

Barriers Obtaining Alternative Certification in Online Career and Technical Teacher Education
Programs in Alabama

by

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Abstract

This research study sought to identify perceived barriers in online career and technical alternative certification and specialty area certification in the state of Alabama. The study was further conducted to determine why alternatively certified career and technical education teachers choose to leave the teaching profession entirely. Frequencies, means, and standard deviations were analyzed to determine if the preparation or lack thereof in alternative career and technical education certification programs affects one's desire to stay or leave the teaching profession.

The descriptive study was conducted through a Qualtrics developed online survey. Approximately 467 emails were sent, and 112 participants responded. Only 99 of these responses were considered valid, yielding a 21% rate of response. Demographic results suggested that the typical alternatively certified career and technical education teacher in the state of Alabama were over 30 years of age, white, and hold a level 5 specialty area teaching certificate which is the equivalent to a Masters degree.

Time with family, retirement and insurance benefits, and fulfillment of further education were among the factors influencing online course work to achieve alternative or specialty area certification noted in the survey. Results indicated that more time to work on coursework and being able to enroll in courses more frequently were the most important variables in online career and technical alternative certification programs. Monetary issues was considered the number one barrier in pursuing online coursework to achieve alternative certification. Paperwork

including business and industry certification were noted as the greatest contributor to career and technical teacher attrition.

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Chapter 1

Introduction

Introduction and Background

An increase in academic standards being placed on students in Alabama for preparation of traditional degrees from four year universities have forced lower enrollment in career and technical education programs on the secondary level in the last twenty years (NCES, 2009). According to the National Bureau of Labor Statistics (2013), the employment projections in trades, including health care and construction, are “projected to grow 0.5 percent per year from 2012 to 2022.” With this increased demand in traditional trades, the BLS reports a 9% increase in demand for secondary Career and Technical education instructors to teach the basic and advanced fundamentals of these trades to secondary students to prepare them for entry-level positions in business and industry (2013). Roughly defined, the BLS (2013) describes Career and Technical Education teachers as professionals who “instruct students in various technical and vocational subjects, such as auto repair, healthcare, and culinary arts ... [Career and Technical Education teachers] teach academic and technical content to provide students with the skills and knowledge necessary to enter an occupation” (para. 1). Similarly, the Association of Career and Technical Education (2015) advertises the field by stating, “Today’s cutting-edge, rigorous and relevant career and technical education (CTE) prepares youth and adults for a wide range of high-wage, high-skill, high-demand careers” (para. 1).

Recent trends set forth through efforts from the “Go Build Alabama” campaign has inspired students to enroll in secondary career and technical education courses throughout the state to fulfill the current demand of skilled labor positions. Go Build Alabama (n.d.), “is designed to educate young people on the value of learning a trade, dispel their misconceptions

about the construction industry, and inspire them to consider a career in the skilled trades” (About the Program section, para. 1). With an increased interest in taking these courses in preparation to obtain skilled trade qualifications, career and technical education in Alabama is expanding to accommodate these students. Today students, educators, administrators, and the state department of education are all placing an increased emphasis on career and technical education programs through coursework and training documented as career readiness indicators and stackable credentialing (ALSDE, 2010). These programs are marketed as providing an easy transition for students to enroll in technical colleges and many guarantee immediate job placement. These programs or clusters are offered in high schools and career and technical centers across the state including agricultural systems, family and consumer sciences, business and marketing, health, and technology. Due to the increased demand for secondary career and technical education programs and the emerging shortage of teachers to accommodate this demand, administrators and career technical directors must hire individuals directly out of industry with little or no knowledge of pedagogical instructional methodologies (Gaytan, 2013). Perspective and newly hired teachers in these programs must have a minimum of 14,000 hours or seven years in their respective field of expertise and are required to complete necessary coursework from a postsecondary institution offering career and technical teacher education courses within two years in order to obtain a teaching certificate in allowance to remain an instructor in secondary career and technical education (ALSDE, 2014).

The National Association of State Directors of Career Technical Education (2009) state that, “in order to cultivate a workforce to fill [skilled] jobs, students will require training from quality secondary and postsecondary CTE teachers – resources that are lacking across the nation due to a teacher shortage” (p.1). Opportunities for potential teachers to leave their respected

fields in business and industry are becoming more fluent through alternative means of career and technical teacher education and certification (McCaslin, 2002). The National Center for Education Information (2010) estimated that approximately 59,000 individuals were issued teaching certificates through alternative routes in 2008-09 (as cited by Duncan, Cannon, and Kitchel, 2013). Little research exists on why individuals leave business and industry to seek alternative routes for career and technical teacher education although a growing number of studies exist on barriers these new teachers face in the pursuit of obtaining teaching certification, particularly those acquiring certification requirements through online programs. According to the U.S. Department of Education (2009), some studies have found that online and online learning is perceived as more effective than traditional face-to-face learning. It is the belief of this researcher that studies, like this one, are needed to find the most beneficial means of obtaining alternative certification, with attention given to teacher attrition in the field of career and technical education.

Statement of the Problem

Research literature abounds regarding both barriers in distance teaching delivery methodologies and barriers in post-secondary career and technical teacher education as well as alternative certification (Dillon & Walsh, 1992; Filcher & Miller, 2000; Gayton, 2013; Kassop, 2003; Miller & Pilcher, 2000; Nelson & Thompson, 2005; Wilson, Parr, & Parr, 2012; Zirkle, Norris, Winegardner, & Frustaci, 2006; Zirkle, 2001, and Zirkle, 2004), although there have been no recent studies involving the attainment of alternative certification in career and technical education in regards to programs strictly offered online through distance teaching methodologies. This study was designed to determine what barriers exist in pursuing and obtaining alternative certification through online programs. The goal of this study is to determine those barriers

associated with alternative certification through online programs as well as identify the relationship between the variables in teacher preparation and significant barriers as perceived by educators and the desire to stay in the profession so that the findings may be used throughout the state of Alabama to improve existing career and technical teacher education programs while increasing the number of students who complete the programs so that they may meet the current workforce demands in this meaningful field of secondary education. Rocca and Washburn (2006) referenced agricultural education (a discipline of career and technical education) in asserting that “the shortage of qualified teachers in agricultural education has led to the hiring of uncertified teachers to fill vacancies” (p.58). More research is needed to determine how these individuals entering the field can benefit from alternative certification through online means. According to Wilson, Parr, and Parr (2012) current barriers found in online teaching programs in career and technical teacher education include inability to contribute to class discussions and high demand for work over traditional face-to-face instruction. Since the methodologies and technology used in distance education change at such a rapid pace, the researcher believes that it is important to report research findings on the barriers and implementation of those technologies currently being administered in these programs on a consistent basis.

Purpose

The purpose of this study was to identify reasons for adoption and barriers as they are perceived by upcoming teachers working on alternative certification in the state of Alabama with respect to effectiveness of the coursework, barriers to participating in courses and programs via online teaching methodologies, in relation to the desire to stay in the profession and to obtain specific demographic data regarding current adopters of online/distance career and technical teacher education programs. The study will additionally address preferred delivery methods of

online teacher education and factors that influence the adoption of online programs. The goal of this study is to improve online Career and Technical teacher education programs and influence post-secondary institutions to better offer opportunities for alternative certification and licensure. Lastly, the findings of this study will be presented to the Alabama State Department of Education so that they may provide current statistical data regarding the current status of career and technical education teachers who have been alternatively certified and are currently employed or are seeking employment in career and technical education in the state.

Research Questions

The following research questions were used to guide the study:

1. What are the demographic characteristics of current adopters of online alternative certification programs in career and technical teacher education.
2. What are the factors that influence adoption of online course work to achieve alternative certification in career and technical teacher education.
3. What variables are important to career and technical teacher preparation in online alternative certification programs.
4. What are the significant barriers concerning online alternative certification programs in career and technical teacher education.
5. Does the preparation (or lack thereof) affect one's desire to stay in the profession?

Limitations of the Study

Limitations are the conditions beyond the control of the researcher that may place restrictions on conclusions of the study. Limitations in this study include:

1. Teachers willing to take the time to complete the survey.
2. The survey instrument relies on truthful responses from participants.

3. Acquiring contact information for those alternatively certified teachers who have not yet obtained gainful employment in the field or those who have left the profession entirely.

Delimitations of the Study

Delimitations are the boundaries beyond which the study is concerned. This study involved Alabama teachers only in the field of career and technical education who obtained licensure through alternative means of certification. Due to alternative certification provisions differing greatly across and within states, this research study is limited to only those programs and career and technical education teachers in the state of Alabama.

Significance of the Study

Literature regarding career and technical education abounds in findings on course offerings, teacher background, and students. This study, however, does not discuss factors influencing career and technical teacher longevity and perceptions. This researcher's purpose was to describe the personal and professional factors that influence career and technical education teachers to enroll and complete alternative certification and specialty area certification through online means in the state of Alabama and how these programs will aid in the recruitment and retention of highly qualified teachers. The findings from this research study will be presented to the Alabama Department of Education to provide current data regarding alternative certification in career and technical education throughout the state. Further, the findings will allow higher learning institutions throughout the state, rather 2-year or 4-year, to improve current trends in online alternative procedures of certification in career and technical teacher education programs preventing teacher attrition, or teachers leaving the teaching profession all together to pursue careers in their respective fields and or disciplines.

Definition of Terms

Alternative Certification (AC). A process in which a state licenses a person who has not completed a university based teacher preparation program.

Association for Career and Technical Education. The largest national education association dedicated to the advancement of education that prepares youth and adults for careers. Their mission is to provide educational leadership in developing a competitive workforce.

Asynchronous. A type of two-way communication that occurs with a time delay, allowing participants to respond at their own convenience.

Attrition: When the teacher leaves the teaching profession altogether.

Career and Technical Education (CTE). A rigorous, progressive, and vital part of the total education system that provides students with life skills and prepares them for the workforce in which business and industry are confident.

Clusters: Related occupational and industry areas including: Agriculture, Food, & natural Resources; Architecture & Construction; Arts, Audio/Video Technology, & Communications; Business, Management, & Administration; Education & Training; Finance; Government & Public Administration; Health Science; Hospitality & Tourism; Human Services; Information Technology; Law, Public Safety, Corrections, & Security; Manufacturing; Marketing, Sales, & Service; Science, Technology, Engineering, & Mathematics; Transportation, Distribution, & Logistics.

Distance Education: A method of delivering education and instruction, often on an individual basis, to students who are not physically present in a traditional setting such as a classroom.

Go Build Alabama. A campaign designed to educate young people on the value of

learning a trade, dispel their misconceptions about the construction industry and inspire them to consider a career in the skilled trades.

Pedagogy. The method and practice of teaching, especially as an academic subject or theoretical concept.

Plan 2020. The strategic plan for education in Alabama with a goal to prepare students to be successful in college and/or career upon graduation from high school.

Rogers Diffusion of Innovations (adoption). The process by which an innovation is communicated through certain channels over time among the members of a social system. A theory that innovations would spread through society in an S curve, as the early adopters select the technology first, followed by the majority, until a technology or innovation is common.

Specialty Area Certification (SAC): Allows individuals without a teacher education background to come from industry and get certified as career and technical education teachers.

Synchronous: A type of two-way communication in which the interaction between the sender and receiver exists or occurs at the same time.

Chapter 2

Review of Related Literature

Introduction

The review of related literature was used to provide relevant research in career and technical education, the current teacher shortage in career and technical education, distance education and online coursework, factors influencing the adoption of distance education and alternative certification in career and technical education. This review of literature is divided into the following sections: introduction, career and technical education, teacher shortage in career and technical education, distance education and online coursework, factors influencing adoption of distance education, and summary. There is no current literature regarding alternative certification and online programs although a growing number of studies exist in online programs used in career and technical teacher education programs as well as the need for greater alternative certification opportunities in career and technical education.

Career and Technical Education

The Alabama Department of Education (2008) defines Career and Technical Education (CTE) as “a rigorous, progressive, and vital part of the total education system that provides students with life skills and prepares them for the workforce in which business and industry are confident” (p.1). Included in their most recent annual report (2008), The Alabama Department of Education states that CTE in Alabama encompasses the following five principles:

1. Career and Technical Education is critical to ensuring that the United States leads in global competitiveness.
2. Career and Technical Education prepares students to succeed in further education and careers.

3. Career and technical education is a results-driven system that demonstrates a positive return on investment.
4. Career and technical education is delivered through rigorous programs of study aligned to the National Career Cluster framework.
5. Career and Technical Education actively partners with employers to design and provide high-quality, dynamic programs (p.1).

The Carl D. Perkins Vocational and Technical Education Act of 1998 defined vocational and technical education as:

“organized educational activities that (1) offer a sequence of courses that provide individuals with the academic and technical knowledge and skills the individuals need to prepare for further education and for careers in current or emerging employment sectors and (2) include competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills, and occupation specific skills of an individual.” (as cited by Scott and Sarkees-Wircenski, 2004, p.4).

The Association for Career and Technical Education (2015) insist that “current Perkins law allows for more state and local flexibility and raises expectations for students participating in career and technical education by holding them to the specific, valid and reliable accountability standards.” According to Scott and Sarkees-Wircenski (2004), career and technical education “encompasses a tremendous number of programs designed to prepare students for employment and for living” (p.2). When thinking of career and technical or vocational education, most people think of “courses in one of the seven specific labor market program areas: agriculture, business, family and consumer sciences (formerly home economics), marketing (formerly distributive

education), health, trade and industry (T&I), and technical/communications” (p.2). What people do not realize is career and technical education is a much more diverse discipline integrating with academics in a rigorous and relevant curriculum which educates students for a range of career options through sixteen career clusters and seventy nine pathways (appendix #1).

McCaslin and Parks (2002) explain that career and technical education teachers are responsible for delivering the content and instructional strategies to students while preparing students to successfully obtain gainful employment in their respective trades. They further explain, “This relatively straightforward charge entails equipping students with the essential knowledge and work related skills to meet the demands of the contemporary workplace” (p.12). Research shows that students in career and technical education programs who obtain the employability and technical skills required for entry level employment in make more successful career choices and more smoothly transition from secondary education to obtaining gainful employment (Fletcher & Zirkle, 2009).

Current trends in career and technical education in Alabama include expanding courses and disciplines to accommodate the current demands in business and industry and new initiatives such as removing barriers to college access and more intensive career planning (ALSDE, 2008). According to the most recent report on CTE published by the Alabama State Department of Education (2008), there are 405,009 students enrolled in career and technical education courses throughout the state which translates into 66.27% of students. Additionally the publication reports that 95.62% of high school graduates take at least 1 CTE course in the state, there are 2,793 teachers, 133 career technical administrators, and 50 secondary schools dedicated solely to career and technical education in Alabama.

Teacher Shortage in Career and Technical Education

Due to the increased demand for secondary career and technical education programs and the emerging shortage of teachers to accommodate this demand, administrators and career technical directors must hire individuals straight from industry with little or no knowledge of pedagogical instructional methodologies (Gayton, 2013). A recent report published by the National Association of State Directors of Career and Technical Education (2009) concerning the current teacher shortage in teachers of career and technical education recognized several reasons as contributing to the shortage, including the following:

1. There has been an increase in the number of students enrolled in CTE courses, resulting in demand for more classes and more teachers.
2. Many existing teacher education programs have been eliminated.
3. The growing number of teacher retirements is affecting the supply of CTE teachers. (p.1)

The report also states that there has been an increase of almost six million students in CTE courses in just seven years, yet many existing teacher education programs have been eliminated. The number of CTE teacher education programs fell from 432 to 385 (from 1990 to 2000)—a decrease of 11%. Also, there is a growing number of teacher retirements affecting the supply of CTE teachers (as cited by Wilkin & Nwoke, 2011, p.1). According to Alabama Governor Robert Bentley, “there is nothing more important to our state than job creation, and having students who are college and career ready is one of the critical components of economic development” (Smith, 2015).

According to the National Research Center for Career and Technical Education (2011), “the requirements in Perkins IV and the Common Core State Standards expand what is expected

of CTE teachers at a time when anecdotal evidence suggests that many school districts are finding it difficult to hire anyone with occupational knowledge and experience need to teach the classes they offer” (p.2). The study further examines issues contributing emerging teacher shortages in career and technical education as increased enrollments in CTE courses, the decline in four-year teacher preparation programs, and the number of teachers reaching retirement age (p.3). As cited by NRCCTE (2011), Bruening et al. (2001) documented the decline in the number of institutions offering teacher education in CTE during the 1990s, “More recent data are not available, but most observers think the number of such programs continued to decline during the past 10 years. Those that remain are producing fewer new teachers than in the past. Programs that previously had primarily prepared CTE teachers responded to the increased demand for corporate trainers and began emphasizing human resource development instead...their graduates entered business and industry rather than the classroom” (NRCCCTE, 2011, p.3). Lastly, the NRCCTE found that another major indicator of the shortage of CTE teachers is the increase in the number with alternative certification (2011). Alternative means to career and technical education licensure, “embraced for nearly 100 years as a viable way of transitioning those with highly valued industry experience into the teaching profession, are one strategy for meeting the demand for more and better CTE teachers” (p.6). It is this researchers belief that further investigational studies should be conducted, such as this one, to see if lack of preparation in alternative certification and licensure programs contributes to teacher attrition.

Alternative Certification: Background and Issues

A difficult issue secondary education faces today is meeting the demands of qualified career and technical education teachers. Since industry experience is a valuable attribution for career and technical education teachers, alternative routes exist, particularly in the areas of trade,

industrial, and health occupations (NRCCTE, 2011). With the shortage of qualified career and technical education teachers there have been recent research studies conducted to investigate current trends in alternative certification and licensure (Conneely & Uy, 2009; Duncan, Cannon, & Kitchel, 2013; Hoepfl, 2001; Sander, 2007). “Virtually every state in the nation has provisions that allow school districts to hire non-licensed individuals to teach if district authorities can demonstrate that no regularly licensed teachers are available” (Hoepfl, 2001, p.36). According to Sander (2007), “one solution being utilized is the implementation of alternative certification (AC) programs which give individuals opportunities to earn their teaching certificates in abbreviated periods of time – often teaching while they complete program requirements” (p.31). Licensure requirements through alternative certification vary throughout the nation. The National Center for Education Information (2010) identified the following minimum requirements for alternative certification: “applicants have at least a bachelor’s degree; pass a screening process which may include tests; begin full-time teaching without any formal teacher preparation training (on-the-job training); complete coursework; work with mentor teachers; and meet high performance standards” (as cited by Duncan, Cannon, & Kitchel, 2013, p.58). In a recent report from the Association for Career and Technical Education (2007), Sanders found the following principles of quality career and technical education alternative certification programs:

1. Faculty use curriculum and instructional techniques to integrate theory with practice, academic and workforce education, professional education and subject matter, and learning theory and workforce preparation.
2. Faculty understand the philosophy and effective practice of workforce preparation and development.
3. Faculty use dynamic pedagogy based on learning theory and practices appropriate

for youth and adults.

4. Faculty are partners in learning communities through which they model collaboration and democratic processes for their students.
5. Programs are dynamic and change oriented.
6. Programs are grounded in academic education, workplace subject matter, technology, professional education, and clinical practices.
7. Colleges/universities provided adequate resources to sustain programs at high quality levels.
8. Academic and clinical faculty view career and technical education preparation as a top priority. (p.32)

Conneely and Uy (2010) completed a report published by the National Association of State Directors of Career Technical Education giving brief state examples including Oregon, Alabama, and California regarding innovative strategies for career and technical teacher preparation programs through alternative certification and licensure. According to the report, “Alabama has addressed the CTE teacher shortage by introducing new paths to certification for individuals who wish to transfer from industry to the classroom and those teachers without industry experience who wish to become CTE teachers” (p.3). Alabama offers Specialty Area Certification (SAC) which “allows individuals without a teacher education background to come from industry and get certified as CTE teachers...This certification is used predominantly by those in the healthcare and technical education fields” (p.3). Furthermore, the report explains:

There are five levels of certification available, but the first two levels are non-renewable, requiring those who wish to remain in the teaching profession to get at least a level 3 certification, which entails an additional 4 semester hours of coursework. Once

they reach a level 3 certification, they only need to take a minimal amount of courses to get their teaching degree. As a result, most people continue their education and get their degree. Alabama is considering making level 3 certification non-renewable so that those using the SAC route must get their teaching degree. The level 5 certification require the holder get a Masters degree.

The CTE Alternative Baccalaureate Certificate (CTE ABC) requires individuals to have a bachelor's degree in some academic or CTE area, and document one of the four eligibility options: 32 hours of CTE coursework in the area to be taught (19 hours upper level), verification of a passing score on the PRAXIS II assessment, hold a bachelor's degree with a related major in the teaching field, or have work experience in the area they wish to teach. Most applicants rely on the 32 hours of coursework or the PRAXIS II requirements, rather than work experience to fulfill their obligation for the CTE ABC (p.3)

However, Sander (2007) stated that “alternative certification program participants are nearly twice as likely to leave teaching compared to those who have had clinical student teaching experience” (p.32). The researcher believes that research is needed to prevent teacher attrition and increase retention rates of alternatively certified career and technical education teachers in the state of Alabama. The Alabama Department of Education has replaced what was once known as “the holy five”, post-secondary courses involving pedagogical fundamentals that allowed an individual coming from business and industry to achieve alternative certification, with “an intense 12 month cycle of training that includes scheduled 2-3 day sessions as well as meeting with an assigned mentor at regular intervals throughout the school year” (appendix 4).

Alabama's career and technical specialty area certification program include fast paced day

courses including effective teaching, customizing instructional strategies to specific settings, identifying learners with special needs, lab management, and arranging mentorship programs. A current schedule including objectives is provided in Appendix XI. Teachers who hold the Specialty Area 1 Certificate valid to June 30, 2015 and who have not already completed the extra coursework may choose to participate in this new certificate process. This is just one of the many initiatives that stress the importance of skilled technical careers throughout the state (Smith, 2015). In a recent report by the National Association of State Directors of Career and Technical Education, Conneely and Uy (2010) recommended:

States should maintain flexibility in their alternative certification program to allow individuals experienced in industry to become CTE teachers, while at the same time ensuring high standards and teacher quality.

States should consider a range of certification pathways that allow potential teachers various opportunities to demonstrate their teaching and content-based qualification and competencies. For instance, prospective teachers may be able to exhibit their qualifications through a mix of occupational testing, professional certification or longstanding work experience. Flexibility should be applied based on industry and the means by which teachers may exhibit their qualifications.

To ensure teachers' pedagogical qualifications, new CTE teachers must meet the standards that demonstrate their abilities in content knowledge of relative core subjects, classroom experience, and pedagogical practices. (p.4)

According to an investigation of the National Research Center for Career and Technical Education (2011),

Advocates for traditional four-year programs (e.g., Darling-Hammond, 2002,

2009) stress the need for a sound grounding in human development and pedagogy to effectively guide students' learning. Proponents of alternative certification point to an emerging body of research (e.g., Constantine et al., 2009) that typically finds few or no significant differences in the tested performance of students taught by alternatively and traditionally certified teachers. All of the research on this topic that we could locate was conducted with elementary and secondary teachers in general education, not with CTE teachers. Regardless of the merit of the research and arguments on both sides, alternative certification is needed if more CTE classes are to be offered.

Secondary CTE thus finds itself facing a unique set of challenges. Its teachers must have qualifications that can be acquired only through gaining several years of occupational experience. Those who are recruited from business and industry often do not have four-year degrees, and even those who have degrees typically have little or no pedagogical training. Nevertheless, they teach classes with disproportionate numbers of students with special needs and below average academic skills (Levesque et al., 2008), and they expected to improve their students' academic skills in addition to teaching occupational skills. To compound the challenges, there are fewer teacher education programs in higher education that offer the kind of preparation needed to respond to these expanded expectations. (p.4)

Based on the previous recommendations from research investigations and the existing body of literature regarding alternative certification, it is the belief of this researcher that future studies should be done on the effectiveness of alternative certification in career and technical teacher education programs. The following section addresses current evidence of barriers that career and technical education teachers face in an effort to obtain alternative certification through

online means.

Program Barriers in Online Career and Technical Teacher Preparation

Innovative technology allows post-secondary institutions to offer online teacher education programs. Research studies completed by Miller and Pilcher (2000) and Kassop (2003) found that there is a general perception that off-campus courses are of less quality and are less beneficial in meeting the needs of all students than traditional courses offered on-campus. Further, studies completed by Zirkle (2003) and Filcher and Miller (2000) have identified the numerous institutional, instructional, and student concerns regarding off-campus career and technical teacher preparation courses including professional development and technological training, program costs, lack of equipment and support, instructor feedback and contact, and student support services. Further evidence showing that significant barriers exist in distance education include studies completed by Roberts and Dyer (2005) and Nelson and Thompson (2005) reporting that the most significant variables negatively affecting distance education in career and technical teacher preparation programs were lack of ability to teach skills requiring hands on instruction, lack of adequate compensation for faculty workload and program development costs. According to Gibson, Brewer, Dholakia, Vouk, and Bitzer (1995), “one of the most important characteristics of any technology based learning environment was its ability to evaluate knowledge acquisition and retention, in order to readapt to students’ needs” (para.2). Evaluation of distance learning, teaching effectiveness, overall course quality and the use of technological components is difficult since many of the students and instructors have little or no face to face contact and traditional on-campus survey instruments do not adequately evaluate distance education (Swan & Jackman, 2000; Roberts, Irani, Lundy, and Telg, 2004; Gibson et al., 1995). In an effort to define and measure the quality of distance education, studies completed

by Miller & Shih (1998), Dillon and Walsh (1992), Miller and Pilcher (2000), and Wilson, Parr, and Parr (2012), evaluated the overall quality of off-campus courses compared to on-campus courses by using five indicators that focus on the perceptions of students enrolled in on and off-campus courses identified by Garvin (1984).

Zirkle (2001) examined the types of access barriers (institutional or individual student) exist with respect to students enrolled in distance education programs. Data was obtained from 60 career and technical education students at the Associate, Bachelor's, and Master's degree levels. The researchers used a questionnaire including short statements related to the determination of access barriers to distance education on a Likert-type scale. Statistical analysis consisted of descriptive statistics. The major finding of the study revealed that "job conflict ($M=2.11$) – the extent to which the demands of your job conflicted with your courses" (p. 75) was the most highly-ranked student-related barrier. The study further found that university functions, student advising, job conflicts and family constraints, isolation, technology, and financial barriers were also perceived as barriers in pursuing online degree programs by students.

Summary

The review of literature was developed to provide an insight into topics highlighted in this research study including: an overview of career and technical education, the background and issues regarding alternative means of certification, the shortage of secondary career and technical education teachers and the currently recognized program barriers in online career and technical teacher preparation. Career and technical education is considered a foundation of meeting the nations college and career readiness standards and serves as the foundation of the National Career Cluster framework. Due to the problem of current employment demands of secondary career and technical education teachers, alternative certification routes through online and

distance education programs may serve as a solution, although the specific barriers regarding the adoption of these programs must be identified so that they can be continually improved with the advancements of online technologies.

Chapter 3

Methods

Introduction

The researcher's purpose was to identify current barriers, delivery methods, and availability to alternative means of certification in career and technical teacher education as perceived by current and upcoming teachers in the state of Alabama as well as finding a relationship between teacher preparation and barriers faced in alternative certification programs and one's desire to stay in the profession.

Descriptive statistics, used to describe a variable or variables, were used to guide this study (Ross & Shannon, 2011). The descriptive data is beneficial to stakeholders of Career and Technical Education in the state of Alabama, as well as other states looking to improve means of providing beneficial means of alternative certification in career and technical education. Coneely (2009) recommends that "states should maintain flexibility in their alternative certification program to allow individuals experienced in industry to become CTE teachers, while at the same time ensuring high standards and teacher quality" (p.1). The pursuit of implementing programs that demand high standards and quality strengthens the career and technical education profession while possibly deterring individuals from entering or staying in the field (Bruening & Scanlon, 2001). This chapter is divided into the following sections: research questions, research design, population and sample, Institutional Review Board, instrumentation, reliability, validity, and data analysis procedures.

Research Questions

The following research questions were used to guide the study:

1. What are the demographic characteristics of current adopters of online alternative

certification programs in career and technical teacher education.

2. What are the factors that influence adoption of online course work to achieve alternative certification in career and technical teacher education.
3. What variables are important to career and technical teacher preparation in online alternative certification programs.
4. What are the significant barriers concerning online alternative certification programs in career and technical teacher education.
5. Does the preparation (or lack thereof) in alternative career and technical education certification programs affect one's desire to stay in the profession?

Research Design

The survey instrument included questions regarding demographics, factors influencing adoption of online coursework, attitudes involving variables in teacher preparation, significant barriers in alternative certification programs, and desire to stay or leave the profession. In an effort to address relevant issues represented in the achievement of alternative certification within Career and Technical Education in Alabama, participants of this investigative study were selected from a listserv maintained by the Alabama State Department of Education including current technical teachers and a listserv maintained by Athens State University including current and former students enrolled in off-campus online coursework in the career and technical teacher education program. Data were collected using a researcher-developed questionnaire instrument that was based on Marsh's (1982) "Student's Evaluations of Educational Quality" (SEEQ) questionnaire that was used previously to determine student perceptions of barriers in online teacher preparation programs in post-secondary career and technical education (Marsh & Bailey, 1993; Wilson, Parr, & Parr, 2012).

Population and Sample

The population for this study consisted of perspective, currently employed, and formerly employed secondary career and technical education teachers throughout the state of Alabama. The study is restricted only within the confines of the state of Alabama; means of alternative certification differ greatly among, and in some cases, within states. (ASDCTE, 2009) The respective disciplines of the participants included agricultural, business, family and consumer science, and technical education. The participants of this study were identified through a list serve of all technical teachers in the state of Alabama from the state department of education, a number of whom have completed or are currently completing the requirements for specialty area certification. Perspective teachers were sent the instrument through Athens State University – the only institution in the state offering a program consisting of only career and technical education alternative certification courses. The study was conducted through an online survey instrument sent via an electronic mail message to approximately 467 career and technical education teachers throughout the state of Alabama, some of whom have previously or are currently working towards alternative certification and come from varying disciplines including technical and agricultural fields. The subjects were identified through a list serve from the Alabama State Department of Education including all current technical teachers in the state. The participants could choose not to participate by simply disregarding the electronic mail message or not clicking on the survey link. Of the 467 questionnaires submitted, only 99 were fully completed and used in data analysis, yielding a 21% rate of response.

In an effort to increase participation, a total of three separate requests were sent (Appendix IX). Teachers who had retired or previously left the field were contacted by telephone with numbers provided by current career and technical administrators in areas of North Alabama,

where this researcher is employed.

International Review Board

According to federal regulations and Auburn University's research compliance board all research that involves human subjects must be reviewed and approved. The researcher submitted a complete Institutional Review Board (IRB) application that was approved by Auburn University's Office of University Research and IRB. (See Appendix VIII)

Instrumentation

The instrumentation used for this research was electronic mail communication with a link to a Qualtrics developed online survey instrument which collected data from participants. A combination of Likert type questions and open ended questions were utilized. The survey instrument included demographics information gathering questions including gender, age, ethnicity, level of certification held, and previous experience. Previous experience included factors that influenced adoption of online coursework, background information, and type of specialty area certification held. Attitudes regarding adoption of online career and technical teacher education coursework, effectiveness and barriers of those courses, and factors relating to the desire to stay in the profession were also included. Lastly open ended responses were used to obtain specific descriptive reasons for adoption, barriers, an explanation of what can be done to improve existing programs, and factors affecting ones desire to remain in the teaching profession. An item analysis of the survey questions are shown in Table #1. The survey was a modification of an existing survey (Wilson, Parr, & Parr, 2012). The Qualtrics designed instrument (see Appendix IX) required approximately 10-15 minutes to complete. Anonymous descriptive data was analyzed using SPSS to describe the participants' terms of means and frequencies.

Reliability and Validity

The research instrument was submitted to a panel of twenty current career and technical education teachers who have obtained or are working on obtaining alternative certification, specialty area certificates, career and technical alternative baccalaureate certificate, or the additional teaching field approach in the state of Alabama. Cronbach's coefficient alpha reliability analysis was used to examine each measurement scale for overall internal consistency. Cronbach's coefficient alpha reliability estimates for the agreement scale for the attitudes/important variables concerning preparation (32 items), barriers/challenges when taking online education courses (20 items), and the extent that preparation affects the desire to leave the profession all together (9 items) were .88, .79, and .96 which indicate a high level of internal consistency in this sample.

The final questionnaire items were reviewed and validated by a panel of career and technical education administrators, researchers, teacher educators, and online education specialists. The instrument was adjusted and modified based on those recommendations. Although modifications were minimal, they included removing questions regarding program area and highest level of education. These items were suggested as being irrelevant to the questionnaire. One person noted, "The question regarding highest level of education confused me, since most career and technical education teachers have not completed a degree program." The survey instrument used replicated Marsh's Student's Evaluations of Educational Quality (SEEQ) questionnaire (Marsh and Bailey, 1993) and was previously piloted by the researcher in

Table 1
Survey Item Analysis

Survey Item	Research	Research Question
Gender , Age, Ethnicity D1-3	ALSDE, (2008); AVA (1998); BLS, (2013); NCES, (2008);	1

Specialty Area D4	ALSDE (2008); Conneely & Uy (2009);	1, 5
Previous Experience D5-9	Wilson, Parr, & Parr (2012)	1, 2, 5
Attitudes Ad12.1-12.8	Filcher & Miller (2000); Gibson, (1995); Hoepfl, (2001); McCaslin, (2002); Miller & Pilcher, (2000);	2, 3
Variables Concerning Prep P13.1-13.23	Conneely (2009); Gayton (2013); Hoepfl, (2001); Miller & Pilcher, (2000); Roberts & Dyer, 2005)	2, 3, 4
Barriers B14.1-14.20	Gayton, (2013); Miller & Pilcher, (2000); Miller & Shih, (1999); Nelson & Thompson, (2005); Sander, (2007); Wilkin & Godefrey, (2011); Wilson, Parr & Parr, (2012); Zirkle, (2001) (2004)	4, 5
Attrition At15.1-15.9	Conneely (2009); Wilson, Parr & Parr, (2012)	5
Attrition (open ended) At16-18	ALSDE (2008), (2014); Conneely, (2009); Wilson, Parr & Parr, (2012)	5

Note. D=Demographic Item; Ad=Adoption Item; P=Preparation; B=Barriers; At=Attrition

“Student perceptions of Distance Education in a Career and Technical Teacher Education Program” (Wilson, Parr, & Parr, 2012). Content validity was established because survey items were based on the literature of factors contributing to the career and technical education teacher shortage and barriers/obstacles in achieving alternative means of certification (Table 1). According to Ross & Shannon (2011), content validity is established when “the first step evaluating the appropriateness of an instrument for research purposes is to assess the match between the content of the items (indicators) and the construct you want to address in your research.” (p.235-236) This research study also has face validity which is “evaluated by those

who are being assessed...if the data collection tool or process appears to be valid in the eyes of those being assessed, then the method is said to have face validity.” (p.236)

Data Analysis Procedures

The output for this paper was generated using Qualtrics software (Copyright © 2015 Qualtrics). Qualtrics and all other Qualtrics product or service names are registered trademarks or trademarks of Qualtrics, Provo, UT, USA. Data collected from the Qualtrics developed survey questionnaire were analyzed using IBM SPSS Statistics for Windows, Version 22.0. Analysis consisted of descriptive statistics which allowed the researcher to analyze means, medians, frequencies and standard deviations. For research questions 1 through 4, to evaluate if variables influencing adoption of online technology to achieve alternative certification, preparation, and barriers in preparation were significant, means, medians, frequencies, and standard deviations were recorded. According to Ross and Shannon (2011), “The purpose of descriptive statistics is to describe a variable or variables” (p.viii). A within subjects analysis of variance (ANOVA) was used to identify any differences that exist between significant variables in identified barriers associated with online alternative certification programs. Ross and Shannon (2011) describe a within subjects analysis of variance (ANOVA), “used to compare two or more related sets of scores, or levels of the independent variable” (p.103). For the final research question, does the preparation or lack thereof in alternative career and technical education certification programs affect one’s desire to stay in the profession, responses were recorded from three open ended questions. Each of the three open-ended questions was searched to identify impacts on pursuing online opportunities in obtaining alternative certification in career and technical education as attributed to desire to remain in the field of career and technical education, as well as what could be done to improve online opportunities in obtaining alternative certification.

Summary

This was a descriptive study using a survey designed through Qualtrics housed on university servers to collect data. A descriptive analysis of Alabama's career and technical education teachers certified through alternative means was conducted. Frequency tables were used to address the demographic profiles, factors influencing adoption of online course work, variables important to teacher preparation, and significant barriers concerning online alternative certification. The relationship between demographics, adoption factors, important variables in teacher preparation, significant barriers and one's desire to stay in the profession were analyzed using descriptive statistics including frequencies, means, and standard deviations. A within subjects analysis of variance (ANOVA) was used to identify any differences that exist between variables in the most significant barriers associated with online alternative certification programs. Cronbach's coefficient alpha reliability estimate was used to identify and remove outliers or questions that did not receive consistent feedback. Cronbach's coefficient alpha reliability estimates for the agreement scale for the attitudes/important variables concerning preparation (32 items), barriers/challenges when taking online education courses (20 items), and the extent that preparation affects the desire to leave the profession all together (9 items) were .88, .79, and .96 which indicate a high level of internal consistency in this sample.

Chapter 4

Findings

Introduction

The purpose of this study was to identify reasons for adoption and barriers as they are perceived by current and upcoming teachers working on alternative certification in the state of Alabama with respect to effectiveness of the coursework, barriers to participating in courses and programs via online teaching methodologies, in relation to the desire to stay in the profession and to obtain specific demographic data regarding current adopters of online/distance career and technical teacher education programs. The study additionally addressed preferred delivery methods of online teacher education and factors that influence the adoption of online programs. The goal of this study was to improve online Career and Technical teacher education programs and influence post-secondary institutions to better offer opportunities for alternative certification and licensure (Wilson, Parr, & Parr, 2012) lessening attrition rate (teachers leaving the field altogether) and increasing the retention rates or the amount of teachers who remain in this meaningful field of secondary education. Lastly, the findings of this study will be presented to the Alabama State Department of Education so that they may provide current descriptive statistical data regarding the current status of career and technical education teachers who have been traditionally, alternatively, or specialty area certified and who are currently employed or are seeking employment in career and technical education in the state. Due to alternative certification provisions differing greatly across and within states, this research study is limited to only those programs and career and technical education teachers located within the state of Alabama.

Research Questions

The following research questions were used to guide the study:

1. What are the demographic characteristics of current adopters of online alternative certification programs in career and technical teacher education.
2. What are the factors that influence adoption of online course work to achieve alternative certification in career and technical teacher education.
3. What variables are important to career and technical teacher preparation in online alternative certification programs.
4. What are the significant barriers concerning online alternative certification programs in career and technical teacher education.
5. Does the preparation (or lack thereof) affect one's desire to stay in the profession?

Description of the Participants

This descriptive study was conducted through an online survey instrument sent via an electronic mail message to approximately 467 career and technical education teachers throughout the state of Alabama, some of whom have previously or are currently working towards alternative certification and come from varying disciplines including technical and agricultural fields. The subjects were identified through a list serve from the Alabama State Department of Education including all current technical teachers in the state. The participants could choose not to participate by simply disregarding the electronic mail message or not clicking on the survey link. Of the 467 questionnaires submitted, only 99 were fully completed and used in data analysis, yielding a 21% rate of response.

Research Question One

Research question, "What are the demographic characteristics of current adopters of

online alternative certification programs in career and technical teacher education?” Of the 99 respondents, the population consisted of 61 males and 38 females. While the majority of

Table 2
Demographic Information (N=99)

Characteristic	<i>f</i>	%
Gender		
Female	61	54.5
Male	38	33.9
Age		
21-23 years	1	1.0
24-26 years	4	4.0
27-29 years	8	8.1
30 or over	86	86.9
Ethnicity		
African-American	12	12.1
Native American	2	2.0
White	84	84.8
Other	1	1.0
Teaching Certificate		
Level 1 (non-renewable)	6	6.1
Level 2 (non-renewable)	10	10.2
Level 3 (additional 45 semester hours of coursework)	21	21.4
Level 4 (alternative Baccalaureate Certificate, completed Praxis II)	20	20.4
Level 5 (currently hold Masters degree)	26	26.5
Not Sure	4	4.1
Not Applicable	11	11.2

participants were 30 years old or older, the participants ranged from 21 to over 30. Eighty-four of the participants identified their ethnicity as “white”, twelve were “African American”, two “Native American”, and one did not specify ethnicity. There was a wide variety of teaching level certificates noted among the respondents; however of the 83 career and technical education teachers who reported currently having teaching certificates (table 3), 16 respondents had non-renewable certificates while 21 respondents had level 3 certificates (45 post-secondary semester hours of coursework), 20 had a level 4 alternative baccalaureate certificates (ABC), and 26 had level 5 teaching certificates (currently hold Masters degree).

Table 3
Previous Experience (N=95)

Question	<i>f</i>	%
Do you currently hold a teaching certificate in CTE?		
Yes	84	88.4
No	11	11.6
Are you currently working towards or have you completed coursework to achieve alternative certification?		
Yes	45	47.4
No	50	52.6
What types of online courses have you taken?		
Canvas	6	5.4
Panopto	1	.9
Angel	3	2.7
Blackboard	65	58.0
WebCT	21	18.8
Other Virtual Learning Environments	12	10.7
Blackboard with Recorded Video	17	15.2
Email Correspondence	24	21.4
Synchronous Video (live class)	12	10.7

Of the 84 respondents reporting that they currently have teaching certificates in career and technical education, only 45 have completed coursework to achieve alternative certification while 50 have or are currently working towards specialty area certification which requires no outside coursework but does not provide renewable certificates. Types of online courses taken in Table 3 have percentages ranging from .9 to 58. More respondents had taken online courses via Blackboard than any other format (58%) and email correspondence (21.4%). Other formats included WebCT (18.8%), synchronous video and other virtual learning environments (10.7%), Canvas (5.4), Angel (2.7%), and lastly few had used Panopto (.9%).

The sample population preferred Blackboard as their distance learning format of choice (58.7%), Blackboard with recorded video (9.3%), WebCT (8%), other virtual learning environments and email correspondence (6.7%), Canvas (5.3%), synchronous video (4%), and lastly Angel (1.3%). Table 4

Table 4
Previous Experience (N=75)

What type of distance format do you prefer most?	<i>f</i>	%
Canvas	4	5.3
Angel	1	1.3
Blackboard	44	58.7
WebCT	6	8.0
Other Virtual Learning Environments	5	6.7
Blackboard with Recorded Video	7	9.3
Email Correspondence	5	6.7
Synchronous Video (live class)	3	4.0

Research Question Two

Research question, “What are the factors that influence adoption of online course work to achieve alternative certification in career and technical teacher education?” This research question was analyzed by the collections of means and standard deviations. Six of the seven variables concerning achievement of online alternative or specialty area certification had a mean of 3 or greater.

More time with family was ranked first ($M=3.79$) among factors influencing online course work to achieve alternative or specialty area certification, and retirement benefits ($M=3.53$) ranked second. Fulfillment of further education ($M=3.47$), vacation and time off ($M=3.43$), and insurance benefits ($M=3.36$) were also considered important variables in obtaining coursework to achieve alternative or specialty area certification. Lack of job opportunities in current field ($M=2.69$) was the lowest reason for adopting online coursework to achieve online certification. (Table 5)

Table 5
Attitudes and Variables Concerning Achievement of Alternative Certification (N=76)

To what extent do the following factors influence course work to achieve alternative or specialty area certification?	Mean	SD
More time with family	3.79	1.043
Retirement benefits	3.53	1.276
Fulfillment of further education	3.47	1.231

Vacation and time off	3.43	1.208
Insurance benefits	3.36	1.245
Health benefits	3.12	1.337
More time for secondary or self employment	3.01	1.301
Lack of job opportunities in current field	2.69	1.320

Note. Survey scale: 1-not at all; 2-very little; 3- somewhat; 4-to a great extent; 5-completely

Research Question Three

Research question, “What variables are important to career and technical teacher preparation in online alternative certification programs?” This research question was analyzed by the collections of means and standard deviations along with open-ended responses. Fourteen of the twenty-four variables concerning perceptions of online coursework to achieve alternative certification had a mean of 3 or greater noted in Table 6. The statement “online learning works well with my schedule” was noted as the greatest variable ($M=4.05$) important to online alternative certification programs in career and technical education, followed by “online learning enables me to enroll in classes more frequently than with traditional courses” ($M=3.95$) and “online courses save me time” ($M=3.86$). The statement “Online learning enables me to take more courses than traditional courses in one year” ($M=3.85$) was also perceived as an important variable in adoption and preparation of online alternative certification coursework. The least important variable to career and technical teacher preparation online alternative certification programs was “online courses make me uncomfortable” ($M=1.92$).

Table 6
Perceptions of Online Coursework to Achieve Alternative Certification (N=76)

Statement	Mean	SD
Online learning works well with my schedule.	4.05	.999
Online learning enables me to enroll in classes more frequently than with traditional courses.	3.95	1.043
I will take another online learning course.	3.91	1.142
Online learning courses save me time.	3.86	.983
Online learning enables me to take more courses than traditional courses in one year.	3.85	.955

I would like to have more courses taught online.	3.58	1.239
I would benefit if there were more online learning courses.	3.53	1.224
I believe that I can make the same grade in an online learning course as in a traditional course.	3.50	1.297
I prefer online learning courses to traditional courses.	3.23	1.278
Online education courses require more effort than face-to-face courses.	3.21	1.262
If you had the opportunity, would you attend class face-to-face rather than online?	3.18	1.336
Online learning courses require significant changes by the student.	3.17	1.167
I believe that I can learn the same amount in an online learning course as in a traditional course.	3.09	1.331
I believe that I can learn more or would learn more through online material than through lectures.	3.06	1.132
I enrolled in online course work because it was the only option available to me.	2.97	1.442
I find it difficult to contribute to class discussions in online courses.	2.81	1.259
In a course with both traditional and online learning methodologies, I learn better through the online learning portion.	2.79	1.262
My grades are better in online learning courses than face-to-face courses.	2.79	1.231
I believe that online learning courses are more effective than traditional face-to-face delivery.	2.77	1.194
I make better grades in on-campus courses than online education courses.	2.60	1.252
I found it difficult to learn without physically being in class.	2.41	1.314
Online learning courses do not offer any advantages to me.	2.37	1.406
Expectations of professors are lower in online courses.	2.18	1.170
Online learning courses make me uncomfortable.	1.92	1.256

Note. Survey scale: 1-not at all; 2-very little; 3- somewhat; 4-to a great extent; 5-completely

The open ended question, “in your own words, briefly describe your reasons for pursuing online opportunities in obtaining alternative certification in career and technical education had a significant response (N=52) with answers varying in family, further education, obtain higher levels of certification, time, only choice, and ease of access. One response noted “It’s the only option, but I would choose online anyway – I would rather pursue classes on my own than take away time with my family to sit in an actual classroom.” Another responded, “I wish to pursue a master’s degree in order to obtain a pay raise and to expand my knowledge of career and technical education.” Respondents also noted increase in pay and completing courses at a faster pace. Another notable response was “online opportunities enable me to advance my

career – these courses are required for higher pay and certification level.” (appendix X)

Research Question Four

Research question, “What are significant barriers concerning online alternative certification programs in career and technical teacher education?” This research question was analyzed by the collections of means and standard deviations and open ended responses.

Three of the nineteen variables concerning the extent of barriers and challenges presented when taking online alternative certification had a mean of 3 or greater noted in Table 7. The statement “monetary issues (paying for courses)” was noted as the greatest variable ($M=3.24$) in barriers obtaining online alternative certification, followed by “time constraints associated with job responsibilities” ($M=3.13$) and “online education technology fees (increased cost associated with online education courses)” ($M=3.07$). The statement “time commitment” ($M=2.93$) was also perceived as a barrier/challenge when taking online alternative certification courses. The least important variable to career and technical teacher preparation online alternative certification programs was “Obtaining grades, transcripts, and other course-related records” ($M=2.15$).

Table 7
Barriers / Challenges Taking Online Education Courses (N=76)

Statement	Mean	SD
Monetary issues (paying for courses)	3.24	1.432
Time constraints associated with job responsibilities.	3.13	1.398
Online education technology fees (increased cost associated with online education courses)	3.07	1.298
Time commitment	2.93	1.308
Prior obligations with your current employment	2.90	1.294
Keeping up with technological changes.	2.82	1.254
Instructor availability (students’ ability to contact instructor to discuss concerns)	2.61	1.283
Ability to learn teaching methodologies online.	2.56	1.198
Isolation from other students and faculty.	2.55	1.349
Absence of an instructor (motivation, quality of student work issues)	2.52	1.309
Ability to learn career/technical content online.	2.50	1.291
Student support services	2.48	1.234
Completing courses using technology I have available at home.	2.44	1.297

My availability of high-speed internet access.	2.41	1.452
Ability for credits to transfer between institutions.	2.41	1.231
My level of technical expertise.	2.40	1.241
Instructor availability (students' ability to contact instructor to discuss concerns)	2.61	1.283
Completing an academic program entirely as a distance students is an advantage when applying for employment or professional programs	2.28	1.180
My availability of technology (computer, tablet, phone, etc.)	2.27	1.288
Obtaining grades, transcripts, and other course-related records	2.15	1.193

Note. Survey scale: 1-not at all; 2-very little; 3- somewhat; 4-to a great extent; 5-completely

The open ended question, “in your own words, briefly describe what could be done to improve online opportunities in obtaining alternative certification in career and technical education” (N=43) with answers varying in financial aid and using local funds for cost, offering more classes online, having satellite institutions for those who do not have access to technology, greater communication between professors and students as well as make deadlines more visible, and more discussion. One response noted “help teachers with financial issues” and “make availability known to current teachers and funding opportunities.” Another responded, “in my experience, the only area that needs improvement is communication between instructors and students – I have had to be patient when waiting on responses to emails, but the instructors also stated in introductory materials their schedules and what to expect for their response timelines, however, I have sent emails that are not answered, even within the instructor’s stated response times – this is discouraging as I am sure students would be expected to respond within 48 hours of receiving correspondence from instructors.” Another notable response was “many teachers entering the teaching profession from industry are not ready for the amount of paperwork associated with teaching today – the current new teacher model that does not require course work in the first 3 years is improving retention of new teachers – once they have that first level 2 renewable certificate then they begin to look towards self improvement and rising to the next

level or beyond.” It should also be noted that several respondents (N=11) stated that no barriers existed in their current and previously completed online alternative certification programs.

(appendix X)

A within subjects analysis of variance (ANOVA) was used to identify any differences that exist between the most significant barriers, which were noted as cost and time. Cost and time were perceived as the largest barriers in obtaining alternative certification through online means as shown in Table 8. In an effort to assess the differences among monetary and time barriers in the adoption of online methods to complete alternative certification, the researcher completed a four-level within-subjects analysis of variance (ANOVA). Alpha was set at .05, and results were not statistically significant $p > .05$, showing that there are no differences in monetary and time factors considered as barriers in the adoption of online methods to achieve alternative certification in career and technical teacher education programs. The effect size was low $\eta^2 = .001$, suggesting that the results are not meaningfully different. (Table 9)

Table 8
Barriers / Challenges Taking Online Education Courses (N=72)

Statement	Mean	SD
Time Commitment	3.26	1.424
Time Constraints Associated with Job Responsibilities	3.11	1.420
Technology fees (increased cost associated with online education courses)	3.08	1.297
Time Commitment	2.89	1.306

Note. Survey scale: 1-not at all; 2-very little; 3- somewhat; 4-to a great extent; 5-completely

Table 9

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	TIME	COST	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
TIME	Linear		2.170	1	2.170	1.710	.195	.024
Error(TIME)	Linear		90.080	71	1.269			
COST		Linear	2.920	1	2.920	4.381	.040	.058

Error(COST)	Linear		47.330	71	.667			
TIME * COST	Linear	Linear	.031	1	.031	.051	.821	.001
Error(TIME* <i>COST</i>)	Linear	Linear	43.219	71	.609			

Research Question Five

Research question, “Does the preparation (or lack thereof) affect one’s desire to stay in the profession?” This research question was analyzed by the collections of means and standard deviations and open ended responses.

Only one of the nine variables concerning what extent does preparation in online alternative certification in career and technical education had a mean greater than 3 shown in Table 8. The statement “paperwork” was noted as the greatest variable ($M=3.33$) in lack of preparation affecting ones desire to leave the teaching profession. Local and state observations (Bic and/or NCCER) was the next greatest factor ($M=2.68$) followed by classroom management ($M=2.46$). The variable contributing the least to alternatively certified teachers desire to leave the profession is content knowledge ($M=1.85$).

Table 10
Desire to Leave the Teaching Profession (N=78)

Statement	Mean	SD
Paperwork	3.33	1.492
Local and state observations (BIC and/or NCCER)	2.68	1.410
Classroom Management	2.46	1.316
Marketing Your Program	2.41	1.211
Assessment of student subject matter acquisition and mastery	2.22	1.276
Pedagogical (teaching) Methodologies	2.21	1.231
Professional Development	2.19	1.196
Career and Technical Student Organization (CTSO) management and organization	2.17	1.242
Content Knowledge	1.85	1.207

Note. Survey scale: 1-not at all; 2-very little; 3- somewhat; 4-to a great extent; 5-completely

The open ended question, “in your own words, briefly describe factors affecting your desire to remain in the field of career and technical education” (N=54) with answers varying in reasons affecting ones desire to remain in the field of career and technical education and reasons affecting ones desire to leave. Factors affecting ones desire to remain in the field included the appreciation for student success, benefits such as time off and retirement, and a great response to job satisfaction. Responses regarding ones desire to remain in the field included, “sharing knowledge of our industry to younger students so that they can pursue careers and other rewarding opportunities”, “teaching students what it is like in the industry – seeing them accomplish things on their own and having the sense of pride that comes from learning a new skill” and “I believe in what I am doing – we do not do this for the money, we could all make double in industry.” Respondents also stated reasons for wanting to leave the field including lack of administrative support, age, paperwork, credentialing, and testing. Responses regarding ones desire to leave the field included, “a factor that is frustrating with secondary education CTE is classroom discipline and paperwork”, “to much politics, poor management at the administrative level and to many attitudes to deal with stemming from the lack of administrative leadership”, and “increased paperwork, continued change in instruction expectations which do not apply to area, increased student load with minimal time to complete.” (appendix X)

Chapter 5

Summary, Conclusions, Limitations, Recommendations

Summary

Purpose

The purpose of this study was to identify reasons for adoption and barriers as they are perceived by upcoming teachers working on alternative certification in the state of Alabama with respect to effectiveness of the coursework, barriers to participating in courses and programs via online teaching methodologies, in relation to the desire to stay in the profession and to obtain specific demographic data regarding current adopters of online/distance career and technical teacher education programs. The study additionally addressed preferred delivery methods of online teacher education and factors that influence the adoption of online programs. The goal of this study was to improve online Career and Technical teacher education programs and influence post-secondary institutions to better offer opportunities for alternative certification and licensure. Lastly, the findings of this study will be presented to the Alabama State Department of Education so that they may provide current descriptive statistical data regarding the current status of career and technical education teachers who have been alternatively certified and are currently employed or are seeking employment in career and technical education in the state.

Significance of the Study

Literature regarding career and technical education abounds in findings on course offerings, teacher background, and students. This study, however, does not discuss factors influencing career and technical teacher longevity and perceptions. This researcher's purpose was to describe the personal and professional factors that influence career and technical education teachers to enroll and complete alternative certification and specialty area certification

through online means in the state of Alabama and how these programs will aid in the recruitment and retention of highly qualified teachers. The findings from this research study will be presented to the Alabama Department of Education to provide current data regarding alternative certification in career and technical education throughout the state. Further, the findings will allow higher learning institutions throughout the state, rather 2-year or 4-year, to improve current trends in online alternative procedures of certification in career and technical teacher education programs preventing teacher attrition, or teachers leaving the teaching profession all together to pursue careers in their respective fields and or disciplines.

Research Questions

The following research questions were used to guide the study:

1. What are the demographic characteristics of current adopters of online alternative certification programs in career and technical teacher education.
2. What are the factors that influence adoption of online course work to achieve alternative certification in career and technical teacher education.
3. What variables are important to career and technical teacher preparation in online alternative certification programs.
4. What are the significant barriers concerning online alternative certification programs in career and technical teacher education.
5. Does the preparation (or lack thereof) affect one's desire to stay in the profession?

Assumptions

The following assumptions were made concerning this study:

1. Career and Technical Education instructors answered the “Barriers Obtaining Alternative Certification in Online Career and Technical Teacher Education Programs” truthfully.

2. Career and Technical Education instructors provided accurate answers about which certification they currently hold, previous experience, preferred distance format, attitudes and important variables concerning preparation, barriers and challenges in taking online certification courses, and desire to leave the profession.
3. The “Barriers Obtaining Alternative Certification in Online Career and Technical Teacher Education Programs” questionnaire was an appropriate instrument for the study.
4. Sufficient data was provided by the 99 career and technical education teachers who completed the “Barriers Obtaining Alternative Certification in Online Career and Technical Teacher Education Programs” questionnaire.

Population and Sample

The population for this study consisted of perspective, currently employed, and formerly employed secondary career and technical education teachers throughout the state of Alabama. The study is restricted only within the confines of the state of Alabama; means of alternative certification differ greatly among, and in some cases, within states. (ASDCTE, 2009) The respective disciplines of the participants included agricultural, business, family and consumer science, and technical education. The participants of this study were identified through a list serve of all technical teachers in the state of Alabama from the state department of education, a number of whom have completed or are currently completing the requirements for specialty area certification. Perspective teachers were sent the instrument through Athens State University – the only institution in the state offering a program consisting of only career and technical education alternative certification courses.

In an effort to increase participation, a total of three separate requests were sent. Teachers who had retired or previously left the field were contacted by telephone with numbers provided

by current career and technical administrators in areas of North Alabama, where this researcher is employed.

Research Design

The survey instrument included questions regarding demographics, factors influencing adoption of online coursework, attitudes involving variables in teacher preparation, significant barriers in alternative certification programs, and desire to stay or leave the profession. In an effort to address relevant issues represented in the achievement of alternative certification within Career and Technical Education in Alabama, participants of this investigative study were selected from a listserv maintained by the Alabama State Department of Education including current technical teachers and a listserv maintained by Athens State University including current and former students enrolled in off-campus online coursework in the career and technical teacher education program. Data was collected using a researcher-developed questionnaire instrument that was based on Marsh's (1982) "Student's Evaluations of Educational Quality" (SEEQ) questionnaire that was used previously to determine student perceptions of barriers in online teacher preparation programs in post-secondary career and technical education (Marsh & Bailey, 1993; Wilson, Parr, & Parr, 2012).

Instrumentation

The instrumentation used for this research was electronic mail communication with a link to a Qualtrics developed online survey instrument which collected data from participants. A combination of Likert type questions and open ended questions were utilized. The survey instrument included demographics information gathering questions including gender, age, ethnicity, level of certification held, and previous experience. Previous experience included factors that influenced adoption of online coursework, background information, and type of

specialty area certification held. Attitudes regarding adoption of online career and technical teacher education coursework, effectiveness and barriers of those courses, and factors relating to the desire to stay in the profession were also included. Lastly open ended responses were included to obtain specific descriptive reasons for adoption, barriers, an explanation of what can be done to improve existing programs, and factors affecting ones desire to remain in the teaching profession. An item analysis of the survey questions are shown in Table #1. The survey was a modification of an existing survey (Wilson, Parr, & Parr, 2012). The Qualtrics designed instrument required approximately 10-15 minutes to complete. Anonymous descriptive data was analyzed using SPSS to describe the participants' terms of means and frequencies.

Data Collection and Analysis Procedures

Data collected from Qualtrics were analyzed using SPSS. Analysis consisted of descriptive statistics which allowed the researcher to analyze means, medians, frequencies and standard deviations. For research questions 1 through 4, to evaluate if variables influencing adoption of online technology to achieve alternative certification, preparation, and barriers in preparation were significant, means, medians, frequencies, and standard deviations were recorded. According to Ross and Shannon (2011), "The purpose of descriptive statistics is to describe a variable or variables" (p.viii). A within subjects analysis of variance (ANOVA) was used to identify any differences that exist between cost and time as variables in barriers associated with online alternative certification programs. Cost and time were perceived as the largest barriers in obtaining alternative certification through online means as shown in Table 8. In an effort to assess the differences among monetary and time barriers in the adoption of online methods to complete alternative certification, the researcher completed a four-level within-subjects analysis of variance (ANOVA). For the final research question, does the preparation or

lack thereof in alternative career and technical education certification programs affect one's desire to stay in the profession, responses were recorded from three open ended questions. Each of the three open-ended questions were searched to identify similarities in impacts regarding the pursuit online opportunities in obtaining alternative certification in career and technical education as attributed to desire to remain in the field of career and technical education, as well as what could be done to improve online opportunities in obtaining alternative certification.

Conclusions

Research Question One

Research question, "What are the demographic characteristics of current adopters of online alternative certification programs in career and technical teacher education?" Of the 99 respondents, the population consisted of 61 males and 38 females. While the majority of participants were 30 years old or older, the participants ranged from 21 to over 30. Eighty-four of the participants identified their ethnicity as "white", twelve were "African American", two "Native American", and one did not specify ethnicity. There was a wide variety of teaching level certificates noted among the respondents; however of the 83 career and technical education teachers who reported currently having teaching certificates, 16 respondents had non-renewable certificates while 21 respondents had level 3 certificates (45 post-secondary semester hours of coursework), 20 had a level 4 alternative baccalaureate certificates, and 26 had level 5 teaching certificates (currently hold Masters degree).

Of the 84 respondents reporting that they currently have teaching certificates in career and technical education, only 45 have completed coursework to achieve alternative certification while 50 have or are currently working towards specialty area certification which requires no outside coursework but does not provide renewable certificates. Types of online courses taken in

Table 3 have percentages ranging from .9 to 58. More respondents had taken online courses via Blackboard than any other format (58%) and email correspondence (21.4%). Other formats included WebCT (18.8%), synchronous video and other virtual learning environments (10.7%), Canvas (5.4), Angel (2.7%), and lastly few had used Panopto (.9%). The sample population preferred Blackboard as their distance learning format of choice (58.7%), Blackboard with recorded video (9.3%), WebCT (8%), other virtual learning environments and email correspondence (6.7%), Canvas (5.3%), synchronous video (4%), and lastly Angel (1.3%).

Research Question Two

Research question, “What are the factors that influence adoption of online course work to achieve alternative certification in career and technical teacher education?” This research question was analyzed by the collections of means and standard deviations. Six of the seven variables concerning achievement of online alternative or specialty area certification had a mean of 3 or greater.

More time with family was ranked first ($M=3.79$) among factors influencing online course work to achieve alternative or specialty area certification, and retirement benefits ($M=3.53$) ranked second. Fulfillment of further education ($M=3.47$), vacation and time off ($M=3.43$), and insurance benefits ($M=3.36$) were also considered important variables in obtaining coursework to achieve alternative or specialty area certification. Lack of job opportunities in current field ($M=2.69$) was the lowest reason for adopting online coursework to achieve online certification. The findings of this study are in congruence with previous studies regarding adoption of online coursework to achieve advanced degrees and/or certification (Filcher & Miller, 2000; Geyton, 2013; Miller & Pilcher, 2000; Sander, 2007; Wilson, Parr, & Parr, 2012) in that there are numerous benefits to taking courses online.

Research Question Three

Research question, “What variables are important to career and technical teacher preparation in online alternative certification programs?” This research question was analyzed by the collections of means and standard deviations along with open-ended responses. Fourteen of the twenty-four variables concerning perceptions of online coursework to achieve alternative certification had a mean of 3 or greater. The statement “online learning works well with my schedule” was noted as the greatest variable ($M=4.05$) important to online alternative certification programs in career and technical education, followed by “online learning enables me to enroll in classes more frequently than with traditional courses” ($M=3.95$) and “online courses save me time” ($M=3.86$). The statement “Online learning enables me to take more courses than traditional courses in one year” ($M=3.85$) was also perceived as an important variable in adoption and preparation of online alternative certification coursework. The least important variable to career and technical teacher preparation online alternative certification programs was “online courses make me uncomfortable” ($M=1.92$).

The open ended question, “in your own words, briefly describe your reasons for pursuing online opportunities in obtaining alternative certification in career and technical education had a significant response ($N=52$) with answers varying in time with family, further education, obtain higher levels of certification, time, only choice, and ease of access. One response noted “It’s the only option, but I would choose online anyway – I would rather pursue classes on my own than take away time with my family to sit in an actual classroom.” Another responded, “I wish to pursue a master’s degree in order to obtain a pay raise and to expand my knowledge of career and technical education.” Respondents also noted increase in pay and completing courses at a faster pace. Another notable response was “online opportunities enable

me to advance my career – these courses are required for higher pay and certification level.”

Research Question Four

Research question, “What are significant barriers concerning online alternative certification programs in career and technical teacher education?” This research question was analyzed by the collections of means and standard deviations and open ended responses.

Three of the nineteen variables concerning the extent of barriers and challenges presented when taking online alternative certification had a mean of 3 or greater. The statement “monetary issues (paying for courses)” was noted as the greatest variable ($M=3.24$) in barriers obtaining online alternative certification, followed by “time constraints associated with job responsibilities” ($M=3.13$) and “online education technology fees (increased cost associated with online education courses)” ($M=3.07$). The statement “time commitment” ($M=2.93$) was also perceived as a barrier/challenge when taking online alternative certification courses. The least important variable to career and technical teacher preparation online alternative certification programs was “Obtaining grades, transcripts, and other course-related records” ($M=2.15$).

The open ended question, “in your own words, briefly describe what could be done to improve online opportunities in obtaining alternative certification in career and technical education” ($N=43$) with answers varying in financial aid and using local funds for cost, offering more classes online, having satellite institutions for those who do not have access to technology, greater communication between professors and students as well as make deadlines more visible, and more discussion. One response noted “help teachers with financial issues” and “make availability known to current teachers and funding opportunities.” Another responded, “in my experience, the only area that needs improvement is communication between instructors and students – I have had to be patient when waiting on responses to emails, but the instructors also

stated in introductory materials their schedules and what to expect for their response timelines, however, I have sent emails that are not answered, even within the instructor's stated response times – this is discouraging as I am sure students would be expected to respond within 48 hours of receiving correspondence from instructors.” Another notable response was “many teachers entering the teaching profession from industry are not ready for the amount of paperwork associated with teaching today – the current new teacher model that does not require course work in the first 3 years is improving retention of new teachers – once they have that 1st level 2 renewable certificate then they begin to look towards self improvement and rising to the next level or beyond.” It should also be noted that several respondents (N=11) stated that no barriers existed in their current and previously completed online alternative certification programs. A within subjects analysis of variance (ANOVA) was used to identify any differences that exist between cost and time as variables in barriers associated with online alternative certification programs. Cost and time were perceived as the largest barriers in obtaining alternative certification through online means as shown in Table 8. In an effort to assess the differences among monetary and time barriers in the adoption of online methods to complete alternative certification, the researcher completed a four-level within-subjects analysis of variance (ANOVA). Alpha was set at .05, and results were not statistically significant $p > .05$, showing that there are no differences in monetary and time factors considered as barriers in the adoption of online methods to achieve alternative certification in career and technical teacher education programs. The effect size was low $\eta^2 = .001$, suggesting that the results are not meaningfully different. (Table 9)

Research Question Five

Research question, “Does the preparation (or lack thereof) affect one's desire to stay in

the profession?” This research question was analyzed by the collections of means and standard deviations and open ended responses.

Only one of the nine variables concerning what extent does preparation in online alternative certification in career and technical education had a mean greater than. The statement “paperwork” was noted as the greatest variable ($M=3.33$) in lack of preparation affecting ones desire to leave the teaching profession. Local and state observations (Bic and/or NCCER) was the next greatest factor ($M=2.68$) followed by classroom management ($M=2.46$). The variable contributing the least to alternatively certified teachers desire to leave the profession is content knowledge ($M=1.85$).

The open ended question, “in your own words, briefly describe factors affecting your desire to remain in the field of career and technical education” ($N=54$) with answers varying in reasons affecting ones desire to remain in the field of career and technical education and reasons affecting ones desire to leave. Factors affecting ones desire to remain in the field included the appreciation for student success, benefits such as time off and retirement, and a great response to job satisfaction. Responses regarding ones desire to remain in the field included, “sharing knowledge of our industry to younger students so that they can pursue careers and other rewarding opportunities”, “teaching students what it is like in the industry – seeing them accomplish things on their own and having the sense of pride that comes from learning a new skill” and “I believe in what I am doing – we do not do this for the money, we could all make double in industry.” Respondents also stated reasons for wanting to leave the field including lack of administrative support, age, paperwork, credentialing, and testing. Responses regarding ones desire to leave the field included, “a factor that is frustrating with secondary education CTE is classroom discipline and paperwork”, “to much politics, poor management at the administrative

level and to many attitudes to deal with stemming from the lack of administrative leadership”, and “increased paperwork, continued change in instruction expectations which do not apply to area, increased student load with minimal time to complete.”

Implications

Career and technical education must continually change to meet the current demands of industry. In order to prepare students to meet these demands, the methods in which we train career and technical education instructors must also change. The review of literature shows a wide variety of reasons individuals come from business and industry to teach career and technical education and also shows diversity in reasons teachers choose to leave the field entirely. The NRCCTE (2011) found that career and technical education teachers leave the field for better opportunities in their chosen field of expertise, difficulties in obtaining and keeping alternative certification and licensure, and classroom management to name a few. If we are to attract these highly qualified individuals from industry to teach secondary career and technical education courses we need to create greater options in alternative certification and licensure, and specialty area certification in a way that is beneficial and more easily obtainable to these individuals. After all, these instructors are experts in their fields and there are no better teachers than those who can bring experience from the respective disciplines of business and industry.

Educational leaders and administrators should be concerned with the attrition and retention rate of career and technical education teachers. This researcher’s findings have provided information as to why career and technical teachers enter the field of teaching and why they consider leaving the field. The findings included reasons for adopting online alternative certification courses with respect to barriers and issues related to those courses. Administrators in career and technical education might use these finding to aid in the recruitment of highly

qualified teachers and identify factors to increase the retention of these instructors. If the state does not take the necessary steps to increase the retention rates of these teachers, we will find the deficit of current career and technical education teachers continually increasing making it even more difficult to keep pace with the workforce demands of business and industry.

Recommendations

1. The findings from this study showed that 86.9% of career and technical education teachers in the state are age 30 or over. Future studies could be program specific and seek to find what level of certification is held while nearing retirement age.
2. The review of literature indicated that prior to the current research, no other studies existed in regards to factors influencing adoption of online teacher education programs specifically to those programs in alternative certification and licensure in career and technical education. Since alternative certification and licensure differ so greatly among states, this or similar studies could be replicated in other states.
3. This study found that the most important variable to career and technical teacher preparation in online alternative certification programs was that courses work with teachers schedules and online learning enables more classes to be taken at a given time. There were open ended responses including monetary and financial concerns associated with online coursework. Another study could be conducted to identify how much cost is associated with online alternative certification coursework and how many systems in the state aid fully or partially in covering associated costs.
4. The methods used to distribute the online questionnaire in this study yielded a 21% rate of response which was much lower than the expectations of the researcher. This study could be replicated with different means of survey distribution, such as through face to

face meetings with current career and technical education directors throughout the state in an effort to increase response rate. Career and technical education directors could take ownership in the research since they are directly affected by the retention and attrition rates of the career and technical education teachers in the state. It is also to the directors benefit to find cheaper and more easily attainable means of alternative and/or specialty area certification.

5. As with most jobs, paperwork is often one of the most frustrating and burdensome aspects associated with daily routines, therefore it is no surprise that the number one factor of teachers consideration of leaving the field is paperwork. One open ended response included, “Many teachers entering the teaching profession from industry are not ready for the amount of paperwork associated with teaching today.” State staff and career and technical directors could take this information and use it to guide future professional development opportunities for alternatively certified individuals from industry to manage the amount of paperwork associated with the teaching profession, especially that of career and technical education.

References

- Alabama State Department of Education. (2014). The specialty area 1 career and technical certificate in technical education program area application. Retrieved from [http://www.alsde.edu/sec/tc/Career%20and%20Technical%20Education%20Certificate%20%20Specia/Technical%20Education%20Program%20Area/\(A\)%20Application%20Part%201%20of%202%20\(Supplement%201TS\).pdf](http://www.alsde.edu/sec/tc/Career%20and%20Technical%20Education%20Certificate%20%20Specia/Technical%20Education%20Program%20Area/(A)%20Application%20Part%201%20of%202%20(Supplement%201TS).pdf)
- Alabama State Department of Education. (2008). Alabama Career and Technical Education Annual Report. Retrieved from http://alcareertech.org/pdf/ANN_REPT_2010c.pdf
- American Vocational Association. (1998). *The official guide to the perkins act of 1998*. Alexandria VA.
- Association of Career & Technical Education. (2015). CTE information. Retrieved from <https://www.acteonline.org/cte/#.VMPvCZRdVPM>
- Association of Career & Technical Education. (2015). Carl d. perkins act. Retrieved from <https://www.acteonline.org/perkins/#.VMQc1ZRdVPM>
- Bruening, T. H., & Scanlon, D. C. (2001). The status of career and technical teacher preparation programs. *National Research Center for Career and Technical Education*. (ERIC Document Reproduction No. ED 455 367.)
- Bureau of Labor Statistics. (2013). Employment projections: 2012-2022. Retrieved from <http://www.bls.gov/news.release/ecopro.nr0.htm>
- Bureau of Labor Statistics. (2013). Occupational outlook handbook: career and technical education teachers. Retrieved from <http://www.bls.gov/ooh/education-training-and-library/career-and-technical-education-teachers.htm>
- Conneely, N., & Uy, E. (2009). Teacher shortage undermines cte. *National Association of State Directors of Career Technical Education Consortium*. Retrieved from <http://careertech.org/sites/default/files/TeacherShortageUnderminesCTE-August2009.pdf>
- Dillon, C. L., & Walsh, S. M. (1992). Faculty: the neglected resource in distance education. *American Journal of Distance Education*, 6(3), 5-6, 15-18.
- Duncan, D. W., Cannon, J., & Kitchel, A. (2013). Teaching efficacy: a comparison of traditionally and alternatively certified cte teachers in idaho. *Career and Technical Education Research*, 38(1), 57-67.
- Filcher, C., & Miller, G. (2000). Learning strategies for distance education students. *Journal of Agricultural Education*, 41(1), 60-68.
- Fletcher, E. C., & Zirkle, C. (2009). The relationship of high school career track to degree

- attainment and occupational earnings. *Journal of Career and Technical Education Research*, 34(2), 81-102.
- Garvin, D. A. (1984). What does “product quality” really mean?. *Sloan Management Review*. Retrieved from http://www.oqrm.org/English/What_does_product_quality_really_means.pdf
- Gibson, B., Brewer, P., Dholakia, A., Vouk, M., & Bitzer, D. (1995). A comparative analysis of web-based testing and evaluation systems. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.57.7080&rep=rep1&type=pdf>
- Gayton, J. (2013). Factors affecting student retention in online courses: overcoming this critical problem. *Career and Technical Education Research*, 38(2), 145-155.
- Go Build Alabama. (n.d.). About the program. Retrieved from <http://gobuildalabama.com/educators/about-the-program/>
- Hoepfl, M. (2001). Alternative routes to certification of technology education teachers. *Journal of Technology Studies*. 27(2), 35-44.
- Kassop, M. (2003). Ten ways online education matches, or surpasses, face-to-face learning. *The Technology Source*, Retrieved from http://technologysource.org/article/ten_ways_online_education_matches_or_surpasses_face_to_face_learning/
- McCaslin, N. L., & Parks, D. (2002). Teacher education in career and technical education: background and policy implications for the new millennium. *National Dissemination Center for Career and Technical Education*. (ERIC Document Reproduction Service No. ED 462 546.)
- Marsh, H. W., & Bailey, M. (1993). Multidimensional students’ evaluations of teaching effectiveness: A Profile analysis. *Journal of Higher Education*, 64(1), 1-18.
- Miller, G., & Pilcher, C. L. (2000). Do off-campus courses possess a level of quality comparable to that of on-campus courses? *Journal of Agricultural Education*, 41(3), 60-69.
- Miller, G., & Shih, C. (1999). A faculty assessment of the academic rigor of on-and off-campus courses in agriculture. *Journal of Agricultural Education*, 40(1), 57-65.
- National Center for Education Statistics. (2008). Career and technical education in the united states: 1990-2005. Retrieved from <http://nces.ed.gov/pubs2008/2008035.pdf>
- Nelson, S. J., & Thompson, G. W. (2005). Barriers perceived by administrators and faculty regarding the use of distance education technologies in preservice programs for secondary agricultural education teachers. *Journal of Agricultural Education*, 46(4), 36-48.

- Roberts, T. G., Irani, T., Lundy, L. K., & Telg, R. (2004). Practices in student evaluation of distance education courses among land grant institutions. *Journal of Agricultural Education, 45*(3), 1-10.
- Roberts, T. G., & Dyer, J. E. (2005). A summary of distance education in university agricultural education departments. *Journal of Agricultural Education, 46*(2), 70-82.
- Robinson, J. S., & Edwards, M. C. (2012). Assessing the teacher self-efficacy of agriculture instructors and their early career employment status: a comparison of certification types. *Journal of Agricultural Education, 53*(1), 150-161.
- Rocca, S. J., & Washburn, S. G. (2006). Comparison of teacher efficacy among traditionally and alternatively certified agriculture teachers. *Journal of Agricultural Education, 47*(3), 58-69.
- Ross, M. E., & Shannon, D. M. (2008). *Handbook on applied quantitative methods in education* (2nd Ed.). Iowa: Kendall Hunt Publishing Company.
- Sander, K. L. (2007). Alternative routes to certify career and technical education teachers. Association of Career and Technical Education. Retrieved from <https://www.acteonline.org/WorkArea/DownloadAsset.aspx?id=3115>
- Scott, J. L., & Sarkees-Wircenski, M. (2004). *Overview of career and technical education* (3rd Ed.). Illinois: American Technical Publishers.
- Smith, A. (2015, February 15). State initiatives stress importance of tech careers. *The News Courier*, pp. 29A.
- Swan, M. K., & Jackman, D. H. (2000). Comparing the success of students enrolled in distance education courses vs. face-to-face classrooms. *Journal of Technology Studies, 26*(1), 58-63.
- Wilkin, T., & Godefrey, I. N. (2011). Career and technical education teacher shortage: a successful model for recruitment and retention. *Journal of Stem Teacher Education, 48*(22), 22-35.
- Wilson, J. S., Parr, B. A., & Parr, K. S. (2012). Student perceptions of distance education in a career and technical teacher education program. *Journal of Career and Technical Education Research, 37*(2), 157-169.
- U.S. Department of Education. (2009). *Evaluation of evidence-based practices in online learning: A meta-analysis and review of online learning studies*. Washington, DC. Retrieved from <http://www2.ed.gov/rschstat/eval/tech/evidence-based-practices/finalreport.pdf>

- Zirkle, C., Norris, C., Winegardner, A., & Frustaci, E. (2006). Distance education programming barriers in business education teacher preparation programs in the united states. *Career and Technical Education Research* 31(2), 101-118.
- Zirkle, C. (2001). Access barriers to distance education perceived by inservice and preservice career and technical education majors. *AVERA 2001 Conference Proceedings*. (ERIC Document Reproduction Service No. ED 473 768.)
- Zirkle, C. (2004). Distance education programming barriers in career and technical teacher education in ohio. *Journal of Vocational Education Research*, 29(3), 157-179.

Appendix

- I. What is Career and Technical Education?
- II. Alabama Career Clusters and Pathways
- III. Occupational Proficiency Requirements for the Specialty Area 1 Certificate, Career and Technical Alternative Baccalaureate Certificate, and the Additional Teaching Field Approach
- IV. Career and Technical Education Certification Summary – Health Science
- V. Career and Technical Education Certification Summary – Technical Education
- VI. Career and Technical Education Alternative Baccalaureate Certificate (CT ABC)
- VII. Career and Technical Education Teacher Certification Program (CTE TCP)
- VIII. IRB
- IX. Information Letter and Survey Instrument
- X. Open-ended Responses
- XI. Career and Technical Education Teacher Certification Program Master Schedule 2015-2016

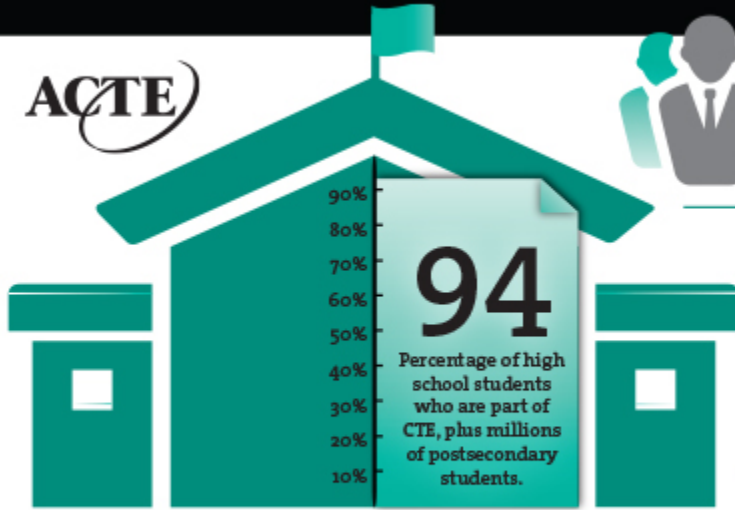
Appendix I

What is Career and Technical Education?

What is Career and Technical Education?



Fulfills employer needs that are **High** skill wage demand



Includes high schools, career centers, community and technical colleges, four-year universities and more.



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Appendix II
Alabama Career Clusters and Pathways

Alabama Career Clusters and Pathways



Appendix III

Occupational Proficiency Requirements for the Specialty Area 1 Certificate, Career and Technical Alternative Baccalaureate Certificate, and the Additional Teaching Field Approach

Program Area	Occupational Proficiency Exam (Choose <u>ONE</u> option unless otherwise indicated)
Advertising Design	<ul style="list-style-type: none"> • NOCTI – Advertising Design (5161)
Animation	<ul style="list-style-type: none"> • None Identified
Aviation Technology	<ul style="list-style-type: none"> • FAA
Automotive Service	<ul style="list-style-type: none"> • ASE (Four areas required): <ul style="list-style-type: none"> ○ Brakes (A5) ○ Electrical/Electronic Systems (A6) ○ Maintenance and Light Repair (G1) ○ Suspension and Steering (A4)
Building Construction	<ul style="list-style-type: none"> • NCCER Commercial Carpenter V2 (COMCARP27_02) • NCCER Industrial Carpenter V3 (CARP 27_02)
Cabinetmaking	<ul style="list-style-type: none"> • NCCER Commercial Carpenter V2 (COMCARP27_02) • NCCER Industrial Carpenter V3 (CARP 27_02)
Carpentry	<ul style="list-style-type: none"> • NCCER Commercial Carpenter V2 (COMCARP27_02) • NCCER Industrial Carpenter V3 (CARP 27_02)
*Career Cluster Technologies	<ul style="list-style-type: none"> • Praxis II – 0051 Technology Education <p><i>*This program requires a Class B or higher certificate, teachers holding the Specialty Area certificate only are not eligible to teach Career Technologies</i></p>
Collision Repair	<ul style="list-style-type: none"> • ASE in Painting and Refinishing (B2) • ASE in Structural Analysis and Damage Repair (B4)
Commercial Photography	<ul style="list-style-type: none"> • CPP
Computer Electronics	<ul style="list-style-type: none"> • CompTIA A+ (TWO areas required): <ul style="list-style-type: none"> ○ A+ Essentials ○ A+ Practical Application
Cosmetology	<ul style="list-style-type: none"> • Cosmetology Instructor License
Culinary Arts	<ul style="list-style-type: none"> • NOCTI – Commercial Foods (5167)
Database Design	<ul style="list-style-type: none"> • CompTIA A+ (TWO areas required): <ul style="list-style-type: none"> ○ A+ Essentials ○ A+ Practical Application • Microsoft Certified Solutions Associate (MCSA) • Microsoft Technology Associate (TWO areas required) <ul style="list-style-type: none"> ○ Windows Operating System Fundamentals ○ Database Fundamentals • Oracle Certified Associate • SAS Certified Base Programmer <p><i>(Higher level expert certifications may be considered for this program area)</i></p>
Diesel Technology	<ul style="list-style-type: none"> • ASE (five areas required): <ul style="list-style-type: none"> ○ Diesel Engines (T2) ○ Suspension and Steering (T5) ○ Brakes (T4) ○ Electrical Electronic Systems (T6) ○ Preventative Maintenance (T8)
Drafting Design Technology	<ul style="list-style-type: none"> • ADDA • AutoDesk – Inventor and/or Revit • NOCTI – Architectural Drafting (5920) • NOCTI – Mechanical Drafting and Design (5272) • NOCTI – Technical Drafting (5178)
Electrical Technology	<ul style="list-style-type: none"> • Electrical Contractors License • NCCER Commercial Electrician (COMELEC26) • NCCER Industrial Electrician V3 (ELEC26_03)

Program Area	Occupational Proficiency Exam (Choose ONE option unless otherwise indicated)																				
Electronics Technology	<ul style="list-style-type: none"> Electronics Technicians Association CETa Exam 																				
Emergency and Fire Management Services	<ul style="list-style-type: none"> Firefighter I/II <p>PLUS Instructor I is preferred but not required</p>																				
Engineering	<ul style="list-style-type: none"> B.S. Degree in Engineering accepted in lieu of occupational proficiency assessment 																				
Engineering - PLTW	<ul style="list-style-type: none"> B.S. Degree in Engineering accepted in lieu of occupational proficiency assessment Class B or higher in Math, Science, Chemistry, or Physics <p>PLUS PLTW Summer Training Institute required per course/per teacher</p>																				
Graphic Arts	<ul style="list-style-type: none"> GAERF 																				
<p>Health Science</p> <p>Requires a minimum of an associate's degree as a healthcare professional related to health science from a regionally accredited institution of postsecondary or higher education.</p>	<table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: center;"><u>Health Profession</u></th> <th style="text-align: center;"><u>Alabama License</u></th> </tr> </thead> <tbody> <tr> <td>Athletic Trainer (not Personal Trainer)</td> <td>ATC</td> </tr> <tr> <td>Paramedic</td> <td>Paramedic</td> </tr> <tr> <td>Occupational Therapist</td> <td>OT, OT/L, OTR/L, or LOTR</td> </tr> <tr> <td>Physical Therapist</td> <td>PT or RPT</td> </tr> <tr> <td>Physician</td> <td>MD or DO</td> </tr> <tr> <td>Physician Assistant</td> <td>PA</td> </tr> <tr> <td>*Registered Nurse</td> <td>RN</td> </tr> <tr> <td>*Nurse Practitioner</td> <td>CRNP</td> </tr> <tr> <td>Respiratory Therapist</td> <td>RPT or CRT</td> </tr> </tbody> </table> <p>*School systems planning to offer a Certified Nurse Aide Training Program must employ a teacher who is a registered nurse. Must have two years nursing experience and one must be in caring for geriatric patients.</p>	<u>Health Profession</u>	<u>Alabama License</u>	Athletic Trainer (not Personal Trainer)	ATC	Paramedic	Paramedic	Occupational Therapist	OT, OT/L, OTR/L, or LOTR	Physical Therapist	PT or RPT	Physician	MD or DO	Physician Assistant	PA	*Registered Nurse	RN	*Nurse Practitioner	CRNP	Respiratory Therapist	RPT or CRT
<u>Health Profession</u>	<u>Alabama License</u>																				
Athletic Trainer (not Personal Trainer)	ATC																				
Paramedic	Paramedic																				
Occupational Therapist	OT, OT/L, OTR/L, or LOTR																				
Physical Therapist	PT or RPT																				
Physician	MD or DO																				
Physician Assistant	PA																				
*Registered Nurse	RN																				
*Nurse Practitioner	CRNP																				
Respiratory Therapist	RPT or CRT																				
HVACR	<ul style="list-style-type: none"> HVAC Contractors License NCCER HVAC Technician (HVAC03_02) 																				
Industrial Maintenance – Electrical and Instrumentation	<ul style="list-style-type: none"> NCCER Industrial Maintenance, Electrical and Instrumentation Technician (IMEIT40) 																				
Industrial Maintenance – Mechanical	<ul style="list-style-type: none"> NCCER Industrial Maintenance, Mechanic V3 (MEIDMT32_03) 																				
Law Enforcement	<ul style="list-style-type: none"> APOST Certification or equivalent <p>Experience in one of the following areas:</p> <ul style="list-style-type: none"> ○ Police Officer ○ Sheriff Deputy ○ State Trooper ○ Detective ○ Correctional Officer ○ ABI Agent ○ CIA Agent ○ FBI Agent ○ US Marshall ○ Secret Service Agent 																				
Legal Services	<ul style="list-style-type: none"> NOCTI – Criminal Justice (5269) 																				
Marine Technology	<ul style="list-style-type: none"> US Coast Guard Captain's License 																				
<p>Masonry</p> <p>Network Systems and Computer Services</p>	<ul style="list-style-type: none"> NCCER Mason Level 1 (L1 Mason 28) CCNA Security Certified Ethical Hacker Cisco Career Certification CompTIA A+ (TWO areas required): <ul style="list-style-type: none"> ○ A+ Essentials ○ A+ Practical Application CompTIA Network+ Microsoft Certified Solutions Associate (MCSA) Microsoft Technology Associate (TWO areas required): <ul style="list-style-type: none"> ○ Networking Fundamentals ○ Security Fundamentals ○ Windows Operating System Fundamentals ○ Windows Server Administration Fundamentals <p><i>(Higher level expert certifications may be considered for this program area)</i></p>																				

Program Area	Occupational Proficiency Exam (Choose ONE option unless otherwise indicated)
Power Equipment	<ul style="list-style-type: none"> • NOCTI – Small Engine Technology (5277)
Precision Machining	<ul style="list-style-type: none"> • NIMS <ul style="list-style-type: none"> ○ Measurement, Materials, & Safety; ○ Manual Milling Skills I; and ○ Turning Operations: Turning Between Centers <u>or</u> • Turning Operations: Turning Chucking Skills
Plumbing	<ul style="list-style-type: none"> • Plumbing Contractors License • NCCER Industrial Pipefitter V3 (PFT08_02) • NCCER Plumber (PLUM68)
Programming and Software Development	<ul style="list-style-type: none"> • Microsoft Certified Solutions Developer (MCSD) • Microsoft Technology Associate (TWO areas required): <ul style="list-style-type: none"> ○ .NET Fundamentals ○ Gaming Development Fundamentals ○ HTML5 App Development Fundamentals ○ Software Development Fundamentals ○ Software Testing Fundamentals ○ Web Development Fundamentals • Oracle Certified Associate • SAS Certified Base Programmer <p><i>(Higher level expert certifications may be considered for this program area)</i></p>
Television Production	<ul style="list-style-type: none"> • B.S. Degree in Broadcast Engineering, Broadcast Journalism, and other fields of study directly related to Television Production will be considered in lieu of the occupational proficiency • NOCTI - Audio-Visual (5904)
Welding	<ul style="list-style-type: none"> • AWS Performance Tests (THREE required areas): <ul style="list-style-type: none"> ○ SMAW 3-G uphill progression D1.1 (required) ○ GTAW 3-G uphill progression (Steel) (required) ○ FCAW 3-G uphill progression D1.1 (required) ○ GTAW 3-G uphill progression (aluminum) D1.2 (optional) ○ GMAW 3-G uphill progression D 1.1

ADDA – American Design Drafting Association
 ASE – Automotive Service Excellence
 AWS – American Welding Society
 CPP – Certified Professional Photographer

FAA – Federal Aviation Administration
 NCCER – National Center for Construction Education & Research
 NIMS – National Institute for Metalworking Skills
 NOCTI – National Occupation Competency Testing Institute

Appendix IV

Career and Technical Education Certification Summary – Health Science

HEALTH SCIENCE

SPECIALTY AREA CERTIFICATE

CT Alternative Baccalaureate Certificate (CT ABC)

SA 1 – Valid Two Years (Non-renewable)

First CT ABC

- Active Alabama license in a registered nursing, paramedical, or allied health area (athletic trainer, occupational therapist, physical therapist, physician, physician assistant, respiratory therapist)
- Passing score on the AECTP basic skills assessment, <https://actapps.act.org/wkala/wkala>.
- Document one of the following:
 - Completion of regionally accredited postsecondary associate's degree program and three years of full-time work experience within past seven years **OR**
 - Completion of bachelor's or higher degree program at a regionally accredited senior institution and one year of full-time work experience within past three years in area to be taught

- Official transcript indicating a bachelor's degree from a regionally accredited senior institution with a **minimum grade point average (GPA) overall of at least 2.5 on a 4.0 scale**
- Passing score on the AECTP basic skills assessment, <https://actapps.act.org/wkala/wkala>.
- Active Alabama license in a registered nursing, paramedical, or allied health area (athletic trainer, occupational therapist, physical therapist, physician, physician assistant, respiratory therapist)

School systems planning to offer a Certified Nurse Aide Training Program must employ a teacher who is a registered nurse. Must have two years nursing experience and one must be in caring for geriatric patients.

ALL REQUIREMENTS MUST BE MET PRIOR TO SEPTEMBER 1 OF THE SCHOLASTIC YEAR FOR WHICH CERTIFICATE IS TO BE ISSUED

ALL REQUIREMENTS MUST BE MET PRIOR TO SEPTEMBER 1 OF THE SCHOLASTIC YEAR FOR WHICH CERTIFICATE IS TO BE ISSUED

Form ABT (1st)

SA 2 – Valid Five Years (Renewable)

Second CT ABC

- Active Alabama license in a registered nursing, paramedical, or allied health area (athletic trainer, occupational therapist, physical therapist, physician, physician assistant, respiratory therapist)
- Certificate and documentation verifying completion of the new Career and Technical Education Teacher Certification Program (CTE TCP)

- Official transcript(s) verifying credits earned, with a grade of "C" or above, for at least two of the four areas of specified coursework. **The credits must have been earned prior to September 1 of the scholastic year for which the second CT ABC is to be issued.**
 - Classroom management
 - The evaluation of teaching and learning\
 - Strategies for teaching special needs students in inclusive settings
 - Methods of teaching in the field and at the grade level for which certification is sought

ALL REQUIREMENTS MUST BE MET PRIOR TO SEPTEMBER 1 OF THE SCHOLASTIC YEAR FOR WHICH CERTIFICATE IS TO BE ISSUED

- Verification of a full year of in-field, full-time teaching experience while holding the first CT ABC
- Certificate verifying completion of Session "A" of the Career and Technical Education Teacher Certification Program (CTE TCP)

Form ABT (2nd)

SA 3 – Valid Five Years (Renewable)

Third CT ABC

- Active Alabama license in a registered nursing, paramedical, or allied health area (athletic trainer, occupational therapist, physical therapist, physician, physician assistant, respiratory therapist)
- Official transcript(s) verifying one of the following options:

Option 1

 - 45 semester hours of earned credit with a grade of "C" or above in prescribed courses at a regionally accredited institution

- Employment in a combination of no more than two public school systems while holding a CT ABC
- Official transcript(s) verifying credits earned, with a grade of "C" or above, for the remaining two areas of specified coursework.
- Verification of a full year of in-field, full-time teaching experience while holding the second CT ABC
- Verification of passing score on the Principles of Learning and Teaching (PLT) test

Form ABT (3rd)

ATHENS STATE UNIVERSITY		General Core Courses	
	Required CTE Courses	English 101	History
CE302	History/Principles of CTE	English 102	Computer Applications
CE439	CTE Student Organizations	Math (non-remedial)	Economics
CE435	Industrial Shop Safety	Speech	Biological Science
PLUS			
Remaining elective courses must be completed in a healthcare area.			

Option 2

- Hold an earned bachelor's or higher degree from a regionally accredited senior institution
- Nine (9) semester hours of earned credit with a grade of "C" or above in prescribed CTE courses at a regionally accredited senior institution with a State-approved teacher education program in technical education

ATHENS STATE UNIVERSITY	
CE302	History/Principles of CTE
CE439	CTE Student Organizations
CE435	Industrial Shop Safety

ALL REQUIREMENTS MUST BE MET PRIOR TO SEPTEMBER 1 OF THE SCHOLASTIC YEAR FOR WHICH CERTIFICATE IS TO BE ISSUED

SA 4 – Valid Five Years (Renewable)

- Active Alabama license in a registered nursing, paramedical, or allied health area (athletic trainer, occupational therapist, physical therapist, physician, physician assistant, respiratory therapist)
- Official transcript(s) verifying an earned bachelor's degree in a healthcare area from a regionally accredited senior institution

ALL REQUIREMENTS MUST BE MET PRIOR TO SEPTEMBER 1 OF THE SCHOLASTIC YEAR FOR WHICH CERTIFICATE IS TO BE ISSUED

IMPORTANT CERTIFICATION LINKS

Alabama Institutions Offering CT ABC Coursework and Application Forms

www.alsde.edu

Select:

- ⊖ Department Offices
- ⊖ Teacher Certification
- ⊖ Application Forms
- ⊖ Alternative Certificate Approaches: Alternative Baccalaureate-Level Certificate (ABC) and Career and Technical Alternative Baccalaureate-Level Certificate (CT ABC)
- ⊖ ABC and CT ABC coursework, **and**
- ⊖ Form 1st ABT

This summary page is for general information

SA 5 – Valid Five Years (Renewable)

ONLY!

1. Active Alabama license in a registered nursing, paramedical, or allied health area (athletic trainer, occupational therapist, physical therapist, physician, physician assistant, respiratory therapist)
2. Official transcript(s) verifying an earned master's degree in a healthcare area from a regionally accredited senior institution

*ALL REQUIREMENTS MUST BE MET PRIOR TO **SEPTEMBER 1** OF THE SCHOLASTIC YEAR FOR WHICH CERTIFICATE IS TO BE ISSUED*

Appendix V

Career and Technical Education Certification Summary – Technical Education

SPECIALTY AREA CERTIFICATE

TECHNICAL EDUCATION

SA 1 – Valid Two Years (Non-renewable)

1. Passing score on Occupational Proficiency Assessment (*Occupational Proficiency requirements are located on the ALSDE website)
(Cosmetology must hold AL Cosmetology Instructor License)
2. Passing score on the AECTP basic skills assessment, <https://actapps.act.org/wkala/wkala>.
3. Document one of the following:
 - Seven years full-time work experience within past ten years in the area to be taught, **OR**
 - Completion of regionally accredited postsecondary certificate/diploma program and five years full-time work experience within past seven years in area to be taught, **OR**
 - Completion of regionally accredited postsecondary associate's degree program and three years of full-time work experience within past seven years in area to be taught, **OR**
 - Completion of bachelor's degree or higher in the technical education program area for which the certificate is sought from a regionally accredited senior institution and one year of full-time work experience within past three years in area to be taught.

ALL REQUIREMENTS MUST BE MET PRIOR TO **SEPTEMBER 1** OF THE SCHOLASTIC YEAR FOR WHICH CERTIFICATE IS TO BE ISSUED

SA 4 – Valid Five Years (Renewable)

1. Verification of passing score on approved Occupational Proficiency Assessment (FAA License, ASE, Cosmetology Instructor License, Electrical Contractor's License, HVACR Contractor's License, US Coast Guard Captain's License)
2. Official transcript(s) verifying an earned bachelor's degree in Technical Education from a regionally accredited senior institution

ALL REQUIREMENTS MUST BE MET PRIOR TO **SEPTEMBER 1** OF THE SCHOLASTIC YEAR FOR WHICH CERTIFICATE IS TO BE ISSUED

SA 2 – Valid Five Years (Renewable)

1. Verification of passing score on approved Occupational Proficiency Assessment (FAA License, ASE, Cosmetology Instructor License, Electrical Contractor's License, HVACR Contractor's License, US Coast Guard Captain's License)
2. Certificate and documentation verifying completion of the Career and Technical Education Teacher Certification Program (CTE TCP)

ALL REQUIREMENTS MUST BE MET PRIOR TO **SEPTEMBER 1** OF THE SCHOLASTIC YEAR FOR WHICH CERTIFICATE IS TO BE ISSUED

SA 5 – Valid Five Years (Renewable)

1. Verification of passing score on approved Occupational Proficiency Assessment (FAA License, ASE, Cosmetology Instructor License, Electrical Contractor's License, HVACR Contractor's License, US Coast Guard Captain's License)
2. Official transcript(s) verifying an earned master's degree in education from a regionally accredited senior institution

ALL REQUIREMENTS MUST BE MET PRIOR TO **SEPTEMBER 1** OF THE SCHOLASTIC YEAR FOR WHICH CERTIFICATE IS TO BE ISSUED

SA 3 – Valid Five Years (Renewable)

1. Verification of passing score on approved Occupational Proficiency Assessment (FAA License, ASE, Cosmetology Instructor License, Electrical Contractor's License, HVACR Contractor's License, US Coast Guard Captain's License)
2. Official transcript(s) verifying one of the following options:
 - Option 1**
 - 45 semester hours of earned credit with a grade of "C" or above in prescribed courses at a regionally accredited institution

ATHENS STATE UNIVERSITY		General Core Courses	
	Required CTE Courses		
CE302	History/Principles of CTE	English 101	History
CE439	CTE Student Organizations	English 102	Computer Applications
CE435	Industrial Shop Safety	Math (non-remedial)	Economics
		Speech	Physical Science
PLUS			
Career Technical Education Elective Courses to complete the 45 semester-hours requirement.			

Option 2

- Hold an earned bachelor's or higher degree from a regionally accredited senior institution
- Nine (9) semester hours of earned credit with a grade of "C" or above in prescribed CTE courses at a regionally accredited senior institution with a State-approved teacher education program in technical education

ATHENS STATE UNIVERSITY	
CE302	History/Principles of CTE
CE439	CTE Student Organizations
CE435	Industrial Shop Safety

ALL REQUIREMENTS MUST BE MET PRIOR TO **SEPTEMBER 1** OF THE SCHOLASTIC YEAR FOR WHICH CERTIFICATE IS TO BE ISSUED

CERTIFICATION LINKS

FORM CT (Application form to apply for Specialty Area 1)
FORM CTI (Application form to apply for Specialty Area 2, 3, 4, or 5)

www.alsde.edu

Select:

- è Department Offices
- è Teacher Certification
- è Application Forms
- è Career and Technical Education (Specialty Area 1), **or**
- è Career and Technical Education (Specialty Area 2, 3, 4, 5)
TECHNICAL EDUCATION

***Occupational Proficiency Requirements**

www.alsde.edu

Select:

- è Department Offices
- è Office of Career & Technical Education/Workforce Development
- è Teacher Certification (Career and Technical Education)
- è Occupational Proficiency Requirements

This summary page is for general information ONLY! Please see FORM CT and FORM CTI for specific requirements.

Appendix VI

Career and Technical Education Alternative Baccalaureate Certificate (CT ABC)

AGRISCIENCE, BUSINESS/MARKETING, CAREER TECHNOLOGIES, FAMILY AND CONSUMER SCIENCES

First CT ABC

1. Official transcript indicating a bachelor's degree or higher from a regionally accredited senior institution with a **minimum grade point average (GPA) overall of at least 2.5 on a 4.0 scale**
2. Passing score on the AECTP basic skills assessment, <https://actapps.act.org/wkala/wkala>.
3. Verification of a current passing score on the Praxis II or an appropriate State Board of Education-approved occupational proficiency examination, <http://www.ets.org/praxis/al>.

or

4. Active Alabama license in a registered nursing, paramedical, or allied health area (athletic trainer, occupational therapist, physical therapist, physician, physician assistant, respiratory therapist)

ALL REQUIREMENTS MUST BE MET PRIOR TO **SEPTEMBER 1** OF THE SCHOLASTIC YEAR FOR WHICH CERTIFICATE IS TO BE ISSUED

Second CT ABC

4. Official transcript(s) verifying credits earned, with a grade of "C" or above, for at least two of the four areas of specified coursework. **The credits must have been earned prior to September 1 of the scholastic year for which the second CT ABC is to be issued**
 - Classroom management
 - The evaluation of teaching and learning
 - Strategies for teaching special needs students in inclusive settings
 - Methods of teaching in the field and at the grade level for which certification is sought
5. Verification of a full year of in-field, full-time teaching experience while holding the first CT ABC
6. Certificate verifying completion of Session "A" of the Career and Technical Education Teacher Certification Program (CTE TCP)

Third CT ABC

5. Employment in a combination of no more than two public school systems while holding a CT ABC
6. Official transcript(s) verifying credits earned, with a grade of "C" or above, for the remaining two areas of specified coursework
7. Verification of a full year of in-field, full-time teaching experience while holding the second CT ABC
8. Passing score on the Principles of Learning and Teaching (PLT) test

IMPORTANT CERTIFICATION LINKS

Alabama Institutions offering CT ABC Coursework and Application Forms

www.alsde.edu

Select:

- è Department Offices
- è Teacher Certification
- è Application Forms
- è Alternative Certificate Approaches: Alternative Baccalaureate-Level Certificate (ABC) and Career and Technical Alternative Baccalaureate-Level Certificate (CT ABC)
- è ABC and CT ABC coursework, **and**
- è Form 1st ABT

This summary page is for general information ONLY! Please see FORM 1st ABT, FORM 2nd ABT, and FORM 3rd ABT for specific requirements.

Appendix VII

Career and Technical Education Teacher Certification Program (CTE TCP)

Career and Technical Education Teacher Certification Program (CTE TCP)

Effective August 2013, Technical Education and Health Science teachers holding the *Specialty Area 1 Certificate* will go through an intense 12 month cycle of training that will include scheduled 2-3 day sessions as well as meeting with an assigned mentor at regular intervals throughout the year. If the new teacher completes all of the required sessions, they will have met the requirements for the *Specialty Area 2 Certificate*. This new certification program will take the place of the Holy 5 and New Teacher Institute (NTI). Teachers who hold the *Specialty Area 1 Certificate* valid to June 30, 2015 and who have not already completed the Holy 5 may choose to participate in this new certification process.

FAQs

1. Who should attend CTE TCP?

Teachers who hold or are eligible to hold the *Specialty Area 1 Certificate* in Health Science or Technical Education must attend **all** sessions of CTE TCP. Teachers attending the full one-year CTE TCP cycle will be from one of the following program areas:

- Health Science
- Technical Education (all program areas)
- Cosmetology
- Information Technology
- Culinary Arts
- Law and Public Safety

2. Will teachers holding the First CT ABC be required to attend CTE TCP?

Yes, teachers who hold the *First CT ABC* must only attend Session “A” of CTE TCP. Session “A” is a three day session that covers topics previously covered during the first three days of New Teacher Institute.

3. May I attend CTE TCP if I have already attended New Teacher Institute and/or completed one or more of the Holy 5 courses?

Yes. Any teacher who already holds the *Specialty Area 1 Certificate* and has begun the requirements for the *Specialty Area 2 Certificate* (New Teacher Institute and/or Holy 5 courses) may choose to change to the CTE TCP in order to complete certification requirements. However, you will be required to attend **every** session. No exceptions will be made for having already attended NTI or completed coursework.

4. Are there any provisions for making up a missed session?

Yes. The new *Specialty Area 1 Certificate* is valid for two years. If you miss a session during the 2013-2014 school year, you must make it up during the 2014-2015 school year or before your *Specialty Area 1 Certificate* expires. Every session will be repeated each year as well as during the second track that will begin in January.

5. Can part of a session be made up at a later date?

No. If any part of a session is missed, the entire session must be made up before credit for attendance is awarded.

6. Will certificates be awarded after completing CTE TCP?

Yes. Certificates will be issued after completing each session and upon completing the program.

7. How much will it cost teachers to attend CTE TCP?

There is no cost to the teacher to attend CTE TCP. The ALSDE is sponsoring the program and the expense for travel/substitutes should be covered by the LEA.

8. How do I register for CTE TCP?

Registration for CTE TCP is through STIPD. The local Career and Technical Administrator will provide

new teachers with instructions on how to register through STIPD.

9. Where is the location for CTE TCP?

Group sessions will be held at the Alabama Industrial Development Training (AIDT) facility in Montgomery, unless notified otherwise. Locations for the Program Specific Sessions and Mentor Sessions are to be announced.

Appendix VIII

International Review Board Approval

**AUBURN UNIVERSITY INSTITUTIONAL REVIEW BOARD for RESEARCH INVOLVING HUMAN SUBJECTS
REQUEST FOR EXEMPT CATEGORY RESEARCH**

For information or help completing this form, contact: **THE OFFICE OF RESEARCH COMPLIANCE**, 115 Ramsay Hall
Phone: 334-844-5966 e-mail: IRBAdmin@auburn.edu Web Address: <http://www.auburn.edu/research/vpr/ohs/index.htm>

Revised 2/1/2014 Submit completed form to IRBsubmit@auburn.edu or 115 Ramsay Hall, Auburn University 36849.

Form must be populated using Adobe Acrobat / Pro 9 or greater standalone program (do not fill out in browser). Hand written forms will not be accepted.

Project activities may not begin until you have received approval from the Auburn University IRB.

1. PROJECT PERSONNEL & TRAINING

PRINCIPAL INVESTIGATOR (PI):

Name John Silvers Wilson II Title _____ Ed.S. _____ Dept./School Graduate School
Address 10150 Snake Road, Athens, AL 35611 AU Email wilsojs@auburn.edu
Phone 256-777-7062 Dept. Head _____

FACULTY ADVISOR (if applicable):

Name Dr. Brian Parr Title Associate Professor Dept./School Curr & Teaching
Address Department of Curriculum and Teaching, Auburn University, AL 36849
Phone 334-844-6995 AU Email bap0007@auburn.edu

KEY PERSONNEL: List Key Personnel (other than PI and FA). Additional personnel may be listed in an attachment.

Name	Title	Institution	Responsibilities
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____



KEY PERSONNEL TRAINING: Have all Key Personnel completed CITI Human Research Training (including elective modules related to this research) within the last 3 years? YES NO

TRAINING CERTIFICATES: Please attach CITI completion certificates for all Key Personnel.

2. PROJECT INFORMATION

Title: Barriers Obtaining Alternative Certification in Online Career and Technical Education Programs

Source of Funding: Investigator Internal External

List External Agency & Grant Number: _____

List any contractors, sub-contractors, or other entities associate with this project.

List any other IRBs associated with this project (including those involved with reviewing, deferring, or determinations).

FOR ORC OFFICE USE ONLY			
DATE RECEIVED IN ORC:	_____	by _____	APPROVAL # _____
DATE OF IRB REVIEW:	_____	by _____	APPROVAL CATEGORY: _____
DATE OF ORC REVIEW:	_____	by _____	INTERVAL FOR CONTINUING REVIEW: _____
DATE OF APPROVAL:	_____	by _____	
COMMENTS:	_____		

The Auburn University Institutional Review Board has approved this document for use from
3/30/15 to 3/29/18
Protocol # 15-166 EX 1503

3. **PROJECT SUMMARY**

- a. Does the research involve any special populations?
- YES NO Minors (under age 19)
- YES NO Pregnant women, fetuses, or any products of conception
- YES NO Prisoners or Wards
- YES NO Individuals with compromised autonomy and/or decisional capacity
- b. Does the research pose more than minimal risk to participants? YES NO
- Minimal risk means that the probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests. 42 CFR 46.102(i)*
- c. Does the study involve any of the following?
- YES NO Procedures subject to FDA Regulation Ex. Drugs, biological products, medical devices, etc.
- YES NO Use of school records of identifiable students or information from instructors about specific students
- YES NO Protected health or medical information when there is a direct or indirect link that could identify the participant
- YES NO Collection of sensitive aspects of the participant's own behavior, such as illegal conduct, drug use, sexual behavior or use of alcohol
- YES NO Deception of participants

If you checked "YES" to any response in Question #3 STOP. It is likely that your study does not meet the "EXEMPT" requirements. Please complete a PROTOCOL FORM for Expedited or Full Board Review. You may contact IRB Administration for more information. (Phone: 334-844-5966 or Email: IRBAdmin@auburn.edu)

4. **PROJECT DESCRIPTION**

- a. Subject Population (Describe, include age, special population characteristics, etc.)
- The population for this study consists of perspective, currently employed, and formerly employed secondary career and technical education teachers throughout the state of Alabama. The respective disciplines of the participants include agricultural, business, family and consumer science, and technical education. The participants of this study were identified through contact made with the 133 secondary career and technical education administrators in the state of AL who then forward the email with the link to the Qualtrics developed research instrument to their respective career and technical education teachers' school email.
- b. Describe, step by step, all procedures and methods that will be used to consent participants.
- N/A (Existing data will be used)
- The researcher will send a letter via electronic mail to perspective, currently employed, and formerly employed secondary career and technical education teachers throughout the state of Alabama. The e-mail will be the actual information letter, see attached, "Information Letter and Instrument." The letter will contain a link to the interactive survey questionnaire housed on Auburn University's secure Qualtrics server space. The message will explain that participation is voluntary and their decision not to participate will in no way affect them.

- c. **Brief summary of project.** (Include the research question(s) and a brief description of the methodology, including recruitment and how data will be collected and protected.)

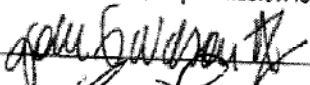
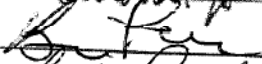
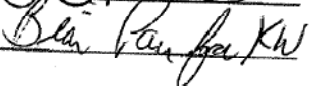
The purpose of this study is to identify current barriers, delivery methods, and availability to alternative means of certification in career technical education as perceived by current and upcoming teachers in the state of Alabama as well as finding a relationship between teacher preparation and barriers faced in alternative certification programs and one's desire to stay in the profession. Using descriptive statistics and inferential statistics, the researcher will use data analysis methods to determine relationships between the independent variables, important variables in preparation and perceived significant barriers, and the dependent variable desire to stay in the secondary career and technical education profession. Data will be collected through a Qualtrics developed survey instrument. The following research questions were used to guide the study:

- 1) What are the demographic characteristics of current adopters of online alternative certification programs in career and technical teacher education.
- 2) What are the factors that influence adoption of online course work to achieve alternative certification in career and technical teacher education.
- 3) What variables are important to career and technical teacher preparation in alternative certification programs.
- 4) What are the significant barriers concerning online alternative certification programs in career and technical teacher education.
- 5) Does the preparation (or lack thereof) in alternative career and technical education certification programs affect one's desire to stay in the profession?

- d. **Waivers.** Check any waivers that apply and describe how the project meets the criteria for the waiver.

- Waiver of Consent (Including existing de-identified data)
- Waiver of Documentation of Consent (Use of Information Letter)
- Waiver of Parental Permission (for college students)

- e. **Attachments.** Please attach Informed Consents, Information Letters, data collection instrument(s), advertisements/recruiting materials, or permission letters/site authorizations as appropriate.

Signature of Investigator		Date	<u>3/26/15</u>
Signature of Faculty Advisor		Date	<u>4-8-15</u>
Signature of Department Head		Date	<u>4-8-15</u>

Appendix IX
Information Letter & Survey Instrument

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INFORMATION LETTER
for a Research Study entitled:

**Barriers Obtaining Alternative Certification in
Online Career and Technical Teacher Education Programs**

Dear Participant:

Greetings from Auburn University! In case we have not met previously on campus, at summer conference, or through online courses, I am John Wilson, doctoral candidate in career and technical education, and I am interested in your experiences with online programs during your pursuit of alternative certification and/or specialty area certification. You are invited to participate in a research study to help improve alternative certification and licensure in online career and technical teacher education programs in the state of Alabama through the collection of information concerning student perceptions of programs currently offered. You were selected as a possible participant because you are currently employed or are seeking employment as a secondary career and technical education teacher and are age 19 or older.

What will be involved if you participate? If you decide to participate in this research study, you will be asked to complete a questionnaire. Your total time commitment will be approximately 10 minutes.

Are there any risks or discomforts? Other than the discomfort of completing the survey, there are no risks or discomforts associated with participating in this study.

Will you receive compensation for participating? No.

Are there any costs? No.

If you change your mind about participating, you can withdraw at any time during the study. Your participation is completely voluntary. If you choose to withdraw, just exit the online survey questionnaire. Your decision about whether or not to participate or to stop participating will not jeopardize your future relations with Auburn University or the Department of Curriculum and Teaching.

Your privacy will be protected. Any information obtained in connection with this study will remain anonymous. Information obtained through your participation may be published in a professional journal, presented at a professional meeting, and reviewed by administrators when making decisions involving online career and technical teacher education programs.

If you have questions about this study: contact Mr. John Wilson at wilsojs@auburn.edu or by phone (256) 777-7062

If you have questions about your rights as a research participant: you may contact the Auburn University Office of Human Subjects Research or the Institutional Review Board by phone (334)-844-5966 or e-mail at hsubjec@auburn.edu or IRBChair@auburn.edu. *The Auburn University Institutional Review Board has approved this document for use from March 30, 2015 to March 29, 2018. Protocol #15-166 EX 1503.*

HAVING READ THE INFORMATION PROVIDED, YOU MUST DECIDE IF YOU WANT TO PARTICIPATE IN THIS RESEARCH PROJECT. IF YOU DECIDE TO PARTICIPATE, CLICKING ON THE LINK BELOW WILL SERVE AS YOUR AGREEMENT TO DO SO. PLEASE PRINT THIS PAGE FOR YOUR RECORDS.

I. Demographics

Gender:

Age:

Ethnicity:

Which Specialty Area Certification do you hold?

- Level 1 (non-renewable)
- Level 2 (non-renewable)
- Level 3 (additional 45 semester hours of coursework)
- Level 4 (alternative Baccalaureate Certificate (completed Praxis II))
- Level 5 (currently hold Masters degree)
- Not sure
- Not Applicable

II. Previous Experience

Are you currently working towards or have you completed course work to achieve alternative certification?

- Yes
- No

Do you currently hold a teaching certificate in career and technical education?

- Yes
- No

Have you been enrolled in an entirely online learning based program?

- Yes
- No

**What types of online learning courses have you taken?
(Please CHECK all that Apply)**

- Canvas
- Panopto
- Angel
- Blackboard
- WebCT

- Other Virtual Learning Environments
- Blackboard with Recorded Video
- Email Correspondence
- Synchronous Video (live class)

What type of distance format do you prefer most?

- Canvas
- Panopto
- Angel
- Blackboard
- WebCT
- Other Virtual Learning Environments
- Blackboard with Recorded Video
- Email Correspondence
- Synchronous Video (live class)

At what institution(s) have you completed online Career and Technical coursework? (optional)

III. Attitudes / Important Variables Concerning Preparation

To what extent do the following factors influence course work to achieve alternative or specialty area certification?

1 - Not at all; 2 - Very Little; 3 - Somewhat; 4 - To a Great Extent; 5 - Completely

	1	2	3	4	5
Lack of job opportunities in current field	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Health benefits associated with education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Insurance benefits associated with education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Retirement benefits associated with education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vacation and time off associated with education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fulfillment of further education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More time with family	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More time for secondary or self employment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please evaluate the following items below using the following scale:

1 - Not at all; 2 - Very Little; 3 - Somewhat; 4 - To a Great Extent; 5 - Completely

	1	2	3	4	5
If you had the opportunity, would you attend class face-to-face rather than online?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I believe that online learning courses are more effective than traditional face-to-face delivery.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In a course with both traditional and online learning methodologies, I learn better through the online learning portion.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I prefer online learning courses to traditional courses.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe that I can learn the same amount in an online learning course as in a traditional course.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe that I can make the same grade in an online learning courses as in a traditional course.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would benefit if there were more online learning courses.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online learning courses do not offer any advantages to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online learning courses require significant changes by the student.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe that I can learn more or would learn more through online material than through lectures.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online learning courses make me uncomfortable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My grades are better in online learning courses than face-to-face courses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online learning courses save me time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online learning works well with my schedule	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online learning enables me to enroll in classes more frequently than with traditional courses.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I find it difficult to contribute to class discussions in online courses.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online learning enables me to take more courses than traditional courses in one year.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would like to have more courses taught online.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I make better grades in on-campus courses than online education courses.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will take another online learning course.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online education courses require more effort than face-to-face courses.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I found it difficult to learn without physically being in class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Expectations of professors are lower in online courses.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I enrolled in online course work because it was the only option available for me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

To what extent has each of the following been a barrier/challenge when taking online education courses?

1 - Not at all; 2 - Very Little; 3 - Somewhat; 4 - To a Great Extent; 5 - Completely

	1	2	3	4	5
Time Commitment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prior obligations with your current employment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Keeping up with technological changes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to learn career/technical content online.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to learn teaching methodologies online.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Absence of an instructor (motivation, quality of student work issues)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Isolation from other students and faculty	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Time constraints associated with job responsibilities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My level of technical expertise.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My availability of technology (computer, tablet, phone, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My availability of high-speed internet access.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online education technology fees (increased cost associated with online education courses)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student support services (help with advising, admissions, financial aid, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Monetary issues (paying for courses)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability for credits to transfer between institutions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Instructor availability (students' ability to contact instructor to discuss concerns)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Obtaining grades, transcripts, and other course related records.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Completing an academic program entirely as a distance student is an advantage when applying for employment or professional education programs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Completing coursework using technology available at my place of employment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Completing courses using technology I have available at home.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

To what extent does your preparation in the following areas affect your desire to leave the profession?
1 - Not at all; 2 - Very Little; 3 - Somewhat; 4 - To a Great Extent; 5 - Completely

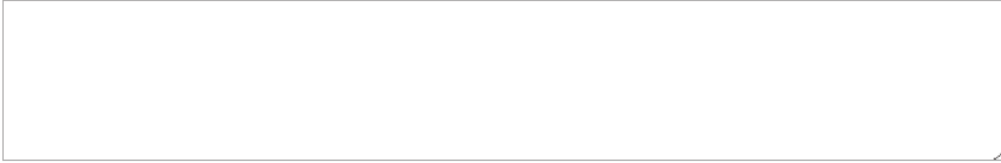
	1	2	3	4	5
Classroom Management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Content Knowledge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pedagogical (teaching) Methodologies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Career and Technical Student Organization (CTSO) management and organization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Assessment of student subject matter acquisition and mastery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Local and state observations (BIC and/or NCCER)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Professional development	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Marketing your program	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Paperwork	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

V. Open Ended Questions

In your own words, briefly describe your reasons for pursuing online opportunities in obtaining alternative certification in career and technical education.

In your own words, briefly describe factors affecting your desire to remain in the field of Career and Technical Education.

In your own words, briefly describe what could be done to improve online opportunities in obtaining alternative certification in career and technical education.



Appendix X
Open-Ended Responses

In your own words, briefly describe your reasons for pursuing online opportunities in obtaining alternative certification in career and technical education.

Family obligations make it difficult to commit to face-to-face instruction.

I am pursuing online opportunities in order to qualify myself for furthering my education so that I can reach my goal of becoming an instructor in the field or HVAC/R.

I enjoy the schedules of teaching and my passion for my content.

N/A

It's the only option, but I would choose online anyway. I would rather pursue classes on my own than take away time with my family to sit in an actual classroom.

Didn't have a choice to stay employed.

Didn't

Only choice I have.

I am excited to teach technical courses that I have been blessed to receive from my associate, to students of all ages to give them the knowledge of Electronic that I possess and to learn new knowledge that the students will bring with them.

I wish to pursue a master's degree in order to obtain a pay raise and to expand my knowledge of Career and Technical Education.

It was the only option

I am not pursuing online alternative certifications

Having responsibilities for my job teaching and having a family at home that enjoys spending time with me it is difficult to travel to the limited schools that offer traditional classes in career tech. At the beginning of my career I would have to drive from Enterprise to Athens 1 weekend a month and spend money on hotels, travel, and food out of pocket. You can see that it was much cheaper for me and I had no travel time involved and was able to be home with my family.

much easier, and do not have to travel.

Less time consuming

I would like to pursue other classes to be able to broaden my education and be able to teach other things related to my class

easy access.

Easier on my family.

I live in Dothan so it was convenient to take online courses through Athens.

I am not at this time.

It was easier for me to do the course work from home than having to drive three hours to take a class. It also allows me to learn at my own pace and in my own method of learning than a traditional classroom setting.

I initially wanted to pursue a second B.S. In Career & Tech ed; however the internship and additional course work caused me to abandon the idea. I am 64 and will retire in 2 years. The financial comitment and the time comitment were not justified considering the time left in my job.

My home is not near to any universities that offer CTE courses. To comply with the certification guidelines, I have to choose distance learning.

It was the only option to me. There are no local schools offering programs that I needed.

I chose online classes because this was the only way for me to take classes at Athens State to get my Bachelors Degree in Technical Education and I have never taken online classes before.

This will allow me the time and pace to complete more courses than at traditional college. I think it will also allow me to keep track on the degree in which I'm trying to achieve.

Cost is a big issue.

Specialty Area 1 certification is non-renewable. To move to Specialty Area 2, I had to take five courses related to Career and Technical Education.

It would be hard to attend Athens State physically.

Works better with my schedule.

During this busy stage of life with my family, not to mention starting a new career and teaching my first classes, the availability of online courses met all my needs.

I already have all of my certification needed. However, I would love to get a doctorate online in CTE.

Easiest method to obtain certificaion

The courses were required for Level 3 certification.

I have never nor will I ever pursue online opportunities

I would not have to travel

n/a

Updating my teaching certificate. Higher pay scale

I had originally obtained a CTE certification, but had allowed it to lapse. Online opportunities allowed me to pursue needed hours for re-certification without giving up my, at the time, emplyment.

To update with current information and practices

Completing the 3 online courses offered me an advancement in pay of \$5000 per year I also completed my masters degree 100% online at a different university which was much more challenging than the CTE courses.

NA

Benefits my lifestyle

I am currently employed, therefore I need something that I can participate in after

hours. Online is a great tool to complete my Masters Degree since I cannot attend regular classes.

Don't need it

Online opportunities enable me to advance my career. These courses are required for higher pay and certification level.

good accessibility to coursework

It was available from an institution several hours away.

I desire to learn more to help my students succeed. The more I know the better I can teach.

If I were going to pursue alternative certification, online courses would be greatly beneficial. Area of the state that I live in makes it difficult to go to an institution that has Career/Technical programs.

Was not able to do online courses. Took courses in person

money offered for teacher improvement does not cover expense of further education, therefore I will not pursue more education.

In your own words, briefly describe factors affecting your desire to remain in the field of Career and Technical Education.

CTE can benefit all students who choose to take advantage of it.

I desire to stay in my field so that I can share knowledge of our industry to younger students so that they can also pursue a career in the HVAC/R. There are many opportunities that can be very rewarding

The schedule and helping my students with skills and useful knowledge.

CT Administrators being hired with a lack of knowledge about how Career Technical programs differ from the regular core curriculum has been a major frustration to me.

I love it!

To provide a career for my students.

Very much so

I love the students and my ability to help move these children in Ag related fields.

Getting too old in my field of study.

There is no factors that are affecting me, I plan to continue on pursuing career and technical education.

The paperwork and the bureaucracy that is associated with education. People that have limited teaching experience making changes that affect those of us that are teaching.

I love teaching, seeing the look in their eyes when they understand or complete a task...

I am a product of Career/Technical education. I know the benefits of career training.

I had a great teacher when I was in high school and eventually I would go on to take the same job he had when he retired. He was a difference maker in my life and steered me on the straight and narrow path to success. I wanted to pay it forward and make a difference in our students lives and that's still my goal today. Teaching is a calling and I want to see students succeed.

Benefits, time off.

I enjoy helping students that want to learn. I enjoy having the freedom to move around in the classroom and lab. I don't like being tied to a desk or having to stand in one spot all day.

It is satisfying to see student successes as a result of sharing my 25 years of experience in the field with my students.

The credentialing affect the desire because you are required to credential students who are not able to pass rigorous lessons. Finding the right testing options for credentialing and problems with the kids getting what they need form their student organization.

i care about the students.

Micro management, coming from the workforce where industry requires justification of a person's value. If I am expected to earn \$100,000 I better bring \$200,000 of value to a company. Just because I didn't sit in a classroom and hear theory, my value was earned by respect and proof of my knowledge.

I love teaching cosmetology. I wish that there was money available for another teacher or a teaching assistant so that students could get more attention if they need it. When you have 20 plus students and 1 teacher it gets hectic during labs when every student needs help.

being able to help the students.

I served in my industry for twenty-four years watching and struggling with the increasing number of entry level positions not being filled. I felt and continue to feel that remaining in career tech education allows me to introduce young people into my field and help supply the demand of industry.

I had spent 35 years in industry and was and still am excited about educating rising technicians in the automotive repair industry. I will remain active after I retire in the areas of industry certification, guest speaking, etc.

I love making things! My second most favorite thing to do is to share with others how to make things so that they can, hopefully, find the enjoyment that I have found in it. The downside to this field is that so much time has to be devoted to things other than doing and sharing how to do.

I do not wish to remain in CT Education. I am currently looking to go back to the field.

I enjoy teaching people the skills they need to pursue a career in the hair care industry.

Teaching students what it is like in the industry. Seeing them accomplish things on their own and having the sense of pride that comes from learning a new skill. Years after students have left, coming back and letting me know how much they appreciate what I was able to teach them.

Benefits, teaching, helping young students find their way.

By no means do I have a desire to leave the field. But, I think the number one factor that would affect my desire to remain in this field would be industry certification. In Automotive Technology, NATEF is the accrediting organization and has been around for some time. Before teaching Automotive Technology, I worked in the field for 20 plus years and never heard of NATEF. In my opinion, industry certification for high schools is a waste of time and money.

Health

If teaching students was the greatest time consumption of the profession it would be awesome, but lots of added paperwork and other assigned duties make it difficult.

Teaching business technology classes brings to the classroom the opportunity for me to share with students skills and experiences that will help in their futures, no matter their career choice.

I plan to stay in Career and Technical Education. However, I think one reason some new teachers coming from industry leave is the difference in pay. That is Business and Industry pay more than education. Also, teachers need and must have raises to keep up with the cost of living.

I really enjoy teaching

More robust and authentic learning environment; easier to teach since students more readily see the relevance and applicability of skills learned, and get a more immediate benefit from the subject matter covered; more autonomy than in core classes (as long as there isn't a blood trail leading out of my classroom, administrators leave me alone.)

I believe in what I am doing. We do not do this for the money, we could all make double in Industry.

Cause I love Agriculture.

I believe it is the way for all students to be able to become successful working members of society

Having had the opportunity to view first-hand the activities at the LCCTC, I am more convinced that more attention (education and funding) need to be placed on CTE schooling for high school and young graduates.

Seeing the success of students

I have always wanted to teach in my field, I am enjoying working with the students. I am limited physically to how much I can work in the field so teaching allows me to continue.

NA

I enjoy teaching and mentoring students, and enjoy helping students through Ag-Ed and FFA.

None

I love this field. It is my passion. I love my students, and I want to continue showing them opportunities through CT.

Retirement !!!!

Furthering my education would enable me and encourage me to stay in CTE -- I enjoy teaching. A factor that is frustrating with secondary education CTE is classroom discipline and paperwork.

Increased paperwork, continued change in instruction expectations which do not apply to area, increased student load with minimal time to complete

I enjoy what I do. I can share my passion for nursing and teaching.

If the adults would get out of the way and let me teach. Too much politics, poor

management at the administrative level. Too many attitudes to deal with stemming from the lack of administrative leadership.

As my degree is in Nursing, would have a lot of difficulty obtaining higher education in Career Tech. Ed. My reasons are also personal- I do not want to stay in the school system I am employed in any longer than I have to.

restrictions in education itself

Factors affecting my desire to leave the field are all connected to the technology changes, requirements to use the technology, and the lack of training and technical support to the teachers after implementation of such requirements.

In your own words, briefly describe what could be done to improve online opportunities in obtaining alternative certification in career and technical education.

Better mentor programs.

The only improvement that I can see is the cost of college tuition could be more reasonable

I rather participate in discussions and interactions with others over all of the "busy-work" in online classes.

Offering on site courses for groups of CT teachers.

My experience so far has been great. No complaints.

More time.

Don't know

Make it more streamline.

I really do not have any improvement that would help with online opportunities in obtaining alternative certification in career and technical education, spring was my first semester for taken classes in career and technical education, and I found that my three classes was very imformative.

I would not have an alternative certification if I received my masters as my Bachelor's degree is in Agriscience Education. To help improve any oppourtunities would be the staff at Auburn letting teachers know of scholarships/assistance and requirements yearly to return to school for masters or more advanced degrees.

??

I would love to see enough classes available online to pursue a masters degree in career tech. If they were offered I would enroll in the classes.

Help teachers with financial issues. Teachers are on a lower pay scale as compared to administrators, and other staff members, and we are the ones that make the largest impact on the students.

There is no substitute for hands on demonstration of ability and level of skill set . Online learning is best suited for replacing theory and lecture only.

Offer more classes.

schools pay for the certification.

I am good with online training.

It would help me if community colleges would allow me to take online finals like Athens does. It is inconvenient for me to take off work, get a substitute, and go to the college campus to take a final exam when all other coursework is online.

Take the tiome to start class again.

For the colleges such as Auburn and uh, cough Alabama, to allow online credits to transfer. There are a lot of online institutions that have great online curriculum and require meaningful assignments that are just better suited for us older students.

Many teachers entering the teaching profession from industry are not ready for the amount of paperwork associated with teaching today. The current new teacher model that does not require course work in the first 3 years is improving retention of new teachers. Once they have that 1st level 2 renewable certificate then they begin to look towards self improvement and rising to the next level or beyond.

I am studying the problem, but I have not come up with an answer as of yet. I am at the beginning of my studies at Athens State University so I would expect that I will have a better answer towards the end of this process.

More options at lower costs.

Having satellite classes.

Availability and ensure that those classes are recognized by the state.

I believe that the certification has WAY TOO much time spent. The students at this age do not understand. College level Career Technical Students will benefit more for certifications and BIC. Cosmetology should be certified on levels.

Example: beginner 1st year, 2nd year, 3rd, and 4th. The Barbicide Certification was a good opportunity for our students, even if they are not going into this field, they will need Infection Control for their personal lives.

I really don't know. It seems pretty straightforward and simple. One thing I think would be for more colleges to offer completely online degrees in CTE.

I enjoy things like they are now.

Make availability known to current teachers and funding opportunities.

In my experience, the only area that needs improvement is communication between instructors and students. I have had to be patient when waiting on responses to emails, but the instructors have also stated in introductory materials their schedules and what to expect for their response timelines. However, I have sent emails that are not answered, even within the instructor's stated response times. This is discouraging as I am sure students would be expected to respond within 48 hours of receiving correspondence from instructors.

Basically, more courses at a variety of institutions.

n/a

For me, the ability to get Level 5 certification through a completely online approach would be fantastic. As far as I know, the only state CT teaching programs are in the north part of the state. For those of us in the lower third of the state, attending campus-based classes is simply not an option due to financial and time constraints, depriving an entire segment of teachers at a disadvantage for advancement and professional development. There should be a concerted effort at the state level to develop a CT teacher program in the south part of Alabama, to ensure equitable opportunities for all educators.

Make more inexpensive.

Maybe some of the fees being charged such as parking fees, nonusage fees
More, varied career field opportunities, methods and techniques courses, greater availability of financial assistance.

Larger variety of opportunities and options

Giving advanced notice for admissions deadlines and cost of classes. Letting the new CTE teachers know there is NO financial aid for these courses because they are non-degree seeking, but that Athens will spilt up into 4 payments. We were told early in the year about the opportunity but not told the course numbers to register for until 48hrs before admission deadline. The info was forwarded to directors, many of whom did not notify their new teachers. If it could be sent to Mrs. Dean and forwarded directly to the teachers that would be better. Having guide or liaison who has completed the courses the year before available to the new teachers would help also. Maybe a "for any questions about Athens please email this person...". while the online courses were no big deal for me because I've done it before, many CTE teachers are not good on computers and struggled. You likely wont hear from them on this survey because the survey is ONLINE and they don't do ONLINE.

NA

Cost can be a factor. On a teacher salary I find it difficult to afford the expensive cost of tuition in the state of Alabama, whereas in a nearby state for Ag-Ed majors out of state tuition is waived, and their in-state is roughly 1/2 of Auburn's cost per credit hour.

None

Offer more classes

Make it easier

The state should have a scholarship program to pay for teachers pursuing further education in CTE. This would remove the barrier of cost.

Provide face to face opportunities along with complete on-line when needed with certain parts of subject matter.

None

It is really had to understand the different certification levels and I have heard many differing descriptions and instructions on advancement. Make it streamlined. Make PD funds available to pay for the classes since this is truly PD worth learning.

Sattelite area? For those who don't have benefit of required technology..

none

Appendix XI

**Career and Technical Education Teacher Certification Program Master Schedule 2015-
2016**

**CTE Teacher Certification Program 2015-2016
MASTER SCHEDULE**

Session "A" (July) (Program Entry Point)

DAYS	HOURS	TYPE SESSION	TOPICS	DATES
Day One	8	Group Session	Teaching CTE <ul style="list-style-type: none"> • Effective teaching • Human relationships • Various learning styles • Customizing instructional strategies to specific program settings 	<u>2015-2016</u> July 21, 2015
Day Two	8	Group Session	Special Needs Students in CTE <ul style="list-style-type: none"> • Identify learners with special needs • Components of a Career Technical Individualized Education Plan (C/T IEP) • Modification verses adaptation • Use of different instructional methodologies • Coordinate student services for CTE students with special needs • IDEA Classroom/Lab Management <ul style="list-style-type: none"> • Ethics and professionalism • Teacher liability • School violence • Safety in the school 	<u>2015-2016</u> July 22, 2015
Day Three	8	Program Specific	Teaching CTE <ul style="list-style-type: none"> • Effective teaching • Human relationships • Various learning styles • Career Technical Student Organization (CTSO) • Course Syllabi • Alabama Course of Study • Lesson Plan Overview • Equipment List • State Adopted Textbook List • Teaching certification requirements Classroom/Lab Management <ul style="list-style-type: none"> • Safety in the classroom and lab • Resources • Organize, manage, and maintain classroom, lab, and equipment • Technology in the classroom and lab • Record keeping • Developing budgets, funding sources, and purchasing 	<u>2015-2016</u> July 23, 2015
Total Hours	24			

Session “B” (September)				
DAYS	HOURS	TYPE SESSION	TOPICS	DATES
Day One	8	Group Session	Teaching CTE <ul style="list-style-type: none"> Advisory committee Business Industry Certification (BIC) Credentialing Developing effective CTE lesson plans Classroom/Lab Management <ul style="list-style-type: none"> Positive Behavior Support Training 	2015-2016 September 14, 2015
Day Two	8	Program Specific	Teaching CTE <ul style="list-style-type: none"> Advisory committee STI/iNow Business Industry Certification (BIC) Credentialing Developing effective CTE lesson plans 	2015-2016 September 15, 2015
Total Hours	16			
Program Mentor Session One (September-October-November)				
DAYS	HOURS	TYPE SESSION	TOPICS	DATES
Day One	6	Individualized	Teaching CTE and Classroom/Lab Management <ul style="list-style-type: none"> New Teacher Visits Mentor 	TBD by Teacher and Mentor
Day Two	6	Individualized	Teaching CTE and Classroom/Lab Management <ul style="list-style-type: none"> Mentor Visits New Teacher 	TBD by Teacher and Mentor
Day Three	6	Individualized	Teaching CTE and Classroom/Lab Management <ul style="list-style-type: none"> Communication Method and Assistance Needed TBD by Teacher and Mentor 	TBD by Teacher and Mentor
Day Four	6	Individualized	Teaching CTE and Classroom/Lab Management <ul style="list-style-type: none"> Communication Method and Assistance Needed TBD by Teacher and Mentor 	TBD by Teacher and Mentor
Total Hours	24			
Session “C” (November)				
DAYS	HOURS	TYPE SESSION	TOPICS	DATES
Day One	8	Group Session	Learning Resources <ul style="list-style-type: none"> Web-based software Multimedia instruction CareerSafe Professional Development Program Teacher Portfolio 	2015-2016 November 7, 2015
Total Hours	8			
LEA Assigned Mentor Session One (September-October-November-December)				
DAYS	HOURS	TYPE SESSION	TOPICS	DATES
Full Semester (ongoing)	8	Individualized	Teaching CTE and Classroom/Management <ul style="list-style-type: none"> LEA Assigned Mentor must hold a valid Alabama Specialty or Professional 	Full Semester - Ongoing

assistance)			Educator Certificate in the teaching field or related field and at least three full years of full-time teaching experience	
Total Hours	8			
Session “D” (January)				
DAYS	HOURS	TYPE SESSION	TOPICS	DATES
Day One	8	Group Session	Course Development and Evaluation <ul style="list-style-type: none"> • Student assessment and evaluation • Student career interest inventory • Kuder • Four Year Education Plan • ACT/Workkeys 	<u>2015-2016</u> January 25, 2016
Day Two	8	Program Specific	Course Development and Evaluation <ul style="list-style-type: none"> • Alabama Course of Study: CTE • Curriculum Development • Lesson Plans • Program Goals • The learning process • Performance-based objectives • Plans of Instruction (POI) • Instructional strategies • Integration of academics • Rigorous course content • Resources • Assessment • Career clusters, pathways, and programs • Program grid • Articulations • Dual Enrollment • Embedded and substitute credit • Partnerships Experienced Teacher Session <ul style="list-style-type: none"> • Instructional strategies • Classroom management • CTSO 	<u>2015-2016</u> January 26, 2016
Day Three	8	Group Session	Course Development and Evaluation <ul style="list-style-type: none"> • Regional Workforce Development • Preparing students for college and career 	<u>2015-2016</u> January 27, 2016
Total Hours	24			
Session “E” (February)				
DAYS	HOURS	TYPE SESSION	TOPICS	DATES
Day One	8	Program Specific	Learning Resources <ul style="list-style-type: none"> • Utilizing resources for Project-Based Learning (PBL) • Web-based software • Multimedia instruction 	<u>2015-2016</u> February 15, 2016

			<ul style="list-style-type: none"> • Teacher-made instructional materials • Selection of instructional media • Evaluating instructional material • Involving parents through current technology • Student learning styles, needs, abilities, and interests 	
Day Two	8	Group Session	Course Development and Evaluation <ul style="list-style-type: none"> • Data collection and student follow-up • Navigating the ALSDE Web site • Cybersafety • Alabama Virtual Library • ALEX • Instructional media to enhance learning 	2015-2016 February 16, 2016
Total Hours	16			
Program Mentor Session Two (February-March-April)				
DAYS	HOURS	TYPE SESSION	TOPICS	DATES
Day One	6	Individualized	Teaching CTE and Classroom/Lab Management <ul style="list-style-type: none"> • Communication Method and Assistance Needed TBD by Teacher and Mentor 	TBD by Teacher and Mentor
Day Two	6	Individualized	Teaching CTE and Classroom/Lab Management <ul style="list-style-type: none"> • Communication Method and Assistance Needed TBD by Teacher and Mentor 	TBD by Teacher and Mentor
Day Three	6	Individualized	Teaching CTE and Classroom/Lab Management <ul style="list-style-type: none"> • Communication Method and Assistance Needed TBD by Teacher and Mentor 	TBD by Teacher and Mentor
Day Four	6	Individualized	Teaching CTE and Classroom/Lab Management <ul style="list-style-type: none"> • Communication Method and Assistance Needed TBD by Teacher and Mentor 	TBD by Teacher and Mentor
Total Hours	24			
CTSO State Conference (February-March-April)				
DAYS	HOURS	TYPE SESSION	TOPICS	DATES
Day One	8	CTSO Competitive Event	CTSO Competitive Event Assignment <ul style="list-style-type: none"> • Attend CTSO State Conference and complete competitive event assignment 	TBD by CTSO
Day Two	8	CTSO Competitive Event	CTSO Competitive Event Assignment <ul style="list-style-type: none"> • Attend CTSO State Conference and complete competitive event assignment 	TBD by CTSO
Total Hours	16			
Session "F" (May)				
DAYS	HOURS	TYPE SESSION	TOPICS	DATES
Day One	8	Group Session	Learning Resources <ul style="list-style-type: none"> • Web-based software 	2015-2016 May 7, 2016

			<ul style="list-style-type: none"> Multimedia instruction 	
Total Hours	8			
LEA Assigned Mentor Session Two (January-February-March-April-May)				
DAYS	HOURS	TYPE SESSION	TOPICS	DATES
Full Semester (ongoing assistance)	8	Individualized	Teaching CTE and Classroom/Management <ul style="list-style-type: none"> LEA Assigned Mentor must hold a valid Alabama Specialty or Professional Educator Certificate in the teaching field or related field and at least three full years of full-time teaching experience 	Full Semester - Ongoing
Total Hours	8			
Alabama Association of Career and Technical Education (ALACTE) Summer Conference (June-August)				
DAYS	HOURS	TYPE SESSION	TOPICS	DATES
Day One	8	Group & Program	Business Industry Awareness and Technical Updates <ul style="list-style-type: none"> Register and attend ALACTE Summer Conference 	TBD
Day Two	8	Group & Program	Business Industry Awareness and Technical Updates <ul style="list-style-type: none"> Register and attend ALACTE Summer Conference 	TBD
Day Three	4	Group & Program	Business Industry Awareness and Technical Updates <ul style="list-style-type: none"> Register and attend ALACTE Summer Conference 	TBD
Total Hours	20			
CTE TEACHER CERTIFICATION PROGRAM TOTAL HOURS – 196				