional filtering system pushing some young people to stay and others to go. (p. 9)

Rural communities experienced

- a decline of industrial jobs;
- the departure of individuals;
- less farm work;
- reduced wages; and
- decreased personal attachments.

Carr and Kefalas (2009) examined individuals who resided in an Iowa community with roughly 2,000 people. Carr and Kefalas classified and categorized the rural citizens as the following:

Yet since fewer than half of the Achievers will live in Iowa after earning their degree, the whole system suffers from an undeniable inefficiency. There is no
question that Ellis's Stayers are grappling with a languishing economy, a dying small town, and a fading way of life. Whereas the Achievers leave because everyone expects them to, for the Seekers, fleeing their small town is something they feel compelled to do. The Boomerangs' numbers included former enlisted men and women who move back to Iowa after leaving the armed forces and the mostly female graduates of community colleges. (p. 19-23)

For example, the higher-class students from this area were able to attend the local university. While in college, most of these individuals preferred the rural living conditions and risk-free environments. After graduating from a 4 -year institution, this particular group departed from this unproductive region and searched for long-term employment. However, Carr and Kefalas (2009) identified the incentives of indivdiuals who left a rural community. Metropolitan communities offered better employment opportunities for new occupants and better wages to live. Also, urban areas provided more ways of financial growth as compared to non-urban areas. Increased infrastructure provided new companies with opportunity to move in metro areas and produce higher employment, increased wages, and prospective financial growth (Figure 7).


Figure 7. Reasons for the sudden departure from a rural setting
Note: Carr and Kefalas (2009) explored the troubles that small communities faced in an economic decline.

Nevertheless, individuals who attended colleges out of state discovered different social standards. At the university, the rural learners met diverse groups of people from different cultures. Most of the students developed new relationships that helped them comprehend various customs. In educational institutions, students from rural areas were involved in school traditions, clubs, and associations, and they developed new customs and communicated with diverse groups. Carr and Kefalas (2009) explained that several of these students discussed issues with minority learners and networked with different racial groups. However, some learners had a difficult time residing in larger regions; as a result, these students desired the simple farm life instead of complex city life.

In addition, another group was individuals who continued to settle in rural regions and refused to leave these regions in order to find educational opportunities. The family
farms had disappeared from these rural communities, and they were replaced with corporate industrialized companies. Carr and Kefalas (2009) discovered the following labor division conditions:

Forty percent of Ellis High's entering freshman class will never set foot on a college campus nor live anywhere but Liberty County. If they are fortunate, they will found work at Safeguard, an ambulance manufacturer owned by Amos and Ralph Leinhardt; John Deere in Waterloo; or Tantech, a Cedar Rapids-based microprocessor-assembling, where full-time employees might earn $\$ 15$ an hour after a year or two. Or they might make half as much at the meat-processing plants, egg factory, or cardboard-box factory, working alongside undocumented workers from El Salvador and Mexico. (p. 57)

Several students were unsuccessful at completing the secondary and postsecondary curriculums. For many, industrialized employment helped them provide resources for their families. The children and parents had limited information regarding community colleges and universities. Advisors focused on the higher-class students instead of those learners from lower social backgrounds. Disadvantaged parents did not explain the importance of college to their children. Most of these children obtained low paying employment with little ideas or concerns for school. In the town of Ellis, lower class students were perceived as individuals who lacked postsecondary education potential. The impoverished people were expected to work in the industrial business or other occupations with reduced wages. For financial reasons, these individuals preferred family life and trade occupations compared to attending an academic institution. At school, lower ranking students were labeled as those who were unable to gain admission to
universities and 2-year colleges, ineligible for higher lever careers, unconcerned learners, of lower social status, industrialized workers, and poverty stricken (Carr \& Kefalas, 2009).

In this rural setting, the impoverished and uneducated group relied on inadequate wages to support themselves (Carr \& Kefalas, 2009). In the past, young students labored as farm workers in the month of July and earned a small income. Despite the scorching heat, rural children needed extra money and employment for personal items. However, higher-class students did not participate in agricultural work; as a result, they focused on attending an educational institution. The disadvantaged children were encouraged to continue this type of occupation in their adulthood, which left no time for college.

Despite the decreased wages and hardships, these individuals favored this rural community because of the friendly and "family" environment and because they worked with individuals with similar backgrounds. Carr and Kefalas (2009) suggested that the parents viewed this rural region as a secure location and dwelling place. Children were able to walk in public areas without anxiety compared to being with the crowds of people in large cities. In this region of the United States, several citizens enjoyed the uncomplicated pastoral setting and desired the modest existence.

In addition, Carr and Kefalas (2009) discussed another group of individuals that became members of the army and traded rural living for the armed forces. Carr and Kefalas stated the following:

Though the recruitment strategies have changed with time, and the draft hasn't been in place during the lifetimes of today's recruits, the tradition of young adults from small towns joining the service endures as a time-honored rite of passage as
familiar as homecoming and the senior prom. In the Ellises of this country, the military has long been the small-town equivalent of an emergency exit. (p. 89-90)

These citizens were from working families who encouraged their young children to search for options in the army. At school, the learners had average grades and academic standards; therefore, they desired to escape the rustic surroundings of Ellis, Iowa. In this area, natives abandoned their rural dwelling and selected larger cities or regions. The citizens of Iowa faced several uncertainties with financial hardships and unprofitable industries. Also, Carr and Kefalas (2009) examined Ellis, Iowa residents' issues of living in a small community. Ellis, Iowa had limited resources which provided students incentives to pursue education. These students' education was their opportunity to expand their wealth and increase career opportunities (Figure 8).


Figure 8. Issues that impoverished citizens faced living in Ellis, Iowa
Note: Data from the Carr \& Kefalas (2009) educational study and the conclusion of these individuals’ circumstances.

The last individuals discussed by Carr and Kefalas (2009) were the learners who completed college away from Iowa and the rural setting. For example, several of the 2year students had trouble adjusting to college. The inner city was extremely disruptive compared to the peaceful environment of rural Iowa. While at school in urban areas, learners encountered more violence and aggression. These 2-year and 4-year graduates benefited from living in a rural area because of reduced housing markets, decreased expenses, protected surroundings, and closer proximity to relatives. They also felt a sense
of belonging with other students because of similar upbringing and conservative, family values.

These knowledgeable individuals assisted with helping the citizens of this area with their needs. They brought back new ideas to share with others within the community. Even in a larger state, they desired a predictable routine that was expected of rural standards and values. Nevertheless, Carr and Kefalas (2009) explained the characteristics of an Iowa farming community. Therefore, Iowa's great agricultural presence was the only industry that provided economic opportunity. Due to Iowa's location, the financial growth was only limited to the farming industries. Also, an influx of Hispanics moved to Iowa and took advantage of the corn industry and majority had social issues resulted from language barriers, limited income, and lack of opportunity (Figure 9).


Figure 9. Key elements of Ellis (Carr \& Kefalas, 2009)
Note: Hispanics faced uncertainties as rural workers located in Iowa's farming communities.

Carr and Kefalas (2009) offered suggestions to assist with the problems of this rural region. These individuals from Iowa needed incentives to settle in this area permanently. They had the opportunity to continue their traditions as a family and maintained close ties with the community. Thus, this remote district was able to sustain financial gains if the graduates invested in the state of Iowa. In Iowa, community college administrators offered students computer courses, and students became technologically advanced. Carr and Kefalas explained the importance of short degrees for disadvantaged
groups and expanding non-farming businesses. At 2-year institutions, the following shortterm programs helped students gain employment:

- Bank tellers
- Medical billing and coding
- Database/programmer
- Software designer
- Electrical
- Management
- Certified nurse assistance

Students desired to understand the importance of obtaining knowledge that related to technology and other short-term courses. These non-academic programs helped learners receive employment in non-agricultural fields. Also, the increase of Hispanics in this area became a problem because several of these individuals were employed in this farming community. Often times, Hispanics lived in impoverished conditions, and they worked for lower wages to support their relatives. Carr and Kefalas (2009) believed that this group needed opportunities to grow within this rural environment. However, Hispanics resided in poverty-stricken conditions and suffered from limited material goods. Carr and Kefalas (2009) discussed that town official believed that students who lived in less populated areas needed to have incentives to pursue a valuable education. In Iowa, learners were financially limited and they had limited knowledge regarding various grants to pay for college. Proposed incentives included better non-agriculture career options, increased financial gain, and better housing conditions (Figure 10).


Figure 10. Incentives for graduates who resided in remote region
Note: Town officials and citizens proposed ideas to encourage younger people to improve their overall development.

## Racial Environments

Probst et al. (2002) examined the importance of minority groups in rural communities; furthermore, these scholars proposed solutions to their problems. In this analysis, four groups were studied for their household conditions and financial issues. However, most minority students had limited personal assets and material goods in these rural regions. Probst et al. discussed each minority group and explored ways to improve
the overall development and educational stability. The following list represented the geographic locations and the research study information:

- African Americans - Most resided in North Carolina, South Carolina, Mississippi, Georgia, Louisiana, and Alabama.
- Hispanics - Most were more concentrated in New Mexico, Arizona, Texas, Colorado, and California.
- Native Americans - Most dwelled in South Dakota, New Mexico, Montana, Oklahoma, and Arizona.

The following list represented the individuals with impoverished conditions:

- African Americans - This minority group experienced little economic growth in rural America.
- Hispanics - Several of these individuals were considered deprived, and most resided in farming communities.
- Native Americans - More of this minority group had limited assets compared to African Americans, Hispanics, and Asian Americans.
- Asian Americans - This group had the lowest poverty rates compared to African Americans, Hispanics, and Native Americans.

In this academic study, Probst et al. (2002) reviewed the educational and financial issues of different racial groups in the United States. The first minority group in the study was African Americans, and most of these individuals resided in southern regions. In the literature, African Americans were located in rural areas, which suffered decreased financial growth. In Mississippi, parents of the minority group had higher numbers of unemployment rates and needed educational assistance. Only a small percent of this
population represented the farming business in rural communities compared to Caucasians who owned majority of the farming land. Also, several individuals in this group lived near an industrialized area because employers needed uneducated labors. In most rural towns, African Americans faced an economic decline with increased unemployment. As a result, these citizens worked low wage jobs such as laborers and cooks. Minorities progressed to different careers or professions such as tellers or caregivers.

In addition, this group was poverty-stricken in rural and non-rural communities in the United States; therefore, they experienced limited economic mobility. The following states represented increased poverty rates:

- Mississippi
- Alabama
- Georgia (Probst et al., 2002)

Probst et al. (2002) identified several conditions of the African American community. Due to limited opportunities in southern states, this minority group (African Americans) experienced high unemployment. Therefore, most African Americans worked in manufacturing and service occupations (Figure 11).


Figure 11. General characteristics of the African American communities
Note: The above illustration displayed the African Americans' economic hardships in their communities.

In this study, Hispanics were the second minority group, and they dwelled in

- Texas;
- Florida;
- New Mexico;
- Arizona;
- California; and
- Kansas.

In rural areas, Hispanics had an increase in childbirths, and these individuals who resided in rural communities were between the ages of 19 and 40 . For example, these individuals
were employed as farm workers; therefore, they received little wages on the cattle ranches. Several of these minorities were uneducated, and they became laborers in the farming regions. The states representing the highest rates of impoverished Hispanics were

- New Mexico;
- California;
- Arizona;
- Texas; and
- Colorado.

Hispanics had limited employment growth located in rural areas and suffered from economic issues. Probst et al. (2002) discussed that policy makers needed to explore ways to assist with the economic issues within the rural environments. Also, Probst et al. (2002) explained the factors Hispanics faced in financially limited communities. With lack of financial resources, this minority group (Hispanics) endured high unemployment rates and lower wages. With an increase Hispanic community, limited job availabilities resulted in more economic and academic hardships (Figure 12).


Figure 12. General characteristics of the Hispanics (Probst et al., 2002)
Note: This depiction showed several issues that the Hispanic population faced in poor areas.

Native Americans were the third minority group that populated non-urban regions, and they resided in the following states:

- South Dakota
- Oklahoma
- Alaska
- North Dakota
- North Carolina
- Arizona
- New Mexico

Also, Native Americans who settled in rural areas were between the ages of 32 and 34 .
Unlike Hispanics and other minorities, these people were not employed as manual labors.
This group suffered from poverty-stricken areas located in

- Montana;
- Oklahoma;
- New Mexico;
- Arizona; and
- South Dakota.

In these states, Native Americans were considered extremely underprivileged opposed to Caucasians who experienced increased wealth; as a result, these minorities had limited employment possibilities in professional jobs. These citizens experienced lower financial growth than the Caucasian population. Probst et al. (2002) discussed the issues that Native Americans faced in their environments. Most Native Americans were located in the mid-west with limited opportunities, high unemployment, and impoverished living conditions were prevalent in their community. In addition, Native Americans in Oklahoma experienced lower wages and increased poverty (Figure 13).


## Increased poverty rates

Increased
poverty rates
Impoverished



## living conditions

Figure 13. General characteristics of Native Americans (Probst et al., 2002)
Note: Native Americans experienced educational and social dilemmas in their environments as illustrated above.

In this study, Asian Americans were the fourth population, and several of these individuals settled in a rural environment; however, Asian Americans preferred non-rural areas, unlike African Americans and Hispanics who desired the countryside. Several of these people resided in the following states:

- Texas
- Georgia
- Oregon

Asian Americans experienced more academic success than other minority groups. For example, Asian Americans received advanced college degrees at universities, and their parents valued educational achievements on all levels. After their first year at 4-year universities, most Asian Americans' grades increased compared to African Americans' grades that decreased after their first term (Cohen \& Brawer, 2003). Overall, this group increased employment in their communities and education completion rates.

In the article, some Asian Americans resided in a poverty-stricken region in the United States. Oregon, Wisconsin, and California represented the impoverished regions where these minorities lived. Disadvantaged Asian Americans needed assistance with their education according to Cohen and Brawer (2003) and to Probst et al. (2002). Probst et al. (2002) identified the makeup of Asian American's districts. Out of all the minority groups, Asians experienced less poverty conditions. Similar to the other minority groups, Asian Americans also resided in rural regions or areas. Asians focused mostly on higher educational standards despite language barriers. Therefore, Asians experience better career opportunities and increase economic status compared to the other racial groups (Figure 14).


Figure 14. General characteristics of Asian Americans (Probst et al., 2002)
Note: This minority had the lowest economic and social obstacles compared to the other minority groups as displayed in the diagram.

However, Lowtkowski et al. (2004) and Prost et al. (2002) outlined the overall ideas of improving minorities in education, career, and financial opportunities. Improved community programs such as tutoring, career services, and personal finance classes provided better chances for minorities. In addition, emphasized education through mentorship and improved scholastic programs along with access to financial grants allowed increased numbers in minorities 'academic performances. Career services
dedicated to finding employment opportunities for minorities enhanced the employment development for all racial groups (Figure 15).


Figure 15. Ideas recommended to assist with minority issues
Note: Probst et al. (2002) suggested these incentives to provide financial growth to this population.

## Higher Learning Institutions

In the past, administrators at rural 2-year colleges faced many challenges in helping African Americans achieve their academic goals. Several educational studies
were developed to assist with this problem. Despite their efforts, minority students had issues obtaining higher-level degrees and developed lower economic standards (Engstrom \& Tinto, 2008). In small communities, individuals of lower social status have had problems with education and employment. With 1,000 or more rural community colleges, administrators needed to prevent academic barriers and social issues for these disadvantaged students (Pennington, Williams, \& Karvonen, 2006; Vaughan, 2000). The following represented community colleges' issues:

- Minorities not reaching academic goals
- Lack of supportive resources
- The low success rates of minorities

In the study by Lotkowski et al. (2004), academic advancements were important to most minority students; students found that education was the key to employment success. Lotkowski, et al. found those who attended college had limited employment problems; therefore, minority learners needed to explore ways to complete their degrees in order to find employment. African Americans had the most unemployment issues than other minority groups. For example, individuals with 4-year degrees earned $50 \%$ or more than those without a higher education degree. Caucasian students attended institutions at $45 \%$ or higher, African Americans at 39.9\%, and Hispanics at about 33\%. African Americans’ labor markets were limited, and several minorities abandoned college. The following information represented issues with the minority population:

- Limited employment
- Low completion rates at 4-year colleges
- Low socioeconomic and social problems
- Limited educational resources (Engstrom \& Tinto, 2008)
- Increased family duties and responsibilities
- Child-care issues
- Housing and economic factors
- Financial troubles (Greene, et al., 2008; Lotkowski et al., 2004; Song \& Elliott, 2011)

Lotkowski et al. (2004) completed an educational study on minority learners and dropout prevention programs. In the study, minority students' success at colleges in the United States was determined by different social or economic factors. Minority students did the following in order to do well in college:

- Developed reading and studying skills
- Maintained confidence and self-worth
- Established relationships with counselors
- Completed coursework
- Attended classes

Also, Lotkowski et al. (2004) discussed issues of students who had trouble at two-year institutions. Minority students who worked more than thirty hours had problems balancing academics with their work schedules. Learners with multiple children and daycare issues also had trouble with scholastic performances (Figure 16).


Figure 16. Characteristics of minorities who were unsuccessful 2-year students (Cohen \& Brawer, 2003)

Note: Findings from 2-year college students and their academic challenges.

Several of the dropout prevention programs focused on improving students' basic college skills such as language and mathematics. However, Lotkowski et al. (2004) believed that the administrators of these educational programs needed to offer more courses. First-year students lacked the motivation and academic skills to continue college. In this study, Lotkowski et al. examined ways for students to improve their grades. Lotkowski et al. also suggested instructors do the following:

- Alert students of low grades
- Maintain attendance records
- Monitor classroom participation
- Encourage freshman orientation courses

For example, basic learning programs allowed students the opportunity to learn a variety of study techniques; as a result, these individuals were able to complete rigid courses (Lotkowski et al., 2004). The educators taught freshman and sophomore students how to study for challenging and demanding classes. Minority and Caucasian students benefited from these types of educational services. These academic services emphasized a structured environment that promoted knowledge and achievement. In the classroom settings, instructors helped low achieving students comprehend college subjects and encouraged students to ask questions. Several educators assisted students in the learning program and concentrated on important concepts. Within this process, college students studied independently or with other learners and explored critical thinking techniques (Lotkowski et al., 2004).

In this example, the dropout prevention programs helped minority learners build self-awareness and self-esteem. These educational services provided students with encouragement and social support to complete college courses. Lotkowski et al. (2004) found a correlation between self-awareness and successful academic achievement among minorities. For example, the following increased minority students' self-worth:

- Counseling
- Campus activities
- Supportive instructors
- Career preparation/goals
- Personal advisors
- Involved administrators

Another important program started with study skill courses that enabled students to gain social interaction and learn policies of the college. The educators of this program assisted learners with new campus life. As a result, new freshman students were exposed to the college's standards and staff members; therefore, these individuals were connected with other students and the institution. Students discovered the following in the program:

- General campus standards and procedures
- Part-time employment opportunities
- Sports and recreation guidelines
- A tour of the library
- Critical thinking skills

Lotkowski et al. (2004) recommended academic training that minorities needed to succeed. Managed class schedules allowed this racial group to adequately prepare for assignments and examinations. Test-taking courses were beneficial for increasing minority academic development. Establishing networks with school officials and instructors established minority students' involvement in the scholastic process. The networks helped maintained academic support for these learners (Figure 17).


Figure 17. Concepts learned at academic workshops
Note: Lotkowski et al. (2004) studied the importance of workshops on students' learning and development.

Educational programs were needed for minority students; as a result, educators from these centers helped learners gain skills for the workforce. In this study, Lotkowski et al. (2004) discovered that dropout programs assisted students in the educational process and improved their test scores. The academic services were needed to help minority students reach their career goals. Social interaction encouraged students to
develop a sense of community at postsecondary institutions. Individuals were able to interact and communicate with other students and faculty members. Also, minority learners established productive relationships with people from the learning programs and student associations. In this process, individuals desired to participate in group tutoring and develop study partners. Instructors helped students maintain positive self-worth and encouraged them to complete school. Most educational programs fostered self-awareness and student engagement within the institution of learning.

The following represented efforts to improve student dropout rates:

- Academic advising
- Group tutoring
- Increased faculty involvement
- Meetings with counselors

Other college administrators provided freshman learners with the following academic tools:

- Interaction between the instructors and students
- Assisting learners on academic suspension
- Counseling services
- Math tutors

Lotkowski et al. (2004) suggested these alternatives to students with academic problems. Workshops that involved study courses, time management, and examination preparation provided these learners with the tools to be academically successful. For economically deprived students, loan information was alternatives for learners who needed financial assistance. Social clubs provided different academic activities to minorities for enhanced
achievement. Basic computer courses and library information equipped these students with extra tools to learn and help improved their grades and study skills (Figure 18).


Figure 18. Different resources for low-achieving students (Lotkowski et al., 2004) Note: This above figure displayed learning programs at 2-year and 4-year institutions.

Staff members were concerned with minorities' personal and academic growth.
Therefore, these professionals established goals for students and offered

- daily meetings;
- examination of grades and progression; and
- academic advice.

The dropout prevention programs represented the following:

- Strengthened social ties
- Improved study skills
- Educational assessments

Lotkowski et al. (2004) proposed the following solutions to the dropout rates:

- More professional courses for staff members related to minority problems
- Increased study skill courses
- More academic support systems
- Increased workshops for minority learners
- Cultural awareness for all students
- Increased language courses
- Increased social development classes
- Tutoring services

Administrators established programs that encouraged students to learn and achieve success. Often times, minority students had problems with social networks and coursework at community colleges and universities. As a result, the programs were developed to prevent these learning obstacles at several institutions. African Americans faced several academic challenges and especially financial problems. This educational study focused on the practices of colleges in retaining minorities and assisting with academic goals (Lotkowski et al., 2004).

## Summary

In the literature, minorities suffered from financial and economic hardships that prevented them from achieving high grades at institutions of learning. However,
community colleges had lower tuition rates and services for minority students, but these individuals endured problems with obtaining advanced degrees. Vaughan (2000) stated the following information that related to students' issues:

Access does not mean anyone can enter any program without the necessary prerequisites but that options are available. Furthermore, community colleges must offer comprehensive programs with alternatives in order to fulfill the promises of access and equity. Access and equity mean more than just open admissions. (p. 4-5)

Despite the attempts, several of the minority learners were unable to increase their grades, social status, and employment wages (Pennington et al., 2006; Vaughan, 2000). Students needed to understand the importance of education and how college increased

- employment opportunities;
- wages;
- social status;
- knowledge of technology;
- assets; and
- wealth (Lotkowski et al., 2004).


## CHAPTER III

## METHOD

## Introduction

The researcher discussed the research design, research questions, participants and instruments, data collection, and data analysis. Also, causal-comparative research or ex post facto and ANOVA was used in this research. The researcher study focused on community college transfer students located in Mississippi.

## Research Design

Causal-comparative or ex post facto was selected for this educational study. Gay et al. (2006) stated:

Causal-comparative research seeks to investigate relations between two or more different programs, methods, or groups. Causal-comparative research attempts to determine the cause, or reason, for existing differences in the behavior or status of groups of individuals (p. 12-19)

Also, "Quantitative research approaches are intended to describe current conditions, investigate relationships, and study cause-effect phenomena" (p. 19). The researcher analyzed the students' GPAs and their transition from junior colleges to a 4year university. These individuals were grouped into minorities and compared to Caucasians. The research questions addressed the following students:

- African Americans
- Hispanics
- Native Americans
- Asian Americans
- Caucasians


## Research Questions

The questions that were examined in this study were the following:

- Is there a statistical difference as measured by GPAs at MSU between Caucasians and Native Americans?
- Is there a statistical difference as measured by GPAs at MSU between Caucasians and African Americans?
- Is there a statistical difference as measured by GPAs at MSU between Caucasians and Asian Americans?
- Is there a statistical difference as measured by GPAs at MSU between Caucasians and Hispanics?
- Is there a statistical difference as measured by GPAs at MSU between Caucasians and all 4 minority groups?

Each question addressed the minorities' educational needs and statistical scores at an institution of higher learning. This information was further emphasized in Chapter IV of this analysis; therefore, the research revealed significant findings among African American students. Also, other information and research was displayed that related to this study. See, Appendix A and Appendix B for minorities' mean scores and enrollment rates.

## Participants and Instruments

In this research analysis, subjects were gathered from the following population sample ( $\mathrm{N}=140$ ), and these learners attended Mississippi's community colleges first and transferred to MSU. Hispanics, Native Americans, and Asian Americans had a limited sample size compared to Caucasians. All 140 students attended during the fall of 2011, and the learners represented different academic programs. Therefore, the learners' MSU cumulative GPAs were examined for the fall semester of 2011. The following students represented first-semester attendance:

- African Americans
- Hispanics
- Native Americans
- Asian Americans
- Caucasians

In this study, students were identified as minorities or Caucasians, and this educational study was related to their transition from the community college to a 4 -year university. The population sample represented mainly Caucasian learners because of the decreased enrollment rates among minority students (Chapa \& Schink, 2006; Hagedorn, Chi, Cepeda, \& McLain, 2007; Laanan \& Starobin, 2004; Lew, Chang, \& Wang, 2005; Shaw \& Goldrick-Rab, 2006). No educational instrument was involved in this study; therefore, the researcher obtained raw data at MSU.

## Data Collection

The Institutional Review Board (IRB) located at MSU (Appendix C) approved this educational study. Before the analysis, the researcher was IRB certified to conduct
this evaluation on minorities and Caucasian learners. At the Office of Institutional Research, the research specialists released raw data that related to Caucasians' and minority students' grade point averages at MSU (Appendix D). These participants' grade point averages were entered in the Microsoft Excel file and Statistical Package for the Social Sciences; as a result, the researcher used an analysis of variance design to analyze the information statistically. The Levene's and Tukey's tests were selected for further assessment to analyze the overall statistical data (scores). This important examination displayed the students' scores and standard deviation in relation to each learner's average total. Also, the researcher evaluated the following valuable information that related to the study:

- Mean scores
- Standard deviation
- Multiple comparisons and significant data

No educational instrument was involved in this study; therefore, the researcher obtained raw data at MSU.

## Data Analysis

In this study, the researcher used the Statistical Package for the Social Sciences, and the one-way analysis of variance was implemented to analyze these individuals' statistical scores. The one-way analysis of variance addressed each research question.

Question 1: Is there a statistical difference as measured by GPAs at MSU between Caucasians and Native Americans?

Question 2: Is there a statistical difference as measured by GPAs at MSU between Caucasians and African Americans?

Question 3: Is there a statistical difference as measured by GPAs at MSU between Caucasians and Asian Americans?

Question 4: Is there a statistical difference as measured by GPAs at MSU between Caucasians and Hispanics?

Question 5: Is there a statistical difference as measured by GPAs at MSU between Caucasians and all 4 minority groups?

Questions $1,2,3,4$, and 5 were analyzed with the one-way analysis of variance and each group's mean scores were examined. Caucasians and minorities from questions 1, 2, 3, and 4 showed the differences between Caucasians, African Americans, and Native Americans, Asian Americans, and Hispanics statistical scores. In the educational study, additional tests such as Welch and Post hoc were used.

## Summary

The IRB at MSU granted approval to conduct the study; as a result, the educational data were released from the MSU Office of Institutional Research. The data set represented grade point averages for five groups.

## CHAPTER IV

## RESULTS OF THE ANALYSIS

## Introduction

This chapter represents the statistical results for Caucasians and minority groups. Also, the demographics are outlined in this chapter. The one-way analysis of variance, Welch correction, and post hoc tests are included.

## Demographics

For this study, the researcher worked with data that were from the Office of Institutional Research at MSU. The elements that made up this statistical data are comprised of N , which is the total number of students in each group. Five groups' mean scores were analyzed and examined in this research study. Also, the students attended Mississippi's two-year colleges first then enrolled at MSU in the fall semester of 2011. These students represented the following community colleges:

1. Coahoma Community College
2. Copiah-Lincoln Community College
3. East Central Community College
4. East Mississippi Community College
5. Hinds Community College
6. Holmes Community College
7. Itawamba Community College
8. Jones County Junior College
9. Meridian Community College
10. Mississippi Delta Community College
11. Mississippi Gulf Coast Community College
12. Northeast Mississippi Community College
13. Northwest Mississippi Community College
14. Pearl River Community College
15. Southwest Mississippi Community College

Within the demographics, there is a higher number of Caucasian and African American students compare to Hispanics, Asian Americans, and Native Americans at MSU. Caucasians' and minority students' GPAs were computed in Statistical Package for the Social Sciences and analyzed with multiple variables.

Table 1 represents the GPA mean scores and standard deviation of Caucasian and minority students. Also, Caucasians' and different racial groups' statistical scores are identified in this study. The standard deviation (Std. Deviation) is the variation between the sample means relative to the mean average. Standard error (Std. Error) represents the accuracy of the sample means (determine by sample size); in addition, the standard error has an inverse relationship to sample size.

Table 1
GPAs

|  | Std. |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | N | Mean | Deviation | Std. Error |
| African |  |  |  |  |
| Americans | 50 | 2.5366 | 0.50742 | 0.07176 |
| Native Americans | 8 | 2.8244 | 0.27953 | 0.09883 |
| Asian Americans | 6 | 2.66 | 0.31578 | 0.12891 |
| Caucasians | 65 | 3.2572 | 0.50658 | 0.06283 |
| Hispanics | 11 | 2.7628 | 0.68688 | 0.2071 |
| Total | 140 | 2.9107 | 0.60145 | 0.05083 |
| Note: $\mathrm{N}=140 \quad$ Std $=$ Standard |  |  |  |  |

The GPAs are in Table 1 and indicate an overview of the mean scores for each racial group. In this study, the researcher determines that significant differences exist when comparisons are analyzed for minorities versus Caucasians; in addition, minorities are compared to each other. As the data reveals, Caucasians have the highest mean GPA (3.2572) and African Americans with the lowest (2.5366). However, the standard deviation is measure as the distance between the overall total mean GPA and each individual racial group GPA. Native Americans with a mean GPA (2.8244) is closer to the overall total GPA (2.9107); as a result, the standard deviation ( $\mathrm{SD}=.27953$ ), which is closer to the total mean average. However, as compared to African Americans' mean GPA (2.5366) their standard deviation ( $\mathrm{SD}=.50742$ ), which is further away from the total mean average. In Table 2, the 95\% Confidence Interval for Mean, which identifies the estimate of the distributed sample means. The $95 \%$ confidence indicated that all the means for each sample set follows a normal distribution.

For this study, these are the results and the one-way analysis of variance analyzes the differences among mean scores. This analysis tests each group's scores and reveals a
significant difference between groups. Additional tests such as the Welch and post hoc are used in this educational study.

The sample set shows a low point (lower bound), high point (upper bound), in Table 2 and the mean average remain within these bound levels. Therefore, this research study presents the actual minimum and maximum grade point averages of each racial group.

Table 2
95\% Confidence Interval for Mean

|  | $95 \%$ Confidence Interval for Mean |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Lower Bound | Upper Bound | Minimum | Maximum |
| African <br> Americans | 2.3924 | 2.6808 | 1.70 | 3.60 |
| Native |  |  |  |  |
| Americans | 2.5907 | 3.0581 | 2.39 | 3.21 |
| Asian |  |  |  |  |
| Americans | 2.3286 | 2.9914 | 2.17 | 2.95 |
| Caucasians | 3.1317 | 3.3827 | 2.16 | 4.00 |
| Hispanics | 2.3014 | 3.2243 | 1.82 | 3.69 |
| Total | 2.8102 | 3.0112 | 1.70 | 4.00 |

Note: Lower and upper bound confidence levels

In Table 2, the $95 \%$ confidence interval is based on a normal distribution of statistical data based on the range of data points, which gravitates towards each racial group mean GPA. In addition, the mean GPA of each individual group determines the limits (lower and upper bound) of the distribution for $95 \%$ of the sample set. Thus, African Americans with the lowest mean GPA (2.5366) have lower and upper bound limits of (2.3924) and (2.6808) respectively; as calculated, this presents a close relationship in which the limits gravitate toward the African Americans' mean GPA. In
contrast, the Caucasians' highest mean GPA (3.2572) has lower and upper bound limits of (3.1317) and (3.3827) respectively; thus, there is a direct relationship between the limits and the mean GPAs. The minimum and maximum are the actual lowest and highest GPA of the sample size.

In Table 3, the Levene statistic identifies the equal value of the variance relative to the means of the sample set. It includes the degrees of freedom, which indicates variability of the value for the sample size. Thus, the sig value indicates whether there is a significant difference or not (relative to a higher or lower than .05 alpha level). Also, the Levene statistic has an inverse relationship with the sig value; therefore, a higher Levene statistic results in a lower sig value.

Table 3
Test of Homogeneity of Variances

| Levene Statistic | df1 | df2 | Sig. |
| :--- | :---: | :---: | :---: |
| 2.657 | 4 | 135 | 0.036 |

Note: $\mathrm{df}=$ Degrees of Freedom

As Table 3 displays, the Levene test illustrates a sig value of $=.036$ which indicates a significant difference. Therefore, the test of homogeneity reveals the smaller sig value and this analysis concludes a significant variability of sample variances, which are not equal.

Table 4 represents the between groups and within groups of the students' grade point averages. Also, the significant value is revealed in this research analysis.

Table 4
Between Groups and Within Groups

|  | Sum of <br> Squares | Df | Mean Square | F | Sig. |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Between Groups | 15.479 | 4 | 3.87 | 15.01 | 0.00 |
| Within Groups | 34.803 | 135 | 0.258 |  |  |
| Total | 50.282 | 139 |  |  |  |

Note: Alpha level of 0.05

Table 4 presents Between Groups with a value of .000 is less than the alpha level of $.05(\mathrm{p}<.05)$. The degrees of freedom calculate to 135 for within groups and 4 for between groups. In addition, the F-Ratio of 15.010 concludes a sum of squares which values at 15.479 for between groups and 34.803 for within groups. Findings of $F(4,135)$ $=15.010, p=.000, M S$ error $=0.258$, and $\alpha=.05$ and conclude that Caucasian learners' mean grade point averages are statistically different from minority students. In closing, subject groups display a significant difference with the sig value which results as .000 and a greater than alpha level of .05 when the ANOVA is conducted in this study.

In Table 5, the Tukey HSD calculates the mean difference, standard error, and sig value. These statistical scores show the impact of the variability between one GPA to another.

Table 5
Tukey HSD: Mean Difference

|  |  | Mean <br> Difference <br> (I-J) | Std. <br> Error | Sig. |
| :--- | :--- | :--- | :--- | :--- |
| African | (J) Race | -0.28776 | 0.19334 | 0.572 |
| Americans | Native Americans | -0.12338 | 0.21937 | 0.980 |
|  | Asian Americans | -0.72060 | 0.09551 | 0.000 |
|  | Caucasians | -0.22620 | 0.16909 | 0.668 |
|  | Hispanics |  |  |  |
|  |  | 0.28776 | 0.19344 | 0.572 |
| Native | African Americans | 0.16437 | 0.27421 | 0.975 |
| Americans | Asian Americans | -0.43284 | 0.19024 | 0.159 |
|  | Caucasians | 0.06156 | 0.23593 | 0.999 |
| Asian | Hispanics |  |  |  |
| Americans | African Americans | 0.12338 | 0.21937 | 0.980 |
|  | Native Americans | -0.16437 | 0.27421 | 0.975 |
|  | Caucasians | -0.59722 | 0.21664 | 0.051 |
|  | Hispanics | -0.10282 | 0.25769 | 0.995 |
| Caucasians | African Americans | 0.72060 | 0.09551 | 0.000 |
|  | Native Americans | 0.43284 | 0.19024 | 0.159 |
|  | Asian Americans | 0.59722 | 0.21664 | 0.051 |
|  | Hispanics | 0.49440 | 0.16554 | 0.027 |
| Hispanics | African Americans | 0.22620 | 0.16909 | 0.668 |
|  | Native Americans | -0.06156 | 0.23593 | 0.999 |
|  | Asian Americans | 0.10282 | 0.25769 | 0.995 |
|  | Caucasians | -0.49440 | 0.16554 | 0.027 |

Note: Mean Difference at 0.05 level

As shown in Table 5, the Tukey HSD calculates the statistical scores and compares one independent variable to different racial groups. In Table 1, Caucasians' mean differences are significantly higher (GPA of 3.2655) compared to the minorities' scores. The contrasts of this study, African Americans' mean differences are the lowest which result in the mean GPA of 2.5325 . The second highest mean differences are from
the Native Americans with a mean GPA of 2.8233 (see Table 5). The Native Americans comparison displays mean differences and the following information is within this educational study:

- Asian Americans (.16437)
- African Americans (.28776)
- Hispanics (.06156)

However, Native Americans' mean difference (.43284) falls below Caucasians' GPA. For this research, there are significant differences between these minority and Caucasian students.

Table 6 displays the Multiple Comparison 95\% confidence interval for lower and upper bound accounts for all races which are analyze in this study. Each racial group and Caucasians is identified with the statistical relationship between comparisons.

Table 6

## Multiple Comparison

|  |  | $95 \%$ Confidence Interval |  |
| :--- | :--- | :---: | :---: |
| (I) Race |  | Lower | Upper |
| African Americans | Native Americans | -0.8223 | 0.2468 |
|  | Asian Americans | -0.7299 | 0.4832 |
|  | Caucasians | -0.9847 | -0.4565 |
|  | Hispanics | -0.6937 | 0.2413 |
| Native Americans | African Americans | -0.2468 | 0.8223 |
|  | Asian Americans | -0.5938 | 0.9226 |
|  | Caucasians | -0.9589 | 0.0932 |
|  | Hispanics | -0.5908 | 0.7139 |
| Asian Americans | African Americans | -0.4832 | 0.7299 |
|  | Native Americans | -0.9226 | 0.5938 |
|  | Caucasians | -1.1962 | 0.0018 |
|  | Hispanics | -0.8153 | 0.6097 |
| Caucasians | African Americans | 0.4565 | 0.9847 |
|  | Native Americans | -0.0932 | 0.9589 |
|  | Asian Americans | -0.0018 | 1.1962 |
|  | Hispanics | 0.0367 | 0.9521 |
| Hispanics | African Americans | -0.2413 | 0.6937 |
|  | Native Americans | -0.7139 | 0.5908 |
|  | Asian Americans | -0.6097 | 0.8153 |
|  | Caucasians | -0.9521 | -0.0367 |

Note: Lower and upper bound confidence levels

In Table 6, the analysis shows the lower and upper bound limits as a result of the mean GPA scores. For example, African Americans experience a lower mean GPA of 2.5366 compared to the other racial groups that represent a higher weight negative average on a $95 \%$ confidence interval. Furthermore, Caucasians have a lower bound of 0.9847 with the greatest interval comparison and African Americans experience a decrease in mean scores in the educational study. In closing, Caucasians compare to

African Americans have a sig value of .000 , and Caucasians compare to Hispanics displays a sig value of .000 ; thus, there is a significant difference. However, Asian Americans and Native Americans indicate no significant differences within their scores.

The Welch test in Table 7 identifies the degrees of freedom and statistic value.
Also, the Welch test is utilized to address the sample size in this research.

Table 7
Welch Test

|  | Statistic | df1 | df2 | Sig. |
| :---: | :---: | :---: | :---: | :---: |
| Welch | 14.273 | 4 | 21.481 | 0.00 |
| Note: df=Degrees of Freedom |  |  |  |  |

The GPAs in Table 7 outline the equality of the means calculation. The Welch test which addresses each small sample size is selected and this analysis represents the results of the statistic value $=14.273$, the degrees of freedom $=4$, and a sig value $=.000$.

Native Americans are identified in Table 8 as the racial group with the second highest mean GPA. Also, the variability of the mean difference is analyzed.

Table 8

Native Americans

| (I) | (J) | Mean Difference (I-J) |
| :--- | :--- | :---: |
| Native Americans | African Americans | 0.28776 |
|  | Asian Americans | 0.16437 |
|  | Caucasians | -0.43284 |
|  | Hispanics | 0.06156 |

Note: Mean Differences $=.05$

Finally, the different statistical comparison of mean GPAs display that the alpha levels $=.05$, and significant values illustrate $=.000$ to determine the significant findings (See Table8).

Table 9 displays the mean, standard deviation, and standard error in this analysis. The racial group statistical scores are examined and analyzed.

Table 9
Mean Scores

|  |  | Std. |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | N | Mean | Deviation | Std. Error |
| Native Americans | 8 | 1.7025 | 0.77491 | 0.27397 |
| Asian Americans | 6 | 2.6817 | 0.36978 | 0.15096 |
| Hispanics | 11 | 2.2736 | 1.13118 | 0.34106 |
| Total | 25 | 2.1888 | 0.93789 | 0.18758 |

Note: $\mathrm{N}=25$ Std $=$ Standard

In Table 9, the mean scores analyze the first semester students' statistical scores.
In this analysis, each minority group is examined to determine their GPAs. These individuals show similar findings with their cumulative GPAs. The mean scores of the Native Americans are significantly lower compared to the Asian Americans and Hispanics. With the uneven sample sizes for each group, these individuals (Native Americans and Hispanics) have the lowest GPAs compare to Asian Americans.

Table 10 represents a $95 \%$ confidence interval for the mean, which show a normal distribution of the data. The lower and upper bound are examined in this educational study.

Table 10
Lower Bound and Upper Bound

|  | 95\% Confidence Interval for Mean |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Lower Bound | Upper Bound | Minimum | Maximum |
| Native Americans | 1.0547 | 2.3503 | 0.50 | 2.67 |
| Asian Americans | 2.2936 | 3.0697 | 2.00 | 3.08 |
| Hispanics | 1.5137 | 3.0336 | 0.00 | 3.77 |
| Total | 1.8017 | 2.5759 | 0.00 | 3.77 |

Note: Lower and upper bound confidence levels

These racial groups' lower and upper bound mean GPAs are closely distributed together. One racial group has the lowest GPA and one racial group has the highest GPA which represent the minimum and maximum (see Table 10).

Table 11 represents the between groups, within groups, sum of squares, degrees of freedom, mean square, F-value, and sig value. However, the GPAs are discussed in relation to cumulative mean scores.

## Table 11

Sum of Square

|  | Sum of <br> Squares |  |  |  |  |  | df | Mean <br> Square | F | Sig. |
| :--- | ---: | ---: | ---: | ---: | :--- | :---: | :---: | :---: | :---: | :---: |
| Between Groups | 3.429 | 2 | 1.714 | 2.133 | 0.142 |  |  |  |  |  |
| Within Groups | 17.683 | 22 | 0.804 |  |  |  |  |  |  |  |
| Total | 21.111 | 24 |  |  |  |  |  |  |  |  |

Table 11 shows the Between Groups, which represent a sig value of .142 and the Between Groups value a degrees of freedom $=2$, sum of squares $=3.429$, and a mean square $=1.714$. Furthermore, the Within Groups degrees of freedom $=22$ with a mean
square $=0.804$ and sum of squares $=17.683$; based on $F(2,22)=2.133, \mathrm{p}=.142$, MS error $=.804$, and $\alpha=.05$, and this indicated that there are no significant differences. This information represents first semester GPAs compare to (see Table 1), which display these individuals' cumulative scores.

## Research Questions

Question 1: Is there a statistical difference as measured by GPAs at MSU between

## Caucasians and Native Americans?

The research analysis indicates no significant differences between Caucasians and Native Americans. Native Americans have the highest GPA second to Caucasians which lead to these findings. Caucasians' mean GPA 3.2572 and Native Americans' (2.8244) show a sig value of .159 , which is above the .05 alpha level. For this study, an alpha level indicates whether there are any significant differences that occur after the calculation of statistical data. In a normal distribution of data points .05 is used to reduce type I error. The sig. value or ( p -value) is the measurement relative to the alpha level. If the p -value is less than .05 alpha level then a significant difference occurs. However, if the p-value is more than .05 alpha level then there is no significant difference.

Question 2: Is there a statistical difference as measured by GPAs at MSU between Caucasians and African Americans?

African Americans (2.5366) mean GPAs are lower than Caucasians (3.2572). The multiple comparison identifies the sig value between Caucasians versus African Americans as .000 . In conclusion, the sig value presents a significant difference.

Question 3: Is there a statistical difference as measured by GPAs at MSU between Caucasians and Asian Americans?

Asian Americans have the third highest GPA (2.6600). Therefore, versus the other minorities, the second highest GPA is Native Americans. In this study, Caucasians compare to Asian Americans, the sig. value between them is .051 . This value is above the . 05 alpha level which identifies that there is no significant difference.

Question 4: Is there a statistical difference as measured by GPAs at MSU between Caucasians and Hispanics?

These students' (Hispanics) GPAs are next to the lowest (African Americans). Due to a large standard deviation between Caucasians versus Hispanics ( $\mathrm{SD}=.49440$ ), the sig value of (.027) indicates a significant difference.

Question 5: Is there a vstatistical difference as measured by GPAs at MSU between Caucasians and all 4 minority groups?

The educational data describes all racial groups and the comparison of minorities to Caucasians show a significant difference. Minorities have the lowest mean GPA compared to Caucasians. The significant standard deviations between these groups also became evident of this difference.

## Summary

For chapter IV, learners who transferred to MSU were the focus of this study. Minority and Caucasian students were divided into five groups and ANOVA was selected for this research. Also, the Welch and Post hoc test were examined and analyzed for statistical analysis. The study revealed that 2 minority groups compared to Caucasians had significant differences in this educational research. Caucasians versus African Americans and Caucasians versus Hispanics showed significant differences between these groups. Caucasians' (3.2572) mean score was the highest of the five groups and

African Americans’ (2.5366) had the lowest. The statistical data revealed the significant difference of the two group comparison. Caucasians versus African Americans also revealed a $(p$-value $=.000)$, which less than the alpha level .05. Similarly, Caucasians versus Hispanics identified a p-value of .027 ; this was also lower than the .05 level. However, no significant differences existed when Caucasians were compared with Asians $(p$-value $=.051)$, which is above .05 alpha level. Lastly, Caucasians compared to Native Americans resulted in a p-value of .159 , which no significant difference was presented.

CHAPTER V SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This educational study examined the Mississippi community colleges transfer students who attended MSU. Summary, summary of findings and conclusions, limitations, and recommendations are included in this chapter. The researcher recommends that minorities need to attend more academic workshops and seminars.

## Summary

This research focused on the significant of studying different racial groups’ academic performances compared to Caucasians. These students represented 15 junior colleges in the state of Mississippi. The students attended Mississippi’s community colleges first and transferred to MSU. African Americans, Hispanics, Asian Americans, and Native Americans academic performances were examined in this research.

In the literature that was reviewed, African Americans and Hispanics suffered financially within their environments; as a result, these individuals had limited resources to attend a 2-year college or university (Probst et al., 2002). This racial group faced impoverished conditions in these areas of the United States and lower academic attainment (Cohen \& Brawer, 2003; Probst et al., 2002). In addition, African Americans also suffered from lower educational success at the college level. In particular, male
learners (African Americans) had issues with their instructors and grades. Wood and Turner (2011) offered solutions to the problems and instructors needed to:

- Support the students
- Show interest
- Foster a positive relationship

Also, Native Americans were discussed in the study and this minority experienced unfavorable situations. These individuals were considered poverty-stricken in various regions of the United States and lower graduation rates compared to Caucasians (Cohen \& Brawer, 2003; Probst et al., 2002). Native Americans settled in the poor regions and suffered from disadvantaged circumstances. Nevertheless, a small percentage of Asian Americans were impoverished in rural and non-rural areas compared to the other minority groups (Probst et al., 2002). Caucasians had the highest course completion rates compared to all minority learners (Greene et al., 2008).

Caucasian and minority students needed to understand the importance of an excellent education. The researcher explored ways to increased these minorities' GPAs and overall achievement. In this process, educational studies were examined and reviewed to determine low-achieving students' academic outcomes or predictors (Cohen \& Brawer, 2003).

Within causal-comparative research or ex post facto, the researcher examined the educational variables. For this study, five groups were statistically analyzed based on their GPA mean scores. Caucasian and minority community college transfer students' grade point averages were studied at MSU. One-way ANOVA was selected to examine the various means of each group.

## Summary of Findings and Conclusions

As the results illustrated, Caucasian learners showed the highest mean scores at this academic institution with a standard deviation ( $\mathrm{SD}=.50742$ ). In the research, Cohen and Brawer (2003) confirmed that Caucasians graduated with the most degrees on all educational levels compared to minority learners. However, minorities resided in poverty-stricken regions in the United States; as a result, these individuals had limited resources to attend an institution of learning for four years or more. Impoverished racial groups were more prevalent or common in the following states:

- Mississippi: African Americans
- Texas: Hispanics
- Oklahoma: Native Americans (Probst et al.)


## Question 1: Is there a statistical difference as measured by GPAs at MSU between Caucasians and Native Americans?

The Native American group experienced lower mean scores (2.8244) compared to Caucasian students (3.2572). In addition, several research studies pointed to the lower achievement rates of minority students (Cohen \& Brawer, 2003; Greene et al., 2008; Lotkowski et al., 2004). These individuals experienced lower academic achievement at both two-year colleges and universities. Furthermore, Native Americans suffered with economic and social problems within their communities (Probst et al., 2002). Lotkowski et al. (2004) suggested that college administrators needed to offer more academic services to low-achieving students such as:

- Campus clubs/associations
- Career courses
- Study skill classes

This minority (Native Americans) needed to understand the importance of academic support services. In previous studies, learners who engaged in these educational activities were shown to improve their academic performances (Lotkowski et al., 2004).

## Question 2: Is there a statistical difference as measured by GPAs at MSU between Caucasians and African Americans?

African Americans' GPAs were significantly lower than the other minority groups. For example, African Americans' mean score was 2.5366 at MSU and had a standard deviation of $(\mathrm{SD}=.50742)$. Throughout the literature, this racial group suffered with employment and educational issues compared to Caucasian learners who had academic success (Perrakis, 2008; Wood \& Turner, 2011). This minority group (African Americans) needed to understand the importance of education and how this related to economic growth. With limited resources, these people lived in poor areas of the United States; therefore, they were unsuccessful at most college courses (Greene et al., 2008;

Probst et al., 2002). Lotkowski et al. (2004) offered the following suggestions for African Americans:

- Increased instructor interactions
- Math assistance
- Academic counseling

At several of the 4-year colleges, students were involved in the following:

- Workshops
- Social clubs
- Basic computer classes (Lotkowski et al., 2004)


## Question 3: Is there a statistical difference as measured by GPAs at MSU between Caucasians and Asian Americans?

Asian Americans had a significantly lower GPA of 2.6600 and standard deviation of .31578 versus the Caucasian learners. Asian Americans illustrated higher economic standards compared to African Americans, Hispanics, Asian Americans, and Native Americans. The following information represented educational services for all students:

- Cultural awareness
- Increased social ties
- Support systems

In past literature, learners benefited from these types of educational programs that related to cultural services and academic counseling (Lotkowski et al., 2004).

## Question 4: Is there a statistical difference as measured by GPAs at MSU between Caucasians and Hispanics?

In the findings, Hispanics' GPA was less than Caucasian learners and minority students performed at a higher rate. Throughout the literature, several Caucasians graduated from college with higher GPAs compared to this racial group (Cohen \& Brawer, 2003; Greene et al., 2008; Lotkowski et al., 2004). Hispanics in rural communities suffered from the following issues:

- Increased in agricultural
- Employed at industrial companies
- Diminished wages
- Unskilled workers

The small number of Hispanics who attended college experienced cultural, social, and language issues. However, minority students were more informed regarding college
admissions or degree qualifications (Person \& Rosenbaum, 2006). In past studies, Hispanic learners represented the least amount of 2-year college degrees and faced economic hardships (Carr \& Kefalas, 2009; Leinbach \& Bailey, 2006). Also, this minority group had problems with obtaining a 4-year education; as a result, they lacked the skills needed to advance in the technological workforce (Cohen \& Brawer, 2003; Lotkowski et al., 2004). Researcher Mangan (2011) found that in one Texas town, school officials introduced the concepts of college to students as young as 6 or 7 years old. Young children and parents were excited about higher institutions of learning, but these individuals were concerned with the expanding college costs (Cohen \& Brawer, 2003; Mangan, 2011). Hispanics needed more academic services such as (from an educational point of view):

- Study skills
- Counseling
- English classes (Lotkowski et al., 2004)

Hispanics desired more economic developments such as:

- Increased wages
- Career advancements
- College opportunities (Carr \& Kefalas, 2009; Lotkowski et al., 2004)


## Question 5: Is there a statistical difference as measured by GPAs at MSU between Caucasians and all 4 minority groups?

For this study, Caucasians' and minority students' had a significant difference in grade point averages. According to Cohen and Brawer (2003) minority students had more academic issues compared to Caucasian learners at junior colleges and universities.

Individuals withdrew from college for a variety of reasons, but the main problem was financial problems and decreased economic growth (Cohen \& Brawer, 2003; Engstrom \& Tinto, 2008). Minorities needed to explore ways to increase their grade point averages; therefore, more outreach programs were offered to improve their study skills.

In the results, Caucasian learners were more academically prepared versus minority learners who mean scores illustrated a significant difference. African Americans displayed the lowest GPA among all minority students and this information was related to other educational findings (Lotkowski et al., 2004; Perrakis, 2008; Wood \& Turner, 2011). Also, minority students preferred community colleges as their pathway to 4-year institutions; however, they remained at the bottom of academics compared to Caucasians (Cohen \& Brawer, 2003). Minorities were able to achieve an advanced education on all levels, but these individuals experienced several problems such as:

- Language/Cultural issues
- Limited finances
- Residing in impoverished conditions
- Little economical growth (Carr \& Kefalas, 2009; Macpherson \& Atiles, 2005)

In other research, higher dropout rates were common among minority learners versus Caucasian students (Cohen \& Brawer, 2003; Lotkowski et al., 2004). In the literature, Cohen and Brawer (2003) explained the importance of helping students with all academic issues; nevertheless, several students had problems with college courses. Often times, minority students' experienced personal burdens such as:

- Long work hours
- Child-care issues
- Decreased wages
- One parent households
- Limited grants (Cohen \& Brawer, 2003; Lotkowski et al., 2004)

The above problems ended several of the minority learners' ambitions to attend a twoyear college or university. These economic and non-economic barriers prevented them from continuing school and seeking improved employment. College administrators needed to offer more of the following:

- Increased work-study jobs
- Study skill courses
- Counseling/advising
- Tutoring
- Educational clubs
- Minority associations
- Increased interaction with instructors
- Technology courses (Cohen \& Brawer, 2003; Lotkowski et al., 2004)


## Limitations of the Study

There were several limitations in this educational study such as:

- Uneven sample sizes
- There were a higher number of Caucasian students compared to minorities.
- Also, African Americans were the highest number of minority participants compared to Hispanics, Asian Americans, and Native Americans.

This in-depth study focused on Caucasian and minority students' issues related to academic success at institutions of learning. Also, this educational study was important because the discussion explored various aspects or obstacles that minorities encountered at colleges.

In the literature, students from different racial groups desired a higher education and increased employment opportunities; however, they struggled with maintaining excellent grade point averages in school (Perrakis, 2008; Wood \& Turner, 2011). African American males especially had persistent issues with math courses and limited career plans (Cohen \& Brawer, 2003; Greene et al., 2008; Perrakis, 2008; Wood \& Turner, 2011). Government officials needed to address these above issues by offering additional academic programs and scholarship opportunities.

## Recommendations for Future Research

Researchers should conduct studies on the following topics that relate to students' college success:

- Topic 1: After completing tutoring, do minority learners' grades increase in all classes at 4-year colleges in Mississippi?
- Topic 2: The academic outcomes of first-semester African American students who attend workshops and seminars at universities in Mississippi.
- Topic 3: Does faculty involvement increase minorities overall perception of higher learning institutions?
- Topic 4: Do study skills courses assist with Hispanic learners’ ideas regarding colleges?
- Topic 5: The educational achievement of Hispanic students who attend enrichment courses in Mississippi (Cohen \& Brawer, 2003; Lotkowski et al., 2004).
- Topic 6: Do African Americans, Hispanics, and Native Americans experience academic success compared to Caucasians at all four-year colleges in Mississippi?
- Topic 7: Compare and contrast groups with additional variables, GPA, American College Test, and Socioeconomic Status.
- Topic 8: The researcher will add more colleges and universities to future research studies.


## Chapter Summary

From past college institutions until now, countless administrators had problems with students achieving the dream of education. Nevertheless, these learners were provided with the tools needed to obtain a four-year degree. However, several minorities lacked the resources required to complete school and learn technological advances. Numerous studies were done to examine the academic success of minority and Caucasian learners related to higher learning issues (Cohen \& Brawer, 2003; Greene et al., 2008; Lotkowski et al., 2004; Pennington et al., 2006; Perrakis, 2008; Wood \& Turner, 2011). In this analysis, these topics were covered:

- Economic
- Different racial groups
- Caucasian learners
- Social factors
- Education
- Rural colleges
- Employment
- Community colleges
- Universities
- First semester students

Also, the research was limited to five groups in this academic analysis; therefore, the educational questions were tested based on these findings or results. The researcher offered topics that needed further analyzing and studying for academic purposes such as:

- Did minority students complete an associate degree in 2 years?
- What types of supportive services were available to disadvantaged groups?
- Did Hispanic learners achieve academic success at community colleges and universities?


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# APPENDIX A <br> THE ENROLLMENT RATES FROM THE OFFICE OF INSTITUTIONAL RESEARCH 

Table A1
College of Agriculture and Life Sciences (Undergraduate Enrollment)

|  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Junior |  |  | Senior |  |
| Race | Male | Female | Total | Male | Female | Total |
| Native Americans | 0 | 0 | 0 | 0 | 0 | 0 |
| Asian Americans | 1 | 1 | 2 | 0 | 1 | 1 |
| African Americans | 13 | 26 | 39 | 13 | 53 | 66 |
| Hispanics | 1 | 2 | 3 | 2 | 6 | 8 |
| Caucasians | 137 | 136 | 273 | 196 | 179 | 375 |
| Total | 152 | 165 | 317 | 211 | 239 | 450 |

*Office of Institutional Research, 2011-2012

Table A2
College of Agriculture and Life Sciences (Graduate Enrollment)

|  | Master |  | Graduate |  | Doctoral |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
| Race | Male | Female | Total | Male | Female | Total |
| Native Americans | 1 | 1 | 2 | 1 | 1 | 2 |
| Asian Americans | 0 | 2 | 2 | 0 | 0 | 0 |
| African Americans | 3 | 9 | 12 | 2 | 12 | 14 |
| Hispanics | 1 | 0 | 1 | 3 | 0 | 3 |
| Caucasians | 77 | 88 | 165 | 27 | 29 | 56 |
| Total | 82 | 100 | 182 | 33 | 42 | 75 |

*Office of Institutional Research, 2011-2012

Table A3
College of Architecture, Art, and Design (Undergraduate Enrollment)

|  |  | Undergraduate |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Junior |  |  | Senior |  |
| Race | Male | Female | Total | Male | Female | Total |
| Native Americans | 0 | 0 | 0 | 0 | 0 | 0 |
| Asian Americans | 2 | 2 | 4 | 3 | 2 | 5 |
| African Americans | 8 | 7 | 15 | 21 | 25 | 46 |
| Hispanics | 0 | 3 | 3 | 2 | 2 | 4 |
| Caucasians | 47 | 71 | 118 | 114 | 107 | 221 |
| Total | 57 | 83 | 140 | 140 | 136 | 276 |

*Office of Institutional Research, 2011-2012

Table A4
College of Arts and Sciences (Undergraduate Enrollment)

|  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Junior |  |  | Senior |  |
| Race | Male | Female | Total | Male | Female | Total |
| Native Americans | 0 | 0 | 0 | 3 | 1 | 4 |
| Asian Americans | 7 | 3 | 10 | 8 | 15 | 23 |
| African Americans | 75 | 158 | 233 | 95 | 225 | 320 |
| Hispanics | 4 | 11 | 15 | 10 | 22 | 32 |
| Caucasians | 318 | 331 | 649 | 424 | 529 | 953 |
| Total | 404 | 503 | 907 | 540 | 792 | 1332 |

*Office of Institutional Research, 2011-2012

Table A5
College of Arts and Sciences (Graduate Enrollment)

|  |  | Graduate |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Master |  |  | Doctoral |  |
| Race | Male | Female | Total | Male | Female | Total |
| Native Americans | 2 | 2 | 4 | 2 | 2 | 4 |
| Asian Americans | 5 | 3 | 8 | 3 | 2 | 5 |
| African Americans | 18 | 31 | 49 | 9 | 9 | 18 |
| Hispanics | 8 | 11 | 19 | 0 | 2 | 2 |
| Caucasians | 266 | 314 | 580 | 59 | 43 | 102 |
| Total | 299 | 361 | 660 | 73 | 58 | 131 |

*Office of Institutional Research, 2011-2012

Table A6
College of Business (Undergraduate Enrollment)

|  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Junior |  |  | Senior |  |
| Race | Male | Female | Total | Male | Female | Total |
| Native Americans | 2 | 2 | 4 | 1 | 4 | 5 |
| Asian Americans | 4 | 2 | 6 | 13 | 4 | 17 |
| African Americans | 57 | 42 | 99 | 65 | 68 | 133 |
| Hispanics | 7 | 5 | 12 | 8 | 7 | 15 |
| Caucasians | 241 | 130 | 371 | 355 | 207 | 562 |
| Total | 311 | 181 | 492 | 442 | 290 | 732 |

*Office of Institutional Research, 2011-2012

Table A7
College of Business (Graduate Enrollment)

|  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Master |  |  |  | Doctoral |
| Race | Male | Female | Total | Male | Female | Total |
| Native Americans | 4 | 1 | 5 | 0 | 0 | 0 |
| Asian Americans | 2 | 4 | 6 | 2 | 1 | 3 |
| African Americans | 5 | 11 | 16 | 1 | 1 | 2 |
| Hispanics | 8 | 2 | 10 | 0 | 0 | 0 |
| Caucasians | 220 | 122 | 342 | 13 | 7 | 20 |
| Total | 239 | 140 | 379 | 16 | 9 | 25 |

*Office of Institutional Research, 2011-2012

Table A8
College of Engineering (Undergraduate Enrollment)

|  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Junior |  |  | Sendergraduate |  |
| Race | Male | Female | Total | Male | Female | Total |
| Native Americans | 1 | 0 | 1 | 0 | 0 | 0 |
| Asian Americans | 9 | 2 | 11 | 15 | 8 | 23 |
| African Americans | 37 | 19 | 56 | 66 | 23 | 89 |
| Hispanics | 8 | 1 | 9 | 16 | 5 | 21 |
| Caucasians | 373 | 71 | 444 | 585 | 80 | 665 |
| Total | 428 | 93 | 521 | 682 | 116 | 798 |

*Office of Institutional Research, 2011-2012

Table A9
College of Engineering (Graduate Enrollment)

|  |  | Graduate |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Master |  |  | Doctoral |  |
| Race | Male | Female | Total | Male | Female | Total |
| Native Americans | 0 | 0 | 0 | 0 | 0 | 0 |
| Asian Americans | 5 | 4 | 9 | 8 | 2 | 10 |
| African Americans | 17 | 11 | 28 | 11 | 10 | 21 |
| Hispanics | 6 | 3 | 9 | 7 | 1 | 8 |
| Caucasians | 161 | 30 | 191 | 96 | 14 | 110 |
| Total | 189 | 48 | 237 | 122 | 27 | 149 |

*Office of Institutional Research, 2011-2012

## APPENDIX B

LINE GRAPH OF MEAN SCORES


Figure B1. A representation of mean scores (cumulative GPA)
*Mean scores, line graph

## APPENDIX C

IRB FORM

March 5, 2013

Angel Skinner
709 Forrest Blvd
Columbus, MS 39702

RE: HRPP Study \#12-162: The Educational Attainment of Minority Learners Who Attended 2-Year Colleges Compared to Caucasian Students

Dear Ms. Skinner:

This email serves as official documentation that the above referenced project was reviewed and approved via administrative review on $5 / 3 / 2012$ in accordance with 45 CFR 46.101 (b)(4). Continuing review is not necessary for this project. However, in accordance with SOP 01-03 Administrative Review of Applications, a new application must be submitted if the study is ongoing after 5 years from the date of approval. Additionally, any modification to the project must 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. The HRPP reserves the right, at any time during the project period, to observe you and the additional researchers on this project.

Please note that the MSU HRPP is in the process of seeking accreditation for our human subjects protection program. One of these changes is the implementation of an approval stamp for consent forms. The approval stamp will assist in ensuring the HRPP approved version of the consent form is used in the actual conduct of research. Your stamped consent form will be attached in a separate email. You must use copies of the stamped consent form for obtaining consent from participants.

Please refer to your HRPP number (\#12-162) when contacting our office regarding this application.
Thank you for your cooperation and good luck to you in conducting this research project. If you have questions or concems, please contact me at nmorse@research.msstate.edu or call 662-325-3994.

Finally, we would greatly appreciate your feedback on the HRPP approval process. Please take a few minutes to complete our survey at http://www.surveymonkey.com/s/YZC700D.

Sincerely,
Nicole Morse, CIP

## APPENDIX D

OFFICE OF INSTITUTIONAL RESEARCH

## $55^{5 \mathrm{sATR}}$

MISSISSIPPI STATE
UNIVERSITY
Office of Institutional Research and Effectiveness
P.O. Box EY

Mississippi State, MS 39762
(662) 325-3920

Fax: (662) 325-3514

To:
Angel Skinner, PdD Student

From: Cecila King, Data Analyst, Office of Institutional Research \& Effectiveness

Date: July 23, 2012

Re: IRB Study \#12-162: The Achievement of Ethnic Learners Who Attended Two-Year Colleges Compared to Caucasian Students' Educational Attainment

Your request for student data has been reviewed and approved by our office. The data requested is in the attached email.

You may reach me at 325-7447 if you have any questions or comments.

Cecila King
Data Analyst
Office of Institutional Research \& Effectiveness

Attachment

