FACTORS AND PERCEPTIONS THAT AFFECT ENROLLMENT IN CAREER AND TECHNICAL EDUCATION PROGRAMS IN RURAL EAST CENTRAL MISSISSIPPI

By

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The primary purpose of this study was to determine the factors and perceptions that affect enrollment in career and technical education (CTE) programs in rural East Central Mississippi. Specifically, the study had four key purposes. First, the academic grades of CTE students and non-CTE students were examined to determine whether academic grades differ significantly between the CTE enrollers and non-CTE enrollers. Secondly, the study determined the perceptions that students in rural East Central Mississippi have toward CTE programs. Next, the study examined the internal and external factors that cause students to enroll or not enroll in a CTE program. Finally, the study identified the individuals who can positively or negatively affect a student’s decision to enroll in a CTE program.

The research design for this study was causal-comparative, and the researcher used descriptive statistics, as well as frequencies and percentages to analyze the data. The Mann-Whitney U test and a series of t-tests for independent variables were used to
test the hypotheses. The population for this study was 400 high school seniors enrolled in seven rural East Central Mississippi high schools that feed into three career and technical centers. A total of 284 students completed the proper consent and assent forms in order to participate in the study.

Findings in this study indicated that a significant difference did not exist between the academic grades of CTE students and non-CTE students. Additional results showed a significant difference between CTE enrollers and non-CTE enrollers in regard to four of the eleven perceptions of CTE. In addition, the researcher found that students enroll in CTE because they are interested in one of the career areas and want to attend college in that career area. It was also determined that CTE students enjoy spending time away from their high school. The study showed that non-CTE students did not enroll in CTE because it would not fit into their schedule. The researcher also found that friends and parents mostly encouraged students to enroll in CTE, while in some instances guidance counselors may have discouraged them from enrolling in a CTE program.
DEDICATION

This research is dedicated to my husband, Patrick Brown, who has encouraged and supported me throughout the dissertation process. This study is also dedicated to my beautiful daughter, Baleigh Grace Brown, who is my inspiration daily. I especially want to dedicate this research study in memory of my great-grandmother, Agnes Ruff, who taught me the value of an education.
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CHAPTER I

INTRODUCTION

On April 24, 1997, former Assistant Secretary for Vocational and Adult Education Patricia W. McNeil addressed the Senate Labor and Human Resources Committee. In her statement, she discussed the importance of career and technical (vocational) education for the 21st century. McNeil stated:

We need a new vision of vocational education if we are going to ensure that students are prepared for the information age of the 21st century. That vision must reflect the rapidly changing demands of our economy and society brought on by new technologies, global competition, and changes in the organization of work. Our vision must reflect the knowledge and skills that workers, citizens, and family members will need to be successful in a world that is dramatically different than the one that existed when we got our formal education. In short, we must envision new kinds of schools. I believe that it is important that we think about vocational education as an integral part of our efforts to reform secondary schools and improve postsecondary education. (p. 1)

There were many reasons McNeil developed her vision for career and technical education (CTE) in the 21st century. One of the factors that greatly impacted this vision
was student participation in secondary CTE programs during the 1980s and 1990s. Stone, Kowske, and Alfed (2004) reported that the average United States student in 1980 enrolled in 4.6 CTE courses while in 1992 this figure declined to 3.2. Since the early 1990s, this figure has remained at a consistent level. The 1994 National Association of Vocational Education report cited two reasons for this decrease in enrollment. First, school administrators believed that decreases in CTE enrollment resulted from additional academic requirements. Secondly, there was a renewed emphasis on CTE being a non-college bound track. Therefore, students were being advised to remain primarily in academic tracks (Stone, et al.).

In the 21st century, there has been a renewed belief that CTE can impact the academic performance of students. For example, Daggett suggested that students need both academic and CTE skills. Daggett (2003) stated:

If CTE is to remain a viable program in secondary schools, it is essential that CTE leaders and educators be able to prove that CTE contributes not just to the applied workplace competency demands of business but also to the academic proficiencies of its served student populations on state academic tests. (p. 2)

Daggett recommended several key phases that CTE programs must complete to improve the academic performance of students. First, CTE programs should communicate the importance of improving academic skills to parents, teachers, students, administrators, and the community. Secondly, CTE programs should use institutional data to set instructional priorities. Lastly, a plan must be developed to explore how to improve student’s academic performance through CTE (Daggett, 2003).
In order for students to gain both CTE and academic skills, students must be effectively recruited into CTE programs. If low enrollment becomes an issue for a CTE center, then that center could be held accountable for various performance standards, including academic gain.

The issue of low or declining enrollment is a concern for CTE educators and administrators due to the standards mandated in the Carl D. Perkins Vocational and Applied Technology Act of 1998. Administrators in state agencies and local CTE centers agree that accountability is the key aspect in Perkins III. Because Congress gave more flexibility to the states in allocating funds, they expected in return to see positive results from the supported CTE programs. Therefore, through the accountability model, CTE must show its contribution to student achievement, program completion rates, and the placement of students in post-secondary education and the workforce. In order to meet accountability expectations, states had to develop systems that measure performance using three or four specific indicators. For Mississippi, these indicators can be found in the *Mississippi State Plan for Vocational and Technical Education*.

According to the new plan revised in 2007, secondary CTE centers who receive federal funding must meet three specific performance indicators. These indicators require students to attain both vocational and academic skills and earn a high school diploma or equivalent (Mississippi Department of Education, 2007a).

Three key recommendations are specified in meeting the regulations of the accountability model. First, local agencies should define workable indicators and performance levels. Secondly, the relevant populations that will benefit from the
designed programs should be identified. Lastly, strategies for local implementation of accountability systems should be developed (Hoachlander, Klein, & Medrich, 1999).

Perkins III contained a more thorough component for performance accountability that called for objective, quantifiable and measurable performance indicators. The indicators suggested in Perkins III include skills attainment, attainment of a diploma or certificate, and placement and retention in employment or post-secondary training. Thus, states can be sanctioned by the federal government if they do not meet these standards (Shoreline Community College, 2003).

**Statement of the Problem**

Since entering the 21st century, our society has entered a time defined by Peter Drucker as the “knowledge society” (p. 23). Students need to be prepared to become productive citizens and workers possessing a combination of strong academic, technical, and theoretical skills (McNeil, 1997). In the CTE programs of the 21st century, both CTE and academic skills are stressed. In Mississippi, CTE educators are accountable for both the skill proficiencies and academic gain of CTE students (Mississippi Department of Education, 2007a). The indicators that require the blending of academic and CTE are mandated through Perkins funding that Mississippi receives to fund local and state CTE efforts. Because of the accountability model in place for Mississippi’s CTE programs, student enrollment is a major concern due to the fact that enrollment can affect the formulas used to calculate performance levels.

In Mississippi, CTE programs are accountable for eight performance indicators. These indicators include academic attainment of both English and Algebra skills, CTE
skill proficiencies, graduation, placement, non-traditional participation, non-traditional completion, and enrollment. Enrollment can greatly affect all of these areas, and it is obvious that CTE centers in Mississippi must continually recruit and maintain students (Mississippi Department of Education, 2007a).

Because enrollment directly affects CTE performance indicators, recruiting and retaining students is an important goal for Mississippi’s CTE centers. If a CTE program fails to meet Mississippi performance levels, a program can be placed into program improvement (Mississippi Department of Education, 2007a). There are three levels of improvement in Mississippi: local, state, and closure. If a CTE program remains in improvement for three consecutive years, closure can be recommended for that program (Mississippi Department of Education). It is therefore important for CTE directors in rural East Central Mississippi to understand what factors and perceptions encourage or discourage students to enroll in CTE programs. If these external and internal factors are identified through this study, directors can come together and develop a plan to increase and maintain CTE enrollment in rural East Central Mississippi.

**Purpose of the Study**

The primary purpose of this study was to determine the factors and perceptions that affect enrollment in CTE programs in rural East Central Mississippi. Specifically, the study had four key purposes. First, the academic grades of CTE students and non-CTE students were examined to determine whether academic grades differ significantly between the CTE enrollers and non-CTE enrollers. Secondly, the study determined the perceptions that students in rural East Central Mississippi have toward CTE programs.
By understanding these perceptions, strategies for marketing the CTE program to various stakeholders could be devised and implemented. Next, the study examined the internal and external factors that cause students to enroll or not enroll in a CTE program. Finally, the study identified the individuals who can positively or negatively affect a student’s decision to enroll in a CTE program.

**Research Questions**

This study focused on the factors and perceptions that influence enrollment in career and technical education programs in four local CTE centers in rural East Central Mississippi. The study answered the following research questions:

1. Is there in a significant difference in the academic grades of CTE students in comparison to non-CTE students enrolled in rural East Central Mississippi high schools?
2. What perceptions affect a student’s decision to enroll or not enroll in career and technical education programs in rural East Central Mississippi high schools?
3. What factors affect a student’s decision to enroll or not enroll in career and technical education programs in rural East Central Mississippi high schools?
4. Which individuals affect a student’s decision to enroll or not enroll in career and technical education programs in rural East Central Mississippi schools?

Hypotheses were tested for the first and second research questions. To answer the first research question, the researcher hypothesized that there is no significant difference between the academic grades of those enrolled in CTE classes and those not enrolled in CTE classes. The hypothesis was tested using the Mann Whitney U test. To answer the
second research question, the researcher tested eleven hypotheses using t-tests for independent variables. The hypotheses include:

1. There is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who do not plan to attend college.

2. There is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who do plan to attend college.

3. There is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who make low grades.

4. There is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who make good grades.

5. There is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who plan to join the military.

6. There is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students with multiple discipline problems.

7. There is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students with minimum discipline problems.
8. There is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who wish to explore career opportunities.

9. There is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who enjoy hands-on learning.

10. There is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who want to learn life skills.

11. There is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for any student who is interested.

Definitions

The following career and technical education terminology was used in this study.

1. **Academic attainment**—a measure to show that CTE completers are proficient in the areas of language arts and mathematics.

2. **Career and technical (vocational) education (CTE)**—education that prepares students for careers in business and industry, allows students to explore career possibilities, and allows students to develop meaningful as well as hands-on life skills.

3. **Carl Perkins Legislation**—the major funding source and legislation for career and technical education program.
4. **Completer**—a student who completes two years of the same career and technical education program.

5. **Enrollment**—the total number of first-year and second-year students enrolled in a career and technical education program.

6. **Performance indicators**—career and technical education standards mandated by Perkins funding. These standards include academic attainment of both English and Algebra skills, CTE skill proficiencies, graduation, placement, non-traditional participation, non-traditional completion, and enrollment.

7. **Placement**—a Perkins funding mandate that states that CTE completers must attend college, enter the workforce they were trained for, or enter the military.

8. **Non-traditional student**—a student enrolled in a career and technical education program that predominantly trains and employees the opposite sex.

9. **Skill proficiency**—a measure to show that CTE completers are proficient in the area in which they were trained.
Limitations

This study was limited to a population of approximately 400 high school seniors who attend seven high schools which feed into three career and technical centers. Generalizations from the study should be limited to only the population described and cannot be applied to any other group. There were two limitations in the study related to the collection of student grades. First, students were asked to fill in their current GPA on the survey instrument. Even though high school seniors should know their GPA during their last semester, it could not be assumed that they marked an accurate GPA. Second, high school seniors do not take the same coursework throughout high school and their GPAs will differ according to the amount of rigor in each course. This study does not take into account that two students may have the same GPA even though one student took harder and more rigorous courses than the other.

The study does not focus on the issue of CTE retention. More specifically, the study does not explore why students enrolled in the first year of a CTE program, but do not return for the second year. Secondly, this study does not take into account special needs students who enroll in CTE programs. Moreover, because the study focuses on rural communities, findings in this study cannot be applied to CTE students in urban areas.

Justification of the Study

During various personal conversations, CTE directors in rural East Central Mississippi expressed an interest in reviewing research studies to determine what causes students to enroll or not enroll in their respective CTE programs. The East Central
Mississippi CTE centers used in this study are Newton County Career and Technical Center, Leake Technical Center, and Philadelphia-Neshoba Career and Technical Center.

The overall enrollment increased for Newton County Career and Technical Center from 2002-2007 and peaked at 243 students during 2006-2007. However, enrollment has decreased significantly during the last two years. For the 2008-2009 school year, 185 students were enrolled in CTE programs. Therefore, there has been a 34% decrease in CTE enrollment during the past two years in the Newton County School District.

Several programs at Newton County Career and Technical Center have also had enrollment fluctuations and decreases since 2002. The number of students enrolled in Allied Health rose to 54 in 2004-2005 but has since leveled off to 49 students per year. Enrollment in Technology Applications increased to 48 students during 2006-2007 but has decreased to 15 students in 2008-2009. Thus, enrollment in Technology Applications has decreased 73% during the past two years. In addition, enrollment in Business and Computer Technology has decreased 58% during the last two years.

While there were fluctuations in the enrollment for Agriscience and Childcare during past seven years, no significant changes were noted (McDill, W. and Stringer, K., personal communication, December 11, 2006 and February 10, 2009).

Leake Technical Center has faced similar fluctuations and decreases in enrollment. The total enrollment in all programs has decreased by 9% since the 2002-2003 school year. Most significantly, enrollment in Allied Health has decreased by
30% since the 2002-2003 school year and enrollment in Business and Computer Technology has decreased by 45% since the 2002-2003 school year (Peoples P., personal communication, November 27, 2006 and February 10, 2009).

Philadelphia-Neshoba County Career and Technical Center has experienced the most significant decreases in enrollment in the East Central Mississippi area. Enrollment in Allied Health has decreased considerably since 2001-2002. The total enrollment for 2005-2006 was 49% lower than the 2001-2002 school year. Enrollment in Business and Computer Technology has decreased by 58% since the 2001-2002 school year. In addition, enrollment in Technology Applications has dropped 53% since the 2001-2002 school year. The total enrollment for Philadelphia-Neshoba County Career and Technical Center was 155 for the 2005-2006 school year. This figure was down 38% (72 total students) from the previous year (Baker G., personal communication, December 6, 2006).

Total enrollment for Philadelphia-Neshoba Career and Technical Center increased to 180 during the 2007-2008 school year and 187 during the 2008-2009 school year. Even though there has been a 17% increase in enrollment from 2006 to 2008, Philadelphia-Neshoba County Career and Technical Center’s student enrollment has still decreased 21% since 2004 (Brooks, S., personal communication, March 2, 2009).

Many individuals and groups will benefit from the results of this study. For example, the CTE centers and programs in rural East Central Mississippi can greatly benefit by determining the factors and perceptions that affect student enrollment. CTE directors, counselors, and teachers constantly strive to promote CTE as education that is for all students, regardless of grades, ability, behavior, and disability. Research shows
that there is still a perception associated with CTE that suggests that students who enroll in CTE programs are those students with lower grades who will not attend college. By examining the factors and perceptions that affect CTE enrollment, directors, counselors, and teachers will be able to determine to what extent this perception is still affecting student enrollment.

CTE centers in rural East Central Mississippi will be able to use data gathered through this research study to develop recruitment plans and programs of work that focus directly on the factors and perceptions that are affecting CTE enrollment.

The Mississippi Department of Education will be able to use the results of this study and future studies of its kind to develop programs of work at the state level that promote CTE as an integral part of education. As Mississippi continues with the Redesign initiative, it is vital that all stakeholders in Mississippi understand the importance of blending academic and career and technical education to ensure the success of all students whether they are going to several years of college, a few years of college, or directly into the workforce.
CHAPTER II

REVIEW OF RELATED LITERATURE

**Historical Overview**

Career and technical education encompasses technical preparation, as well as academic foundations, higher-order thinking skills, leadership skills, and personal qualities needed to succeed in the workplace (Wonacott, 2003).

According to former United States Senator Conrad Burns (2005):

> Vocational (career and technical) education programs have made a real difference in the lives of countless young people nationwide; they build self-confidence and leadership skills by allowing students to utilize their unique gifts and talents. As a former member of the organization previously known as Future Farmers of America (FFA), I know firsthand the value of these programs. Without them, our students would miss valuable opportunities that often lead to their success. (p. 1)

In order for one to understand the vital role career and technical education plays in society, several key aspects of programs in which students are enrolled should be examined. One must understand the history and roots of vocational education in the United States in order to appreciate and understand its purpose and place in society.
is important to understand where career and technical education began, how it has evolved, and where it is going in the future. In exploring the history of career and technical (vocational) education, it is crucial to understand the funding sources for career and technical education and the criteria legislation mandates to state and local career and technical educators. Because of these mandates, enrollment in career and technical education is a major concern. Without consistently strong enrollment numbers, state and local career and technical institutions will not be able to meet the guidelines for continued federal funding. In addition, enrollment trends in career and technical education must be examined to determine what factors cause students to enroll in career and technical education, what factors cause students to not enroll in career and technical education, and what CTE programs are the most appealing to the student population.

History of Vocational (Career and Technical) Education

In the early 20th century, education in the United States was primarily designed for those seeking a college degree. Since college attendance was the primary outcome of secondary education, fewer than 10% of the graduating population benefited from formal education. In 1914, the Commission on National Aid to Vocational Education stressed that education was falling short. The Commission strongly believed that secondary education was preparing the small number of students going to college and not the larger number of students going into the workforce (Wonacott, 2003).
Leaders Who Influenced Vocational Education

According to Wonacott (2003), “formal vocational education in schools began early in the 20th century with roots in the traditional techniques of preparing young individuals for work.” (p. 3) In his writings, Wonacott placed emphasis on the foundation of vocational education in the United States as well as the important individuals who paved the way for vocational reform and legislation.

Several key individuals contributed to the genesis of vocational education in the United States. Each of these individuals believed in the concept of “education for all” and believed that vocational education would make public education more democratic. The three most noted advocates for vocational education are Snedden, Prosser, and Dewey (Gordon, 2003).

David Snedden

Snedden (1910) set the stage for vocational education in the United States. Snedden was one of the first individuals to suggest that education should be divided into different curricula tracks. Snedden defined three types of education for different purposes. The first type of education was physical education, which Snedden defined as a form of education “to produce and preserve bodily efficiency such as health, strength, and working power” (p. 4).

Snedden (1910) defined vocational education, the second type of education, as education “to promote the capacity to earn a living or, expressed in more social terms, the capacity to do one’s share of the productive work of the world” (p. 9). The last type
of education was liberal education and Snedden described it as “contributing to the improvement of social life and to the development of personal culture” (p. 5).

Snedden believed that public schools should prepare students for the occupational areas where they showed the most interest and potential. Thus, Snedden was the first individual to divide occupations into different career clusters (Gordon, 2003). The following table outlines the five categories of vocational education and their specific occupations as described by Snedden (1910).

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<td>Lawyers</td>
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<td>Teachers</td>
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<td>Commercial Education</td>
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<td>Household Education</td>
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<td>Home management</td>
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**Charles Prosser**

Prosser was a leader in vocational education who was influenced by the ideals and beliefs of Snedden. Prosser was appointed the first federal Commissioner of Vocational Education. Prosser has been touted as the “father of vocational education.” Prosser’s 16
theories of vocational education provided a comprehensive foundation for vocational education in the United States (Wonacott, 2003). Today, Prosser’s theories are the basis for the workplace competencies and foundation skills needed to be successful in the workplace and society. The workplace competencies include working with resources, technology, systems, information, and interpersonal skills and the foundation skills include basic skills, thinking skills, and personal qualities (Gordon, 2003).

Prosser heavily criticized the high school curriculum with its traditional emphasis on academics and college preparation. After the sixth grade, he believed that education should be differentiated because of differences in interests, aptitudes, and occupational goals (Gordon, 2003).

**John Dewey**

Dewey defined occupation as “a mode of activity on the part of the child which reproduces or runs parallel with some form of work carried on in social life” (Gordon, 2003, p. 32). Dewey managed an experimental elementary school at the University of Chicago where vocational education was an integral part of the curriculum. His classrooms included occupational areas such as shop work, cooking, sewing, textiles, and gardening. Dewey hoped to instill in students an appreciation for the history of industry in the United States. Dewey was one of the first individuals who believed that vocational education is for everyone and everyone can benefit regardless of whether the student is going to college or entering the workforce (Gordon, 2003).

Dewey’s philosophy of vocational education differed from that of Snedden and Prosser. Dewey believed teaching begins with problem-solving where Snedden and
Prosser believed teaching begins with learning sequence and facts. Also, Dewey concluded that education should focus on the needs of individuals and Snedden and Prosser suggested that education was based more on the needs of society and the workplace. Dewey was firm in his belief that vocational education is for everyone and that everyone can benefit from vocational teachings. However, Snedden and Prosser believed that vocational education should be reserved for just the students who could benefit the most from career and hands-on instruction (Gordon, 2003).

Funding Sources for Vocational Education

Introduction

Throughout the 20th century, several important legislations were passed that molded vocational education. These legislations included the Smith-Hughes Act of 1917, the Vocational Education Act of 1963, and the Carl D. Perkins Acts of 1984, 1990, and 1998 (Wonacott, 2003). In 2006, Carl D. Perkins funding was reauthorized and provided vocational education reform for the 21st century through the mandate that every state must implement career pathways into existing vocational education curricula (Mississippi Department of Education, 2007b).

The sections that follow discuss specifically the Smith-Hughes Act of 1917, the Vocational Education Act of 1963, and the Carl D. Perkins Acts of 1984, 1990, 1998, and 2006. Further explanation is given on the effects the Carl D. Perkins Acts have had on vocational education programs in Mississippi. Specifically, the creation of Tech-Prep programs and career pathways will be discussed.
Smith-Hughes Act of 1917

The first major funding source for vocational education in the 20th century was the Smith-Hughes Act of 1917. This Act was enacted to prepare students for jobs resulting from the industrial revolution and to provide them with an alternative to the general education track in schools. The Smith-Hughes Act provided for continual federal funding in the vocational areas of agriculture, trades and industry, and home economics. The Smith-Hughes Act established the Federal Board for Vocational Education as well as separate state boards (Wonacott, 2003). The Federal Board for Vocational Education consisted of the Secretaries of Commerce, Agriculture, and Labor, the Commission of Education, and three appointed citizens (Gordon, 2003).

Smith-Hughes mandated that each state submit a state plan for federal vocational education funding. This comprehensive plan required each state to agree that vocational education would be under federal supervision and control, the controlling purpose would be to prepare students for useful employment, and vocational education would serve students 14 years of age or older who were seeking employment rather than college. The Federal Board for Vocational Education mandated a 50-25-25 rule, which stated that students must participate in shop work 50% of the time, related vocational subjects 25% of the time, and academic courses 25% of the time (Wonacott, 2003). The Smith-Hughes Act served as the primary funding source for vocational education for several years. The Act was repealed by the United States Congress in July 1997 (Gordon, 2003).
Vocational Education Act of 1963

The major purpose of the Vocational Education Act of 1963 was to extend and improve existing vocational education programs that were originally funded under the Smith-Hughes Act. The Vocational Education Act of 1963 sought to provide part-time employment to students who needed funds to continue their education full-time. The funds available under the Vocational Education Act of 1963 were allocated to states using a formula that focused on individual learners. The formula required 50% of the funds to be used to serve individuals between 15-19 years of age (Gordon, 2003).

The Vocational Education Act of 1963 was amended in 1968. The amended Act stated that federal funds could be used to educate secondary and post-secondary students, adult learners, and adult workers. In addition, the Act mandated the educating of individuals with academic, socioeconomic, and physical challenges (Gordon, 2003).

Carl D. Perkins Funding

The major source of funding for vocational education in the late 20th century came from the Carl D. Perkins Vocational and Applied Technology Acts. Understanding Perkins legislation allows individuals to understand the evolution of vocational education in the United States prior to the 21st century. For over 20 years, the goal of Perkins funding has remained constant—to improve the quality of vocational education programs offered at the secondary and post-secondary levels. Perkins is the primary federal law used by secondary and post-secondary institutions to build and improve their vocational programs. Under Perkins, schools are required to integrate
academic and vocational courses, increase the use of technology and professional
development, and provide learning opportunities for special populations (Workforce
Alliance, 2001).

The Carl D. Perkins Vocational Education Act (Public Law 98-524), also known
as Perkins I, was originally passed by Congress in 1984. There were five main purposes
for Perkins I funding. First, legislators saw the crucial need to improve the skills of the
labor force by training adults for various job opportunities that would help decrease
unemployment and strengthen the workforce. Secondly, Perkins I was designed to give
equal opportunities to adults enrolled in vocational education programs. Next, funding
was used to develop, purchase, and implement new technologies into existing vocational
programs. The funding was also used to develop thorough research programs in the area
of vocational education. Lastly, Perkins I was an attempt to meet the occupational needs
of the handicapped, disadvantaged, and displaced, as well as single mothers and criminal
offenders (Swortzel, 1999).

In 1990, The Carl D. Perkins Vocational Education Act was reauthorized and
renamed the Carl D. Perkins Vocational and Applied Technology Act of 1990 (Public
Law 101-392). The new Perkins legislation saw a need for the integration of academic
and vocational education. As a result, Tech Prep programs began to form throughout the
United States. Perkins II also placed a greater emphasis on students making the
transition from school to work and the development of partnerships between businesses
and educational institutions (Swortzel, 1999).

According the Sec. 2301 of Title 20 and Chapter 44 of the United States Code, “it
is the purpose of vocational education to make the United States more competitive in the
world economy by developing more fully the academic and occupational skills of all
segments of the populations” (United States Code, 20-44-2301). Sec. 2301 specifically
describes Perkins II and its role in fulfilling the statement of purpose. It describes that
Public Law 101-392 (Perkins II) is crucial in assisting the United States in developing
quality vocational programs, assuring access to vocational programs, promoting
cooperation between educational and business institutions, and improving the academic
foundations of vocational students. In addition, Sec. 2301 details the importance of
training and retraining in careers and raising employment in economically disadvantaged

According to Dugger and Johnson (2005), Perkins II held a great opportunity for
vocational and general education to build strategic partnerships. Such partnerships can
be beneficial in providing educational programs that integrate vocational and general
education concepts by making them relevant to today’s technical society (Dugger and
Johnson).

Perkins II became effective on July 1, 1991 and $125 million dollars was
authorized to fund cooperative programs and agreements between secondary schools and
local community colleges. The most significant aspect of Perkins II was the
development of Tech Prep programs that were designed to bridge the gaps between
academic and vocational students. Tech Prep would also be used to strengthen the
partnership between secondary schools and community colleges by developing
programs to train students for occupations (Swortzel, 1999).

Title III, Part E of Perkins II called for the development of a three-year plan at
each Tech Prep state. Title III was included to provide planning and demonstration of
grants for developing and operating four-year programs that would allow for an
associate degree or certificate in a career field. In addition, Title III was established to
build better relationships between schools, colleges, and employers.

Perkins II was amended and reauthorized in 1995 to continue funding Tech Prep
education as well as the other important goals of the legislation (Business Education
Research Consortium, 2000). Two new objectives of Carl Perkins funding became
apparent during this reauthorization. First, there was a greater emphasis on consolidating
and combining programs. Secondly, there was an attempt to reduce federal
requirements and the federal presence by “block granting” to state governments, which
meant a gradual reduction of federal funding (Gandy, 2000).

The Carl D. Perkins Vocational and Applied Technology Act was amended and
reauthorized in 1998 and became known as Perkins III. The Act was also renamed The
Carl D. Perkins Vocational and Technical Education Act. The 1998 Act differed from
the earlier versions because it included greater accountability standards, more
performance standards, and more local flexibility. Perkins III also eliminated earlier
components of the program that supported various classifications of job seekers,
particularly women. Perkins III was to continue the goals of Perkins II by continuing
Tech Prep programs and the relationships between secondary and post-secondary
institutions (Workforce Alliance, 2001).

Perkins III was formally known as Public Law 105-332 and was approved on
October 31, 1998. Sec. 2 of the Act outlined four key purposes of Perkins III. First,
Perkins III should build on the efforts of states and localities to develop challenging
academic standards. Secondly, the Act should promote the development of services and
activities that integrate academic, vocational, and technical instruction that links secondary, post-secondary, and Tech Prep education. Next, the Act should increase state and local flexibility in providing services and activities designed to improve vocational and Tech Prep education. Lastly, Perkins III should allow local agencies to review national research and provide professional development and assistance that will improve vocational and Tech Prep activities (Public Law 105-332, Sec. 2).

According to Gandy, Perkins III included significant reform initiatives for Tech Prep and the integration of academic and vocational instruction. In addition, there was an increased flexibility for the states and local schools who received the funds. One of the significant changes was increased accountability and continuous improvement of program performance. Because of increased accountability, the greatest challenge became gathering data from teacher to teacher, school to school, and state-to-state (Gandy, 2000).

The Perkins Act faced its greatest challenge in 2005 when President George W. Bush proposed its elimination for Fiscal Year 2006. The Bush Administration sought to eliminate all funding for career and technical education programs, thus ending Perkins (Turner, 2005). However, on May 4, 2005 the United States House of Representatives voted 416-9 to approve H.R. 366, a bill to reauthorize the Carl. D. Perkins Vocational and Technical Education Act.

H.R. 366 is a continuation of previous versions and it separates performance and accountability measures for secondary and post-secondary institutions. The main issue associated with H.R. 366 is that it combines the Basic State Grants and Tech Prep funding into one program, thus eliminating a separate funding stream for Tech Prep.
Democratic leaders felt that this would cause Tech Prep to erode under consolidation so the House of Representatives voted to fund Tech Prep at the Fiscal Year 2005 level of $107 billion. H.R. 366 also cut administration funding from five to two percent. The House of Representatives also proposed that Carl Perkins funding be used to provide training of alternative automotive fuel technologies and assist vocational students in obtaining a bachelor’s degree.

By a vote of 99-0, the United States Senate passed S. 250, which has been titled the Carl D. Perkins Career and Technical Education Improvement Act of 2005. This Act also reauthorized the continuation of Perkins funding. While the Senate’s version is similar to that of the House of Representatives, the Senate recommended that the Basic State Grants and Tech Prep funding remain separate. It is apparent that there is tremendous bi-partisan support to continue funding career and technical programs through Perkins legislation. The Carl Perkins Vocational and Technical Education Act helps to ensure that career and technical programs are up-to-date with the needs of business and industry. Congress approves approximately $1.4 billion dollars annually to continue the programs set forth in Perkins. At the state level, the funds support career and technical education programs as well as teacher salaries (Association for Career and Technical Education, 2005).

Perkins IV, also known as the Carl D. Perkins Career and Technical Education Improvement Act of 2006, became effective in 2007. One of the most important changes in Perkins IV was the requirement that all school districts must implement at least one “career pathway” by the 2007-2008 school year (Mississippi Department of Education, 2007b).
Because of the new requirements of Perkins IV and the need to surmount the tremendous dropout rate in Mississippi, *Redesigning Education for the 21st century Workforce* was implemented in August 2007. This new initiative integrates academic, career, and technical education by allowing all Mississippi students to choose a career pathway that is tailored to their future career goals (Research Mississippi Department of Education, 2007c).

The first phase of Mississippi’s Redesign plan includes a new curriculum and focus for the seventh, eighth and ninth grade discovery programs. The new courses for the seventh and eighth grades are Information and Communication Technology I and II, which are designed to prepare students to meet the computer literacy requirement of *No Child Left Behind*. The new ninth grade program is called STEM, which stands for science, technology, engineering and mathematics (Mississippi Department of Education, 2007c).

The second phase of the plan includes the implementation of career pathways starting in the tenth grade. In 2008-2009, the career pathways available to students were Agricultural Sciences, Allied Health, Automotive Service, Construction, Culinary Arts, Education, Management, Manufacturing, and Marketing and Economics. The new career pathways allow career and technical educators to deliver curricula that have increased focus on standards, certifications, articulation, academic foundations, 21st century skills, and college readiness (Mississippi Department of Education, 2007c).

*Redesigning Education for the 21st Century Workforce* will be phased in to all Mississippi schools from 2007-2012. It is the belief that this new combination of academic, career, and technical education will allow Mississippi to reduce the dropout
rate by 50% and reach the national average on national assessments within five to seven years (Mississippi Department of Education, 2007b).

**Enrollment Issues in Career and Technical Education**

Research related to enrollment issues in career and technical education (CTE) originated in the late 1980s and early 1990s. According to Rossetti (1991), CTE is needed for a strong economy and the decline in enrollment is a serious concern. Many of the research studies related to CTE were conducted due to the emergence of the Carl D. Perkins Vocational Applied Technology Act of 1990. Perkins legislation was passed so that CTE leaders were given the resources needed to develop strong CTE programs that will lead students into the careers of the 21st century. Because of the reenergized importance of CTE, research was needed to determine why students do not enroll in CTE programs and why enrollment in CTE courses decreased since 1979 (Rossetti, 1989a). Two significant research studies were conducted between 1988 and 1990 by Rossetti that related to the decline in CTE enrollment.

In 1988, a survey was administered to 633 11th grade students not enrolled in CTE programs. Sixteen randomly selected parents were also contacted by telephone to determine their views of CTE and to authenticate the responses received by students. The study included five randomly selected schools in Southwestern Ohio. Two urban and three rural schools were included and the school’s demographics were 80% Caucasian, 17% African American, and 3% other. Rossetti identified five distinct reasons that students chose not to enroll in CTE programs. First, students believed that only academic track courses would prepare them for college. Second, students never
thought about taking a CTE course. Next, students were not interested in taking a CTE course or felt that CTE courses would interfere with their participation in extracurricular activities. Lastly, both students and parents had a poor image of the vocational schools in their local communities (Rossetti, 1989a).

Rossetti found that mothers, female guardians, and friends had the most significant impact on whether or not a student chose to enroll in a CTE program. It was determined that Caucasian males who were enrolled in a college preparatory program and had a high socioeconomic status had the most negative perception of CTE. Rossetti also found that males had more negative perceptions than females, Caucasian students had more negative perceptions than African American students, and those with higher socioeconomic status had more negative perceptions than those with lower socioeconomic status. Research findings indicated that 55% of the students surveyed had neither a positive or negative perception of the area CTE centers (Rossetti, 1989b). Rossetti concluded that CTE should seek avenues to become more integrated with the academic curricula. In addition, she determined that marketing strategies should be developed to demonstrate the importance and relevance of CTE to mothers and female guardians (Rossetti, 1989b).

In 1990, Rossetti furthered her research by examining the attitudes and perceptions of students enrolled in nine feeder schools served by the Springfield-Clark Joint Vocational School. The study involved a cluster sample of 357 students not enrolled in CTE courses. The survey instrument was administered to juniors enrolled in English courses. The results of this study aligned with the results of the 1988 study in identifying reasons students did not enroll in CTE, perceptions students had of CTE
programs, and individuals influencing students not to enroll in CTE programs. Rossetti identified five reasons students chose not to enroll in CTE courses. These reasons included college plans, career choice limitations, strenuous graduation requirements, and the perceived academic and behavioral ability of CTE students. In addition, Rossetti found that friends, mothers, fathers, and guidance counselors greatly influenced students’ decisions not to enroll in CTE courses (Rossetti, 1990a).

As a result of her study, Rossetti developed several recommendations to positively market CTE programs in the Springfield-Clark Joint Vocational School area. First, she suggested that the school develop a program for highlighting completers in CTE programs that went on to enroll in higher education programs. Secondly, she recommended that marketing strategies should be developed to positively promote the importance of the CTE center to the public, particularly females. Rossetti also suggested that the courses the school offered might need to be updated to courses more aligned with the technological age. The students surveyed in Rossetti’s study showed a positive interest in child care and law enforcement courses. The final recommendation was that information on CTE courses should be supplied to all parents who have students enrolled in feeder schools (Rossetti, 1990b).

Gaunt (2005) completed research to determine what perceptions and factors affect enrollment at an area CTE center in Michigan. The Gaunt study was three-fold and included research strategies to determine if socioeconomic background and academic standing affect CTE enrollment, the perceptions secondary students had in regard to CTE, and individuals and other internal and external factors that affect CTE enrollment.
Gaunt developed a 29-question survey consisting of four main sections that included: (a) socioeconomic status and academic standing, (b) student image of the local CTE center, (c) people who influenced enrollment, and (d) other factors that influenced enrollment. The individuals and other factors that may influence enrollment included high school counselors, teachers, principals, parents, siblings, friends, CTE faculty, CTE tours and field trips, high school career plans, marketing materials, websites, CTE center distance from local high schools, and the opportunity for high school credit waivers and/or college credit (Gaunt, 2005).

The CTE center involved in the Gaunt study was the Wexford Missaukee Area Career Technical Center (WMACTC) in Cadillac, MI. WMACTC serves 550 students from seven high schools. Gaunt collected data from 451 students enrolled in senior government courses. In order to determine if there was a significant difference between the grades of CTE students and non-CTE students, Gaunt used the Mann-Whitney test to rank the data and compare the mean scores for each group. The test indicated that there was a significant difference (p < .0001) between the grades of CTE and non-CTE students. It was found that the non-CTE students outscored the CTE students by at least one grade classification.

Gaunt further determined that 57% of non-CTE students lived with both parents while only 38.9% of CTE students lived with both parents. For the CTE group, 19.8% of the students surveyed live with a mother and a step-father while 15.0 live with a mother only. Data analysis showed that these figures were only slightly less for the non-CTE group. Gaunt again used the Mann-Whitney test to determine if there was a significant different between CTE and non-CTE students in regard to socioeconomic
status. It was also found that the financial situation of non-CTE students was slightly better than that of CTE students.

Gaunt concluded that the individuals who most influenced students’ decisions in regard to CTE included friends and parents. Counselors also played a fairly significant role in students’ decisions to attend or not attend the area CTE center. Gaunt also found that students’ reported spending time away from the high school was the most influential factor and that CTE tours and the ability to receive college credit were significant influencing factors (Gaunt, 2005).

Gordon (2003) outlined several key reasons for enrollment decreases in CTE. First, programs may not be meeting the needs of students, employers and the community. For example, enrollment in clothing and textile programs decreased in the late 1990s in Mississippi. This decline was due to the decrease in the number of garment factories operating in Mississippi. Because of this change, clothing and textile programs were not meeting the needs of students and the community. Therefore, Mississippi modified these programs to have an emphasis on fashion and interior design. A second reason for decreasing enrollment is that CTE must compete against other curriculum choices, such as student enrollment in college preparatory courses. Another significant reason for decreasing enrollment is that CTE suffered from the image that students who do not go to college enroll in CTE. In other words, many students perceive CTE as being for students who earn lower grades in school (Gordon, 2003).

The National Center for Education Statistics (NCES) (2004) reported several key statistics that affect the future of CTE enrollment in the United States. NCES reported that over the last decade of academic reforms, secondary students who participated in
CTE programs have increased their academic courses and achievement in those courses. This would contradict the perception that students who attend CTE courses are those who are not successful in academic courses. NCES also found that CTE has long been stigmatized as a “noncollege bound” educational path. NCES’ statistics illustrate that CTE enrollment is neither helping nor hurting a student’s chances of attending college. However, there is a significant shift from earning bachelor’s degrees to earning associate’s degrees in a particular career area.

NCES also reported that 96.6% of secondary students in the United States leave high school with some CTE courses on their transcripts. Statistics showed that CTE’s share of the overall secondary curriculum has decreased over a 20 year period. In 1982, 21.8% of the secondary curriculum consisted of CTE courses. In 1990, this statistic decreased to 17.8% and in 2000, it decreased to 16.2%. If this pattern of decline remain constant, the number of CTE courses in secondary curricula could fall below 15% in 2010 (Silverberg, Warner, Fong, and Goodwin, 2004).

**Enrollment Trends in Agriculture Education**

Croom and Flowers (2000) conducted a study in North Carolina to determine what perceptions influenced students to become involved in agriculture education programs and Future Farmers of America (FFA). Croom and Flowers administered a survey to 404 first-year agriculture students in 27 high schools. The survey included 18 statements about agriculture education and FFA. The researchers found that a student’s decision to attend agriculture programs and join FFA was influenced by his/her perception of the image of agriculture, gender, ethnicity, prior enrollment in agriculture
courses, block scheduling, grade level, and participation in extracurricular activities. The researchers determined that many students joined agriculture classes and FFA because they were seeking a sense of belonging and social relationships (Croom and Flowers).

Talbert and Larke (1995) conducted research in Texas to determine the influencing factors that cause minority and non-minority students to enroll in agriculture education courses. The researchers surveyed a stratified random sample of students enrolled in two introductory Agriscience courses encompassing 60 Agriscience programs. Talbert and Larke drew four distinct conclusions from their research. First, the majority of Agriscience students and teachers in Texas were white males. Secondly, minority students, particularly females, were underrepresented in the student population. Next, the minority students that did enroll tended to be from non-rural areas. Lastly, minority students had a more negative perception of agriculture education programs and did not see themselves as belonging to an agricultural career (Talbert and Larke).

Harlin and Weeks (2000), conducted further research in Texas to determine reasons that traditional, as well as non-traditional students enroll in agriculture education programs. The researchers determined that the traditional enrollees for agriculture education programs tended to be male students from rural areas while non-traditional students tended to be both male and female from urban areas. The authors found that both groups enrolled in agriculture education because they found that the course was fun and hands-on. Traditional students saw the agriculture courses as preparing them for careers while non-traditional students generally enrolled in the courses to learn about plants (Harlin and Weeks).
Perceptions and Attitudes Affecting CTE Enrollment

Rossetti (1991) and Gaunt (2005) both found that perception and image greatly affected a student’s decision to enroll or not enroll in a CTE program. In 1997, an article entitled “What Do People Think of Us?” revealed that vocational educators rank the “image problem” high on the list of issues facing the future of CTE (What Do People Think of Us?, 1997). According to Catri (1998), there are several key issues that will influence CTE in the 21st century. First, CTE will have to compete against other educational areas for the same students and CTE will be forced to do this with decreased funding. Secondly, CTE will continue to fight the perception that CTE is for high school students who do not plan to go to college, adults who need workplace skills, and students with disabilities. Lastly, CTE will struggle to reach populations of parents and students who have heard of CTE, but have no idea what it is or its benefits (Catri).

Cohen and Besharov (2002) prepared a report for the United States Department of Education to discuss the role of CTE and the implications this role has on the federal government. Cohen and Besharov included several important statistics about the general public’s attitude and perceptions of CTE. The researchers found that the public supported the notion that CTE is for students who are not college-bound and that CTE is the option for our “worst” students. It was apparent through this research that a large percentage of the population feels that CTE offers an inferior curriculum that is designed for students who cannot meet the demands of a college-preparatory curriculum (Cohen and Besharov).
Rossetti (1991) and Gaunt (2005) both concluded that guidance counselors play a role in a student’s decision to attend or not attend CTE courses. Huss and Banks (2001) stated, “counselors can be key figures in the advancement of career and technical education (p. 3).” School counselors can positively influence a student to select CTE courses but they can also influence students to go another route. Many times and in many schools, counselors are not good advocates for CTE (Huss and Banks, 2001). Cohen and Besharov (2002) determined that guidance counseling does contribute to an overemphasis on college. Thus, guidance counselors are steering students away from CTE and blue-collar jobs. In 1995, a survey of Chicago-area counselors found that most counselors recommend college for students even when they had poor grades, were unmotivated, and had no interest in school. The survey also found that many counselors are reluctant to confront students who have unrealistic career goals because of pressure from parents to steer their children toward college tracks. This research found that many counselors are not trained to advise students on the alternatives to four-year colleges and universities (Cohen and Besharov).

Huss and Banks (2001) recommended several key strategies to improve counselors’ perceptions and knowledge of CTE. The strategies recommended were inviting high school counselors to advisory and department meetings, sharing success stories with counselors, including high school counselors in important mailings, providing workshops and professional development to counselors, and volunteering to assist counselors on their respective campuses.

Matulis and Osborne (1990) researched the effect guidance counselors’ attitudes and perceptions of CTE had on a student’s decision to enroll or not enroll in CTE
courses. The researchers surveyed 222 participants in Illinois to determine their attitudes and guidance practices concerning CTE. Using a variety of statistical techniques, it was found that the majority of guidance counselors had a positive attitude toward CTE. However, the counselors surveyed had divided perceptions of CTE and counselors tended to have a more positive perception of CTE if their own children had been involved in CTE courses. The counselors surveyed believed that difficulty in enrolling students into CTE programs comes from parent reluctance, graduation requirements, and scheduling difficulties (Matulis and Osborne, 1990).

Summary

CTE programs are vital to our society. Throughout the 20th century, the role of CTE in the American education system changed many times. CTE was originally designed for students who would not attend college due to entering agriculture and manufacturing careers. In later years, the purpose of CTE programs evolved to serve students who were academically or physically challenged. Today, CTE programs are designed to serve all students in the educational system. Through Perkins legislation and a review of research findings, it is evident that all students need a balance of academic and CTE courses so that they are prepared for the workforce of the 21st century.

Enrollment in CTE programs in recent years has become a growing concern. Rossetti and Gaunt cited several reasons students choose to enroll or not enroll in CTE programs. Individuals such as parents, teachers, counselors, administrators, and friends have a great impact on a student’s decision to enroll or not enroll in a CTE course.
Students are influenced by the negative image of the CTE program, their interest in the CTE program, and how the CTE program can prepare them for the future. Some students find it difficult to enroll in CTE courses due to participation in extra-curricular activities or demanding academic courses. Local CTE administrators and teachers must understand the influences and perceptions in the schools so that they can develop a plan to market CTE programs and recruit students into those programs.
CHAPTER III

METHODOLOGY

The primary purpose of this study was to determine the factors and perceptions that affect enrollment in CTE programs in rural East Central Mississippi.

This chapter describes the methodology and procedures used to conduct the study. This chapter includes the following sections: research design, variables of the study, population, data collection, and data analysis.

Research Design

The type of research used in this study was causal-comparative research. Gay (1996) defined causal-comparative research as research that attempts to determine the cause for existing differences in the behavior of groups. Causal-comparative research starts with knowing an effect then determining the possible causes of that effect (Gay). In this study, the known effect is that enrollment in CTE centers has decreased in rural East Central Mississippi. This research study was designed to determine the cause of this decrease by exploring the factors and perceptions of students that affect enrollment in CTE programs.

According to Gay, the basic casual-comparative design involves selecting two groups differing on some independent variable and comparing them on some dependent
variable (Gay, 1996). In this study, the two groups, CTE enrollers and non-CTE enrollers, differ on the independent variable of enrollment. The dependent variables they will be compared to include academic grades, factors, and perceptions.

**Variables of the Study**

In this research study, the independent variable is the grouping of students that occurred by one group choosing CTE and the other group not choosing CTE. The students were grouped by enrollment choice; therefore, the researcher had no control over student grouping. Factors and perceptions related to CTE enrollment and the academic grades of both groups are dependent variables because the researcher cannot control these variables nor the outcome of the statistical tests used to analyze these variables.

**Population**

The population for this study was 400 high school seniors enrolled in English IV classes in rural East Central Mississippi high schools. The population was chosen from high schools that are served by Newton County Career and Technical Center, Leake Technical Center, and Philadelphia-Neshoba Career and Technical Center. Each student in the population received a parental consent form to have signed prior to the researcher visiting each English IV classroom. Of the 400 students eligible, 284 completed the proper consent and assent forms to participate in the study. The following table shows the high schools that participated in the study and the number of students from each school who completed a survey.
Table 3.1
Summary of Study Participants

<table>
<thead>
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<th>County</th>
<th>Participants</th>
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</tr>
<tr>
<td>Edinburg Attendance Center</td>
<td>Leake</td>
<td>16</td>
</tr>
<tr>
<td>Neshoba Central High School</td>
<td>Neshoba</td>
<td>46</td>
</tr>
<tr>
<td>Newton County High School</td>
<td>Newton</td>
<td>93</td>
</tr>
<tr>
<td>Philadelphia High School</td>
<td>Neshoba</td>
<td>32</td>
</tr>
<tr>
<td>South Leake High School</td>
<td>Leake</td>
<td>27</td>
</tr>
<tr>
<td>Thomastown Attendance Center</td>
<td>Leake</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>n=284</strong></td>
</tr>
</tbody>
</table>

**Instrumentation**

A survey consisting of three sections was used in this study (see Appendix A). A description of each section is detailed in the following three sub-sections.

**Section A**

Section A of the instrument was designed to gather pertinent information about students who enrolled in CTE courses and students who did not enroll in CTE courses. Participants were directed not to write their names anywhere on the survey so that the results remained completely anonymous. Participants were also given the option to leave a response blank if desired. The first section included general student information.

Question 1 asked students to identify the numeric grade that is closest to their current overall average (GPA). This information allowed the researcher to determine whether CTE students and non-CTE students differ in regard to academic grades.

Question 2 asked students to identify their gender so that the researcher could determine whether or not females and males participate equally in CTE programs.
Question 3 asked students to identify their school lunch status. This information was used to determine the socioeconomic status of students participating in the survey. The researcher used the information to determine if students with lower socioeconomic status are participating in CTE programs.

Question 4 asked students to identify their ethnicity. This information was used to determine the ethnic composition of the participants from rural East Central Mississippi high schools. The information also illustrated whether or not minority students are participating equally in CTE courses.

In question 5, students were to respond to whether or not they are currently enrolled in a CTE program. If a student answered yes, they identified the program they are enrolled in and completed the third section of the survey. If a student answered no, they were instructed to move to the second section of the survey.

Section B

Section B of the survey was completed by students who are not currently enrolled in CTE programs. This section of the survey contained 32 questions and participants were asked to respond using a five-point Likert scale. The first 18 questions asked the students about perceptions and factors that influenced them not to enroll in CTE programs. In rating the perceptions, participants were asked to mark 5 for strongly agree, 4 for agree, 3 for neither agree nor disagree, 2 for disagree, or 1 for strongly disagree.

The final 14 questions that were answered by participants not enrolled in CTE included questions related to influencing individuals. The participants were asked to use
the scale to rate the impact seven influencing individuals had on their decision not to enroll in CTE. These individuals included friends, siblings, mother, father, teachers, principals, and guidance counselors.

**Section C**

Section C of the survey was completed by those students who are currently enrolled in CTE programs or have been enrolled in a CTE program. For this set of participants, the first 11 questions related to perceptions and the last 14 questions related to influencing individuals are the same as the ones for the participants not attending CTE programs. However, the questions related to influencing factors were slightly different.

**Validity and Reliability of the Instrument**

**Validity**

Validity for the survey instrument was determined through content validity. Gay (1996) defined content validity as the degree to which a test measures an intended content area. The content area for this survey is factors and perceptions that affect enrollment in CTE programs in rural East Central Mississippi. According to Gay, content validity is determined by expert judgment and content validity cannot be calculated through quantitative techniques.

In order to establish content validity for this survey, the survey was sent to Mississippi’s CTE directors (the experts) through the Mississippi Department of Education Lotus Notes system. Directors were asked to review the survey and offer
suggestions for improvement. The researcher reviewed the comments of 56 directors and made several changes to the format of the survey as well as to some of the survey items. Specifically, additional perception statements were added that illustrated both the positive and negative perceptions of CTE. Also, perception statements were added related to potential future salary for CTE areas.

Reliability

Since a new instrument was developed for this study, it was necessary for the researcher to establish reliability. For this study, the researcher calculated internal consistency reliability using the data gathered for the 11 CTE perception statements. Gay (1996) defined internal consistency reliability (also known as rational equivalence reliability) as a determination of how items on a test relate to other items as well as the total test.

In order to establish internal consistency reliability for the survey instrument, the researcher computed Cronbach’s alpha for the student responses on the eleven CTE perception statements. The alpha level computed for the responses was .76. Therefore, it was determined that the survey instrument had a good degree of reliability.

Pilot Study

A pilot study was conducted because the researcher developed a new instrument to use in the study. Pilot testing of the survey is necessary to detect any problems that should be corrected before conducting the actual study and to ensure that subjects are able to understand the directions on the survey instrument. According to Gay (1996),
pilot testing is necessary so that instrument deficiencies and suggestions for improvement can be determined. The researcher used the comments and suggestions of the pilot group to modify the survey before it was administered to the participants in the actual study.

The pilot sample for this study was 20 high school seniors at Carthage High School. The pilot population consisted of 10 CTE students and 10 non-CTE students. The researcher administered the pilot surveys to the group after parental consent forms and student assent forms were completed. When the students concluded the survey, they were asked to give feedback about the survey. The majority of the participants felt that statements added to end of each section were useful in helping to clarify which sections needed to be completed by CTE students as opposed to non-CTE students. The participants in the pilot study also felt that the survey questions and directions were easy to follow. The researcher made minor changes to the survey based on the feedback from the students participating in the pilot study.

Before the pilot and actual study were conducted, the appropriate documentation was sent to the Institutional Review Board (IRB) for the Protection of Human Subjects in Research at Mississippi State University. After receiving approval (Appendix B), the researcher proceeded with collecting data.

Before conducting research in the selected schools, letters of permission were obtained from each Superintendent of Education in the respective school district and signed parental consent letters and student assent letters were collected for each student surveyed. The signed parental consent letters and student assent letters were locked in
the top drawer of a two-drawer vertical filing cabinet by the researcher during and at the conclusion of the study.

**Data Collection**

The researcher collected data during English IV classes at the seven high schools participating in the study. CTE guidance counselors coordinated with local English IV instructors to set a time for the survey to be administered to the students. The CTE guidance counselors accompanied the researcher to each English IV classroom to help ensure that each student had the appropriate consent and assent forms signed, as well as to help students understand that completing the survey was strictly voluntary and that their responses would be confidential. The CTE guidance counselors were responsible for collecting consent and assent forms and sealing them in an envelope. They also collected the surveys and sealed them in a separate envelope after checking to be sure that student names were not written on the surveys.

Once the surveys were completed, the researcher entered and organized the data in Microsoft Excel 2007. A coded numbering system was used for record keeping purposes only. The codes were both alphabetical and numeric and represented the name of the school and a survey number. For example, C was used for Carthage High School and results were coded C1-C63 for the 63 surveys collected at that site. Once data analyses were complete, the codes were removed from the Excel spreadsheet before the data were stored. The electronic data and surveys were locked in the bottom drawer of a two-drawer vertical filing cabinet while the consent forms and assent forms were locked in the top drawer of the same cabinet.
**Data Analysis**

The data from this study were analyzed using Microsoft Excel 2007, WinSTAT for Excel®, and SPSS 17.0. The researcher used charts and graphs to illustrate student demographics that included sex, race, and lunch status. Also, if a student was enrolled in a CTE program or had completed a CTE program he or she was asked to mark their program. A descriptive statistical analysis using frequencies, percentages, means, and standard deviations was used to describe the two variables of factors and perceptions. In addition, the researcher used t-tests for independent variables as well as the Mann-Whitney U test prove or disprove the various hypotheses in the study.

**Research Question One**

Research question one was answered by analyzing the academic grades of students enrolled and those not enrolled in CTE programs to determine if there was a significant difference. Because the data collected for research question one was ordinal, it was analyzed using the Mann Whitney U test. For research question one, the researcher hypothesized that there is no significant difference between the academic grades of those enrolled in CTE classes and those not enrolled in CTE classes. By statistically answering research question one, the researcher determined whether those students with lower grades are enrolling in CTE programs while those with higher grades remain in all academic courses.

On the first section of the survey instrument, students were asked to mark the grade closest to their current grade point average (GPA). The choices included 100, 95, 90, 85, 80, 75, 70, 65, or 60. The researcher checked with the high school counselors to
be sure that students had been given their current GPAs prior to the surveys being administered.

**Research Question Two**

Research question two was answered by examining the differences between CTE enrollers and non-CTE enrollers in regard to their perceptions of CTE. Students were asked to either agree or disagree with 11 perception statements related to CTE. The students answered each perception statement using a Likert-scale. The perceptions statements indicated that CTE is designed for:

1. Students who do not plan to attend college.
2. Students who plan to attend college.
4. Students who make good grades.
5. Students who plan to join the military.
7. Students with minimum discipline problems.
8. Students who wish to explore career opportunities.
10. Students who want to learn life skills.
11. Any student who is interested.

The purpose of research question two was for the researcher to determine if a significant difference existed in the perceptions of the CTE and non-CTE student in regard to CTE. Since the researcher sought to determine only the existence of a
significant difference, a t-test for independent variables was chosen to analyze the perceptions of CTE. Because a set of 11 t-tests for independent variables was conducted to determine if there was a significant difference between the perceptions of CTE and non-CTE students, 11 hypotheses were tested by the researcher. In addition, the researcher used frequencies and percentages tabs to illustrate the data for each of the 11 perceptions.

These hypotheses used to examine perceptions included:

1. There is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who do not plan to attend college.

2. There is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who do plan to attend college.

3. There is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who make low grades.

4. There is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who make good grades.

5. There is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who plan to join the military.
6. There is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students with multiple discipline problems.

7. There is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students with minimum discipline problems.

8. There is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who wish to explore career opportunities.

9. There is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who enjoy hands-on learning.

10. There is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who want to learn life skills.

11. There is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for any student who is interested.

**Research Question Three**

Research question three was answered by asking students to identify factors that caused them to either enroll or not enroll in a CTE program. These factors included internal factors within the school and external factors outside of the school. Students
were asked to either agree or disagree with each factor using a Likert-scale. The data for each set of factors were analyzed using descriptive and frequencies and percentages. The factors for the CTE students differed slightly from the factors for non-CTE students. Table 3.2 lists the factor statements for the two groups of students.

Table 3.2
Influencing Factors

<table>
<thead>
<tr>
<th>Factors for CTE Students</th>
<th>Factors for Non-CTE Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>I enrolled in CTE because I:</td>
<td>I did not enroll in CTE because I:</td>
</tr>
<tr>
<td>1. plan to attend college in one of the career areas.</td>
<td>1. plan to attend a four-year college.</td>
</tr>
<tr>
<td>2. plan to get a job after high school in my career area.</td>
<td>2. could not fit a course into my schedule.</td>
</tr>
<tr>
<td>3. plan to attend a community college in my career area.</td>
<td>3. am involved in too many extracurricular activities.</td>
</tr>
<tr>
<td>4. was interested after visiting my local center.</td>
<td>4. was not interested after visiting my local center.</td>
</tr>
<tr>
<td>5. enjoy spending time away from my high school.</td>
<td>5. would have to travel too far to my local center.</td>
</tr>
<tr>
<td>6. feel the salary is good for the career area I am exploring.</td>
<td>6. did not want to ride a bus to an off-campus location.</td>
</tr>
<tr>
<td>7.</td>
<td>7. do not think the salary is good for CTE trades.</td>
</tr>
</tbody>
</table>

Research Question Four

Research question four was answered by asking students to identify individuals who influenced their decision to enroll or not enroll in a CTE program. These individuals include administrators, teachers, parents, siblings, friends, and counselors.
The data collected regarding influencing individuals were analyzed using descriptive statistics as well as frequencies and percentages.
Chapter IV includes the findings and analyses of the research conducted for this study. There are five sections for this chapter that include one section for each of the four research questions as well as a section for demographic data that describes the students participating in the study.

Demographic Data

Gender

Data describing student gender were gathered so that the researcher could examine enrollment and non-enrollment in CTE programs by student gender. The researcher also wanted to provide a demographic description of the students enrolling and not enrolling in CTE. Figure 4.1 illustrates the data collected related to student gender. The researcher surveyed 155 females and 129 males. It was revealed that 46% of the females surveyed participated in CTE while 54% of the females surveyed did not participate in CTE. Also, 53% of the males surveyed participated in CTE while 47% did not participate in CTE.
The researcher collected data related to student lunch status. The researcher wanted to examine this data to see if there was any difference in CTE enrollment in regard to socioeconomic status. Also, the researcher wanted to see if students with lower socioeconomic status are taking advantage of the opportunity to participate in a CTE course. Figure 4.2 illustrates the data collected in regard to lunch status. It was revealed that free lunch students enroll or not enroll in CTE equally and paid lunch students enroll or not enroll in CTE equally.
Ethnicity

The researcher collected data related to ethnicity to determine the ethnic background of CTE and non-CTE enrollees. This data were examined to see if students of all ethnic backgrounds are equally participating in CTE. The researcher also wanted to provide CTE administrators and educators in rural East Central Mississippi information that would help them determine whether or not they need to increase CTE enrollment for one or more ethnic backgrounds. Figure 4.3 illustrates the ethnic background of the students participating in the study. It was discovered that 15% of the African-American students surveyed participated in CTE while 31% of the Caucasian students surveyed participated in CTE.
CTE Program Enrollment

Students who participated in CTE were asked to mark the program they are currently enrolled in or had completed. Table 4.1 illustrates program enrollment. It was revealed that 24% of the students surveyed were enrolled in either Agriculture or Allied Health. Also, these data suggest that additional recruitment plans may be needed for programs that illustrated lower enrollment totals.

Table 4.1
CTE Program Enrollment

<table>
<thead>
<tr>
<th>Career and Technical Education (CTE) Program</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>32</td>
<td>22.9%</td>
</tr>
<tr>
<td>Allied Health</td>
<td>37</td>
<td>26.4%</td>
</tr>
<tr>
<td>Automotive Technology</td>
<td>12</td>
<td>8.6%</td>
</tr>
<tr>
<td>Building Trades</td>
<td>12</td>
<td>8.6%</td>
</tr>
<tr>
<td>Business and Computer Technology</td>
<td>9</td>
<td>6.4%</td>
</tr>
<tr>
<td>Childcare Technology</td>
<td>14</td>
<td>10.0%</td>
</tr>
<tr>
<td>Cooperative Education</td>
<td>4</td>
<td>2.9%</td>
</tr>
<tr>
<td>Design Merchandising for Fashion and Interiors</td>
<td>4</td>
<td>2.9%</td>
</tr>
<tr>
<td>Metal Trades</td>
<td>3</td>
<td>2.0%</td>
</tr>
<tr>
<td>Technology Applications</td>
<td>13</td>
<td>9.3%</td>
</tr>
</tbody>
</table>

N=140
Research Question One

The researcher wanted to determine if there was a significant difference in the academic grades of CTE enrollers in comparison to non-CTE enrollers. The researcher hypothesized that there is no significant difference between the academic grades of those enrolled in CTE classes and those not enrolled in CTE classes. The Mann-Whitney U test was used to analyze the grades of the two groups of students. Table 4.2 illustrates the results of the Mann-Whitney U test. After analysis, the researcher obtained a significance level of 0.13 (P<.05). As a result, the researcher accepted the hypothesis because the two groups of students were not statistically different on the variable of academic grades.

Table 4.2

Comparison of the Academic Grades of Students Enrolled in CTE Courses and Students not Enrolled in CTE Courses

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>U</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTE</td>
<td>140</td>
<td>84.86</td>
<td>7.91</td>
<td>9039.5</td>
</tr>
<tr>
<td>Non-CTE</td>
<td>144</td>
<td>86.42</td>
<td>7.19</td>
<td>11120.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td><em>Sig.</em> = 0.13</td>
</tr>
</tbody>
</table>

*P<.05*

Research Question Two

Research question 2 determined whether or not CTE students and non-CTE students differ in their perceptions of CTE. The researcher formed 11 hypotheses based on the 11 CTE perceptions statements. These hypotheses were:
1. There is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who do not plan to attend college.

2. There is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who do plan to attend college.

3. There is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who make low grades.

4. There is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who make good grades.

5. There is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who plan to join the military.

6. There is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students with multiple discipline problems.

7. There is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students with minimum discipline problems.
8. There is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who wish to explore career opportunities.

9. There is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who enjoy hands-on learning.

10. There is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who want to learn life skills.

11. There is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for any student who is interested.

Each hypothesis was tested using a t-test for independent variables. Because the researcher conducted multiple t-tests, post hoc testing was needed using a Bonferroni adjustment. Therefore, the level of confidence for each t-test was 99.995% (P<.0045). In addition, the researcher created a frequencies and percentages table for each of the 11 student perceptions.

For perception statement one, the researcher hypothesized that there is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who do not plan to attend college. Table 4.3 illustrates the results of the t-test for this perception statement. The significance level obtained from the test was 0.010 (P<.0045). Therefore, the researcher accepted the hypothesis because there was not a significant difference between the two groups.
Table 4.4 illustrates the frequencies and percentages for perception statement one. The researcher noted that 33.3% of the non-CTE students surveyed and 22.9% of the CTE students surveyed neither agreed nor disagreed with the statement.

Table 4.3
Independent T-Test for Perception Statement One

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTE</td>
<td>140</td>
<td>1.97</td>
<td>1.09</td>
<td>-2.59</td>
<td>282</td>
<td>0.010</td>
</tr>
<tr>
<td>Non-CTE</td>
<td>144</td>
<td>2.31</td>
<td>1.09</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*P<.0045*

Table 4.4
Frequencies and Percentages for Perception Statement One

<table>
<thead>
<tr>
<th>Perception Statement One:</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>CTE is designed for students who do not plan to attend college.</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither Agree or Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTE</td>
<td>7</td>
<td>2</td>
<td>32</td>
<td>38</td>
<td>61</td>
</tr>
<tr>
<td>Non-CTE</td>
<td>4</td>
<td>14</td>
<td>48</td>
<td>34</td>
<td>44</td>
</tr>
</tbody>
</table>

*N=140

For perception statement two, the researcher hypothesized that there is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who do plan to attend college. Table 4.5
illustrates the results of the t-test for this perception statement. The significance level obtained from the test was 0.0001 (P<.0045). Therefore, the researcher rejected the hypothesis because a significant difference was found between the two groups of students.

When the researcher examined the frequencies and percentages for perception statement two, it was discovered that 31.9% of non-CTE students and 14.2% of non-CTE students neither agreed nor disagreed that CTE is designed for students who plan to attend college. In comparing the findings of perception statement one and two, the researcher discovered that one third of the non-CTE students were not neither agreed or disagreed with the statement. The researcher found that while non-CTE students did not feel that CTE was for students not attending college, they were not sure whether or not CTE was for students who do plan to attend college. The researcher found that a large number of non-CTE students were not sure about the college opportunities that are available to students who enroll in CTE program.

Table 4.5
Independent T-Test for Perception Statement Two

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTE</td>
<td>140</td>
<td>4.26</td>
<td>1.03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-CTE</td>
<td>144</td>
<td>2.30</td>
<td>1.10</td>
<td>4.31</td>
<td>282</td>
<td>0.0001</td>
</tr>
</tbody>
</table>

P<.0045
Table 4.6
Frequencies and Percentages for Perception Statement Two

| Perception Statement Two:  
<p>| CTE is designed for students who plan to attend college. |</p>
<table>
<thead>
<tr>
<th>Group</th>
<th>Group Frequency</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTE</td>
<td>Strongly Agree</td>
<td>77</td>
<td>55.0</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>37</td>
<td>26.4</td>
</tr>
<tr>
<td></td>
<td>Neither Agree or Disagree</td>
<td>20</td>
<td>14.2</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>2</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>4</td>
<td>2.9</td>
</tr>
<tr>
<td></td>
<td>N=140</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-CTE</td>
<td>Strongly Agree</td>
<td>47</td>
<td>32.6</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>37</td>
<td>25.7</td>
</tr>
<tr>
<td></td>
<td>Neither Agree or Disagree</td>
<td>46</td>
<td>31.9</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>6</td>
<td>4.2</td>
</tr>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>8</td>
<td>5.6</td>
</tr>
<tr>
<td></td>
<td>N=144</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For perception statement three, the researcher hypothesized that there is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who make low grades. Table 4.7 illustrates the results of the t-test for this perception statement. The significance level obtained from the test was 0.858 (P<.0045). Therefore, the researcher accepted the hypothesis because there was not a significant difference between the two groups.

The researcher examined the frequencies and percentages for perception statement three and noted that 16 students out of the 284 students who were surveyed agreed or disagreed with this statement. Therefore, the majority of the students surveyed did not agree with this perception.
Table 4.7
Independent T-Test for Perception Statement Three

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTE</td>
<td>140</td>
<td>2.02</td>
<td>0.083</td>
<td>0.18</td>
<td>282</td>
<td>0.858</td>
</tr>
<tr>
<td>Non-CTE</td>
<td>144</td>
<td>2.01</td>
<td>0.086</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*P<.0045*

Table 4.8
Frequencies and Percentages for Perception Statement Three

**Perception Statement 3:**
*CTE is designed for students who make low grades.*

<table>
<thead>
<tr>
<th>Group</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither Agree or Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTE</td>
<td>4</td>
<td>2</td>
<td>39</td>
<td>43</td>
<td>52</td>
<td>140</td>
<td>2.9</td>
</tr>
<tr>
<td>Non-CTE</td>
<td>3</td>
<td>7</td>
<td>37</td>
<td>37</td>
<td>60</td>
<td>144</td>
<td>2.1</td>
</tr>
</tbody>
</table>

*N=140* *N=144*

For perception statement four, the researcher hypothesized that there is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who make good grades. Table 4.9 illustrates the results of the t-test for this perception statement. The significance level
obtained from the test was 0.084 ($P<.0045$). Therefore, the researcher accepted the hypothesis because there was not a significant difference between the two groups.

After examining the frequencies and percentages for perception statement four, the researcher discovered that 23.7% of the non-CTE students surveyed disagreed or strongly disagreed that CTE is designed for students who make good grades. When contrasted with perception statement #3 (Table 4.5), it can be concluded that some of the non-CTE students who felt that CTE was not designed for students with low grades did not agree that CTE is designed for students with good grades.

Table 4.9
Independent T-Test for Perception Statement Four

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>T</th>
<th>df</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTE</td>
<td>140</td>
<td>3.55</td>
<td>1.08</td>
<td>1.74</td>
<td>282</td>
<td>0.084</td>
</tr>
<tr>
<td>Non-CTE</td>
<td>144</td>
<td>3.31</td>
<td>1.28</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$P<.0045$
Table 4.10
Frequencies and Percentages for Perception Statement Four

**Perception Statement Four:**
*CTE is designed for students who make good grades.*

<table>
<thead>
<tr>
<th>Group</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CTE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>30</td>
<td>21.4</td>
</tr>
<tr>
<td>Agree</td>
<td>42</td>
<td>30.1</td>
</tr>
<tr>
<td>Neither Agree or Disagree</td>
<td>52</td>
<td>37.1</td>
</tr>
<tr>
<td>Disagree</td>
<td>7</td>
<td>5.0</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>9</td>
<td>6.4</td>
</tr>
<tr>
<td><strong>Non-CTE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>32</td>
<td>22.2</td>
</tr>
<tr>
<td>Agree</td>
<td>32</td>
<td>22.2</td>
</tr>
<tr>
<td>Neither Agree or Disagree</td>
<td>46</td>
<td>31.9</td>
</tr>
<tr>
<td>Disagree</td>
<td>16</td>
<td>11.1</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>18</td>
<td>12.6</td>
</tr>
</tbody>
</table>

N=140  
N=144

For perception statement five, the researcher hypothesized that there is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who plan to join the military. Table 4.11 illustrates the results of the t-test for this perception statement. The significance level obtained from the test was 0.883 (P<.0045). Therefore, the researcher accepted the hypothesis because there was not a significant difference between the two groups. The frequencies and percentages illustrated in Table 4.12 illustrates that CTE students and non-CTE students were almost even in their view of perception statement five.
Table 4.11
Independent T-Test for Perception Statement Five

<table>
<thead>
<tr>
<th>CTE is designed for students who plan to join the military.</th>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CTE</td>
<td>140</td>
<td>2.53</td>
<td>1.13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non-CTE</td>
<td>144</td>
<td>2.55</td>
<td>1.16</td>
<td>0.15</td>
<td>282</td>
<td>0.883</td>
</tr>
</tbody>
</table>

P<.0045

Table 4.12
Frequencies and Percentages for Perception Statement Five

<table>
<thead>
<tr>
<th>Perception Statement Five: CTE is for students who plan to join the military.</th>
<th>Group</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTE</td>
<td>Strongly Agree</td>
<td>7</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>16</td>
<td>11.4</td>
</tr>
<tr>
<td></td>
<td>Neither Agree or Disagree</td>
<td>55</td>
<td>39.2</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>28</td>
<td>20.1</td>
</tr>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>34</td>
<td>24.3</td>
</tr>
<tr>
<td>Non-CTE</td>
<td>Strongly Agree</td>
<td>9</td>
<td>6.3</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>16</td>
<td>11.1</td>
</tr>
<tr>
<td></td>
<td>Neither Agree or Disagree</td>
<td>55</td>
<td>38.2</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td>29</td>
<td>20.1</td>
</tr>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>35</td>
<td>24.3</td>
</tr>
</tbody>
</table>

N=140

N=144

For perception statement six, the researcher hypothesized that there is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students with multiple discipline problems. Table 4.13 illustrates the results of the t-test for this perception statement. The significance level obtained from the test was 0.143 (P<.0045). Therefore, the researcher accepted the hypothesis because there was not a significant difference between the two groups.
Table 4.14 illustrates the frequencies and percentages for perception statement six. The researcher found that 211 of the 284 (74.3%) of the students surveyed disagreed or strongly disagreed with this statement. Therefore, the researcher concluded that students surveyed did not feel that CTE is designed for students with multiple discipline problems.

Table 4.13
Independent T-Test for Perception Statement Six

<table>
<thead>
<tr>
<th></th>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CTE</td>
<td>140</td>
<td>1.74</td>
<td>1.01</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non-CTE</td>
<td>144</td>
<td>1.92</td>
<td>0.98</td>
<td>1.47</td>
<td>282</td>
<td>0.143</td>
</tr>
</tbody>
</table>

\[ P<.0045 \]

Table 4.14
Frequencies and Percentages for Perception Statement Six

<p>| Perception Statement Six: CTE is designed for students with multiple discipline problems. |
|-----------------------------------------------|-----------------|------|-----|-------------|</p>
<table>
<thead>
<tr>
<th>Group</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>3</td>
<td>2.1</td>
</tr>
<tr>
<td>Agree</td>
<td>6</td>
<td>4.3</td>
</tr>
<tr>
<td>Neither Agree or Disagree</td>
<td>22</td>
<td>15.8</td>
</tr>
<tr>
<td>Disagree</td>
<td>30</td>
<td>21.4</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>79</td>
<td>56.4</td>
</tr>
<tr>
<td>Non-CTE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>1</td>
<td>.7</td>
</tr>
<tr>
<td>Agree</td>
<td>8</td>
<td>5.6</td>
</tr>
<tr>
<td>Neither Agree or Disagree</td>
<td>33</td>
<td>22.9</td>
</tr>
<tr>
<td>Disagree</td>
<td>38</td>
<td>26.4</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>64</td>
<td>44.4</td>
</tr>
</tbody>
</table>

\[ N=140 \]

\[ N=144 \]
For perception statement seven, the researcher hypothesized that there is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students with minimum discipline problems. Table 4.15 illustrates the results of the t-test for this perception statement. The significance level obtained from the test was 0.100 (P<.0045). Therefore, the researcher accepted the hypothesis because there was not a significant difference between the two groups.

The frequencies and percentages derived for perception statement seven (Table 4.16) show that 32.1% of the CTE students surveyed and 27.8% of the non-CTE students surveyed neither agreed nor disagreed with the statement that CTE is for students with minimum discipline problems. When contrasted with perception statement six (Table 4.13), it was noted that while some students did not feel that CTE was designed for students with multiple behavior problems, they were not sure whether or not CTE is appropriate for students with minimum behavior problems.

Table 4.15
Independent T-Test for Perception Statement Seven

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTE</td>
<td>140</td>
<td>3.11</td>
<td>1.28</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-CTE</td>
<td>144</td>
<td>2.86</td>
<td>1.31</td>
<td>1.65</td>
<td>282</td>
<td>0.100</td>
</tr>
</tbody>
</table>

\[ P<.0045 \]
Table 4.16
Frequencies and Percentages for Perception Statement Seven

<table>
<thead>
<tr>
<th>Perception Statement Seven:</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>CTE is designed for students with minimum discipline problems.</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>25</td>
<td>17.9</td>
</tr>
<tr>
<td>Agree</td>
<td>28</td>
<td>20.1</td>
</tr>
<tr>
<td>Neither Agree or Disagree</td>
<td>45</td>
<td>32.1</td>
</tr>
<tr>
<td>Disagree</td>
<td>22</td>
<td>15.7</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>20</td>
<td>14.2</td>
</tr>
<tr>
<td>N=140</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-CTE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>17</td>
<td>11.8</td>
</tr>
<tr>
<td>Agree</td>
<td>32</td>
<td>22.2</td>
</tr>
<tr>
<td>Neither Agree or Disagree</td>
<td>40</td>
<td>27.8</td>
</tr>
<tr>
<td>Disagree</td>
<td>24</td>
<td>16.7</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>31</td>
<td>21.5</td>
</tr>
<tr>
<td>N=144</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For perception statement eight, the researcher hypothesized that there is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students wish to explore career opportunities. Table 4.17 illustrates the results of the t-test for this perception statement. The significance level obtained from the test was 0.0004 (P<.0045). Therefore, the researcher rejected the hypothesis because a significant difference was discovered between the two groups.

Table 4.18 illustrates the frequencies and percentages of the two groups. CTE students marked mostly strongly agree and agree while the responses for non-CTE students were more spread out. The non-CTE group had more students who were unsure about the statement or they disagreed or strongly disagreed with the statement.
Table 4.17

Independent T-Test for Perception Statement Eight

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTE</td>
<td>140</td>
<td>4.72</td>
<td>0.60</td>
<td>3.54</td>
<td>282</td>
<td>0.0004</td>
</tr>
<tr>
<td>Non-CTE</td>
<td>144</td>
<td>4.41</td>
<td>0.86</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*P<.0045*

Table 4.18

Frequencies and Percentages for Perception Statement Eight

<table>
<thead>
<tr>
<th>Group</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTE</td>
<td>109</td>
<td>75.7%</td>
</tr>
<tr>
<td></td>
<td>25</td>
<td>17.4%</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>3.5%</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>0.6%</td>
</tr>
<tr>
<td>N=140</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-CTE</td>
<td>84</td>
<td>58.3%</td>
</tr>
<tr>
<td></td>
<td>43</td>
<td>29.9%</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>7.6%</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>2.8%</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>1.4%</td>
</tr>
<tr>
<td>N=144</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For perception statement nine, the researcher hypothesized that there is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who enjoy hands-on learning. Table 4.19 illustrates the results of the t-test for this perception statement. The significance level obtained from the test was 0.0006 (P<.0045). Therefore, the researcher rejected the hypothesis because a significant difference was discovered between the two groups.
Table 4.20 illustrates the frequencies and percentages between the two groups.

As with the previous perception statement, it was discovered that more non-CTE than CTE students marked this question as neither agree nor disagree, disagree, or strongly disagree.

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTE</td>
<td>140</td>
<td>4.70</td>
<td>0.60</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-CTE</td>
<td>144</td>
<td>4.39</td>
<td>0.89</td>
<td>3.46</td>
<td>282</td>
<td>0.0006</td>
</tr>
</tbody>
</table>

P<.0045

Table 4.20

Frequencies and Percentages for Perception Statement Nine

<table>
<thead>
<tr>
<th>Group</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither Agree or Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTE</td>
<td>106</td>
<td>28</td>
<td>4</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Non-CTE</td>
<td>84</td>
<td>40</td>
<td>15</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

N=140

N=144
For perception statement ten, the researcher hypothesized that there is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who do plan to attend college. Table 4.21 illustrates the results of the t-test for this perception statement. The significance level obtained from the test was 0.0026 (P<.0045). Therefore, the researcher rejected the hypothesis because a significant difference was discovered between the two groups.

The researcher used frequencies and percentages (Table 4.22) to further interpret the data. It was determined that more non-CTE than CTE students marked this statement with neither agree nor disagree, disagree, or strongly disagree.

Table 4.21
Independent T-Test for Perception Statement Ten

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTE</td>
<td>140</td>
<td>4.51</td>
<td>0.72</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-CTE</td>
<td>144</td>
<td>4.22</td>
<td>0.89</td>
<td>3.03</td>
<td>282</td>
<td>0.0026</td>
</tr>
</tbody>
</table>

P<.0045  

72
Table 4.22
Frequencies and Percentages for Perception Ten

For perception statement eleven, the researcher hypothesized that there is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for any student who is interested. Table 4.23 illustrates the results of the t-test for this perception statement. The significance level obtained from the test was 0.820 (P<.0045). Therefore, the researcher accepted the hypothesis because there was not a significant difference between the two groups.

Table 4.24 illustrates that 252 of the 282 (89.4%) of the students surveyed felt that CTE is appropriate for any student that is interested in attending a program.
Table 4.23
Independent T-Test for Perception Statement Eleven

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTE</td>
<td>140</td>
<td>4.51</td>
<td>0.75</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-CTE</td>
<td>144</td>
<td>4.53</td>
<td>0.76</td>
<td>0.23</td>
<td>282</td>
<td>0.820</td>
</tr>
</tbody>
</table>

*P<.0045*

Table 4.24
Frequencies and Percentages for Perception Statement Eleven

Perception Statement Eleven:

*CTE is for any student who is interested.*

<table>
<thead>
<tr>
<th>Group</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neither Agree or Disagree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTE</td>
<td>90</td>
<td>35</td>
<td>13</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>64.3</td>
<td>25.0</td>
<td>9.3</td>
<td>.7</td>
<td>.7</td>
</tr>
<tr>
<td>N=140</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-CTE</td>
<td>97</td>
<td>30</td>
<td>14</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>67.4</td>
<td>20.8</td>
<td>9.7</td>
<td>2.1</td>
<td>0</td>
</tr>
<tr>
<td>N=144</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Research Question Three

Research question three examined the factors that caused students to enroll and not enroll in CTE courses. The following tables illustrate the factor statements for each group and descriptive statistics as well as frequencies and percentages for each factor.

Table 4.25 illustrates the analysis of the factors that may have caused students not to enroll in CTE courses. The researcher found that 39.6% of the non-CTE students strongly agreed that they did not enroll in a course because it would not fit into their schedule. Also, 29.2% of the students surveyed were not sure if visiting their local center influenced their decision to enroll or not. It was discovered that traveling on a bus to an off campus location did not significantly affect the decision of students to not enroll in CTE courses. Moreover, future salary was not a factor that influenced enrollment.
Table 4.25
Analysis of Non-CTE Enrollment Factors

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean</th>
<th>SD</th>
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</tr>
<tr>
<td>Strongly Disagree</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>I could not fit a course into my schedule.</td>
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<tr>
<td>Strongly Disagree</td>
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<td>I am involved in too many extracurricular activities.</td>
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<td>Strongly Disagree</td>
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<tr>
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<td>I would have to travel too far to my local center.</td>
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<tr>
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<td>I did not want to ride a bus to my local center.</td>
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<td>Neither Agree or Disagree</td>
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</tr>
<tr>
<td>Strongly Disagree</td>
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<tr>
<td>I do not think the salary is good for CTE trades.</td>
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N=144
Table 4.26 illustrates the factors that caused students to enroll in CTE courses. The researcher found that 47.1% of the CTE students surveyed enrolled in their CTE course because they plan to attend college in their CTE area. Furthermore, 42.9% of the students surveyed indicated that they will be attending community college in their CTE area. The data show that 47.1% of the CTE students enjoy spending time away from their high school and 42.9% feel the future salary is good for the program in which they chose to enroll.
### Table 4.26

Analysis of CTE Student Enrollment Factors

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<th>Mean</th>
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<th>Percentage</th>
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<td>25</td>
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<td></td>
<td></td>
<td>Neither Agree or Disagree</td>
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<td></td>
<td></td>
<td>Strongly Disagree</td>
<td>12</td>
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<tr>
<td>I plan to get a job after high school in my career area.</td>
<td>3.24</td>
<td>1.141</td>
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<td>I plan to attend a community college in my career area.</td>
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<td></td>
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<td>I was interested after visiting my local center.</td>
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<td></td>
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<td>I enjoy spending time away from my high school.</td>
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<td></td>
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<td>Strongly Disagree</td>
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<td>I feel the salary is good for the career I am exploring.</td>
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<td>1.153</td>
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N=140
Research Question Four

Research question four identified the individuals who may have encouraged CTE students to enroll in CTE programs as well as the individuals who may have discouraged non-CTE students from enrolling in CTE programs. The following tables illustrate the individuals who influenced students to enroll or not enroll in CTE programs. The tables use descriptive statistics, frequencies, and percentages to illustrate the findings.

Table 4.27 illustrates individuals who encouraged CTE students to enroll in CTE programs. The researcher noted that the three most influential individuals for this group of students were friends (mean=4.03), mothers (mean=3.829), and fathers (mean=3.707). It was also noted that 22.1% of the CTE students surveyed felt that they were discouraged from attending CTE classes by their guidance counselor.
Table 4.27
Analysis of Individuals Who Encouraged CTE Students to Enroll in CTE Programs

<table>
<thead>
<tr>
<th>Influencing Individual(s)</th>
<th>Mean</th>
<th>SD</th>
<th>Frequency</th>
<th>Percentage</th>
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</thead>
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<td></td>
<td></td>
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**N=140**
Table 4.28 describes the individuals who discouraged non-CTE students from attending CTE programs. It was revealed that the majority of students not enrolled in CTE programs were not discouraged from attending CTE programs by any of the seven groups of individuals.
Table 4.28
Analysis of Individuals who Discouraged non-CTE Students from Enrolling in CTE Programs

<table>
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<tr>
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<th>Percentage</th>
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</thead>
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N=144
CHAPTER V
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary
The primary purpose of this study was to determine the factors and perceptions that affect enrollment in CTE programs in rural East Central Mississippi. The results of this study are specific to the group of CTE and non-CTE students (n=284) who were surveyed. Therefore, the researcher can only draw conclusions based on this group of students. The results of the study do not apply to other geographic areas of Mississippi or to the state of Mississippi as a whole.

Student Demographics
The participants in this survey consisted of 140 CTE students and 144 non-CTE students. Of the 284 participants, 155 were female and 129 were male. The researcher found that 46% of the females surveyed participated in CTE while 54% of the females surveyed did not participate in CTE. Also, 53% of the males surveyed participated in CTE while 47% did not participate in CTE.

After examination of the socioeconomic status and ethnicity of the participants, the researcher found that free lunch students and paid lunch students participate in CTE
almost equally. However, it was noted that the Caucasian students surveyed participate in CTE at a rate of 52% more than the African-American students surveyed.

When examining the CTE enrollment by program, it was found that Agriculture and Allied Health were the most popular program choices for the students surveyed.

**Research Question One**

Research question one examined whether or not there was a significant difference in the academic grades of CTE students and non-CTE students. The researcher found that the mean academic average for the CTE students was 84.86 while the mean academic average for the non-CTE students was 86.42. After conducting the Mann-Whitney U test, the researcher found that the academic grades of the two groups of students were not statistically different (Sig. = .13, P<.05). Therefore, the researcher accepted the hypothesis that there is no difference in the academic grades of the CTE and non-CTE students.

**Research Question Two**

Research question two explored the differences in CTE students and non-CTE students in regard to their perceptions of CTE. After conducting a series of t-tests for independent variables, the researcher concluded there was a significant difference between CTE students and non-CTE students in four of the eleven perceptions. The researcher also used frequencies and percentages to gather data about the perceptions CTE students and non-CTE students have in regard to CTE. The findings for the 11 perception statements are summarized in the following eleven sub-sections.
**Perception Statement One**

For perception statement one, the researcher hypothesized that there is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who do not plan to attend college. After conducting the t-test for independent variables, it was discovered that CTE students and non-CTE students did not differ significantly (Sig. =0.010, P<.0045) in regard to this perception. The researcher accepted the hypothesis because a significant difference was found between the two groups.

When looking at frequencies and percentages, the researcher noted that 33.3% of the non-CTE students surveyed and 22.9% of the CTE students surveyed neither agreed nor disagreed with the statement.

**Perception Statement Two**

For perception statement two, the researcher hypothesized that there is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who do plan to attend college. The researcher did find a significant difference (Sig=0.0001, P<.0045) between these two groups after conducting the t-test for independents variables. Thus, the researcher accepted the hypothesis.

After examining frequencies and percentages, it was noted that 31.9% of non-CTE students and 14.2% of non-CTE students neither agreed nor disagreed that CTE is designed for students who plan to attend college.
Perception Statement Three

For perception statement three, the researcher hypothesized that there is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who make low grades. The researcher obtained a significance level of 0.858 (P<.0045) after performing the t-test for independent variables. After interpretation, the researcher accepted the hypothesis because there was not a significant difference between the two groups.

The researcher also found that 16 students out of the 284 students who were surveyed agreed or strongly agreed with this statement. Data illustrated that the majority of the students surveyed did not agree with this perception.

Perception Statement Four

For perception statement four, the researcher hypothesized that there is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who make good grades. A significance level of 0.084 (P<.0045) was obtained from the t-test for independent variables. Therefore, the researcher accepted the hypothesis because there was not a significant difference between the two groups.

After examining the frequencies and percentages for perception statement four, the researcher discovered that 23.7% of the non-CTE students surveyed disagreed or strongly disagreed that CTE is designed for students who make good grades.
Perception Statement Five

For perception statement five, the researcher hypothesized that there is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who plan to join the military. The significance level obtained from the test was 0.883 (P<0.0045). Therefore, the researcher accepted the hypothesis because there was not a significant difference between the two groups. The frequencies and percentages illustrated that CTE students and non-CTE students did not differ in regard to this perception.

Perception Statement Six

For perception statement six, the researcher hypothesized that there is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students with multiple discipline problems. The researcher derived a significance level of 0.143 (P<0.0045) from the results of the t-test for independent variables. The hypothesis was accepted because there was not a significant difference between the two groups.

The researcher found that 211 of the 284 (74.3%) of the students surveyed disagreed or strongly disagreed with this statement.

Perception Statement Seven

For perception statement seven, the researcher hypothesized that there is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students with minimum discipline problems. For
this hypothesis, the significance level obtained from the t-test was 0.100 (P<.0045). For that reason, the researcher accepted the hypothesis because there was not a significant difference between the two groups.

The frequencies and percentages derived for perception statement seven shows that 32.1% of the CTE students surveyed and 27.8% of the non-CTE students surveyed neither agreed nor disagreed with the statement that CTE is for students with minimum discipline problems.

**Perception Statement Eight**

For perception statement eight, the researcher hypothesized that there is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students wish to explore career opportunities. The t-test for independent variables indicated a very low significance level of 0.0004 (P<.0045). The researcher rejected the hypothesis because a significant difference was discovered between the two groups.

After analysis of the frequencies and percentages for this perception statement, it was discovered that CTE students marked mostly strongly agree and agree while the responses for non-CTE students were more dispersed. In other words, the non-CTE group had more students who were unsure about the statement or they disagreed or strongly disagreed with the statement.
Perception Statement Nine

For perception statement nine, the researcher hypothesized that there is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who enjoy hands-on learning. As with perception statement eight, the researcher obtained an extremely low significant level significance level (Sig. =0.0006, P<.0045). Again, the researcher rejected the hypothesis because a significant difference was discovered between the two groups.

As with the previous perception statement, it was discovered that more non-CTE than CTE students marked this question as neither agree nor disagree, disagree, or strongly disagree.

Perception Statement Ten

For perception statement ten, the researcher hypothesized that there is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for students who do plan to attend college. The researcher found a low significance level of 0.0026 (P<.0045) after interpretation of the results of the t-test for independent variables. As with the previous two perceptions, the researcher rejected the hypothesis because a significant difference was discovered between the two groups.

Through and examination of frequencies and percentages, it was determined that more non-CTE than CTE students marked this statement with neither agreed or disagree, disagree, or strongly disagree.
Perception Statement Eleven

For perception statement eleven, the researcher hypothesized that there is no significant difference between CTE enrollers and non-CTE enrollers in regard to the perception that CTE is designed for any student who is interested. A significant level of 0.820 (P<.0045) was obtained from the results of the t-test for independent variables. Therefore, the researcher accepted the hypothesis because there was not a significant difference between the two groups. Both groups agreed that CTE is for any student who is interested in enrolling in a CTE program.

Research Question Three

The third research question sought to determine the significant factors that cause students to enroll and not enroll in career and technical education programs. The researcher analyzed the results of this portion of the survey using means, standard deviations, and frequencies and percentages.

Analysis of the data showed that 39.6% of the non-CTE students strongly agreed that they did not enroll in a course because it would not fit into their schedule. Also, 29.2% of the students surveyed were not sure if visiting their local center influenced their decision to enroll or not enroll in a CTE program. The researcher noted that the non-CTE students were not discouraged by having to travel on a bus to an off-campus location. Also, the factor of future salary did not dissuade students from attending CTE courses.

When analyzing the factors that may have persuaded CTE students to attend their local center, it was discovered that 47.1% of the CTE students surveyed enrolled in their
CTE course because they plan to attend college in their CTE area. Also, 42.9% of the students surveyed indicated that they will be attending community college in their CTE area. The researcher found that 47.1% of the CTE students enjoy spending time away from their high school and 42.9% feel the future salary is good for the program in which they chose to enroll.

**Research Question Four**

Research question four examined the individuals that encouraged and discouraged students to attend or not attend CTE classes. The researcher examined the frequencies and percentage tables derived for this section of the survey and found that:

1. CTE students were most influenced by friends, mothers, and fathers to attend their local CTE center.
2. One fifth of the CTE students surveyed (22.1%) felt that they were discouraged from attending their CTE course by their guidance counselor.
3. Non-CTE students were not discouraged from attending their local CTE center by any of the seven influencing individuals.

**Conclusions**

**Demographics**

The researcher made three conclusions regarding demographics of students who participated in the study. First, it was concluded that slightly more males than females were enrolled in CTE programs in rural East Central Mississippi. Secondly, the
researcher concluded that free lunch students and students who paid for their lunch participated equally in CTE. Lastly, it was concluded that there were more Caucasian students than African American students who participated in CTE for this population and that CTE centers should strive to effectively promote and market CTE programs to African American students.

The findings related to demographics differed from those of the Rossetti studies in 1988 and 1990. Rossetti found that males had more negative perceptions than females, Caucasian students had more negative perceptions than African American students, and those with higher socioeconomic status had more negative perceptions than those with lower socioeconomic status. Therefore, the researcher concluded that the rural East Central Mississippi is enrolling high and low socioeconomic students equally while there was a difference in the two groups for Rossetti’s population. While the schools in Rossetti’s study had to work on recruiting more male and Caucasian students, it was discovered that the schools in this study should work on recruiting more female and African American students. Therefore, the researcher concluded that there was a difference in the two study groups based on either geographic location and/or time period.

**Research Question One**

The researcher did not find statistically significant evidence that suggested that rural East Central Mississippi students with lower grades were enrolling in CTE programs while those students with higher grades were remaining in an academic track.
The researcher concluded that the students surveyed in rural East Central Mississippi did not have a preconception that CTE is for students who struggle academically.

In conducting similar research in Michigan during 2005, Gaunt discovered that the academic grades of CTE students and non-CTE students were significantly different and that non-CTE students outscored CTE students by at least one grade classification. Because of Gaunt’s findings, the researcher for this study hypothesized that the findings for rural East Central Mississippi would be consistent. However, since it was discovered that the academic grades of CTE and non-CTE students were not significantly different, it was concluded that the rural East Central Mississippi students has a better perception and understanding of the purpose of CTE than the Michigan students. Therefore, the researcher concluded that the rural East Mississippi area did not have a preconception that CTE is only for students who struggle academically. This finding is significant and should be shared with all stakeholders in each of the communities represented in this study.

**Research Question Two**

In comparing the students on the perception that CTE is for students who attend college, the researcher found a significant difference between the two groups of students. Since it was discovered that a significant number of non-CTE students neither agreed or disagreed with the survey, the researcher concluded that this group of students was not sure of the college opportunities available to CTE students. Therefore, in recruiting future students, the CTE centers in rural East Central Mississippi should
promote the college opportunities that are afforded to students who enroll in CTE programs.

While conducting research during 1988 and 1990, Rossetti found that students in her population did not enroll in CTE because they felt on academic track courses would prepare them for college. Therefore, the researcher concluded that the students in rural East Central Mississippi, who were surveyed nearly 20 years later, may have the same opinion of CTE because there was a significant difference between the CTE and non-CTE students in regard to the positive perception that CTE is designed for those who plan to attend college.

When the researcher examined the perceptions related to student grades, it was revealed that the majority of the students surveyed felt that CTE was not for students who make low grades. However, data did show that while some students felt that CTE was not for students with low grades, these same students were not sure if CTE was for students with high grades either. The researcher concluded that the CTE centers should be sure that students in their school districts understand that CTE is a viable option for any student, regardless of his/her grades or ability level.

The majority of the students surveyed in this study did not think that CTE is education that is designed for students with multiple discipline problems. Therefore, the researcher concluded that the schools participating in the study are not experiencing an issue with students confusing CTE with alternative education for students who misbehave. In contrast with the perceptions related to student grades, it was noted that while some students felt that CTE is not for students with multiple discipline problems, these same students were not sure whether or not CTE was appropriate for students with
minimum discipline problems. The researcher concluded that recruitment plans for Mississippi CTE centers should reflect strategies that promote CTE as education that is for any student, regardless of his/her discipline record.

The researcher concluded that many of the non-CTE students were not sure about the perceptions that CTE is education that is designed for students who want to explore career opportunities, enjoy hands-on learning, and who want to learn life skills. Catri stated that “during the 21st century, CTE will struggle to reach populations of parents and students who have heard of CTE but have not idea of what it is or who it benefits.” (p. 3). This statement correlates with the findings in this study that the non-CTE students were not familiar with the positive benefits of hands-on learning, life skill development, or career exploration. Therefore, future recruitment plans should be designed to promote these three important aspects of CTE. If students are aware of these aspects, then it is likely that more of them might enroll in CTE programs.

**Research Question Three**

After examining the factors that caused students to enroll in CTE programs, the researcher made three conclusions. First, it was concluded that the majority of the students who enrolled in CTE programs were interested in one of the career fields offered by their local center. Furthermore, many of the students planned to attend community college in the CTE area of their choice. In recruiting future students, the researcher suggests that CTE teachers discuss the various aspects of their own career area as well as college opportunities for that career area. Second, the researcher concluded that many of the CTE students enrolled in CTE because they enjoy spending time away from their high
school. Lastly, the researcher concluded that CTE students enrolled in their chosen program because they felt that the salary was good for that career area during student recruitment tours.

When exploring the factors that kept non-CTE students from enrolling in CTE programs, it was found that the majority of the CTE students surveyed could not fit a course into their schedule. The researcher concluded that when it is possible to do so, academic and CTE counselors should work together to troubleshoot scheduling conflicts for students who are truly interested in CTE classes. The researcher also concluded that many of the non-CTE students were unsure to what extent touring their local CTE center played in their choice to not attend. Therefore, it is extremely important for CTE centers in rural East Central Mississippi to be sure students get as much useful information as possible when they tour CTE centers and visit the various CTE programs. The final conclusions derived for the non-CTE students surveyed is that riding a bus to an off campus location did not play a part in their choice not to enroll in CTE nor did potential salaries for CTE areas.

Research Question Four

The researcher determined that friends played the most significant part in encouraging CTE students to attend CTE programs. It was also determined that parents are very influential in encouraging students to attend these programs. However, it was also determined that many of the CTE students felt they were discouraged from attending by their guidance counselor. In examining the responses of the non-CTE
students, it was determined that none of the seven influencing individuals greatly affected their decision to not enroll in a CTE program.

Rossetti (1988) also found that friends and parents play the most significant role in encouraging students to take CTE courses. Therefore, the researcher concluded that the results of this study were similar to those of the Rossetti study. Rossetti (1998) and Gaunt (2005) both concluded that academic counselors were significantly influencing students not to enroll in CTE courses. Therefore, the researcher concluded that while this issue was not significant for the rural East Central Mississippi area, some CTE students still felt that their academic counselors discouraged their CTE enrollment. Because of this finding, the researcher concluded that CTE administrators and teachers should seek avenues to positively discuss CTE programs to academic counselors. Huss and Banks (2001) discussed techniques such as inviting academic counselors to advisory committee meetings, providing professional development related to CTE for academic counselors, and volunteering to assist counselors on their campuses.

**Recommendations for Further Research**

This research study focused on the factors and perceptions that caused students to enroll and not enroll in CTE programs in rural East Central Mississippi. After reviewing and interpreting the data related to the population surveyed, the researcher made five recommendations for further research.

1. Since this study was limited to the East Central Mississippi area, future studies should be conducted in other geographic areas of Mississippi or all of
the state of Mississippi to determine if the results will be consistent with those that were derived from using rural East Central Mississippi as the population.

2. Because the research revealed that there was not a significant difference in the academic grades of CTE students and non-CTE students enrolled in rural East Central Mississippi schools, a research study should be conducted that compares the academic grades of all students in the state of Mississippi to determine whether or not there is a statewide difference in the academic grades of CTE and non-CTE students. This would allow educators in Mississippi to see if we have moved past the misconception that CTE is for students who make significantly lower grades.

3. Because the population in this study was limited to the perceptions high school seniors had toward CTE and the research found that counselors are discouraging students from attending CTE programs, a similar study should be conducted to examine the perceptions academic counselors, principals, and teachers have of CTE.

4. Based on the finding that only 15% of the African-American students surveyed participated in CTE (as opposed to 30% of the Caucasian students surveyed), a study should be conducted to further examine the factors and perceptions that African American students have of CTE as well as to what degree African American students are enrolling in Mississippi’s CTE programs.

5. Since the aspect of CTE student retention was not explored in this study, additional research is needed that explores CTE student retention and why
some students take the first year of a CTE course but not the second year of the same course.
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APPENDIX A

SURVEY
Survey of Factors and Perceptions Affecting Career and Technical Education Enrollment in Rural East Central Mississippi

General Directions and Overview: Please respond accurately to each item on the survey. Do not put your name on the survey. The results of this survey will remain completely anonymous. You may choose to not answer a question by leaving it blank. Thank you for your participation in this survey. Your responses will help your local career and technical center recruit future students.

Section A: General Information

1. Mark the numerical value closest to your current grade point average (GPA).

   _____ 100     _____ 85     _____ 70
   _____ 95     _____ 80     _____ 65
   _____ 90     _____ 75     _____ 60

2. What is your gender?

   _____ Female     _____ Male

3. What is your school lunch status?

   _____ Free lunch
   _____ Paid lunch
   _____ Reduced lunch

4. What is your ethnicity?

   _____ African American
   _____ Asian
   _____ Caucasian
   _____ Hispanic
   _____ Native American
   _____ Other

5. Are you currently enrolled in a career and technical education program or have you already completed two years of a career and technical education course? **If you answer yes, complete Question 6. If you answer no, move to Section B.**

   _____ YES     _____ NO

6. What career and technical education program(s) are you currently enrolled in or have completed?

   _____ Agriculture     _____ Child Care Technology
   _____ Allied Health    _____ Cooperative Education
   _____ Automotive Mechanics/Technology   _____ Metal Trades
   _____ Building Trades        _____ Technology Applications
   _____ Business and Computer Technology     _____ Other:
Section B: Questionnaire for Students Who Have Never Enrolled in a Career and Technical Education Course

Question #1: Influencing Perceptions

To what extent do you agree with each of the following statements?

Circle:
   5 for strongly agree
   4 for agree
   3 for neither agree nor disagree
   2 for disagree
   1 for strongly disagree

Career and technical education is designed for:

1. students who do not plan to attend college
2. students who plan to attend college
3. students who make low grades
4. students who make good grades
5. students who plan to join the military
6. students with multiple discipline problems
7. students with minimum discipline problems
8. students who wish to explore career opportunities
9. students who enjoy hands-on learning
10. students who want to learn life skills
11. any student who is interested
12. Other (please list)__________________________________

Question #2: Influencing Factors

To what extent do you agree with each of the following statements?

Circle:
   5 for strongly agree
   4 for agree
   3 for neither agree nor disagree
   2 for disagree
   1 for strongly disagree

I did not enroll in career and technical education because:

1. I plan to attend a four-year college
2. I could not fit it into my schedule
3. I am involved in too many extracurricular activities
4. I was not interested after visiting my local center
5. I would have to travel too far to my local center
6. I did not want to ride a bus to an off-campus location
7. I do not think the salary is good for CTE trades
8. Other (please list)__________________________________
9. Was there anything that would have encouraged or caused you to enroll in a class at your local career and technical center? ____________________________________________

**Question #3: Influencing Individuals**

To what extent do you agree with each of the following statements?

Circle:
5 for strongly agree  
4 for agree  
3 for neither agree nor disagree  
2 for disagree  
1 for strongly disagree

I was **discouraged** from attending my local career and technical center by:

1. Friends  
   5 4 3 2 1
2. Siblings  
   5 4 3 2 1
3. Mother  
   5 4 3 2 1
4. Father  
   5 4 3 2 1
5. Teachers  
   5 4 3 2 1
6. Principal  
   5 4 3 2 1
7. Guidance counselor  
   5 4 3 2 1
8. Other (please list) ____________________________________

I was **encouraged** to attend my local career and technical center by:

1. Friends  
   5 4 3 2 1
2. Siblings  
   5 4 3 2 1
3. Mother  
   5 4 3 2 1
4. Father  
   5 4 3 2 1
5. Teachers  
   5 4 3 2 1
6. Principal  
   5 4 3 2 1
7. Guidance counselor  
   5 4 3 2 1
8. Other (please list) ____________________________________

**This is the end of the survey for students not enrolled in career and technical education classes. Thank you for your responses.**
Section C: Questionnaire for Students Who Have Enrolled in a Career and Technical Education Course

Question #1: Influencing Perceptions

To what extent do you agree with each of the following statements?

Circle:
5 for strongly agree
4 for agree
3 for neither agree nor disagree
2 for disagree
1 for strongly disagree

Career and technical education is designed for:

1. students who do not plan to attend college
2. students who plan to attend college
3. students who make low grades
4. students who make good grades
5. students who plan to join the military
6. students with multiple discipline problems
7. students with minimum discipline problems
8. students who wish to explore career opportunities
9. students who enjoy hands-on learning
10. students who want to learn life skills
11. any student who is interested
12. Other (please list)

Question 2: Influencing Factors

To what extent do you agree with each of the following statements?

Circle:
5 for strongly agree
4 for agree
3 for neither agree nor disagree
2 for disagree
1 for strongly disagree

I enrolled in career and technical education because:

1. I plan to attend college in one of the career areas
2. I plan to get a job after high school in my career area
3. I plan to attend a community college in my career area
4. I was interested after visiting my local center
5. I enjoy spending time away from my high school
6. I feel the salary is good for the career I am exploring
7. Other (please list)
**Question #3: Influencing Individuals**

To what extent do you agree with each of the following statements?

Circle:
5 for strongly agree
4 for agree
3 for neither agree nor disagree
2 for disagree
1 for strongly disagree

I was **discouraged** from attending my local career and technical center by:

1. Friends 5 4 3 2 1
2. Siblings 5 4 3 2 1
3. Mother 5 4 3 2 1
4. Father 5 4 3 2 1
5. Teachers 5 4 3 2 1
6. Principal 5 4 3 2 1
7. Guidance counselor 5 4 3 2 1
8. Other (please list)__________________________________

I was **encouraged** to attend my local career and technical center by:

1. Friends 5 4 3 2 1
2. Siblings 5 4 3 2 1
3. Mother 5 4 3 2 1
4. Father 5 4 3 2 1
5. Teachers 5 4 3 2 1
6. Principal 5 4 3 2 1
7. Guidance counselor 5 4 3 2 1
8. Other (please list)__________________________________

**This is the end of the survey for students enrolled in career and technical education classes. Thank you for your responses.**
APPENDIX B

CONSENT AND ASSENT FORMS
Parental Consent Form

February 16, 2009

Dear Parents/Guardians of High School Seniors:

Your son/daughter is invited to participate in a research study entitled Factors and Perceptions that Affect Enrollment in Career and Technical Education Programs in Rural East Central Mississippi. Aimee Brown, a doctoral student and career and technical education administrator, is conducting this study. The information gathered through this study will be used in Mrs. Brown’s dissertation.

This research study has been approved by your local superintendent and the Institutional Review Board for the Protection of Human Subjects at Mississippi State University.

The survey consists of approximately 35 questions that gather information about the factors and perceptions that cause students to enroll or not enroll in career and technical education classes. Students will not write their name anywhere on the survey; therefore, it is completely anonymous. Students may choose to leave questions blank or they may choose not to answer the survey after they begin. Students will not be penalized in any way for non-participation. The surveys will be administered to students next week during their English IV class.

The results of this study will be used to help local career and technical centers develop future recruitment plans.

If you agree to allow your son/daughter to participate in the survey, please fill out the form below and have your son/daughter return the form to their English IV teacher.

Thank you for your assistance in this research study.

Aimee Brown, Researcher
601.859.6847
acbrown@madison-schools.com

Dr. Linda Cornelius, Dissertation Director
662.325.2280
l Cornelius@colled.msstate.edu

I agree to allow my son/daughter to complete the survey of factors and perceptions affecting career and technical education enrollment.

Student’s Name: ____________________________________________

Parent’s Name (Please Print): ____________________________________________

Parent’s Signature: ____________________________________________

Date: ____________________________________________

Please have your son/daughter give this copy to their English IV teacher.

MSU IRB
Approved: 2/4/09
Expires: __/__/__

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Student Consent Form
(18 years of age and older)

Project Title: Factors and Perceptions that Affect Enrollment in Career and Technical Education Programs in Rural East Central Mississippi

Researcher: Aimee C. Brown

I am completing a research study about the reasons why students chose to enroll or not enroll in career and technical education programs. If you decide you want to be part of this study, you will be asked to complete a survey that asks approximately 35 questions about the factors and perceptions that caused you to enroll or not enroll in a program at your local career and technical center. It will take approximately fifteen (15) minutes of your time to complete the survey.

Since you are not a minor, you can decide for yourself whether or not you want not complete the survey. If you give your consent to participate in the study, you must completely understand the next paragraph.

You will not write your name anywhere on the survey. The survey is completely confidential and the researcher will not be able to link your name to the survey you complete. You may choose to leave a question blank or you may change your mind and choose not to answer the survey once you begin. There will not be any hard feelings if you choose to not participate in the study or if you decide not to answer the survey once you begin. You may ask questions at any time about the survey if you are unsure what to do.

Do you understand the paragraphs above? YES NO

If you checked yes and you agree to complete the survey, please complete the form below.

Name (Please print):

Signature:

Date:

Investigator’s Signature:

Date:

Aimee Brown, Researcher
601.859.6847
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Researcher’s Copy

MSU IRB
Approved: 3/2/09
Expires: -/ / -
Minor Assent Form

Project Title: Factors and Perceptions that Affect Enrollment in Career and Technical Education Programs in Rural East Central Mississippi

Researcher: Aimee C. Brown

I am completing a research study about the reasons why students chose to enroll or not enroll in career and technical education programs. If you decide you want to be part of this study, you will be asked to complete a survey that asks questions about the factors and perceptions that caused you to enroll or not enroll in a program at your local career and technical center. It will take approximately fifteen (15) minutes of your time to complete the survey.

Your parent or guardian knows we are going to ask you to complete the survey. You will not write your name anywhere on the survey. The survey is completely confidential and the researcher will not be able to link your name to the survey you complete. You may choose to leave a question blank or you may change your mind and choose not to answer the survey once you begin. There will not be any hard feelings if you choose to not participate in the study or if you decide not to answer the survey once you begin. You may ask questions at any time about the survey if you are unsure what to do.

Do you understand the two paragraphs above? _____YES  _____NO

If you checked yes and you agree to complete the survey, please complete the form below.

Name (Please print):__________________________________________

Signature:___________________________________Date:_________

Investigator’s Signature:_________________________Date:_________
APPENDIX C

IRB APPROVAL LETTER
February 4, 2009

Aimee Brown
476 Annandale Pkwy
Madison, MS 39110

RE: IRB Study #08-338: Factors and Perceptions That Affect Enrollment in Career and Technical Education Programs in Rural East Central Mississippi

Dear Ms. Brown:

The above referenced project was reviewed and approved via administrative review on 2/4/2009 in accordance with 45 CFR 46.101(b)(1). Continuing review is not necessary for this project. However, any modification to the project must be reviewed and approved by the IRB prior to implementation. Any failure to adhere to the approved protocol could result in suspension or termination of your project. The IRB reserves the right, at anytime during the project period, to observe you and the additional researchers on this project.

Please note that the MSU IRB is in the process of seeking accreditation for our human subjects protection program. As a result of these efforts, you will likely notice many changes in the IRB’s policies and procedures in the coming months. These changes will be posted online at http://www.orc.msstate.edu/human/aahrpp.php. The first of these changes is the implementation of an approval stamp for consent forms. The approval stamp will assist in ensuring the IRB approved version of the consent form is used in the actual conduct of research. You must use copies of the stamped consent form for obtaining consent from participants.

Please refer to your IRB number (#08-338) 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 concerns, please contact me at cwilliams@research.msstate.edu or call 525-5220.

Sincerely,

[For use with electronic submissions]

Christine Williams
IRB Administrator

cc: Linda Cornelious