

The Intended and Unintended Consequences of the 1990 Carl D. Perkins Vocational and Applied
Technology Act Within-state Funding Formula Change: A Modified Policy Delphi Study

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ABSTRACT

The purpose of this study was to identify the impact the 1990 amendments to Carl D. Perkins Career and Applied Technology Act within-state allocation of federal funds had on the operational infrastructure of career and technical education (CTE) in Virginia as specifically related to the overall quality of secondary CTE programs. In the 1990 Perkins Act, Section 102 mandated that 75% of the within-state allotment go directly to local secondary and postsecondary institutions that offered CTE programs. The remaining 25% of funding was divided among the following state-administered programs and agencies: (a) state administration (5%), (b) state leadership (8.5%), (c) corrections (1%), and (d) equity programs (10%) (AVA, 1992; U.S. Congress, 1984). This change to the within-state allocation formula was significantly different from previous Perkins Acts as well as the trends in educational policy at that time (NCRVE, 1991). In the 1998 reauthorization of Perkins, the localities allotment increased to 85% of within-state funding. A three round modified Policy Delphi technique was used to identify and rate the consequences of the within-state allocation amendments from a panel of CTE local administrators, state administrators, and university researchers and/or teacher educators. These participants worked within their CTE positions in Virginia before and after the enactment of 1990 Perkins Act. A total of 54 participants began Round 1 and 30 completed Round 3 for a 56% participation rate. A total of 223 unique consequences were identified and rated for relevancy to the within-state funding formula change and effect on the operation of CTE in Virginia. One hundred sixty-one consequences were deemed relevant within and/or between all position levels (local, state, and university). All position levels deemed 42 consequences as relevant to the within-state funding formula change. Of those 42 consequences, 35 received the same effect (positive or negative) among all position levels. The findings of this study suggest that the changes to the within-state funding formula and its accompanying amendments did have a negative effect on the operation of secondary CTE in Virginia. More specifically, the changes to the Perkins Act this study examined seemed to adversely effect CTE teacher education, state-level CTE research initiatives, and state-level CTE's ability to provide localities with hands-on technical assistance, professional and leadership development, and coordination. The findings also suggest the legislative changes negatively altered the manner in which program evaluation occurred within the state by decreasing the state-level assistance for developing methods of program evaluation. In other words, the findings of this study seem to suggest there is a lack of leadership, development, and direction within Virginia's CTE program. The researcher recommends that members of Congress charged with reauthorizing the Perkins legislation should review the current within-state funding formula to determine if it is the most effective funding formula for helping local and state-level CTE carry out the purpose of the legislation.

DEDICATION

This work is dedicated to my wife, Amy. Thank you for supporting me through this long and arduous journey. During the darker moments, you were the shining light that kept me going; during the high times, you were right beside me celebrating. Your emotional and financial support made this personal achievement possible.

Additionally, I would like to dedicate this work to my mother, Katherine and my father Robert. Thank you for your unwavering support, advice, and love.

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I believe Malcolm Gladwell, author of *Outliers*, said it best when he stated that, "...the people we surround ourselves with have a profound effect on who we are." Personal success can never be attributed to just one individual. It is conscious effort of many concerned individuals. Thus, I would be remiss if I did not thank the following people for their support and counsel.

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CHAPTER 1 - INTRODUCTION

Career and technical education (CTE) has played a vital role in the development of the United States secondary education system since the vocational education movement of the early 20th century. This movement would not have been possible without the fiscal and directional support provided by the Smith-Hughes Vocational Education Act of 1917. This Act developed a partnership between the federal, state, and local government that continues today with the Carl D. Perkins Career and Technical Education Improvement Act of 2006. The current Act has gone through multiple reauthorizations including the one examined in this study. In 1990, the federal government reauthorized the Carl D. Perkins Vocational and Technical Education Act of 1984. Renamed the Carl D. Perkins Vocational and Applied Technology Education Act of 1990, this legislation provided secondary, postsecondary, and adult career and technical education (CTE) programs with federal funding for another five years beginning in July 1, 1991 and ending June 30, 1996. In the 1990 legislation, Congress made numerous amendments to many sections of the Perkins Act including Section 102. This section of the Act detailed the basic grant allotment formula that participating states were required to follow in order to receive continued federal funding for CTE. Unlike previous allotment formulas, the 1990 formula required that states decentralize the majority (75%) of their fiscal authority to the local school districts. Subsequent reauthorizations of the Perkins Act (1998 and 2006) increased the localities' fiscal authority to 85%. Additionally, Section 102's new allotment formula came with accompanying amendments that changed the administrative authority over Perkins dollars by changing the structure of the state's CTE program evaluation system.

Statement of the Problem

Since 1990, state-level CTE fiscal and administrative decentralization has produced numerous intended and unintended effects concerning Virginia's ability to operate CTE secondary programs. The problem addressed in this study relates to identifying the long term effects and consequences resulting from changes made in the 1990 amendments to the basic grant within-state allotment formula on secondary CTE. Although there have been government studies examining short-term intended effects and graduate theses examining unintended effects on post-secondary CTE, an exhaustive search of related literature found no study identifying the long-term effects of the 1990 amendments on secondary CTE. One reason for the lack of extant literature on this topic may be that the ideal medium to conduct this type of research, the National Assessment of Vocational Education (NAVE), is delimited to a three-year window to conduct and disseminate federally funded research (Grubb, 1991).

Background of the Problem

Named after longtime CTE supporter and Kentucky Congressman Carl D. Perkins, the Perkins Act has become the "Department of Education's single largest investment in American high schools, as well as its largest investment in the preparation of young people for postsecondary education and the workforce" (U.S. Department of Education, 2004a, p. 1). Known simply as "the Perkins Act," this legislation, among other things, details the federal government's mandated spending procedures and funding allocations as they pertain to CTE. CTE spending agencies (national, state, and local) identified by the Perkins Act must comply with these mandates in order to receive continued federal financial support. Although current funding allotted to states under this Act comprise only 5% of a local district's CTE expenditures (U.S. Department of Education, 2004b), it wields substantial leverage over CTE. This is partly

due to the fact that Perkins funds “...represent close to 100 percent of *discretionary* funds local secondary and postsecondary agencies have to spend on [CTE]” (Hoachlander, 1991, p. 74).

Therefore, changes to the Act’s purpose and/or focus are accepted and implemented by participating states. More importantly, changes to the Act’s distribution of federal funds to the states can create a “ripple effect” that can have long-lasting effects, which this study intended to identify.

This study focused on a few of the many changes that have been made to the Perkins Act. More specifically, it examined a change made to Section 102 of the 1990 Perkins reauthorization, which was also known as Perkins II. Entitled the “within-state allocation,” Section 102 detailed the distribution formula states were required to use to distribute Perkins funds to local school districts. (In the 1998 Reauthorization of the Perkins Act, the within-state allocation section was moved to section 112.) In order to get a comprehensive view of the changes made in Perkins II, accompanying amendments related to the within-state allotment of Perkins funding were also examined. In the 1990 Perkins Act, Section 102 mandated that 75% of the within-state allotment go directly to local secondary and postsecondary institutions that offered CTE programs. The remaining 25% of funding was divided among the following state-administered programs and agencies: (a) state administration (5%), (b) state leadership (8.5%), (c) corrections (1%), and (d) equity programs (10%) (AVA, 1992; U.S. Congress, 1984). This change to the within-state allocation formula was significantly different from previous Perkins Acts as well as the trends in educational policy at that time (NCRVE, 1991).

The 1984 Perkins Act

In order to understand the changes made to the within-state allocation formula (Section 102), an examination of the 1984 Perkins Act (Perkins I) was warranted since it was the piece of legislation in effect prior to the enactment of Perkins II.

Perkins I had two major purposes: (a) to improve existing programs and (b) to increase the vocational education opportunities for at-risk students (Gordon, 2008). Subsequently, Section 102 of the 1984 Perkins Act was divided into two major sections: Vocational Education Opportunities (Title II – Part A) and Program Improvement, Innovation, and Expansion (Title II – Part B). The percentages of federal funds appropriated to the two sections were 57% and 43%, respectively. Better known as the special population section, the Vocational Education Opportunities section was further divided into six categories, known as set-asides, each of which were given a specific percentage of the 57% funding allocation. The six special population set-asides were: handicapped (10%), disadvantaged (22%), adult postsecondary (12%), single parents/homemakers (8.5%), sex equity (3.5%), and incarcerated (1%) (U.S. Congress, 1984). The first two set-asides for handicapped and disadvantaged students were each subdivided into two additional percentage allocations. Fifty percent of the set-aside for the handicapped was mandated to “...be allocated to eligible [school districts and postsecondary institutions] on the basis of the relative number of economically disadvantaged individuals enrolled...” compared to the total number of economically disadvantaged in the state (U.S. Congress, p. 20). Subsequently, the other half of the set-aside was to be allotted in the same manner but to handicapped individuals. The disadvantaged set-aside was divided in a similar manner with half of the funds assisting the economically disadvantaged and the other half assisting the other

“...disadvantaged individuals and individuals with limited English proficiency” (U.S. Congress, p. 21). In order to determine the localities that fit the legislative description, states were mandated to develop a formula for distribution of set-aside funds for the handicapped and disadvantaged. Additionally, states could not retain any of these funds at the state level. Thus these set-asides were the only federal funds that were required to be distributed directly to the formula-identified secondary, postsecondary, adult, and correctional institutions. The remaining four set-asides were not prescribed mandates and therefore could be spent in a manner that the state thought was necessary to assist the eligible recipients. Additionally, the 1984 Perkins Act did not specify how much federal funding should be allocated by level of education (secondary or postsecondary) or types of institutions (comprehensive high schools, area technical centers, community colleges, universities, and community-based organizations). Therefore Perkins funding could be allocated to any or all of these institutions regardless of education level. Lastly, the Act did not specify a formula to be used to distribute the remaining special population funding: adult postsecondary (12%), single parents/homemakers (8.5%), sex equity (3.5%), and incarcerated (1%). In other words, the distribution method for the adult postsecondary, single parents/homemakers, sex equity, and incarcerated set-asides was at the discretion of the states (Muraskin, 1989).

The second main section of the Act, the Program Improvement section, left even more fiscal and administrative discretion to the states. Comprising 43% of total within-state Perkins funding, this section did not have set-asides or funding formulas and therefore was not nearly as confining or delimiting. In fact, the legislation provided the states with 25 ways in which the Program Improvement funding could be expended. As Muraskin (1989, p. 107) noted, “The uses include traditional state and local activities such as curriculum development, in-service and pre-

service [teacher] training, equipment purchases, and student organizations.” Since the legislation indicated that states could only retain 7% of the within-state allocation for state administration costs, 10 to 40% of Program Improvement funds were retained at the state level to conduct state-level projects (Muraskin). It should be noted that the mindset at this time was that although this money was not directly going to localities, it produced a by-product of information, research, professional development, leadership, and curriculum that directly benefited local CTE secondary and post-secondary institutions. In Virginia, the majority of the Program Improvement funds that were retained at the state level were used for curriculum development, innovative program development, leadership development, leadership opportunities, and CTE research and pre-service teacher training at teacher education institutions (VDOE, 1988). Additionally, a review of Virginia’s state plan showed that approximately 40% of the Program Improvement funds allocated to the state were retained for state projects. These state projects were carried out by contracted individuals, organizations, public universities, the Virginia Community College System, or Virginia Department of Education employees and were intended to assist secondary and post-secondary local education agencies (VDOE). Table 1 provides examples of the types of state-level program development activities that were being either partially or fully funded by Perkins Program Improvement Funds in fiscal year 1989 in Virginia. Additionally, to provide a more current perspective of how much Program Improvement money was being spent on each project or Activity, the last column of the table identifies the purchasing power of this money in today’s economy.

In addition to being able to retain Perkins funding for state-level projects and administration, states also had some level of control as to which localities received federal money and/or how the money received was to be spent. Of the federal money that was to be

distributed to localities in 1989, 28.5% or \$4,443,800 was given to localities that either met certain criteria or required extra funding for improvements as determined by the state. These were criteria that were above and beyond the federal spending mandates. Therefore, in fiscal year 1989, the state-level CTE in Virginia had either direct (state-retained) or indirect (state-controlled) fiscal authority over 42.2% of all Perkins funding.

Table 1

Examples of Projects and Activities Approved to be Funded Using Perkins I Program Improvement Funds in 1989 in the Commonwealth of Virginia

Funded Project or Activity	Amount of Program Improvement Funding Allocated	1989 Dollar amounts adjusted to 2008 dollars ^a .
“Provide, through contract, funds for the operation of a satellite project which employs vocational student organization specialists” (VDOE, p. 40).	\$450,000	\$785, 950
“Assistance will be provided by a university in coordinating the evaluations [of 28 school divisions], collecting and analyzing data, and preparing summary reports” (VDOE, p. 46).	\$100,000	\$174,656
“Provide support to teacher education institutions for activities to improve vocational education that would not otherwise be available through plans developed jointly by each institution, with the Department of Education and VCCS [Virginia Community College System]” (VDOE, p. 48).	\$1,400,000	\$2,445,179
“Provide funds for the development and/or adaptation of curriculum materials for public schools, community colleges, and other agencies offering vocational education” (VDOE, p. 52).	\$600,000	\$1,047,934
“Provide financial support to continue membership in consortia which assist in providing resources in curriculum development” (VDOE, p. 53).	\$40,000	\$69,862

^a The Consumer Price Index (CPI) Inflation Calculator has been used, and it reflects the average Consumer Price Index for a given calendar year. Calculated in December 2008. Retrieved December 15, 2008, from <http://data.bls.gov/cgi-bin/cpicalc.pl>

Lastly, local program evaluation under the 1984 Perkins Act was partially funded using federal monies. In the 1989-1990 state plan, \$1,031,707 of Perkins funding was allocated for “on-site visits...conducted by program service supervisors or other vocational personnel to assist local school divisions in making plans for program improvement” (VDOE, 1988, p. 46). As Jim Gray Jr., former associate state director of CTE in Virginia, stated in an interview, the programs in each locality were evaluated using a three-step process that culminated with an onsite evaluation visit from a team of state and university employees (J. Gray, personal communication, January 21, 2009). First, local administrators, teachers, and guidance counselors were surveyed one year before the onsite evaluation. This standardized survey was intended to measure the performance of teachers, administrators, and guidance counselors on measures associated with their prescribed responsibilities as they related to CTE. Secondly, follow-up data collected one year after CTE completers graduated were analyzed in order to determine how many graduates were employed in related occupations or enrolled in related fields of post-secondary study. In order to increase the validity and reliability of the results, state universities were given program improvement funds to assist in coordinating the evaluations, collecting and analyzing the data, and preparing summary reports (VDOE). Lastly, an onsite evaluation visit was conducted every five years for each locality. The intention of the visit was to share the summary report, as well as provide the state team members an opportunity to personally witness the local CTE programs in operation.

1990 Perkins Enacted

It is not uncommon for legislative purposes to change with reauthorization; the Perkins Act is no exception. While the purpose of the 1984 Act was to improve programs and assist special populations, the 1990 Perkins Act’s purpose shifted the way in which vocational

education was provided in America (Gordon, 2008). As Gordon (p. 96) noted, “earlier [legislation], initiated and promulgated by Congress and accepted by vocational educators since the days of the Smith-Hughes Act, tended to separate and isolate vocational teachers, students, and curriculum from the rest of the school community.” With the 1990 Act, Congress intended to integrate CTE with academic instruction, as well as provide closer linkages between CTE secondary and post-secondary institutions and CTE and businesses (Gordon). In order to accomplish these purposes, and supported by the recommendations of the 1986 NAVE report, Congress decided to “...remove virtually all distributional discretion from state officials” and allocate “...the vast bulk of the funds directly to local education agencies...” (Gordon, p. 96). In other words, Congress removed the state’s “burden of fiscal authority” (Jennings, 1991; Swanson, 1991). This also included decreasing the Perkins within-state allocation to administrative purposes from 7% to 5%, which resulted in a 29% decrease in administrative funding. Additionally, the funding formula change decreased the amount of funding available for state leadership activities by at least 5.5%, which equated to a 35% decrease in Perkins funding (AVA, 1992; U.S. Congress, 1984; U.S. Congress, 1990; Jennings, 1991). Prior to the enactment of the 1990 Perkins Act, states had the responsibility of determining the most efficient and effective way in which to use the federal funds to meet the federal requirements detailed in the Perkins legislation. With the passage of the 1990 Perkins Act, 75% of the federal funds were now directly allocated to local CTE programs, therefore decentralizing the bulk of fiscal authority onto the localities. As Lauro Cavazos, Former Secretary for the Department of Education, said in an interview, the goal of any legislation at that time was to “bring it back home” (L. Cavazos, personal communication, January 22, 2009). In other words, Congress during this time believed that federal dollars would be best spent if they were transferred directly

to the lowest regulatory agency in the governmental structure, which in this case meant the local secondary and post-secondary CTE institutions. In Virginia, this decentralization of federal funds resulted in a 36.2% increase in local-level Perkins funding (VDOE, 1993).

In addition to losing much of their fiscal authority over Perkins, accompanying amendments also shifted the administrative authority away from the state by placing responsibility for program evaluation and improvement onto the local CTE administrators. In other words, state-level CTE administration monitored the program evaluation procedures that local CTE programs conducted of themselves (Jennings, 1991). Consequently, after the 1991 enactment of the 1990 Perkins Act, states were left with only two methods to control the majority of the Perkins funding that was now to be funneled from the federal government to the localities via the state. First, both secondary and post-secondary applicants must submit a local plan for approval to the state department of education prior to receiving Perkins funds. Mostly accountability measures, the information required of localities has been adjusted semantically to fit with each reauthorization's purpose, but has remained essentially the same since 1990. Since then, the local plan submitted to each state for approval must have, among other things, the following items:

- a. Assurance that the program is such size, scope, and quality to improve the quality of career and technical education.
 - b. Description of how the program will be carried out with Perkins funds.
 - c. Description of how the program will be monitored in terms of program performance.
 - d. Description of how discrimination against special populations will be prevented.
-

- e. Description of how the program will integrate academic and vocational information in such programs through coherent sequences of courses. (ACTE, 1998; ACTE 2006; AVA, 1992)

The second way in which states still had authority over the decentralized federal funds was through deciding which education level received funding. Since Perkins II, states have been given the option to determine what percentage of funds directed toward the localities is directed toward secondary and post-secondary institutions (AVA). Currently (2009) in Virginia, 85% of basic state grant funds directed toward localities are allocated to secondary CTE programs. The remaining 15% is allotted to post-secondary institutions. This is the highest percentage of basic grant funds allocated to secondary CTE in the U.S. Five other states have the same secondary allocation percentage as Virginia: Alaska, Arizona, Delaware, Rhode Island, and Tennessee. Although Minnesota has the lowest percentage of basic grant funds solely allocated to secondary CTE programs at 40%, they have recently developed a consortium between their secondary and post-secondary CTE institutions where 20% of the federal allotment "...will be distributed equally to secondary and postsecondary recipients to develop the new consortium structure and improve secondary/postsecondary collaboration" (ACTE, n.d.). Therefore, as of December 2009, Colorado has the lowest percentage of basic grant funds solely allocated to secondary CTE programs at 40%. Refer to Appendix A for a list of all states' federal Perkins allocation between secondary and post-secondary CTE

The decentralization of fiscal and administrative authority, along with the change in the purpose of the Perkins Act, seemed to have also led to a change in funding priorities at the state level. State leadership funding priorities such as teacher education, which was authorized to receive \$1,400,000 in program improvement funds in 1989 in Virginia, was replaced with new

Perkins funded programs like Reading to Learn, Keyboard Training, and National Assessment of Education Progress testing (VCVE, 1995). This shift in priorities led to a decrease of Perkins funding to teacher education institutions and subsequently led to a decrease in the number of teacher education personnel (Lynch, 1998; Camp & Heath-Camp, 2007). It should be noted that professional development at the community college level, curriculum development, in-service teacher training, and career and technical student organizations (CTSO) activities were still priorities in Virginia after enactment of Perkins II, but must have been diminished in size and scope due to the limited availability of federal funds at the state level.

The fiscal and administrative authority of the state has only decreased in size and scope since the 1990 Act. The 1998 reauthorization of the Perkins Act increased localities' fiscal authority by 10% when the sex equity programs set-aside mandated in the 1990 Perkins Act was eliminated. Rather than keep this funding at the state level, the equity program money was absorbed into the local allocation. Since 1998, 85% of the basic grant within-state allocation of funds goes directly to the localities. The remaining 15% is now divided into state leadership (5%) and state administration (10%). The 2006 Perkins legislation will allow for continued federal support of CTE until 2012.

In summary, the passage of the 1990 Perkins Act within-state funding formula and its accompanying program evaluation amendment had at least eight known effects:

1. Decreased state-level Perkins funding for administrative and leadership purposes.
 2. Increased local-level Perkins funding.
 3. Decreased states' fiscal and administrative authority over Perkins funding.
 4. Increase localities' fiscal and administrative authority over Perkins funding.
 5. Decentralized program evaluation onto the local systems.
-

6. Increased local systems' responsibilities and administrative burden.
7. Decreased Perkins funding to university and college CTE teacher education programs.
8. Decrease university and college CTE teacher education personnel.

Purpose

The purpose of this study was to identify the impact the 1990 amendments to Carl D. Perkins Career and Applied Technology Act within-state allocation of federal funds had on the operational infrastructure of CTE in Virginia as specifically related to the overall quality of secondary CTE programs. A three round modified Policy Delphi technique was used to identify and rate the consequences of the within-state allocation amendments from a panel of CTE local administrators, state administrators, and university researchers and/or teacher educators.

Research Questions

Specifically, this study answered the following research questions:

1. What is the operational infrastructure of CTE in the Commonwealth of Virginia?
 2. What consequences did the 1990 within-state funding formula changes have on the operational infrastructure of CTE in Virginia as it related to secondary CTE programs?
 3. Which consequences were perceived by local, state, and/or university level as having the greatest impact on Virginia's CTE operational infrastructure examined in this study?
 4. Was the change in the within-state allocation of federal funds overall a positive or negative change?
 5. What are the participants' recommendations concerning future use of within-state allocation of federal funding for CTE?
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Overview of Research Design

A modified Policy Delphi research methodology was utilized for this study. A Delphi is a “...method for structuring a group communication process so that the process is effective in allowing a group of individuals, as a whole, to deal with a complex problem” (Linstone & Turoff, 2002, p. 3). Traditionally, a Delphi attempts to seek consensus about the complex problem. A Policy Delphi is much like a traditional Delphi with a few exceptions. The most notable of those exceptions is that the participants are not encouraged to form a consensus concerning the problem. Rather, the goal of a Policy Delphi could be explained as an attempt to identify all main effects of a policy, as well as their pros and cons. This Policy Delphi employed a wide variety of CTE professionals involved in the profession before, during, and after the 1990 within-state funding formula change. Included in this Policy Delphi were three groups: (a) CTE local administrators and leaders, (b) state administrators and leaders, and (c) teacher educators and/or researchers. The Delphi was conducted using Survey Monkey online survey software. The outcome of this research was a comprehensive statement of (a) the intended and unintended consequences of the funding formula change, (b) the impact each consequence had on the operational infrastructure of CTE in Virginia, and (c) the recommendations for future legislation concerning federal within-state allocation of funding.

Statement of Need

CTE in Virginia at the local, state, and university levels has been affected by the 1990 change in the federal within-state allocation formula. The exact extent of this change has never been wholly documented. Without such documentation, it will be difficult for future generations to fully understand the intended and unintended effects this funding formula change had on the operational infrastructure of CTE in Virginia. Additionally, the researcher perceives among the

CTE community a sense of complacency and learned hopelessness concerning CTE federal legislation. It is the hope of this researcher that the results from this study will help illustrate the significant impact federal legislation has on the daily operation of local secondary CTE programs and subsequently show the importance of getting consciously involved in the decision-making process that helps to shape CTE legislation at both the state and national levels. Equally important is the need for guidance and direction concerning the next reauthorization of the Carl D. Perkins Career and Technical Education Act in 2012. This study's findings and recommendations may be useful in guiding state and national-level legislators and CTE professionals on their expedition to a possible revision to the current within-state allocation funding formula that has been in place since the enactment of the 1990 Act.

Theoretical Framework

There are two major concepts that anchor this study. These concepts are Scriven's concept of a goal-free evaluation model (1972) and the concept of fiscal and administrative decentralization as explained by Ribot and Larson (2005) and Treisman (2007). Below is an explanation of how each concept serves as the theoretical framework for this study.

Goal-Free Evaluation

When Michael Scriven first suggested the concept of a goal-free evaluation in 1972, it was "greeted with stunned disbelief" (Vedung, 1997, p. 59). Vedung noted that many evaluators initially viewed this concept as "...radical..." (p. 59) and "...impudent, almost frivolous" (p. 59). Their comments were not surprising since it was a sharp departure from traditional evaluation methods, which used preordained intervention goals to assess the value of the intervention. However frivolous and impudent this concept may have been at the time, Guba and Lincoln (1981) stated that it had substantial effect upon theory and practice. As Scriven (1991, p. 180)

described, “In the pure form of this type of evaluation [goal-free], the evaluator is not told the purpose of the program but does the evaluation with the purpose of finding out what the program is Actually doing without being cued as to what it is trying to do.” Vedung (p. 59) explained, “By not tilting the evaluation toward stated intervention goals [Congressional intent], the evaluator can be more open to the total impact of the evaluand.” Secondly, Vedung explained that unlike many other evaluation models, the goal-free approach does not seek to place value (effective or not effective) on the policy change. It relies on the readers of the evaluation, decision makers and power wielders, to assess the results of the policy change. Lastly, in a goal-free evaluation, the identified effects of the policy change were then compared to the needs of the impacted population (Vedung). These needs, using Scriven’s logic, are much more important than the preordained intervention goals.

In terms of framing the concept to this study, a Policy Delphi designed around the Congressional intent of the change in the federal in-state allocation funding formula would, by design, be unable to identify all of the effects of the change in policy. Therefore, the Policy Delphi should not be designed around these preordained intervention goals; rather it should allow the participants to freely express their perceived effects of the policy change. By using the needs of the impacted population—secondary CTE operational criteria—to assess the impact of the researcher and participant-identified effects, this study diverged from Congressional intent and therefore more closely aligned with Scriven’s goal-free concept.

In closing, this concept could be considered the infrastructure that holds the study together. Closely following the goal-free concept gave validity to use of the research methodology in this study, which sought to identify effects of the change in the federal funding allocation.

Fiscal and Administrative Decentralization

The decentralization of federal and state governments “...has come to be seen as a cure for a remarkable range of political and social ills” (Treisman, 2007, p. 1). Defined as the transfer of fiscal and/or administrative authority to lower-level central government authorities or to other local authorities who are upwardly accountable to the central government (Ribot & Larson, 2005), decentralization efforts in America began to take shape under the Nixon Presidency (1968-1974); continued through President Carter’s administration (1976-1980); and increased rapidly under President Reagan’s two terms (1980-1988) (Caputo, 1988). In relation to this study, the move by Congress to transfer more fiscal and administrative authority to the localities is an example of decentralizing state government responsibilities and authority.

In terms of framing this concept to this study, the state-level administrative and fiscal decentralization of CTE’s federal funding management authority that occurred with the enactment of the 1990 Carl D. Perkins Vocational and Applied Technology Act is the key concept in this study. In this respect, this concept could be viewed as this study’s independent variable. Thus, it is the intention of the study to document the intended and unintended consequences this independent variable had on the dependent variable, the operational infrastructure of CTE.

Assumptions

For the purpose of this study, the following assumptions were made:

1. The Policy Delphi technique is the most efficient and reliable method to answer the research questions posed in this study.
 2. There are enough experts in each of the three levels (state, local, and university) willing to participate in this study.
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3. The 1990 change in the federal in-state allocation funding formula positively and/or negatively affected the operational infrastructure of CTE in Virginia.

Delimitations

The following are the imposed delimitations of this study:

1. This study is only intended to document the intended and unintended consequences of the 1990 within-state federal formula change in Virginia. There are two rationales for delimiting this study to only one state. First, each state had authority to decide how much of the Perkins funding went to local secondary and post-secondary schools. Therefore changes to the within-state funding formula affected each state's secondary CTE programs differently depending upon how much Perkins funding was allocated to secondary CTE. Secondly, each state evaluated its local programs differently before and after the funding formula change of 1990.
 2. This study only focuses on section 102 of the Carl D. Perkins Vocational and Applied Technology Act of 1990.
 3. This study only focuses on the intended and unintended consequences on secondary CTE programs as they relate to the operational infrastructure criteria defined by the Delphi group.
 4. Since this study uses a goal-free approach, the Congressional goals of the Act are intentionally ignored in the evaluation of its consequences.
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Limitations

As with any study, there are limitations imposed by extraneous variables. This study had the following limitations.

1. This study is limited to the knowledge, expertise, and memories of the participants involved.
2. Other legislation may have influenced the operational infrastructure of CTE during this time span.
3. As presented in chapter two, the overview of CTE federal legislation and operational infrastructure prior to, during, and after the 1990 federal within-state funding change are limited to the journal articles, books, researcher interviews, recorded presentations, and Congressional documents available to the public.
4. Participants know they have been selected to participate in this study and therefore may or may not be influenced by the fact that they are a part of a study that seeks answers to important questions.

Definitions

This study will use a variety of constructs and terms to maximize the effectiveness of the outcomes. These constructs are defined below.

Administrative decentralization: Transfer to lower-level central government authority, or to other local authorities who are upwardly accountable to the central government. In the context of this study, this concept addresses the change in 1990 from mostly state authority over federal funding to majority local authority of federal funding for CTE.

CTE curriculum: Statewide or local curriculum developed specifically to meet program area competencies and requirements.

CTE professional development: General or specific skills offered through continuing education. Considered in this education would be training to keep current with changing technology and practices in the CTE teaching profession.

CTE program standards: All aspects of program quality and effectiveness that apply to operating a local and/or state CTE program.

CTE programs of study: CTE course offerings that are relevant and applicable toward meeting the workplace human capital needs, as well as the needs of current and potential CTE students.

Consequences: The words effect and consequence are synonyms. They both are defined as something that naturally or logically follows an action or condition (The American Heritage College Dictionary, 2007). For clarity, the researcher decided to use "consequence" to define something that followed one of the eight effects of the 1990 Perkins within-state funding change and "effect" to define the occurrences that followed the 1990 Perkins within-state funding change.

Data analysis team: The professionals who oversee the implementation of the Policy Delphi including interpretation and coding of the participants' comments. In this study, the data analysis team is comprised of the principal investigator and a Delphi expert.

Decision maker: In terms of a Delphi, the person who is conducting, monitoring, and assisting the Delphi participants through the Delphi process.

Delphi group: The three classifications of CTE employees participating in the study: state and regional-level administrators, university-level researchers and/or teacher educators, and local-level administrators.

Effects: The words effect and consequence are synonyms. They both are defined as something that naturally or logically follows an action or condition (American Heritage College Dictionary,

2007). For clarity, the researcher decided to use "consequence" to define something that followed one of the eight effects of the 1990 Perkins within-state funding change and "effect" to define the occurrences that followed the 1990 Perkins within-state funding change.

Local-level CTE administrator: Local school system employee who worked or works as a CTE director or administrator for a local school division from at least 1989 to at least 1993.

Operational Infrastructure of CTE in Virginia: The basic, underlying framework of criteria that Virginia state leaders in CTE (state and local administrators and leaders, as well as university level teacher educators and/or researchers) must develop, grow, and/or maintain in order to effectively and efficiently operate a statewide CTE program.

Participant: An individual who is selected by the researcher and has agreed to participate in the Policy Delphi study.

Post-secondary CTE: CTE programs that are provided by a post-secondary trade school, community college, or four-year college or university, with the exception of CTE teacher education programs.

Secondary CTE: CTE programs that serve 7-12th grade students located either at comprehensive high schools or area CTE centers.

State-level administrator: State government employee who worked or works at the State Department of CTE in the Commonwealth of Virginia from at least 1989 to at least 1993. The employee could be the state director or the employees who worked immediately under the state director.

University-level teacher educator and/or researcher: A CTE teacher educator who instructed CTE teacher education courses and/or conducted research in CTE at a university or four-year college in the Commonwealth of Virginia from at least 1989 to at least 1993.

Summary

This chapter of the study (a) introduced the purpose, (b) provided a background of the problem, (c) defined the study's research questions, (d) introduced the research methodology, (e) stated the need for the study, (f) explained the theoretical framework, (g) defined the assumptions, delimitations, and limitations, and (h) defined appropriate terminology. The remaining chapters of the study will (a) review the related literature, (b) define the research methodology, (c) present the findings of the research, and (d) present the recommendations and conclusions.

CHAPTER 2 – LITERATURE REVIEW

The purpose of this study was to identify the impact the 1990 amendments to Carl D. Perkins Career and Applied Technology Act within-state allocation of federal funds had on the operational infrastructure of career and technical education (CTE) in Virginia as specifically related to the overall quality of secondary CTE programs. A three round modified Delphi technique was used to identify and rate the consequences of the within-state allocation amendments from a panel of CTE local administrators, state administrators, and university researchers and/or teacher educators. This chapter of the study is designed to conclude and discuss the pertinent information that was gathered from the three Delphi rounds to answer the following research questions:

1. What is the operational infrastructure of CTE in the Commonwealth of Virginia?
2. What consequences did the 1990 within-state funding formula changes have on the operational infrastructure of CTE in Virginia as it related to secondary CTE programs?
3. Which consequences were perceived by local, state, and/or university level as having the greatest impact on Virginia's CTE operational infrastructure examined in this study?
4. Was the change in the within-state allocation of federal funds overall a positive or negative change?
5. What are the Delphi participants' recommendations concerning future use of within-state allocation of federal funding for CTE?

As a consequence of the purpose, the review of the related literature is divided into six sections: (a) a historical perspective of within-state federal funding for secondary CTE schools, (b) decentralization in education: how, what, and why, (c) the development, passage, and enactment of the Carl D. Perkins Vocational and Applied Technology Act of 1990, (d) defining

the operational infrastructure of CTE in Virginia, (e) documented consequences of 1990 Perkins funding formula change, and (f) the Policy Delphi Technique.

A Historical Perspective of Within-State Federal Funding for CTE Secondary Schools

An understanding of the background of the federal government's involvement in supporting secondary CTE through funding is necessary to understand the importance of this study's purpose. This section will present a brief history of the changes in the federal government's role in supporting CTE secondary schools by appropriation of federal funds and provide a snapshot of the past and present federal and state partnership concerning CTE secondary schools.

The Beginning

In order to fully understand the federal role in supporting CTE secondary schools, one must first understand the origins of federal support for CTE. CTE federal support can be traced back to the middle of the 19th century with the passing of the Morrill Land Grant Act of 1862 and its amendment in 1890. These Acts allowed public land to be donated to several states and territories for the purpose of providing colleges of agriculture and the mechanic arts (Hawkins & Swanson, 1966). The first appropriated federal support for CTE came with the passage of the Hatch Act in 1887. The Act appropriated \$15,000 to each state to be used to establish an agricultural experiment station (Hawkins & Swanson). Subsequent legislation, Adams Act of 1906 and Nelson Amendment of 1907, increased the amount of federally appropriated money to land grant colleges. The State Marine School Act of 1911, which provided training for those planning a seafaring career, is known more for its policy than its intent. This Act was the first to introduce the principle of "matching" of federal funds on the part of state and local governments (Hawkins & Swanson). Lastly, the Smith-Lever Act of 1914, also known as the Agricultural

Extension Act, provided for a program of cooperative extension work in agriculture and home economics (Hawkins & Swanson). From 1914 to 1925 this Act provided agricultural extension training with a total of \$40,680,000.

The Secondary CTE Federal Funding Push

While the land grant colleges received more federal funding, bills supporting the appropriation of federal funds for secondary-level CTE schools were failing to pass Congress. In a series of unfortunate events that included death, deadlock, objections and political power struggles, the Livingston, Adamson, and Davis-Dolliher bills were defeated (Hawkins, 1951). Each one supported appropriating federal funds for secondary CTE schools. The defeat of these bills did not diminish the national and congressional interest in developing a secondary CTE program. Soon a commission on the National Aid to Vocational Education was established to study the problems involved in a national system of federal aid to the states for secondary CTE education. (Hawkins & Swanson, 1966).

On January 20, 1914, a resolution enabled the Commission to begin researching the need for national aid to vocational education. Among many other things, the commission found that of the people surveyed: 99% (n=44) of the state superintendents, 85% of school superintendents (n=375), 78% of national labor organization (n=57), and 78% of manufacturers (n=37) were in support of federal aid to the states for vocational education (Hawkins & Swanson, 1966). On June 1, 1914, the Commission submitted a report with a recommendation that was widely supported by the public. In the report, the Commission stated that it would be "...unrealistic for our educational system to concentrate on preparing students for a college education, when the vast majority would never go on to higher education..." (Leviton, 1963, p. 2). The last chapter of the report would later become a bill that would embody the recommendations of the Commission

concerning federal aid to the states for CTE. This bill, supported by Congressmen Hoke Smith and Dudley Hughes, would be called the Smith-Hughes Bill. In 1916, the executive branch, headed by President Wilson, showed their support for the bill by stating,

“We ought to have in this great country a system of industrial and vocational education under federal guidance and with federal aid, in which a very large percentage of the youth of the country will be given training in the skillful use and application of the principles of success in maneuver and business.” (Hawkins, 1951)

Within a year, Congress passed the Smith-Hughes Act of 1917 (P. L. 68-35). The final Act allotted \$7.2 million annually to CTE, which was to be matched by states. The breakdown of the funding was as follows: \$3 million for agriculture education, \$3 million for trade and industrial and home economics education, \$1 million for teacher education, and \$200,000 for federal administration costs (Levitan, 1963). Ten months after the adoption of the Act, all 48 states had accepted its provisions (Hawkins, 1951).

This Act was the impetus that ignited the vocational education movement. As Grubb and Lazerson (2004, p. 29) noted, this movement “...changed the high school, as trade and industrial training, secretarial and clerical preparation, home economics, and agricultural education became staples of the curriculum.” Additionally, they added that the vocationalizing of American schools changed the purpose of schooling from preparing youth for work through basic competency learning to preparing them for work by teaching them a job skill. Prior to vocationalizing, only 10% of 14 to 17 year olds were enrolled in high school. Afterwards, most of the 14 to 17 year olds were enrolled (Grubb & Lazerson).

The “Partnership”

The Smith-Hughes Act and its passage was the “...culmination of an evolution in national appropriations for vocational education” (Hawkins & Swanson, 1966, p. 57) that began with the Morrill college-level land grants and ended with block grant funding for CTE secondary schools and “... signaled the beginning of a Federal role in vocational education” (Wolfe, 1978, p. 8). Additionally, this Act was the beginning of a still standing partnership between the states and the federal government concerning CTE. In 1925, Prosser stated that he believed the partnership between the federal government and the states was important for the following five reasons:

1. It helps solve problems too large to be worked out extensively by the states.
2. It helps states carry the cost of providing CTE.
3. It allows states to share the large task of preparing workers whose tendency is to move from state to state for life work.
4. It gives interest and prestige in the states to the work of preparing the nation’s youth for useful and productive service.
5. It secures expert information from the agencies of the national government and therefore insures a countrywide knowledge and viewpoint that will put the work of the states on a successful and business-like basis. (Prosser & Allen, 1925)

Additionally, this Act established a “contractual” relationship “...between these two agencies, in which each state agreed to do or not to do some particular thing or things for a given consideration” (Hawkins & Swanson, 1966, p. 58). In order to receive the federal dollars, the states were required to establish a state board of vocational education entirely separate from boards of academic education. This requirement “...fostered the notion of vocational education

as separate from academic education” (Gordon, 2008, p. 88). The mandate requiring states to submit a state plan was essential to the continuation of the partnership. As Dr. Charles Prosser stated, a state plan is “...the medium which would cement the partnership between the national and state governments in a cooperative program [of CTE]” (Hawkins & Swanson, p. 60). Additionally, the state boards of education were required to ensure their state CTE programs had an adequate number of teachers. The training of CTE teachers was vitally important to the drafters of the Smith-Hughes Act. References to CTE teacher education can be found in four sections of the Act. Additionally each state was appropriated \$10,000 for teacher training.

Increased Federal Support

From 1917-1947 only the 75th Congress, which met from 1937-1939, did not introduce new legislative proposals related to CTE (Hawkins, 1951). Notable pieces of CTE legislation from this time span included the temporary George-Reed Act of 1929, which authorized \$1 million annually for four years, and its successor the George-Elizey Act of 1934, which authorized \$3 million annually for three years. Additionally, the George-Deen Act of 1936 authorized an annual appropriation of \$14 million for all CTE programs including distributive education which had never been recognized in previous acts (Gordon, 2008). All funding provided by these acts was in addition to the Smith-Hughes Act, which was perpetual, until its repeal in July 1997 (Gordon).

Changes to the Legislative Status Quo

In 1946, the federal government doubled the previous Act’s appropriation with the passage of the George-Barden Act. This Act authorized \$29 million annually for all CTE programs (Levitan, 1963). Additionally, “...the fifty-fifty matching provision was retained...” (Ellis, 1970, p. 24). This Act is remembered more for its changes in state fiscal authority than the

increase in funds. As Hawkins (1951) and Ellis (1970) explained, this Act was different from the Smith-Hughes and George-Deen Acts in four areas that relate to this study:

1. This Act provided separate appropriations for each of the four program areas (agriculture, home economics, trade and industrial, and distributive education) (Hawkins).
2. There was no separate appropriation for teacher education. It was left up to the states to decide as to how much to spend on teacher training. States also had the authorization to use federal funding for "...salaries and travel of teachers, teacher trainers, vocational counselors, supervisors, and directors of [CTE] and guidance..."(Ellis, p. 25).
3. Federal funds under the Act could be used for maintenance of administration and supervision. Under George-Deen, federal funds were prohibited from being used for administration and only for salaries and expenses in supervision. The Smith-Hughes Act only allowed for salaries of agriculture education teachers (Hawkins).
4. Funds could be used for purchase of equipment and supplies needed for CTE instruction. A cap of 10% of funds was placed on the purchase of equipment after 1951 (Hawkins).

In 1956, two amendments to the George-Barden Act added \$5 million for a practical nursing program and \$375,000 for a fishery occupation program (Gordon, 2008). In 1958, Title VIII of the National Defense Education Act amended the George-Barden Act by authorizing \$15 million in annual appropriations for "...area CTE centers that were designed to meet the needs for highly skilled technicians" (Ellis, 1970, p. 26). This was the first time provisions were made for area CTE centers.

In summary, the first 45 years (1917-1962) of federal support for secondary CTE saw many changes. From the revolutionary, tightly managed, teacher education supporting Smith-Hughes Act to the flexible George-Barden Act, many of the foundations of federal support for

secondary CTE were planted during these years. The next 45 years would see even more changes.

New Era, New Legislation - The Vocational Education Acts (VEA) of 1963, 1968, and 1976

The beginning of the 1960s was undoubtedly a turbulent time in education. High levels of unemployment, poor educational facilities, and a lagging economy were just a few of the problems facing the country. Additionally, not enough schools were preparing the average student for the labor force. It was estimated that by 1961, less than two-thirds of all public high schools offered any federally funded CTE program, which left a large number of American high school students with little to no exposure to vocational training (Levitan, 1963). The few CTE programs that did exist in American high schools and technical centers were preparing students for “...limited employment opportunities” (Ellis, 1970, p. 46). Meanwhile, the “federal support for [CTE] continued at a slow, even pace” (Causer, 1995, p. 6).

The long-term unemployment of “...youth, minority groups, the unskilled, and the uneducated...” (Ellis, 1970, p. 176) coupled with the federal government’s increased emphasis “...on dealing with specific domestic problems by increasing governmental centralization and financial responsibility” (Caputo, 1988, p. 172) provided impetus for the 1963 Vocational Education Act (VEA) (P. L. 88-210). This Act “...represented a move away from remedial training and retraining programs to preventative education and training programs” (Ellis, p. 176). More importantly, this Act solidified the federal government’s commitment to maintain, extend, and improve existing CTE programs. The purpose of the Act was to ensure that all persons of all ages in all communities would have ready access to vocational training or retraining of high quality, suited to their personal needs, interest, and abilities (Gordon, 2008). The within-state allocation formula illustrated the federal government’s commitment to ensure that *all persons*

would have access to vocational training by allocating via age groups. Under the 1963 VEA, 50% of the allotted funds to states were required to be used for persons between the ages of 15 to 19, 20% for persons between the ages of 20 to 25, 15% for persons between the ages of 25 to 65, and 5% for persons of any age (Calhoun & Finch, 1982; Gordon). As Evans, Mangum, and Pragan (1969, p. 18) stated, the 1963 VEA "...provided a totally new orientation for [CTE] and the opportunity for greater flexibility in pursuing it." This increased flexibility enabled states to use federal funds for all CTE programs rather than just certain ones (Evans et al.; Gordon). One result of such support and flexibility was that between 1964 and 1966, total enrollment in secondary CTE programs grew by 43% (Evans et al.). Additionally, federal funds helped to build, add, or renovate area vocational centers in 45 states between the years 1965 and 1966 (Evans et al.). In 1968, the VEA was amended to "...specifically target funds for the disadvantaged, handicapped, and post-secondary [CTE]" (Wolfe, 1978, p. 8). Additionally, consumer and homemaking education, cooperative vocational education, and curriculum development were added to the lists of items VEA funds would support (Wolfe).

The high growth in both infrastructure and student enrollment in secondary CTE, along with the women's liberation movement, led to new issues the 1976 Amendments to the VEA attempted to resolve. These issues included "...sex discrimination and bias in [CTE] programs; insufficient funding for handicapped, disadvantaged, post-secondary [CTE], and American Indians; and a lack of systematic state planning and evaluation" (Wolfe, 1978, p. 9). Additionally, there were threats to the funding of teacher education (Gordon, 2003).

The 1976 amendments sought to "...dismantle sex segregation in CTE" (Luftkin & Wieberg, 2007, p. 423), by providing \$50,000 of basic grant moneys for each state to hire "...full-time personnel to assist the State board for [CTE] in ending sex discrimination in [CTE]

programs” (Wolfe, 1978, p. 9). To help with the high growth of many states’ CTE infrastructure and student enrollment, the amendments required states to develop a five-year and annual comprehensive state plan for CTE that “...set out the uses of federal, state, and local funds for each year of the plan...” (Wolfe, p. 9). The highly detailed state plans showed exactly how and where all funding for CTE would be spent in the state and was seen as a method to help states systemize fiscal planning. To help ensure that federal dollars would help states accomplish these and many other federal priorities, the 1976 amendments significantly changed the within-state allocation of federal funds. Unlike the preceding VEAs that required states to allocate federal dollars by age groups, the 1976 within-state allocation of federal funds was allocated by “...state grants, supplemented by additional categories that reflect[ed] priorities identified by Congress” (Gordon, 2008, p. 94). In other words, the within-state federal money was allocated by federal priorities. This change in the within-state allocation of federal funds is the origin of the “basic state grant.” In 1976, the basic state grant was divided into two sections: (a) CTE training and program maintenance; for which 80% of federal monies was allocated, (b) program improvement and supportive services; for which 20% of federal monies was allocated (Wolfe).

In section one there were nine areas in which states could expend the federal dollars: (a) state and local CTE programs; (b) work-study for students aged 15-20; (c) cooperative education; (d) energy-related CTE which authorized post-secondary training in coal mining and the installation of solar energy equipment; (e) construction of area CTE schools; (f) industrial arts programs at the junior high level; (g) support services for women who were either entering for the first time or about to re-enter the job market; (h) CTE training at private institutions to provide training where such training is not available in public institutions; and (i) sex equity coordinator. Section two of the basic state grant could be expended in six areas: (a) CTE

research; (b) development and implementation of exemplary and innovative CTE programs; (c) curriculum development; (d) CTE guidance and counseling (mandatory 20% of section two funding); (e) personnel training; and (f) support activities to eliminate sex bias in CTE programs (Wolfe, 1978). It could be argued that the shift from focusing on age to services helped to do two things. First, it helped to centralize CTE programs nationwide. Secondly, it helped to increase the federal government's leverage over the operation of statewide CTE programs. Lastly, much of this money could have been retained for state administrative purposes. In fiscal year 1978, states were allowed to retain over 80% of basic state grants at the state level and in some instances 100%; in fiscal year 1979, 60%; and in fiscal year 1980 to 1982, 50% (Wolfe).

In Virginia, the state retained a large portion of the within-state funding formula for state activities such as teacher pre-service and in-service education and CTE counseling services (VDOE, 1978). Table 2 provides examples of the types of state-level activities that were being either partially or fully funded by federal VEA funding in fiscal year 1978 in Virginia. Additionally, to provide a more current perspective of how much money was being spent on each project or activity, the last column of the table identifies the purchasing power of this money in today's economy.

In summary, the federal legislation preceding the 1984 Perkins Act helped to solidify the federal government's administrative and financial relationship with state and local CTE programs. Additionally, this legislation helped to increase the leverage the federal government had over state and local CTE programs. The 1984 Perkins Act, as noted in Chapter 1, continued the legacy of decentralizing fiscal and administrative control of Perkins funding from the federal government to the states. But as also noted in Chapter 1, the 1990 Perkins Act would further decentralize Perkins funding by handing over the majority of fiscal and administrative control to

the local education agencies. In order to better understand the motives behind this example of decentralization, an examination of decentralizing education is warranted.

Table 2

Examples of Projects and Activities Approved to be Funded Using 1976 VEA Program Improvement Funds in 1978 in the Commonwealth of Virginia

Funded Project or Activity	Amount of program improvement funding allocated	1978 dollar amounts adjusted to 2009 dollars ^a
“Provide support to approved teacher education programs through a percentage of the cost for approved personnel and travel” (VDOE, p. 70).	\$534,478	\$1,730,848
“Provide to teacher education institutions a percentage of the cost of approved equipment purchase for maintaining or establishing new programs” (VDOE, p. 70).	\$100,000	\$323,839
“Program supervisors will work with local educators and teacher educators in the development of [curriculum] units [and guides]” (VDOE, p. 71).	\$60,000	\$194,303
“Summer conferences on career counseling and placement will be held for counselors at the secondary, post-secondary, and adult levels with appropriate materials provided” (VDOE, p. 71).	\$71,570	\$231,772
“Provide to local school divisions a percentage of the cost for maintaining existing vocational guidance counselors positions” (VDOE, p. 71).	\$70,000	\$226,687

^a The Consumer Price Index (CPI) Inflation Calculator has been used, and it reflects the average Consumer Price Index for a given calendar year. Calculated in March 2009. Retrieved March 13, 2009 from <http://data.bls.gov/cgi-bin/cpicalc.pl>

Decentralization in Education: What, how, and why?

What is decentralization and how is it identified?

Whether it is “...motivated by a desire to establish or consolidate democracy”

(UNESCO, 2005, p. 9), gave teachers and principals more “...sense of personal responsibility for

their students' performance" (Hill & Bonan, 1991), or eliminated or reduced poor or slow central government response (Daun, 2007; Manor, 1999; Welsh & McGinn, 1999), decentralization of fiscal and administrative authority has played a predominant role in shaping school governance since the 1980s. As the U.S. progressed into the 1990s, the desire to "...restore the legitimacy of politics and governmental institutions by redistributing power and by allowing parents and other local stakeholders to participate in decisions [made] in schools" became an additional motive for decentralization (Maslowski, Schreens, & Luyten, 2007, p. 304). As Maslowski et al. (p. 304) stated, "this was believed to increase the commitment of local actors to the school and to stimulate educational innovations tailored to the needs of students and parents and—as far as [CTE] is concerned—to the requirements of regional employers."

Welsh and McGinn (1999, p. 17) defined decentralization within education as "...shifts in the location of those who govern, about transfers of authority from those in one location or level vis-à-vis education organization, to those in another level." They (p. 17) identified four possible locations of authority: (a) central government; (b) provincial, state or regional governing bodies; (c) municipal, county, or district governments; (d) and schools. The issues or items that are usually the focus of decentralization in education can be classified in five categories: mission, operations, personnel, client, and finance (Welsh & McGinn). Decisions to decentralize certain items within one of the five categories usually require decentralization decisions to be made in one or more of the other categories. In other words, "decisions are not mutually exclusive; a single decision may affect more than one aspect of the organization" (Welsh & McGinn, p. 61). Therefore, when designing decentralizing policy, there are many factors and consequences that need to be examined. Site-based management, the most radical form of school decentralization (Daun, 2007), is defined by Hill and Bonan (1991, p. v) as "...shifting the

initiative in public education from school boards, superintendents, and central administrative offices to individual schools.”

In the context of this study, fiscal and administrative responsibilities and duties once held at the state and regional level were decentralized to the municipal, county, district, and, in more rural areas where the principal could also serve the role of CTE director, the school level. Therefore, it could be argued that in certain geographic situations, the 1990 amendments are an example of shift to site-based management of federal funding. Additionally, it seems that all five categories usually affected by decentralization in education, as identified by Welsh and McGinn, were impacted by the 1990 amendments to the Perkins Act.

Three Perceived Benefits of Decentralization

Decentralization at any level, field of work, or organization, can be summarized as an attempt to increase local flexibility, accountability, and productivity (Brown, 1990; Brown, 1991; Elmore, 1993).

Flexibility

In terms of flexibility, the decentralization of fiscal and/or administrative authority to localities enabled them to respond faster to change while centralization of same responsibilities at the state level enabled change to occur on a much wider scale (Brooke, 1984). In the context of this study’s topic, the 1990 Perkins Act increased localities’ fiscal and administrative flexibility. Fiscally, localities were provided flexibility to determine how much money to spend on program improvement and expansion, as well as assisting special populations. Administratively, localities were provided the flexibility to evaluate their own programs and provide their own professional development. The National Assessment of Vocational Education (NAVE) report (U.S. Department of Education, 1989) projected that by providing increased

flexibility, localities would be able to address the issues of integrating academics into CTE and increasing technological standards much more efficiently and successfully than states. Although there is no empirical evidence to confirm this projection, interviews with the CTE assistant director and director of Virginia during this time confirm that some districts had success in accomplishing the two goals while others have yet to fulfill them (N. Brooks, personal communications, January 19, 2009; J.Gray, personal communications, January 19, 2009).

Accountability

Although it is important to assume that "...schools know best..." and "...school personnel are by and large trustworthy" (Brown, 1991, p. 21), accountability measures must be put in place to prevent a "...lack of attainment of general objectives"(Brown, 1990, p. 43). Therefore, Brown stated that with increased authority comes increased accountability. Elmore (1993, p. 45) generally agreed, but stated that "on the surface, most decentralizing efforts express a common theme on the subject of accountability: schools are to be held accountable to the public for the results that they produce with students," but this statement says "...very little in the absence of some set of beliefs about who is to be accountable to whom for what." This is where the ambiguity concerning accountability begins and certainty concerning the effectiveness of decentralization ends.

In order for decentralization to be effective, according to Elmore (1993) and Hill and Bonan (1991), there must be a shift in who is identified as the "public" to which schools are held accountable. As Elmore (p. 45) stated, there is a "...a deep-seated ambiguity concerning whether the people means the public at large, as represented through democratic institutions, or the public writ small, as represented in particular geographical constituencies, special-interest groups, or factions." Hill and Bonan (1991, p. vi) suggested that the increased accountability should not be

toward the central agencies, but toward the performance and needs of the students. Therefore, in order for decentralizing policy to be effective, central agencies, such as the state, must "...remain ultimately responsible for the schools..." but find ways to hold "...[the schools] accountable without dominating local decisions or standardizing practice" (Hill & Bonan, p. vi). In the context of this study, the 1990 Perkins amendments seemed to have successfully increased accountability at the local level by lessening the fiscal and administrative control the state had over localities. This lessening of control was mostly visible in the change in program evaluation procedures mentioned in Chapter 1. Additionally, by providing localities with more fiscal discretion, the Act allowed localities to focus on more local community, workforce, and student needs.

Productivity

Increased school productivity is also a commonly perceived benefit of decentralization in education. The general argument is that decentralization of resources and governance directly to localities will "...eventually result in better education..." and therefore, "...better student outcomes..." (Maslowski et al., 2007, p. 304). Student outcomes that are commonly factored in the measurements of educational decentralization effectiveness are standardized test scores, graduate income earnings, and continuation of education after graduation (Hanushek, 1997). Unfortunately, as Maslowski et al. and Hanushek noted, there are many factors that get in the way of determining with any high level of confidence whether increased school autonomy is effective in increasing student performance and thus school productivity. First, Maslowski, et al. (p. 304) noted that decentralization "...does not take place in isolation." Accompanying policies and procedures already in place may "hinder" the implementation of the decentralizing policy. Second, "...effects that can be ascribed to decentralization policies are hard to decipher" (p.

304). In other words, often there are too many other influential factors to accurately measure a decentralizing policy's total effect on student performance. Third, as noted by Hanushek (p. 142), many studies in this matter have been "...opportunistic..." in their research approach by using existing data "...to gain insights into school operations" rather collecting new data specific to the purpose of the research.

Hanushek (1997) examined over 400 related educational productivity studies that examined the relationship between school resources and their impact on student performance and determined that; in general, "today's schools exhibit continuing inefficiency in their operations as there is no strong or consistent relationship between variations in school resources and student performance" (p. 141). This is despite the fact that schools received much more funding in 1997 than ever before. From 1991 to 2005, national K-12 spending increased 105% (U.S. Department of Education, 2005). Hanushek's conclusion is further strengthened by a recent replication of the *Nation at Risk* study published in 1983 called *A Nation Accountable* (2008). This study further showed that since 1983, NAEP reading scores have declined while math scores have only slightly increased (U.S. Department of Education, 2008). Additionally, when looking at student performance from an earnings perspective, Betts (1996) found that they are not consistently related.

In the context of this study, the 1990 amendments to the within-state funding formula did increase the amount of funding available to local secondary CTE programs. Additionally, localities had the opportunity to spend this funding in nearly any manner they wanted since there was limited reporting of local financial expenditures to the state as mentioned in Chapter 1. Unfortunately, factors to measure student performance in secondary CTE, such as end-of-course sequence standardized assessments, have only begun to be put in place. Therefore it is unclear

whether or not the fiscal decentralization of the 1990 Perkins Act funding actually increased the productivity of local secondary CTE programs. What was clear from the 2002 NAVE report was that since 1990 there was no change in the average number of CTE credits (4.0) a high school student earned (U.S. Department of Education, 2002). But increased enrollment or lack thereof would only be one of the many factors to include in the measure of CTE student performance.

The Development and Passage of the 1990 Carl D. Perkins Act

This section of the literature review is divided into two subsections. The first subsection focuses on the House of Representatives and Senate hearings. This subsection will examine the research presented, as well as the pertinent dialogue shared during both the House and Senate subcommittee hearings between legislators and interested parties, researchers, and CTE professionals. Since most CTE professionals were not present at the Congressional hearings, subsection two examined the published reaction to the change in the within-state allocation funding formula upon its passage.

Developing Perkins II

As one Congressperson stated, there were two research reports that "...figure[d] prominently in [the] reauthorization work" (U.S. Senate, 1989, p. 1) of both the House and Senate: (a) the U.S. General Accounting Office's (GAO) evaluation of 1984 Perkins Act and (b) the 1986 National Assessment of Vocational Education (NAVE) Report.

The GAO report evaluated 70 CTE programs and activities in 20 localities within six states: Arkansas, California, Kansas, Maryland, New Jersey, and Pennsylvania. This report "...focused on those reauthorization issues and potential problems that might not be covered by the Department of Education's [NAVE report]" (U.S. Senate, p. 45). The goal of the evaluation was to determine if Perkins funding was meeting the two overall objectives of the 1984 Perkins

Act, which were to (a) provide quality CTE programs to underserved individuals, and (b) encourage program improvement and modernization. For the most part, as the authors of the GAO report summarized, CTE was meeting the objectives of the 1984 Perkins Act. The report presented to Congress stated that,

In general, we found in the locations we studied that although useful before and after data are not readily available, the [1984] Perkins Act likely brought about a major shift in federal emphasis from maintaining outdated [CTE] curricula and toward improving and modernizing local programs, and increasing the participation of targeted population groups.

We believe that localities are providing programs and services for the special populations and for program improvement consistent with the activities specified in the law. Further, we believe state-level efforts to use Perkins funds to improve and/or modernize [CTE] programs, through activities such as curriculum development or modernization and CTE teacher training, also are consistent with the Act's intent.

However, our work indicated that some Perkins Act allocation mechanisms tend to direct money to more affluent communities and away from poor communities. Specifically, -vocational education students in economically depressed areas in some states are less likely to receive as much Perkins funding on a per-capita basis for improved or modernized activities as students outside such areas;

- some states designate relatively wealthy areas as "economically depressed" and provided greater per capita funding to these areas than to some poor communities;

- the allocation formula for disadvantaged population funds shift some funds from poor communities to more affluent ones because it includes nonpoor academically disadvantaged students; and
- disadvantaged and handicapped population funds, allocated by statutory formulas and returned to the states by some eligible recipients, can be reallocated from poorer to wealthier communities. (U.S. Senate, 1989, pp. 44-47)

Interestingly, there was no mention of decentralizing states fiscal and administrative authority in the four recommendations the GAO study presented to Congress. The GAO was interested in fixing the problems with the allocation funding formula related to the special population set-asides. So where did Congress get the idea to redistribute Perkins funding directly to the localities?

The National Assessment of Vocational Education (NAVE Report) “...studied the implementation of the Carl D. Perkins Act of 1984 and the status of vocational education at the secondary and postsecondary levels”(U.S. Senate, 1989, p. 27). This report, released in 1988, was largely overlooked by many in the profession because of its five-volume size and subsequent depth (NCRVE, 1991). As mandated in section 403 of Perkins I, this assessment examined the “...basic goals of increasing the access [of] special populations to high quality vocational education programs and improving the overall quality of vocational education programs...” by analyzing data from fiscal year 1986 (U.S. Senate, p. 27). More specifically, the NAVE report examined the effectiveness of the Perkins I within-state allocation formula, which was set up to provide special populations with 57% of federal funds and 43% to program improvement. Headed by John Wirt, this assessment had a significant impact on the legislative talks concerning the reauthorization of Perkins I. As one of the first presenters at both the House and Senate

subcommittee hearings, Wirt shared the findings and recommendations of the study. Overall, NAVE found that the basic goals of Perkins I, which were to provide access to special populations and improve the quality of CTE programs, were “sound,” but the legislation was a “...weak instrument for achieving these goals”(U.S. Senate, p. 27). This was in sharp contrast to the GAO report, which seemed to imply that overall the Act did seem to “shift the federal emphasis.” Below are the highlights of Wirt’s written testimony submitted to the House that summarized the findings and recommendations of the 1986 NAVE report as it relates to the purpose of this study. The full text can be found in Appendix B.

Findings

1. Certain regulatory interpretations have weakened important statutory provisions.
 2. States have been allowed to use funds distribution methods that result in widely varying allotments among different educational levels and classes of institutions.
 3. When a set of institutions is administered by a state office responsible for Perkins administration, funds tend to flow disproportionately to the set of institutions.
 4. Nationally, separate area vocational school districts receive a disproportionate share of the federal funds that flow to secondary vocational education.
 5. The intrastate formula for the handicapped and disadvantaged set-asides did not change the amount of funds for school districts with high poverty rates.
 6. Most grants to school districts are too small to carry out any substantial activity. Grants to area schools districts are larger.
 7. Some services provided through federal Perkins funding were not improving student’s access to high quality CTE offerings.
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8. At secondary and postsecondary levels, the Perkins program improvement funds are used primarily as general aid to purchase equipment.
9. A small share of set-aside funds and a substantial share of program improvement funds were retained for statewide activities.

Federal Policy Recommendations for Secondary CTE

1. Revise and rebuild the high school CTE curriculum
2. Integrate high school academic and CTE curricula
3. Accelerate the education of at-risk students
4. Expand efforts to place student in good jobs
5. Act to improve the linkages between secondary and postsecondary training
6. Raise the quality of CTE programs in schools with high concentrations of poor and low achieving students.

Federal Policy change that can help secondary CTE accomplish these objectives

1. Implementation of Performance Indicators – Each state would develop performance indicators to measure the success of CTE for different populations of students and to achieve reform. The indicators would collect information on (1) academic achievement, (2) vocational attainment and occupational skill, (3) employment outcomes, (4) the continuity of student progress between the secondary and postsecondary levels. NAVE suggests that states begin reporting this data two years after reauthorization.
 2. Implementation of State Reform Plans – In order to create a climate of reform at the state level, states would develop and submit state reform plans to the federal government for accomplishing the six objectives of reform. The
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reform plan would focus on the entire system of secondary CTE in the state, not just federally funded programs. States would emphasize the improvements they need, such as upgrading their CTE teacher education and certification programs.

3. Local Improvement Grants - 70% of the Basic Grant would be competitively awarded among schools with high concentrations of disadvantaged student for upgrading their CTE programs. The grants would be limited in the number of years. They would be at least \$50,000 per year for small schools and \$100,000 per year for large schools. The grants would provide support for local schools to: (1) align and integrate academic and CTE education; (2) increase the placement of student in jobs that use the skills required in high school; (3) increase the continuity in training between secondary and post-secondary institutions; (4) ensure that at-risk students likely to drop out, handicapped students, limited English proficient students, teenage parents, and women enrolled in nontraditional programs obtain the assistance necessary to enroll and succeed in upgraded CTE programs; (5) design and collect performance data intended to measure the success of local improvement effort. Eligibility to compete for local improvement grants should be limited to schools with the largest concentrations of disadvantaged students.
 4. Program Demonstration Grants - 10% of Basic Grant funding would be competitively awarded among all the schools in the state to conduct demonstrations and rigorously evaluate innovative approaches to CTE. The intention of the program would be to further the base of knowledge about
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effective practices in CTE. Schools receiving the award would focus on developing an effective program for accomplishing one of the six reform objectives.

5. Experimental State Assistance Grants - This would be a \$50 million separate authorization under the National Programs title in Perkins II. This grant would test alternative ways of linking performance and improvement through allocating resources on the basis of information from the performance indicators. The 10% of states that make the most progress in developing the indicators would receive award grants that could be used to help local schools.
6. States should receive 20% of the Basic Grant - This money could be used to develop performance indicators and implement the reform plan at the secondary level. (U.S. Senate, 1989; U.S. House of Representatives, 1989)

Congress saw the NAVE report as "...very substantive with respect to the direction for the federal role in improving both secondary and postsecondary [CTE]"(NCRVE, 1991, p. 27). Examining the changes made to Perkins II as they relate to this study's purpose show that Congress held NAVE's recommendations in high regard, especially the recommendations to decentralize 70% of the federal funding to localities while increasing state and local accountability. But there were some concerns with both the GAO and NAVE studies. In a position paper submitted to the U.S. Senate, the Oklahoma State Department of Vocational and Technical Education identified factors that they felt the Senate should keep in perspective when reviewing both studies. First, the GAO report only looked at six states and these states were not randomly selected. Therefore, the results could not be generalized. Second, they noted miscalculations and misinterpretations of data by the GAO researchers concerning cost-per-

student data. Third, the NAVE report's data was collected one year after implementation of the 1984 Act and therefore could not accurately assess the effectiveness of the newly passed legislation. Lastly, the paper noted "...that many of the conclusions and recommendations made in the assessment are not supported by factual information" (U.S. Senate, 1989, p. 402). While this was pertinent testimony against the research that supported the decision to decentralize Perkins funding, there was much more testimony both for and against the 1990 funding allocation formula change.

Pertinent Testimony

A review of the transcripts from the six Senate subcommittee hearings held between June 22, 1989, and July 27, 1989, show that of the 123 individuals who testified or submitted statements, 17 specifically expressed support for the changes to the within-state funding formula, while a total of 35 individuals specifically expressed their non-support for the change. The remaining 71 individuals either did not mention any specific recommendation concerning the within-state allocation of Perkins funding or only expressed their support or non-support for the elimination of the special population set-asides, which by this time had been proven to be too delimiting by various studies. Additionally, a few individuals recommended actual within-state allotment percentages. Recommendations for the within-state formula allocation to localities ranged from as low as 40% recommended by Dr. Dale Parnell, president of the American Association of Community and Junior Colleges, to 95% recommended by Dr. Kenneth Watson, executive director of government relations for Seattle Public Schools (U.S. Senate, 1989). Additionally, West Virginia suggested that 75% of funding go directly to the LEAs while 18% is retained at the state for program improvement and state level coordination and 7% for state administration (U.S. Senate, p. 782).

Most supporters of the within-state allocation funding change hypothesized that the decentralization of Perkins within-state funding would lead to an increased ability to meet the varied purposes of Perkins II. Additionally, many supporters felt the need to diverge from the competitive grant structure that was in place at that time since they felt it discouraged localities from using federal dollars. Lastly, many supporters felt that the 1984 Act within-state allocation of funds retained too much money at the state level for them to adequately maintain and improve their programs, although many said that their state CTE programs were very successful in preparing CTE students for the workforce and post-secondary education. Additionally, many of the supporters also acknowledged the importance of a strong state role in operating CTE within their state. Non-supporters of the change in the within-state allocation of funding hypothesized that the proposed formula would diminish the states' ability to administer and lead CTE. As the Maine's Department of Education's position paper noted, changing the states' role to largely, "...setting and monitoring compliance with performance standards" would be a "...prescription for stagnation, not innovation" (U.S. Senate, 1989, p. 551). Oklahoma's State Department of Vocational and Technical Education's position paper added to this statement by stating that state level activities such as research and planning, curriculum and test development, in-service and professional development, and technical assistance "...cannot be achieved effectively or efficiently at the local levels..." (U.S. Senate, p. 399). Additionally, they felt that Perkins I was assisting CTE in meeting the needs of students and purpose of CTE. Below are summaries of more pertinent testimony for and against the change in the within-state funding allocation.

One of the most notable critics to the change in the within-state funding formula was Lauro Cavazos, Secretary of the U.S. Department of Education. Secretary Cavazos, a strong supporter of CTE who once stated, "...a vital, progressive [CTE] sector is crucial to the future of

our nation”(U.S. Senate, 1989, p. 5), believed that funding allocation decisions should be maintained at the state level because “...by going directly to the local level... the coordination that we are looking for statewide and nationwide would be blurred somewhat” (U.S. Senate, p. 16). Cavazos and his colleagues thought the proposed changes to the fiscal and administrative authority would “...diminish the State leadership in managing and improving vocational education programs by reducing funds available for state-level research, technical assistance, program monitoring, and teacher training”(U.S. Senate, p. 7). Cavazos and his colleagues introduced a reauthorization proposal separate from the Senate and House Perkins reauthorization proposals called the Vocational Education Excellence Act of 1989 (S.1133). In an effort to alleviate the funding allocation issues unearthed by the GAO report, this proposed Act would have, among other things, replaced the complex special populations set-asides with a requirement that states provide the federal government with a plan as to “...how it will allocate funds to local recipients...”(U.S. Senate, p. 6). Unfortunately for the supporters, S. 1133 was read twice in the Senate and referred to the Committee on Labor and Human Resources where it was tabled (U.S. Congress, 1989).

Another non-supporter of the change to the within-state funding allocation formula was Herbert Grover, Wisconsin’s Superintendent of Public Instruction. In his letter to the Senate, Grover stated “the continued support of state leadership and technical assistance is of primary concern if we are to accomplish the needed change and improvement within reasonable time frames” (U.S. Senate, 1989, p. 412). Furthermore, he anticipated that if the changes to the within-state allocation formula were enacted, “...one-half of the current Wisconsin Department of Public Instruction vocational staff will no longer be dedicated to federal vocational programs and activities” (U.S. Senate, p. 412). Additionally, Wisconsin’s Interim State Director of CTE,

Glenn Davison, stated “the excellence of [CTE] in Wisconsin is widely recognized, and that excellence is a direct result of having an active, independent state agency to advocate for the system, and to provide guidance and oversight” (U.S. Senate, p. 406). Davison believed that the elimination of federal funds at the state level would result in state staff reductions that “...will force states to limit their efforts to absolute minimal compliance...” and “...would severely limit the capacity of the state board to carry out any new responsibilities for improving programs, developing and implementing performance measures and standards, and improving accountability” (U.S. Senate, p. 406). He closed his argument by stating, “it can be safely predicted that limiting state oversight will ensure the failure of new purposes Congress may propose in the reauthorized Act” (U.S. Senate, p. 406). Lastly, high ranking education officials from Hawaii, Kansas, Nebraska, New Jersey, Maine, Oklahoma, and the U.S. Virgin Islands testified against the change in the within-state funding allocation.

Two of the more notable and poignant supporters of the change in the within-state allocation of funding were Paul Cole, vice president of the American Federation of Teachers, and James Oglesby, president of the National School Boards Association (NSBA). Cole testified on behalf of all teachers in the American Federation of Teachers (AFT). Their stance was that

...a number of functions may be performed most efficiently at the state level. These included, for example, certain aspects of curriculum development, program development, program coordination, and program improvement. However, the AFT does not believe that federal funds should be used to underwrite established and ongoing state activities. (U.S. Senate, 1989, p. 557).

Cole suggested that Perkins II should “...establish some unambiguous mechanism for driving funds to the local level...for appropriate federal purposes” (U.S. Senate, p. 564). Cole mentioned further that these funds must be large enough “...to be meaningfully used” (U.S. Senate, p. 564).

Oglesby testified on behalf of the “...95,000 local school board members across the country...”(U.S. Senate, 1989, p. 611). He stated that in a nationwide survey of local school boards that represented 15% of national student enrollment, 88% of participants “...favored limiting state use of federal funds for administrative purposes to 5%” (U.S. Senate, p. 612). Coincidentally, Perkins II decreased the state’s administrative allocation from 7% to 5%. Additionally, the NSBA recommended that at least 75% of the basic state grant should be given to elementary and secondary CTE programs. Lastly, high-ranking education officials from Rhode Island, Vermont, and West Virginia testified in support of the change in the within-state funding allocation.

Reaction to NAVE

As mentioned earlier, there was some reaction after passage of Perkins II. Most of the initial reaction centered on the 1986 NAVE report. A symposium entitled, *The NAVE: What it Says and What it Should Say*, which was hosted at the 1991 ACTE conference in Orlando, FL, was the one of the most visible reactions to the NAVE report, which was the main piece of research that guided Perkins II development. Concerning CTE teacher education, Richard Lynch, CTE teacher educator and researcher, stated that the NAVE report should have “...talked more about the role of the teacher in bringing about reform or restructuring in [CTE]” (NCRVE, 1991, p. 22). Referring back to the six recommended policy objectives concluded by the report, Lynch stated that he didn’t know how CTE would accomplish them without a well-educated teacher workforce. Lynch also stated that he wished NAVE had “encouraged a federal role in the

education and reeducation of [CTE] teachers” (NCRVE, p. 23). In his opinion, “reform will be nurtured from a desire to understand and to improve...rather than from a perceived need to renovate”(NCRVE, p. 24) which was the underlying theme of the NAVE report’s recommendations.

On the subject of research and development (R&D), David McCracken, who at that time was the president-elect of the American Vocational Education Research Association (AVERA), stated that the NAVE report recommended program improvement funds and experimental assistance grants, but left out R&D. The report’s neglect of the impact of R&D in CTE was in sharp contrast with the 1984 and proposed 1990 Perkins acts, which supported national, state, and local level R&D. After reviewing the report, McCracken stated, “no assessment of the contribution of research and development to the improvement of local [CTE] education programs was found...”(NCRVE, 1991, p. 39). By ignoring the impact of R&D in CTE, McCracken believed that NAVE researchers did not see it as a viable part of the CTE enterprise. Additionally, concerning the within-state allocation funding formula change, McCracken believed that driving down the majority of the federal dollar to the local level would only hurt R&D in CTE since many local administrators are more concerned with updating equipment than funding research. He also believed the “federal government has moved from funding mainline [CTE] to attempting to leverage state and local money to accomplish federal purposes” (NCRVE, p. 39).

Defining the Operational Infrastructure of CTE in Virginia

This section of the literature review expounds on the resources used to develop the operational infrastructure of CTE in Virginia. As explained in the definition section of Chapter 1, the operational infrastructure of CTE is defined as the basic, underlying framework of criteria

that state leaders in CTE (state and local administrators and university-level teacher educators and/or researchers) must develop, grow, and/or maintain in order to effectively and efficiently operate a statewide CTE program. Fundamentally, the criteria that embody the operational infrastructure have not changed since the origin of secondary and post-secondary CTE programs and will not change as long as they continue to exist. Each is a primary criterion that goes beyond the ancillary objectives that are the rationale for many changes in federal CTE policy, such as the integration of academic curriculum into CTE curriculum or assessing CTE completers' content knowledge with standardized assessments. In other words, the criteria that embody the operational infrastructure of CTE are broadly focused and ideal dependent variables for measuring the effect of the independent variable in this study – change in the within-state funding allocation formula.

For this study, 13 operational criteria have been identified as embodying the operational infrastructure of CTE in Virginia. The criteria were derived from a synthesis of national and state documents related to the regulation, administration, and evaluation of career and technical education. Described in the following sections are the national and state resources selected to define the operational infrastructure of CTE in Virginia.

National-level Resources

At the national level, four documents assisted the researcher in conceptualizing the “big picture” of operating a statewide CTE program: (a) Carl D. Perkins Career and Technical Education Act of 2006, (b) National Center for CTE's vocational administrators' competency studies (1977 and 1987), and (c) the text, *Administration of Vocational Education* (Wenrich, Wenrich, & Galloway, 1988).

The current federal legislation governing career and technical education programs, the 2006 Perkins Act, provided documentation of the intended purpose of the Act and outlined the required and permissible uses of the Perkins funds. This document helped to define what state level processes were considered of federal importance, thus important to include in the operational infrastructure.

Further, at the national level, in response to the need to identify competencies required of vocational administrators, the Occupational and Adult Education Branch of the U.S. Office of Education, under provisions of part C—Research on the Vocational Education Amendments of 1968, funded a project entitled “Development of Competency Based Instructional Materials for Local Administrators of Vocational Education” during the period of 1975-77. This project had two major objectives: to conduct research to identify and nationally verify the competencies considered important to local administrators of vocational education and to develop and field test a series of prototypic competency-based instructional packages and a user’s guide (Norton, 1977).

A study to update the 1977 study was conducted in 1987. The purpose of the study was to identify and nationally verify the competencies needed by administrators of secondary and postsecondary vocational and technical education programs and compared the results to the 1977 study. The survey instrument used in the 1987 study was a three-day Developing a Curriculum (DACUM) workshop. The DACUM committee identified 210 tasks that were clustered into 12 duty areas. A validation questionnaire was sent to 188 administrators, 128 of whom returned usable questionnaires. Of the 210 task statements included on the questionnaire, 201 were verified as being important (Norton & Harrington, 1987). The ultimate outcome of these two studies was to rigorously identify the important competencies needed by vocational

administrators and, in the context of this study, serves as a rationale for the criteria identified in this study's operational infrastructure of CTE. Hereafter, these two studies are referred to as the Administrator Competency Studies of 1977 and 1987.

Lastly, the text, *Administration of Vocational Education*, by Wenrich, Wenrich, and Galloway (1988) served as another source for the development and validation of the 13 criteria statements that embody the operational infrastructure of CTE.

State-level Resources

At the state level, four documents provided the researcher with a local-level perspective. The four documents were the: (a) *Regulations Governing CTE in Virginia* (Virginia Board of Education, 2001), (b) 1988 Vocational Education Evaluation of Virginia (VEEVA), (c) Arizona local program evaluation model, and (d) correspondence from the current state director of Virginia, Elizabeth Russell.

The *Virginia Regulations Governing CTE* developed by the Virginia Board of Education in 2001 (Virginia Board of Education, 2001), as well as e-mail communication from Elizabeth M. Russell, Director, Office of Career and Technical Education Services from the Department of Education, Richmond, VA (personal communication, December 19, 2008) were used to document the operational infrastructure.

Additionally, a review of the Vocational Education Evaluation of Virginia (VEEVA), which was the local program evaluation used prior to the enactment of the 1990 Perkins Act, provided an overall perception of the what the state, at that time, thought were important areas to evaluate when examining the local secondary CTE agencies.

Lastly, a draft copy of Arizona's Career and Technical Education Program Review Guide (Assessment and Action Plan) which was prepared by Elliot and Molina (2007) in collaboration

with the University of Arizona’s Department of Career and Technical Education, the Division of CTE at Arizona’s Department of Education, and Arizona’s Agriculture Teacher’s Association Curriculum Committee, was examined for a more current perspective of secondary CTE local program evaluation. Although specifically designed to “provide information to local personnel for redirection of the program to meet the present and future needs of agriculture students” and to “serve as a model for reviewing all existing [secondary agriculture] programs and guide a new or expanding programs” (Elliott & Molina, 2007, p. 2), the program components assessed in this program review guide embody more than secondary agriculture programs.

The 13 Criteria of the Operational Infrastructure of CTE in Virginia

Table 3 lists each of the criteria statements that embody the operational infrastructure of CTE in Virginia, as well as the identification of previously mentioned national and state resources used in the synthesis of each criterion statement.

Use Within The Study

The 13 criteria statements that embody the operational infrastructure of CTE in Virginia were validated in the first round of the Policy Delphi. Additionally, Delphi participants were asked to identify the consequences the within-state funding formula change in the 1990 Perkins Act had on the operational infrastructure of CTE as it related to Virginia’s secondary CTE program. In more research specific terms, the criteria statements that embody the operational infrastructure of CTE, once validated by the participant group, will serve as the dependent variable in this study. Looking forward beyond this study, it is the intention of the researcher to use the validated operational infrastructure of CTE to help develop criterion-specific assessments that could provide a state with criterion-specific performance reports of their state’s CTE operational infrastructure.

Table 3

The Operational Infrastructure of CTE in Virginia – Criteria and Related Resources

Criteria Statements		Resource 1 ^a	Resource	Resource 4 ^c	Resource 5 ^d	Resource 6 ^e	Resource 7 ^f	Resource 8 ^g
1	Provide state coordination, leadership, and technical assistance for local systems to identify, interpret, and comply with local program standards developed and accepted by the CTE profession, as well as federal and state regulations.	x		x	x	x		x
2	Provide relevant professional and leadership development to teachers, administrators, and teacher educators.	x	x	x		x	x	x
3	Develop new programs and curricula to respond to current and projected occupational needs.	x	x	x		x	x	x
4	Formulate new and improve existing operational policies (standards) at the local level.	x	x	x	x	x	x	x
5	Develop, improve, and maintain quality CTE teacher education programs at the bachelors, master's, and doctoral level.	x						
6	Conduct innovative research projects to assist in meeting unmet CTE needs	x				x		x
7	Educate and recruit quality CTE teachers and leaders	x	x	x		x	x	
8	Operate and maintain local CTE facilities and equipment	x	x	x	x	x	x	
9	Develop and execute external and internal procedures for program planning, development and evaluation procedures for local CTE programs.	x	x	x		x	x	x
10	Develop, improve, and maintain state and local community relations (e.g., advisory committee, CTSO, other workforce agencies).	x	x	x		x	x	x

Table 3

The Operational Infrastructure of CTE in Virginia – Criteria and Related Resources

Criteria Statements	Resource 1 ^a	Resource	Resource 4 ^c	Resource 5 ^d	Resource 6 ^e	Resource 7 ^f	Resource 8 ^g
11 Develop, improve, and maintain statewide professional associations and CTE teachers and administrators at all levels (local, state, and universities).	x		x		x	x	x
12 Develop, grow and maintain student services (e.g., Student recruitment and admissions, placement, and guidance services)	x	x	x		x	x	x
13 Develop, improve, and maintain fiscal management of local CTE programs.	x	x	x	x	x	x	x

Resources Used^a*The 2006 Perkins Act* (U.S. Congress, 2006)^bAdministrator Competency Studies (Norton & Harrington, 1987; Norton, 1977)^c*Administration of Vocational Education* (Wenrich, Wenrich, & Galloway, 1988)^d*Regulations Governing CTE in Virginia* (Virginia Board of Education, 2001)^eVocational Education Evaluation of Virginia (VDOE, 1989)^fArizona Local Program Evaluation Model (Elliot & Molina, 2007)^gEmail correspondence with Elizabeth Russell, Director of CTE in Virginia (E. Russell, personal communication, November 11, 2008)*Documented Consequences of the Funding Formula Change*

Although there was little extant literature documenting the consequences of the 1990 change in the within-state allocation funding formula, there is evidence that two areas of secondary CTE were directly effected: (a) state leadership and administration and (b) teacher education.

State Leadership and Administration

State leadership and administration in any field of education is important for its sustainability and growth. As a former state director of CTE, Byrl Shoemaker, once said, “If

broad change is going to happen, it will happen from a state and national base. There are good programs that happen locally, but you don't make major change except through a broad power structure" (Kister, 2001, 6). Demonstrating the significance of state leadership in CTE, Peters (1987) examined three states with reportedly strong CTE systems in place and identified seven factors that influence the quality of a state's CTE system. Of the seven, continuity of leadership, administrative structure, and the mission of the state agency were the most influential factors.

As expected, there is evidence that the change in the within-state funding formula did change the state's ability to provide sufficient leadership and administration.

In a paper presented to the National Assessment of Vocational Education Design Conference, Herriage (1991, p. 25) stated that "the changes in the [1990] Perkins Act have major implications for state administration of [CTE], both in policy and practice." The following consequences can be derived from Herriage's, as well as others', observations and qualitative research of the change in the 1984 Perkins within-state funding formula concerning state leadership and administration.

First, prior to the 1990 amendments to Perkins, states could use program improvement funds for "technical assistance." "Much of this technical assistance was conducted through the state office, either directly or through contract with an educational institution, typically a university" (Herriage, 1991, p. 27). The 1990 amendments to the within-state funding formula ensured "...that greater portion of federal funds would be directed into local programs for improvement at the discretion of the local administration" (Herriage, p. 27). As a result, "...states have eliminated some of the statewide activities which include a variety of services provided for the local level" (Herriage, p. 27). Secondly, there was a 2% decrease in the amount of funding for state administration (from 7% to 5%) Thirdly, the 1990 Perkins Act limited the

use of funds at the state level (Herriage). Prior to the 1990 amendments, states had 25 ways in which they could use program improvement funds; after enactment in 1991, states had only eight.

As a result of the decreased fiscal authority at the state level, as well as the decrease in Perkins state administration funding by 2% and the authorized uses of program improvement funds, Herriage (1991) observed a decrease in the number of state staff members. To add to the problem during this time, many states were experiencing budget constraints which limited their ability to replace Perkins funds lost or redirected at the state level as a result of the within-state formula change. Therefore, Herriage (p. 29) predicted that states, such as Virginia, that "...relied heavily on the use of [Program Improvement Funds] for the cost of staff to conduct technical assistance may have difficulty finding another source to replace those dollars." This decline in federal assistance coupled by a lack of replacement funding from the state, led to a decrease in staffing and state activities. Additionally, as an independent advisory panel stated in its final NAVE report to Congress three years after the formula change,

By channeling additional funding to local sites, the 1990 Perkins Act overlooks the vital role of state governments in supporting [CTE] reform. States represent the most promising way to achieve [CTE] reform on the scale necessary to have an impact on workforce quality (USDE, 1994, as cited in Kister, 2001).

The loss and redirection of Perkins funding at the state level, in Herriage's opinion, "cause[d] states to examine and probably redefine the role of the state staff" (p. 28). The state staff's role was redefined in another way as well. Prior to Perkins II, state staff members were required to conduct program level evaluations; afterward, local programs and schools conducted their own evaluations of their CTE programs. This decentralization of administrative authority

over the evaluation of local CTE programs changed the states' responsibility from evaluator to technical assistance provider. In other words, the 1990 Perkins Act placed states with the final responsibility for "...establishing measures and standards and for ultimate program supervision after placing initial responsibility at the local level for program evaluation and improvement" (Stecher & Hanser, 1991, p. v). Additionally, as Kister (2001, p. 12) reported, the 1994 NAVE determined that "districts that report good leadership from their states are substantially more likely than others to have increasing [CTE] enrollments."

CTE Teacher Education

Judging from interviews and literature, CTE teacher education was also adversely effected by the change in the within-state allocation formula. Prior to the 1990 Perkins legislation, much of the technical assistance mandated by the Act was provided to the localities through services performed by CTE research associates and teacher educators at the university level (Herriage, 1991). Perkins money to support the technical assistance was awarded through grants that typically ranged from one year to three years.

By conducting an interview with a professor from a major CTE university in Virginia, Virginia Polytechnic Institute and State University (Virginia Tech), the researcher was able to determine how a decline in Perkins funding could lead to negative effects. The interviewee stated that there were three ways in which one could work full time in CTE at the university: (a) tenure-track faculty member, (b) research associate, or (c) field service professional.

Tenure track faculty members were limited in number at this particular university because they were considered "hard lined" positions meaning their salaries were either partially or fully funded by the university. In other words, the university had to pay at least 50% of their salary. In the case of CTE tenure track faculty, the other 50% of their salary was paid through

Perkins funding received from the state department. In the interviewee's opinion, this was "edgy" because the "soft" government grant money was being used to help support hard lined tenure track positions. During the 1970s this was considered fiscally sound procedure since there was a history of Perkins support to the university from the state. In many instances, these "hard lined, soft moneyed" faculty members were awarded tenure from the university. At one point in time, the interviewee remembers CTE having 30 full time faculty members. The interviewee recalled that shortly after enactment of Perkins II, the university began to discontinue hiring of new CTE faculty members to replace retiring or leaving faculty. Additionally, tenure track CTE faculty, over time, assumed new roles in other divisions, departments, and schools within the university. Currently (Jan. 2009), there are three full time tenured CTE faculty members working at Virginia Tech.

The other ways in which one could have been employed at this university were either as a field service professional or a research associate. Employees in these positions relied solely upon state and federal grant monies for their salary. Ideally, "you wanted a 3 year grant for about \$250,000." This amount was ideal because research associates could pay themselves a salary plus benefits, while also covering expenses for a secretary, graduate assistant(s), and travel. During the 1970s, most of the positions within the division of CTE at the university were funded in this manner. These research associates and field service professionals would conduct professional development and research as related to their grants. Consequently, a review of the literature around this time showed a much larger number of research papers and articles related to CTE than in any other time in its history. But soon after Perkins II was enacted "...you started to see the research grants dry up" (K. Eschenmann, personal communication, January 5, 2009). As a result, many of these positions began to dwindle at the universities.

Lastly, two CTE teacher educators and researchers who worked in Virginia before, during, and after the 1990 change in the within-state funding formula published journal articles that mentioned the policy change's effect on teacher education. In a *Techniques* article published in September 2007, Camp and Heath-Camp (2007, p. 18) stated:

There was a fundamental shift in the federal funding patterns for CTE beginning with Perkins II in 1990. Before that, larger percentages of federal funds had been set-aside for state-level leadership, and much of that money had been used to support teacher education efforts in CTE. Beginning with Perkins II, those funds were largely redirected to local schools. With the shift in funding from state-level leadership activities to local use, CTE teacher education programs were particularly hard hit in most states. The decline in secondary CTE enrollment coupled with the changes in funding patterns in Perkins II created a situation: CTE teacher education programs rapidly withered across the country.

One of the reasons for the “withering” of CTE teacher education was that universities with CTE teacher education programs/departments did not replace lost federal funds with their own resources. Camp & Heath-Camp (p. 18) noted, “when the funds were discontinued, many universities elected to keep funds in academic areas.” This meant that in 1991, Camp and Heath-Camp and their CTE teacher education colleagues were informed of a “...loss of more than one-third of the faculty positions in the [CTE] program at the institution” (Camp & Heath-Camp, p. 18).

Beginning in 1994, Lynch conducted a study with the primary purpose of providing data and information about the preparation of CTE teachers at our nation's colleges and universities and about the responsiveness of CTE teacher education to the 1990 Perkins Act. In this study,

Lynch (1998, p. 21) stated that “from 1989-1990 to 1991-1992, nearly every [University Council for Vocational Education] UCVE-member institution [14 out of 20] experienced declining university and/state financial resources (including federal flow-through dollars) for [CTE] units.” In this study, Lynch referenced an unpublished study that examined six universities in which the CTE teacher education program was eliminated due to fiscal downsizing. Lynch stated that the study determined that:

The clear conclusion was that loss of federal funds from the Perkins legislation, which under prior legislation [Perkins I] had trickled down from the federal to the state to the university, had severe impact on [CTE] teacher education at these [six] institutions.

Lynch concluded by stating that, “similar, but undocumented, tales surface regularly at conferences and meetings of [CTE] educators.” Additionally, Dykman (1993, as cited in Lynch, 1998) noted that at least one third fewer CTE teacher education programs existed in 1998 than in 1989.

Policy Delphi Technique

For this study, the researcher used a modified Policy Delphi technique to answer the research questions. A Policy Delphi is “an organized method for correlating views and information pertaining to a specific policy area and for allowing the participants representing such views and information the opportunity to react to and assess differing viewpoints” (Turoff, 2002, p. 83). The Policy Delphi technique has been used in education to identify factors influencing curriculum reform in a community technical college system (Miles, 1997); identify solutions related to the integration of technology into academic instruction (Gier, 2000); identify issues in school-to-work transition (Walton, 1978); isolate common objectives that are manifested in the various education policies governing art education (Baxter, 1986); and identify

nursing ethics content and teaching strategies (Hilliard, 1986). As evident with these dissertations, traditional Policy Delphis explore policy issues or options before enactment or integration, but Turoff (2002) stated that using the Policy Delphi as a means to investigate the performance of a past policy action is one of the unexplored uses of this methodology. Turoff stated that this is an area in which the Policy Delphi methodology can provide decision makers with an understanding of what has occurred in the past so as to reduce future mistakes may be avoided. It is important to note that a Policy Delphi technique is not intended to replace committee activities, but to precede it (Turoff, 2002). It is a tool to help the decision maker (e.g., policy maker, researcher) make a well-assessed decision on the matter. In the context of this research study, this approach is intended to assist decision makers in understanding the total impact the within-state funding formula change of 1990 had on the operational infrastructure of CTE in Virginia.

Policy Delphi v. Traditional Delphi

The following is an explanation of the differences between a traditional Delphi and a Policy Delphi and how the researcher combined elements of both to form the modified Policy Delphi methodology used in this study.

The first difference can be found in whether consensus is sought among the Delphi participants. In a traditional Delphi, the goal is to form a consensus about a technical topic. A Policy Delphi seeks to generate the strongest possible opposing views on the potential resolutions of a policy issue (Turoff, 2002). In other words, the Policy Delphi intends to do no more than provide a factual basis for an argument for or against an issue, policy, or problem (Turoff, 2002). If consensus does occur among the participant group participating in a Policy Delphi, then it has occurred purely by chance. In the context of this study, the researcher does

not promote consensus among participants, but does provide an opportunity for them reevaluate their ratings after reviewing the ratings of their fellow participants. The reevaluation of ratings follows the more traditional Delphi methodology. Although participants were provided with the possibility of consensus in this study, the researcher also provided them with an avenue to comment or criticize other participants' comments concerning consequences of the within-state funding formula change. This opportunity to comment or criticize after the initial Delphi round follows Policy Delphi methodology and will help to "...expose all the differing positions advocated and the principal pro and con arguments for those positions" (Turoff, 2002, p. 82).

The second difference is the use of a homogeneous set of participants. This guideline is crucial in a traditional Delphi because it is generally easier for homogenous groups to come to consensus. In a Policy Delphi, Turoff (2002, p. 80) stated that "...generating a consensus is not the prime objective, and the structure of the communication process as well as the choice of the participant group may be such as to make consensus...very unlikely." Therefore, Turoff (2002, p. 84) stated that it is "...necessary [in] a Policy Delphi that informed people representative of the many sides of the issues under examination are chosen as participants." By not using a homogenous group, but rather a wide variety of effected parties, one can identify all the issues and opinions that surround a certain issue, policy, or problem. In the context of this study, the researcher compiled a Delphi group who consisted of CTE leaders and administrators from the local, state, and university levels. Although this Delphi group could be considered homogeneous since they all worked within the field of CTE in Virginia, they were considered heterogeneous by the researcher since each profession level experienced different consequences as a result of the within-state funding formula change.

The third difference is the type of topic covered by the Delphi. A traditional Delphi is intended to address a technical topic that can be quantifiably or analytically estimated. A Policy Delphi is intended to address a policy issue in which there are no experts, only informed advocates and referees. Turoff (p. 80) explained that,

An expert or analyst may contribute a quantifiable or analytical estimation of some effect resulting from a particular resolution of a policy issue, but it is unlikely that a clear-cut (to all concerned) resolution of a policy issue will result from such an analysis...

Although quantitative data such as the means and modes for each researcher and participant-identified consequences were solicited, examined, and reported, qualitative data, such as comments and criticisms concerning identified consequences, were solicited, coded, and reported to capture richer descriptions of the impact the within-state funding formula change had on the operation of secondary CTE in Virginia. Additionally, participants were given the opportunity to provide suggestions on future alterations to the within-state funding legislation. Again, this departed from the quantitative analysis that is usually found in more traditional Delphi studies.

The fourth difference between a traditional Delphi and a Policy Delphi can be found in the inquiry system philosophies that frame the structure of Traditional and Policy Delphis. The traditional Delphi follows the Lockean inquiry system philosophy, while the Policy Delphi follows the Kantian inquiry system philosophy (Mitroff & Turoff, 2002). The following is a brief description of these two inquiry systems.

Lockean Inquiry System

The traditional Delphi that attempts to gain consensus among its participants will usually follow the philosophy found in the Lockean inquiry system. This inquiry system can be defined as follows:

- Truth is experimental. Truth is defined as empirical content that has been reduced down to its observed behaviors, actions, and impacts.
- Therefore, truth does not rest on theoretical assumptions.
- Data should define a theory, not the other way around.
- In order to validate the observed behaviors a consensus of human observers must be obtained. (Linestone, 2002)

As mentioned earlier a traditional Delphi is nearly a perfect Lockean procedure because the raw data are the opinions and judgments of the experts. Also, the validity of the resulting judgment of the entire group is typically measured in terms of the explicit degree of consensus among the experts (Mitroff & Turoff, 2002).

The downside to the Lockean inquiry system is that by its very nature it induces agreement. This agreement can stifle conflict and debate when they are needed most. Therefore it is suggested that this inquiry system be used only on a well-structured problem with a "...strong consensual position on the nature of the problem situation" (Mitroff & Turoff, 2002, p. 22).

Kantian Inquiry System

The issue of determining the consequences of a change in the within-state funding formula on the operational infrastructure of CTE in Virginia cannot be defined as a problem with a strong consensual position on the nature of the problem situation. Therefore an entirely different inquiry system must be used to address this issue. As mentioned in the beginning of this chapter, this study will use a Policy Delphi.

This Delphi incorporates the philosophy found in the Kantian inquiry system. The Kantian inquiry system can be defined as follows:

- Truth is synthetic. Truth is not located in either its theoretical or its empirical components, but in both.
- Neither data nor theory has priority over one another.
- Theories derive from data, but theories must have been used to collect the data.
- Data are dependent on theories, therefore data and theories are inseparable.
- The world is full of synthetic models designed from the combination of theories and data.
- Truth is derived from the measurement of a model's ability.
- Therefore, at any one time, there can be at least two alternative models either in theory or in practice.(Mitroff & Turoff, 2002)

Unlike, the Lockean inquiry system, the Kantian inquiry system attempts to give as many explicit views of the problem situation as possible (Mitroff & Turoff, 2002). This philosophy takes the approach that in order to properly address an issue, one must first address and understand all alternative models, solutions, ideas, and/or theories related to the problem. This inquiry system also takes the approach that one person or interest group cannot properly address such a broad problem or issue. Therefore the decision maker (e.g. researcher, policymaker) must rely on a wide variety of experts to formulate the proper decision. This study adopts the Kantian inquiry system philosophy since it is the researcher's belief that no one CTE group (local, state, or university) can accurately identify and validate all of the consequences the funding change had on the operation of secondary CTE in Virginia. It will take combination of all effected parties to accurately identify and validate the consequences of the funding change.

Summary

This chapter provided the reader with: (a) a historical perspective of within-state federal funding for secondary CTE schools, (b) decentralization in education: how, what, and why, (c) the development, passage, and enactment of the Carl D. Perkins Vocational and Applied Technology Act of 1990, (d) defining the operational infrastructure of CTE in Virginia, (e)

documented consequences of 1990 Perkins funding formula change, and (f) the Policy Delphi Technique.

The next chapter, Chapter 3, is designed to (a) introduce the research approach, (b) define the participant selection process, (c) explain the research design, (d) explain the responsibilities of data analysis team, and (e) introduce the instrumentation used.

CHAPTER 3 – RESEARCH METHODOLOGY

The purpose of this study was to identify the impact the 1990 amendments to Carl D. Perkins Career and Applied Technology Act within-state allocation of federal funds had on the operational infrastructure of career and technical education (CTE) in Virginia as specifically related to the overall quality of secondary CTE programs. A three round modified Policy Delphi technique was used to identify and rate the consequences of the within-state allocation amendments from a panel of CTE local administrators, state administrators, and university researchers and/or teacher educators. This chapter of the study is designed to (a) introduce the research approach, (b) define the participant selection process, (c) explain the research design, (d) explain the responsibilities of the data analysis team, and (e) introduce the instrumentation used.

Research Approach

The underlying purpose of this study was to identify both intended and unintended consequences of a specific change in federal CTE policy. This study fulfilled this purpose by implementing a modified Policy Delphi technique that virtually brought together current and past CTE leaders (state, local, and university level) with knowledge and experience before and after the within-state funding formula change that happened as a result of the enactment of the 1990 Perkins Act. The participant group assisted the researcher in answering the following research questions:

1. What is the operational infrastructure of CTE in the Commonwealth of Virginia?
2. What effects did the 1990 within-state funding formula changes have on the operational infrastructure of CTE in Virginia as it related to secondary CTE programs?
3. Which consequences were perceived by local, state, and/or university level as having the

greatest impact on Virginia's CTE operational infrastructure examined in this study?

4. Was the change in the within-state allocation of federal funds overall a positive or negative change?
5. What are the Delphi participant's recommendations concerning future use of within-state allocation of federal funding for CTE?

Participant Selection

One of the most important and difficult tasks for a researcher using Policy Delphi research methodology is the selection of the participants (Turoff, 2002). Linstone (2002, p. 568) stated that a "poor selection of participants (e.g., friends recommending each other for panel membership) can produce a cozy group of like-thinking individuals... and become a vehicle for inbreeding." In order to prevent such poor participant selection, a careful examination of both the purpose of the study and suggested research methodology selection criteria led the researcher to identify three CTE groups within Virginia who embodied the Policy Delphi group. The three groups selected were CTE leaders and administrators at the local and state levels and university-level teacher educators and/or researchers. The participants within these professions were considered to be "...informed people representative of the many sides of the [issue] under examination..." (Turoff, 2002, p. 84), which is an important requirement of the Policy Delphi methodology. More specifically, there were three definitive selection criteria drawn from the purpose of the study that helped determine who were eligible to be included in the participant group.

The three purpose-driven criteria were:

1. The participants must be or have been employed in the field of CTE in Virginia.
2. They must have been in a position from one of the levels identified within the purpose statement (local, state, or university).
3. They must have been in that position during the years the study addresses (1989 to 1993).

There was one notable exception to these delimiting criteria. Dr. Richard Lynch was a teacher educator and researcher at Virginia Tech from 1971 to January 1, 1990. The decision was made by the researcher and his committee chair to include Lynch in the study for a number of reasons: (a) he continued to be a CTE teacher educator at the University of Georgia and (b) he was one of the first researchers to document the effect this change had on CTE teacher education institutions. It was felt that his experience within the Virginia CTE system, along with his related research on the subject made him an indispensable participant for the study.

Concerning the research methodology used in the study, Turoff (2002, p. 90) suggested that it is “a good idea to mix in a couple of lateral thinkers and devil’s-advocate types, just on a matter of general principle – i.e. those individuals who always manage to come up with the unexpected.” These individuals will help to increase the probability that the participants will be provided with an opportunity to address all possible effects of the policy change.

Methods for Identifying and Contacting Potential Participants

The researcher used multiple resources to locate potential participants. He visited Virginia’s state library to examine state-level CTE documents. Located in the state library were state plans and correspondences between local-level and state-level leaders and administrators, which provided the researcher with some potential participant names. He reviewed journal articles focusing on Perkins during this time. He contacted current CTE state-level administrators

to ask for assistance in locating names of individuals who served in CTE in Virginia during the study's timeframe. The state was able to provide the researcher with an AVA local-level administrator roster from 1989 that had every CTE administrator that was a member of AVA in Virginia. Additionally, they were able to provide the researcher with an email list of all current CTE administrators. To locate university-level participants, the researcher examined course catalogs from Virginia Tech, Old Dominion University, and James Madison University and identified CTE professors who worked during the 1989-1993 time span. Additionally, using the state published guide to CTE teacher educator institutions, the researcher contacted all universities and colleges that currently had CTE teacher education programs and asked them if they knew of anyone who had worked during this time span.

The researcher identified 101 potential participants from the resources utilized. Of the 101 identified potential participants, the researcher was able to locate contact information for 86 using an online people search engine, called EmailFinder, as well as Google searches. This online people search engine, www.emailfinder.com, claims on its website to be the "...world's largest directory of email addresses available to the public through special data partnerships." Additionally, the search engine also provides all known addresses, phone numbers, and ages of searched individuals, as well as their immediate family members. Out of the 86 potential participants the researcher attempted to contact, 5 were wrong numbers and emails. The other 81 potential participants were contacted either by email or phone. A copy of the email and the phone call script used can be found in Appendix C. Of those 81, 54 decided to participate; 15 felt they were not qualified to participate; 10 did not meet the criteria for inclusion; one had died; and one had suffered a traumatic brain injury due to a plane crash.

Participants who agreed to participate in the study were given the option to respond to printed versions of the Delphi survey instruments. The decision to offer both Delphi media was made because many of the chosen Delphi participant group members could possibly have limited broadband Internet access due to retirement.

Research Design

A three-round modified Policy Delphi technique was implemented to answer the research questions. The Policy Delphi incorporated a group of participants from three areas within CTE in Virginia who were working before, during, and after the 1990 funding formula change in Perkins legislation: (a) state administration and leaders, (b) local administration and leaders, and (c) teacher educators and/or researchers. The areas in which these individuals were/are employed would have not only been affected by the change in within-state funding allocation and its accompanying amendments, but the effects would have been markedly different among them.

The modified Policy Delphi was conducted online using Survey Monkey online statistical software. The information gathered from participants who chose to participate via paper copy was entered in to Survey Monkey by the researcher. A data analysis expert assisted in designing, developing, and piloting the secure Internet-based Delphi process in coordination with the researcher's requirements. All data were reviewable, by source and area on-line (password protected) and exportable, by variable in CSV format for analysis by the researcher and a data analysis team using any popular analysis software such as Excel, SPSS, or SAS.

Subsequent Delphi rounds provided Delphi participants an opportunity to (a) view all identified consequences and comment on fellow participants' consequences; (b) validate fellow participants' consequences as well as defend their own identified consequences; (c) rate the level of relevance and effect of each identified consequence of the change in within-state funding; and

(d) suggest, if possible, amendments to the within-state funding formula and its accompanying amendments. The researcher conducted analysis of each round with the assistance of the data analysis expert.

Data Analysis Team

Turoff (2002) suggested that at least two people analyze the participant's comments, but only one is required to fully understand the research problem. The other person should at least have editorial talents. For this study, an expert in designing, implementing, and analyzing an online Delphi was selected. This person also served as the research expert on the dissertation committee. The other person who served on the data analysis team was the principal researcher and author of this study. The principal duties of the analysis team members were as follows:

1. To ensure that the general design of the Delphi was consistent with the purpose of the study.
2. To ensure that the Delphi Probe questionnaire was interpretable and free of bias.
3. To ensure that the analysis and elimination of repeated effects and editing of effect wording of the Delphi Probe results were conducted in an appropriate manner and were free of bias and/or misinterpretation.
4. To ensure that the analysis and interpretation of the subsequent Delphi rounds were conducted in an appropriate manner according to Delphi procedures.

Instrumentation

This section of the methodology chapter discusses the pilot study of the online Delphi, Delphi timeline, instrumentation used, and data analysis completed after each round of the Delphi.

Pilot Studies

To ensure that the online modified Policy Delphi was set up correctly, three individuals logged on to the Delphi website. A retired university statistics professor, current Virginia CTE local-level administrator, and current CTE teacher educator checked each Delphi round's survey instrument for readability, bias, and ease of use. Additionally, the data analysis expert reviewed the Delphi website to evaluate the validity of the Delphi process used.

Delphi Timeline

Per the data expert's recommendation, this three-round online Delphi followed a 60-day implementation schedule. For each round, participants were allowed a 14-day time span to log on and complete the required Delphi round tasks. Five business days after round one began, a reminder email was sent out to each participant who had not completed the round. Ten business days after the round began, another email was sent to each participant who had not responded. Additionally, a phone call was placed to the non-participants reminding them to complete the Delphi round. After the first round, the researcher was allowed two weeks to analyze the data. The two-week analysis time span allowed the researcher to analyze the data from round one. Additionally, the data analysis team had adequate time to monitor the analysis completed by the researcher. Rounds two and three both had the same amount of participant time (14 days), as well as analysis time.

Round 1 – Delphi Probe

Round one of the Delphi first asked participants to provide demographic and professional information about themselves. A copy of the Round 1 survey can be found in Appendix D. After providing demographic and professional information, each participant was asked to complete two additional sections. The first section asked participants to validate each of the 13 criteria statements that embodied the operational infrastructure of CTE in Virginia. A list of these

criteria statements can be found in Appendix E. Participants were provided with a five-point Likert-type scale for identifying their level of agreement concerning the inclusion of each criterion within the operational infrastructure of CTE. Below are the levels of agreement from which participants were allowed to choose:

1. Strongly Agree: This criterion is a required component of the operational infrastructure of CTE in Virginia.
2. Agree: This criterion is likely a component of the operational infrastructure of CTE in Virginia.
3. Neutral: I have no opinion regarding the inclusion of this criterion in the operational infrastructure of CTE in Virginia
4. Disagree: This criterion likely should not be included as a component of the operational infrastructure of CTE in Virginia.
5. Strongly Disagree: This criterion definitely should not be included as a component of the operational infrastructure of CTE in Virginia

Additionally, the online Delphi was arranged so each participant had the ability to comment on each criterion statement. Participants were made aware that their comment could concern either editorial changes and/or concerns they may have related to each criterion statement. Finally, participants were given an opportunity to add any criterion statements they felt were not represented in the 13 original criterion statements.

The second section asked participants to identify the consequences of the eight known effects of the 1990 change in the within-state funding formula and program evaluation procedures as they related to the operational infrastructure of CTE in Virginia. The eight known

effects, as documented in Chapter 1, were:

1. Decreased state-level Perkins funding for administrative and leadership purposes.
2. Increased local-level Perkins funding.
3. Decreased state's fiscal and administrative authority over Perkins funding.
4. Increase localities' fiscal and administrative authority over Perkins funding.
5. Decentralized program evaluation onto the local systems.
6. Increased local system's responsibilities and administrative burden.
7. Decreased Perkins funding to University/College CTE teacher education programs.
8. Decrease University/College CTE teacher education personnel.

Prior to completing section two of Round 1, the participants were provided with four important statements to consider. Here are the statements as they appeared in the Survey instrument.

1. This study only focuses on the consequences this policy change had on the operational infrastructure of CTE as it relates to secondary CTE. Therefore, consequences this policy change may have had on post-secondary CTE (e.g., community college, trade schools) are beyond the scope of this study and therefore should not be submitted as consequences.
2. The Delphi process ensures that your comments are completely anonymous to everyone (readers of the study, dissertation committee members, and other Delphi participants) with the exception being the researcher. Therefore, please submit any consequence you believe may have occurred as a result of one or more of the eight known effects as it relates to secondary CTE. In rounds two and three, you and your fellow Delphi participants will determine if your suggested consequence is generally accepted to be a consequence of these effects.

3. You are not required to identify consequences under each of the 13 criterion statements.

Some of the criterion statements may have not been affected by the 1990 Perkins within-state funding change.

4. The words effect and consequence are synonyms. They both are defined as something that naturally or logically follows an action or condition (The American Heritage College Dictionary, 2007). For clarity, the researcher decided to use "consequence" to define something that followed one of the eight effects of the 1990 Perkins within-state funding change and "effect" to define the occurrences that followed the 1990 Perkins within-state funding change.

The participants were then prompted to review the criteria statements that embody the operational infrastructure of CTE in Virginia. Then using the eight effects provided, the participants were asked to list any consequences they believed were a result of the effects as they related to each criterion statement. The researcher provided them with one example for each criterion statement so they would understand what the researcher was requesting from them. If the participant liked the example, they were allowed to include it as an actual consequence.

Analysis of Round 1 Results

Each section of the Round 1 survey required researcher analysis. First, the researcher analyzed the pertinent participant information received from the Round 1 participants. Secondly, the researcher analyzed the results from the Likert-scale ratings on each of the 13 criterion statements of the operational infrastructure of CTE in Virginia. The researcher identified the mean and participant selection percentage for each of the original criterion statements. For each criterion statement to survive elimination from the operational infrastructure it needed to receive a mean of at least 3.0 on a five-point scale. Criterion statements with more than 51% of

participants rating the inclusion measurement equal to or above 3.0 will be included in the operational infrastructure of CTE in Virginia. Additionally, the researcher analyzed each participant's comments. In case a participant suggested a new criterion statement, the researcher developed a set of criteria required to include that statement in the next round. In order for a participant-suggested criterion statement to be included with the 13 original criteria statements that make up the operational infrastructure of CTE in Virginia, the criterion statement must have been:

1. research-based and documentable from reliable sources,
2. excluded from the existing criteria,
3. approved by the researcher's committee and/or data analysis team.

Lastly, grammatical and/or wording corrections suggested by the participants were also taken into account. Any changes made to existing criterion statements and/or addition of new criterion statements were documented in chapter four of this study. The "end product" of this analysis answered the first question of the study: What is the operational infrastructure of CTE in Virginia?

Lastly, the researcher analyzed the consequences provided by the participants. Written consequences provided by the participants on each of the 13 criterion statements were itemized and logged in an Excel spreadsheet. Consequences were consecutively numbered for coding purposes. Participant statements that contained multiple consequences were aggregated to the appropriate consequence statement and/or criterion statement. Each participant statement was read and determined to be a valid consequence; a personal comment and not a consequence; a repeated effect previously identified by the researcher and not a consequence; or an unclear or uninterruptable comment. The researcher synthesized all valid consequences and composed them

as consequence statements that would advance to Round 2 for relevancy and effect rating by the participants. Consequences identified by multiple participants were coded to be able to identify the quantity of participants linked to each consequence.

Round 2 – Identifying Relevancy and Effect

The goal of Round 2 was to examine, in detail, each participant-identified consequence under each of the 13 criteria statements. To accomplish this goal, participants were asked to rate the consequences' relevance to the independent variable in this study, within-state funding allocation change, as well the effect they believed the consequence had on the dependent variable of the study, the operational infrastructure of CTE in Virginia. A copy of the Round 2 survey can be found in Appendix F.

Participants were shown the validated criterion statements of the operational infrastructure of CTE with the participant-identified consequences listed under each criterion statement. Participants were asked to rate the relevance of the each identified consequence using three-point Likert-type scales. It is important to note that a three-point scale was chosen for relevancy and effect for three reasons. First, the Round 1 survey produced a large amount of consequences, 223. The researcher was concerned that a larger rating scale (five, seven, or ten point) might increase participant drop out between rounds. Secondly, concerning the relevancy rating, each consequence was either somewhat a result of the effects of the 1990 policy change or not. Nothing, in reality, would be considered a direct result (highly relevant) since there are too many variables involved (restructuring at the state-level; budgetary concerns at the local-level; politics, budget problems, and “image” issues at the university level, etc...) to solely attribute the 1990 Perkins within-state funding formula change directly to any of these

consequences. Thirdly, by limiting the rating scale, the researcher hoped it would encourage participants to comment on their ratings, which would lead to a more rich set of data.

In the context of this study, relevance was defined as the extent to which the consequence was a result of the 1990 change in the Perkins within-state funding formula change. Below is the three-point Likert-type scale that participants used to measure each identified consequence's level of relevance to the funding formula change.

1. Relevant – This consequence was most likely a result of the changes to the within-state funding formula and its accompanying amendments that occurred with the passage of the 1990 Carl D. Perkins Act.
1. Neutral – I either have insufficient knowledge or don't care as to the relevancy of this consequence.
2. Irrelevant – This consequence was most likely not a result of the changes to the within-state funding formula and its accompanying amendments that occurred with the passage of the 1990 Carl D. Perkins Act.

Participants were asked to also rate the effect of each identified consequence. In the context of this study, effect was defined as the participant's perceived impact of the consequence on the criterion statement. Below is the three-point Likert-type scale that participants used to measure the consequence that each identified effect had on its criterion statement.

1. Positive – The consequence had a positive effect on the operation of secondary CTE in Virginia.
2. Neutral– This consequence had neither a positive nor negative effect on the operation of secondary CTE in Virginia.

3. Negative – This consequence had a negative effect on the operation of secondary CTE in Virginia.

Lastly, participants were given an opportunity to comment on any or all of the consequences and/or their effects. Participants were asked to relate their written comments to the consequence, such as, an explanation of their ratings, opposing arguments, clarification, etc.

Analysis of Round 2 Results

Unlike the Round 1 analysis, the researcher used a more quantitative approach to analyzing the data. Relevancy and effect frequency counts were calculated for each consequence. Frequency counts were then reported as selection percentages that were entered into a Round 3 survey instrument. Additionally, clarifying comments made by participants for each consequence were analyzed for importance and relevance and when appropriate, entered under the corresponding consequence in the Round 3 survey instrument.

A decision was made not to exclude any consequences between Round 2 and Round 3 because the Delphi technique suggests that one should avoid eliminating participants' input between rounds because it may increase participant drop out between rounds (Linestone, 2002). Additionally, the researcher perceived that the participants from Round 2 were committed to the study and would complete the entire Delphi process including reviewing the 223 consequences again.

Round 3 – Confirming Final Relevancy and Effect Ratings for Analysis

The purpose of Round 3 was to allow the participants to review the other Delphi participants' relevancy and effect ratings in order to change or retain their own relevancy and effect ratings. A Round 3 survey instrument was developed for each Round 2 participant to include the overall selection percentages for relevancy and effect; their relevancy and effect

ratings from Round 2; and a space for their changes, if any, to their relevancy and effect ratings. Participants were asked to review the relevancy and effect rating percentages and participant comments from Round 2 and decide if they want to retain or change their original relevancy and/or effect rating. Additionally, participants were given the opportunity to comment on any particular rating or on the consequence itself. A copy of the Round 3 survey can be found in Appendix G.

Lastly, participants were asked two additional questions.

1. Was the change to within-state allocation of funds an overall positive or negative change for the operation of secondary CTE in Virginia?
2. What are your recommendations, if any, for future federal career and technical education legislation as it pertains to the within-state funding formula and its accompanying amendments?

Analysis of Round 3 Results

The analysis of round 3 results sought to answer the research questions posed in this study with the exception of research question one, which was answered in the Round 2 analysis. Below is the analysis that was used to answer each remaining research question.

Research question two. What consequences did the 1990 within-state funding formula changes have on the operational infrastructure of CTE in Virginia as it related to secondary CTE programs?

To answer this question, the researcher separated the relevancy and effect data by three position levels and analyzed each separately. Using the relevant frequency counts, the mean and standard deviation was calculated for each position level by criterion statement. Using the relevancy frequency count mean and standard deviation for each criterion statement, the

Standard Error of the Mean (SEM) was calculated. The researcher decided to use +1 SEM delimiting criteria as the benchmark for inclusion as a relevant consequence. Using the delimiting criteria consequence statements were coded as relevant or irrelevant within each position level. The researcher then further identified the number of relevant consequences within and between the three position levels (state and local, state and university, university and local). Lastly, the researcher identified the consequences that were considered relevant across all three position levels (local, state, and university). The researcher classified these consequences as power consequences. Because of the importance of the identified power consequences, the researcher further analyzed the effects of the power consequences and categorized them into two groups – (1) those power consequences in which the identified effect was unanimous across position levels and (2) those power consequences in which the effect was varied across position levels.

Research question three. Which consequences were perceived by local, state, and/or university level as having the greatest impact on Virginia's CTE operational infrastructure examined in this study?

To answer this question, the researcher analyzed the consequences that met the +1 SEM delimiting criteria in each of the eight position combinations (local only; state only; university only; local and university only; state and university only; state and local only; local, state, and university with varied effects; and local, state, and university with unanimous effects). Then for each grouping listed above, the effect of each relevant consequence was determined by examining the selection percentages of the effect rating. Effect was selected based on if a particular effect (Positive, Neutral, Negative) was selected 51% or more by the participants. Effects without a majority of participants (51%) selecting positive, neutral, or negative were

categorized as having an inconclusive effect. Lastly, when examining the pairings of position levels, the relevant consequences that had different effect ratings for each position level were aggregated into the varied effects section.

Research question four. Was the change in the within-state allocation of federal funds overall a positive or negative change?

To answer this question the researcher first examined questions 10-12 on the Round 1 survey. These questions asked participants to give their perception as to the overall effect the 1990 Perkins Act amendments to the within-state allocation funding formula as it related to local, state, and university CTE functions. The researcher then validated the participants' perceived effect ratings by examining the frequency counts of the Round 3 effect rating by position level. The researcher eliminated the Neutral category from the frequency count since participants who selected this either didn't know or care about the effect of the consequence. This calculation allowed the researcher to determine the overall effect rating by position level and by the participant group as a whole. In order to determine the overall effect the consequences had on each of the criterion statements, the researcher examined the effect frequency counts of the relevant consequences from the Round 3 effect ratings within each criterion statement. Once again, the neutral responses were extracted since they indicated the participant did not care or know the effect of the consequence.

This analysis led to a multi-part answer that included the overall effect rating of the funding formula change by position level, criteria statement, as well as the over effect rating of all relevant consequences.

Research question five. What are the participants' recommendations concerning future use of within-state allocation of federal funding for CTE?

To answer this question the researcher included a constructed-response question in the Round 3 survey. The participants' suggestions were analyzed for their relevancy to the dissertation topic and coherency. Unusable suggestions were coded into one of the following categories: (a) general comments that did not meet the suggestion criteria; (b) irrelevant because they had already been implemented in the 2006 Perkins Act; (c) irrelevant because they suggested a funding formula that did not relate to the within-state funding formula. The remaining suggestions were examined for redundancy and combined, if possible.

Summary

This chapter detailed the methodological approach, design, procedures, and analysis of this study. Chapter 4 will discuss the findings of the research. Chapter 5 will discuss the recommendations drawn from the findings.

CHAPTER 4 – PRESENTATION AND ANALYSIS OF THE DATA

The purpose of this study was to identify the impact the 1990 amendments to Carl D. Perkins Career and Applied Technology Act within-state allocation of federal funds had on the operational infrastructure of career and technical education (CTE) in Virginia as specifically related to the overall quality of secondary CTE programs. A three-round modified Policy Delphi technique was used to identify and rate the consequences of the within-state allocation amendments by a panel of CTE local administrators, state administrators, and university researchers and/or teacher educators. This chapter of the study is designed to present the data that were gathered from the three Delphi rounds to answer the following research questions:

1. What is the operational infrastructure of CTE in the Commonwealth of Virginia?
2. What effects did the 1990 within-state funding formula changes have on the operational infrastructure of CTE in Virginia as it related to secondary CTE programs?
3. Which consequences were perceived by local, state, and/or university level as having the greatest impact on Virginia's CTE operational infrastructure examined in this study?
4. Was the change in the within-state allocation of federal funds overall a positive or negative change?
5. What are the Delphi participant's recommendations concerning future use of within-state allocation of federal funding for CTE?

Participant Participation Rate

Of the 54 potential participants, 30 were either emailed a link to the online survey and 24 were mailed a paper copy of the Round 1 survey. Twenty-six of the potential respondents were identified as local-level CTE administrators, 17 were identified as state-level CTE administrators, and 11 were identified as university-level CTE teacher educators and/or

researchers. Of the 54 potential participants, 42 completed the Round 1 Survey for a 78% Round 1 participation rate. Of the 42 participants, 21 were local-level, 12 were state-level, and 9 were university-level. This resulted in an 81% local-level, 69% state-level, and 82% university-level participation rate for Round 1.

A total of 42 potential participants were either emailed a link to the online survey (20) or mailed a paper copy of the Round 2 survey (22). All of these potential participants were completers of the Round 1 survey. Of the 42 potential Round 2 participants, 32 completed the Round 2 Survey for a 76% Round 2 participation rate. Of the 32 Round 2 participants, 17 were local-level, 8 were state-level, and 7 were university-level. This resulted in an 81% local-level, 67% state-level, and 78% university-level participation rate for Round 2.

A total of 32 potential participants were either emailed a link to the online survey (14) or mailed a paper copy of the Round 3 survey (18). All of these potential participants were completers of the Round 1 and 2 surveys. Of the 32 potential Round 3 participants, 30 completed the survey for a 94% Round 3 participation rate. Of the 30 Round 3 participants, 15 were local-level, 8 were state-level, and 7 were university-level. This resulted in an 88% local-level, 100% state-level, and 100% university-level participation rate for Round 3.

A total of 30 participants completed all three survey rounds resulting in a 56% participation rate when compared to the original 54 potential participants identified before the Round 1 survey was sent out. When aggregated by position level, the participation rates were 58% for local-level, 47% for state-level, and 64% for university-level. Refer to Table 4 for a tabular representation of this data. Refer to Appendix H for a list of the names and positions of the individuals who completed all three rounds of the Delphi.

It is important to note that of the 42 who completed the Round 1 Survey, only 12 did not continue through Round 3. Because of the length of time that had passed since this Act was enacted, it was important to document why participants did not sustain through all rounds of the Delphi. The researcher attempted to reach all who did not complete either the Round 2 or 3 survey by phone and/or email and was able to determine why some did not continue. Of the 12, the researcher was able to determine reasoning for not completing Round 2 or 3 for five. Four of the individuals felt they did not have enough time in their schedules to complete Round 2. One other participant had a degenerative eye disease, which prevented him from completing the Delphi surveys. The remaining seven participants who dropped from the study could not be reached.

Table 4

<i>Delphi Participant Response Through All Three Rounds</i>										
Group	Round 1			Round 2			Round 3			Total % Return
	Sent	Return #	%	Sent	Return #	%	Sent	Return #	%	
Local	26	21	81%	21	17	81%	17	15	88%	58%
State	17	12	71%	12	8	67%	8	8	100%	47%
University	11	9	82%	9	7	78%	7	7	100%	64%
Total	54	42	78%	42	32	76%	32	30	94%	56%

Round 1 Analysis of Data Gathered

Delphi Round 1 survey asked participants to: (a) complete a participant information section; (b) validate the researcher-defined operational infrastructure of CTE in Virginia; and (c) identify consequences of the eight known effects of the 1990 Perkin's amendments as they related to the operational infrastructure of CTE in Virginia. The participants were asked to

provide their age; level of education; job position during study timeframe; impact 1990 Perkins Act changes had on their employment; years of cumulative experience; overall perceived impact of Act on state, local, and university-level CTE; and perceived relationship between the three position levels before and after the changes to the 1990 Perkins Act.

The age range of the original 42 participants was from 43 to 81 with a mean age of 65.0. The age range of the 30 participants who completed the Delphi was from 43 to 75 with a mean age of 64.6. Table 5 shows the participants' age mean and standard deviation for all three Delphi rounds by position level and total. As Table 5 shows, there were very little age differences among position levels and Delphi rounds.

Another question asked participants to provide how many cumulative years of experience they had in CTE. This was asked two ways: (a) years within the state of Virginia and (b) years total including those outside the state. Since there was very little difference between the two, the researcher chose to just report the number of cumulative years within CTE in the state of Virginia by position level and total. The participants' years of experience in CTE in Virginia averaged 30.4 years in Round 1, 31.4 years in Round 2, and 31.2 in Round 3. Detailed information concerning cumulative years of experience in CTE in Virginia can be found in Table 6. Another question asked participants to provide their highest level of education during the study's timeframe (1989-1993). Table 7 aggregates the education levels of the participants by position level for each Round.

Table 5

Age of Delphi Participants

Group		Round 1	Round 2	Round 3
State	Mean	67.3	66.6	66.6
	n	12	8	8
	Std. Deviation	7.5	6.8	6.8
Local	Mean	63.3	63.3	63.5
	n	21	17	15
	Std. Deviation	7.7	7.8	8.3
University	Mean	66.0	64.7	64.7
	n	9	7	7
	Std. Deviation	6.2	2.4	2.4
Total	Mean	65.0	64.4	64.6
	n	42	32	30
	Std. Deviation	7.4	6.7	6.9

Table 6

Cumulative Years Experience in CTE in Virginia

Group		Round 1	Round 2	Round 3
State	Mean	31.4	31.6	31.6
	n	12	8	8
	Std. Deviation	6.2	7.4	7.4
Local	Mean	29.8	31.5	31.1
	n	21	17	15
	Std. Deviation	10.0	8.4	8.9
University	Mean	30.6	30.9	30.9
	n	9	7	7
	Std. Deviation	7.3	8.3	8.3
Total	Mean	30.4	31.4	31.2
	n	42	32	30
	Std. Deviation	8.4	7.9	8.1

Table 7

Degree Completion Percentage of Delphi Participants

Round 1			
Group	Master's	Ed. Specialist	Doctorate
Local (n=21)	66.7%	9.5%	23.8%
State (n=12)	66.7%	16.7%	16.7%
University (n=9)	11.1%	0%	88.9%
Total	54.8%	9.5%	35.7%
Round 2			
Group	Master's	Ed. Specialist	Doctorate
Local (n=17)	76.5%	5.9%	17.6%
State (n=8)	50.0%	25.0%	25.0%
University (n=7)	14.3%	0%	85.7%
Total	56.3%	9.4%	34.4%
Round 3			
Group	Master's	Ed. Specialist	Doctorate
Local (n=15)	73.3%	6.7%	20.0%
State (n=8)	50.0%	25.0%	25.0%
University (n=7)	14.3%	0%	85.7%
Total	53.3%	10.0%	36.7%

Secondly, the Round 1 survey requested participants to validate the 13 criteria statements that embody the operational infrastructure of CTE (OICTE) in Virginia. All 42 of the participants in Round 1 validated each of the 13 criterion statements using a five-point Likert scale. The results show a nearly unanimous agreement that all 13 criteria statements should be included in the OICTE. The validation results answer the first research question: What is the operational infrastructure of CTE in the Commonwealth of Virginia? The operational infrastructure of CTE in Virginia validation results can be found in Table 8. Additionally, it is

important to note that the participants were also given an opportunity to add a comment concerning their ratings or the criteria statements. Seven of the 42 participants made comments. An examination of these comments resulted in two being classified as effects; four being classified as general comments concerning the criteria; and one being classified as providing suggestions for more criterion statements. The researcher determined that none of these suggestions warranted any changes to the operational infrastructure of CTE in Virginia. Finally, Round 1 asked participants to identify consequences of the eight known effects as they relate to the operational infrastructure of CTE in Virginia. Refer to Appendix I to view the eight known effects of the 1990 Perkins' amendments. The participants submitted 533 comments. Since many of these comments were multiple comments in one submission, the researcher separated each comment and gave it a corresponding number and letter. This analysis resulted in a total of 641 separate comments. The researcher reviewed each comment to determine if the participant's comment met the criteria to be considered a consequence. Four categories emerged as the researcher began dissecting the comments: (a) general comments: comments that were too general to be identified as consequences; (b) effects: comments that were a repeat of the eight known effects; (c) uninterpretable comments: comments that the research could not interpret due to uninterpretable handwriting or sentence/word structure; and (d) repeated comments: comments, from one participant, that were repeated from the previous criterion statement. The researcher determined that there were 104 general comments, 21 effects, 12 uninterpretable comments, and 5 repeated comments for a total of 142 unusable participant comments.

Table 8

Validation Results of the 13 Criteria Statements that Embody the Operational Infrastructure of CTE (OICTE) in Virginia

Criterion Statement	SA	A	Neutral	D	SD	Mean
Develop new programs and curricula to respond to current and projected occupational needs.	34 80.95%	8 18.69%	0 0.00%	0 0.00%	0 0.00%	4.81
Educate and recruit quality CTE teachers and leaders.	34 80.95%	8 18.69%	0 0.00%	0 0.00%	0 0.00%	4.81
Provide state coordination, leadership, and technical assistance for local systems to identify, interpret, and comply with local program standards developed and accepted by the CTE profession, as well as federal and state regulations.	36 85.71%	4 9.33%	1 2.33%	1 2.33%	0 0.00%	4.79
Provide relevant professional and leadership development to teachers, administrators, and teacher educators.	35 83.33%	5 11.67%	2 4.67%	0 0.00%	0 0.00%	4.79
Develop and execute external and internal procedures for program planning, development and evaluation procedures for local CTE programs.	30 71.43%	9 21.07%	3 7.02%	0 0.00%	0 0.00%	4.64
Operate and maintain local CTE facilities and equipment.	29 69.05%	11 25.77%	1 2.34%	1 2.34%	0 0.00%	4.62
Develop, improve, and maintain quality CTE teacher education programs at the bachelors, master's, and doctoral level.	30 71.43%	8 18.73%	2 4.68%	1 2.34%	1 2.34%	4.55
Develop, improve, and maintain statewide professional associations and CTE teachers and administrators at all levels (local, state, and universities).	26 61.90%	14 32.85%	1 2.35%	1 2.35%	0 0.00%	4.55

Table 8 (Continued)

Criterion Statement	SA	A	Neutral	D	SD	Mean
Develop, improve, and maintain student services (e.g., student recruitment and admissions, placement, and guidance services).	28 66.67%	10 23.44%	3 7.03%	1 2.34%	0 0.00%	4.55
Develop, improve, and maintain state and local community relations (e.g., advisory committee, CTSO, other workforce agencies).	24 57.14%	15 35.23%	3 7.05%	0 0.00%	0 0.00%	4.50
Conduct innovative research projects to assist in meeting unmet CTE needs.	27 64.29%	9 21.11%	5 11.73%	1 2.35%	0 0.00%	4.48
Formulate new and improve existing operational policies (standards) at the local level.	21 50.00%	16 37.65%	4 9.41%	1 2.35%	0 0.00%	4.36
Develop, improve, and maintain fiscal management of local CTE programs.	24 57.14%	13 30.54%	1 2.35%	3 7.05%	1 2.35%	4.33
Total	378 69.23%	130 23.80%	26 4.76%	10 1.83%	2 .36%	

The remaining 499 comments were analyzed by the researcher for wording, redundancy, relevancy, and placement within the criteria statements. A total of 223 unique consequences were identified from the 499 comments submitted by the participants. Refer to Appendix J to view all 223 consequences, with Round 1 participant comments, of the 1990 amendments to the Carl. D. Perkins within-state allocation of federal funds. There were three comments that could not be categorized into a particular criterion statement. These three comments were consolidated to two consequences that were placed in a new category called General Consequences. Table 9 is a tabular representation of the number of comments submitted for each criterion statement and the number of consequences that were identified and forwarded to Round 2.

Table 9

<i>Number of Comments Submitted and Forwarded to Round 2</i>			
Criterion	# of Comments Submitted	Number of Comments Consolidated	Number of Consequences Identified
1	54	28	26
2	59	36	23
3	44	22	22
4	35	23	12
5	53	33	20
6	33	21	12
7	47	24	23
8	27	13	14
9	30	15	15
10	38	17	21
11	22	10	12
12	27	16	11
13	27	17	10
GC*	3	1	2
Total	499	276	223

- Denotes General Consequences

Round 2 Analysis of Data Gathered

In Round 2, the remaining 42 participants were asked to rate the (a) relevancy of each consequence to the 1990 Perkins Act changes to the within-state funding formula and program evaluation procedures and (b) effect each consequence had on the operation of secondary CTE in Virginia. Additionally, participants were given an opportunity to comment on each consequence. The participants were instructed that their comment could be an explanation of their rating, an opposing argument, or a clarification, but must relate to the consequence. They were informed that these comments would be revised or shortened if their comments were long or worded abnormally. Once revised, if needed, the comment would be placed under its related consequence in Round 3.

Of the 42 participants who were either mailed or emailed the Round 2 survey, 32 completed it, which resulted in a 76% completion rate. The 32 participants rated the relevancy and effect for all 223 consequences. Refer to Appendix J for a list of all 223 consequences with participant comments from Round 2, as well as their overall selection percentages.

Additionally, the participants who completed Round 2 provided a total of 75 comments. The 75 comments were reviewed for redundancy and combined with other similar participant comments, if possible. Additionally, lengthy or abnormally worded comments were paraphrased for space and consistency. A total of 68 were drafted to be included in the Round 3 survey. Table 10 is a tabular representation of the number of comments made under each criterion statement, as well as the number of comments included under each criterion statement in the Round 3 survey.

Table 10

*Participant Comments by
Criterion*

Criterion	# of Round 2 Comments	Comments on Round 3 Survey
1	1	1
2	6	6
3	10	8
4	5	5
5	8	8
6	3	3
7	5	5
8	6	6
9	4	4
10	9	9
11	3	3
12	4	3
13	7	3
GC*	4	4
Total	75	68

*GC – General Consequences

Round 3 Analysis of Data Gathered

In Round 3, the remaining 32 participants were asked to (a) review the overall relevancy and effect rating for each of the 223 consequences and any associated comments for other participants; (b) consider the overall ratings and comments as compared to individual relevancy and effect ratings; (c) change or retain their relevancy and/or effect rating; (d) provide their overall impression of modifications made to the within-state funding allocation and accompanying amendments that occurred with the passage of the 1990 Perkins Act; and (e) provide suggestion(s), if any, as to the direction of future Perkins legislation.

Of the 32 participants who were either mailed or emailed the Round 3 survey, 30 completed it, which resulted in a 94% completion rate. Refer to Appendix K for a list of the Round 3 relevancy and effect selection responses. Relevancy and effect response selection percentages that changed by at least +/- 7.5% from Round 2 were italicized. The level of 7.5% was selected because it represented more than two participants changing their relevancy and/or effect rating. Additionally, Appendix K also includes participant comments from Round 2 under their corresponding consequence.

Additionally, participants were asked to provide their overall impression of modifications made to the within-state funding allocation and accompanying amendments that occurred with the passage of the 1990 Perkins Act. Twenty-eight of the 30 Round 3 participants provided responses with one state-level and one university-level participant not providing responses. Of the 28, six (21.4%) responded that the changes were both positive and negative; 13 (46.4%) responded that the changes were negative; seven (25%) responded that the changes were positive; and two (7.1%) were not sure as to the overall effect. Aggregating the data by position level, the researcher found that more local-level and state-level participants rated the 1990 changes as negative (53.3% and 42.9% respectively) than any other choice. Half of the university-level participants noted that they felt the 1990 changes had both positive and negative impacts on the operation of CTE in Virginia, while 33.3% noted a strictly negative impact. None rated the 1990 changes as strictly positive. Refer to Table 11 for a tabular representation of this data.

Table 11

*Overall Effect of the 1990 Perkins Within-State Allocation
Funding Formula Changes*

Effect	Local- level Only (n=15)	State- level Only (n=7)	University -level Only (n=6)	# that selected this response (n=28)
Positive & Negative	1 (16.6%)	2 (28.6%)	3 (50.0%)	6 (21.4%)
Negative	8 (53.3%)	3 (42.9%)	2 (33.3%)	13 (46.4%)
Positive	6 (40.0%)	1 (14.3%)	0 (0.0%)	7 (25%)
Undecided	0 (0.0%)	1 (14.3%)	1 (16.6%)	2 (7.1%)

Many participants decided to elaborate on their impact choices. Some of the positive effects provided by participants were that the 1990 changes (a) gave local school districts more control over funding and administrative decisions; (b) provided more funding support for local-level program improvement; (c) provided an opportunity to standardize program evaluation based on performance standards; (d) allowed for new ideas and ways of training students for employment; (e) and improved local-level CTE's ability to meet the local community's training needs. Some of the negative effects provided by participants were that the 1990 changes (a) negatively altered the relationship between the state, local, and university levels; (b) drastically reduced the number of teacher education institutions in Virginia; (c) reduced the number of new CTE teacher candidates to fill positions; (d) initially left the local level without state guidance; (e) resulted in loss of state supervision and assistance; and (f) resulted in negative effects on local and inner-city CTE programs.

Lastly, the Round 3 participants were asked provide suggestions, if any, as to the direction of future Perkins legislation. Twenty-two of the 30 Round 3 participants provided a response to this question. A total of 50 suggestions were derived from the 22 responses. The 50 suggestions were analyzed for their coherency and relevancy to the dissertation topic. Three of the suggestions were general comments that did not meet the suggestion criteria; four were irrelevant either because they had already been implemented in the 2006 Perkins Act or they suggested a funding formula that did not relate to the within-state funding formula. The remaining 43 suggestions were examined for redundancy. Twelve of the 43 suggestions were combined to form a total of 31 suggestions. Refer to Table 12 for a list of the 31 suggestions to future Perkins legislation; the position level(s) of the commenter; and the number of times the suggestion was made.

Table 12

Participant Suggestions for Future CTE Federal Legislation

Criterion/ Category	Position	Freq.	Suggestion
1	U & L	2	Provide support for increased hands-on state leadership.
1	L	2	Increase financial support for region-wide supervision and programs.
2	S & U	2	Increase collaboration between all levels for the delivery of leadership and development activities.
2	L	1	Provide more support for staff development.
4	L	2	Increase support for work experience and certification programs for students and teachers.
4	U	1	Ensure that legislation requires the inclusion and recognition of college and university standards when designing local-level programs.
4	U	1	Require work-based learning methods are incorporated into CTE classes.
5	U	2	Provide support for CTE teacher education.
6	U & L	2	Require state-approved programs to align with best research-based practices from both education and industry.
6	U	2	Provide state-level funding for research that CTE institutions can conduct that is directed toward identifying and developing new and innovative programs, identifying program status and participation, and enhancing CTSO activities.
6	L	1	Provide support for on-going curriculum development and research in technological areas to meet global demands for goods and services.
7	U	1	Define what a qualified CTE teacher is.
10	U & L	2	Require that a percent of funds be used for “solid” program evaluation.
10	L	1	Mandate higher program accountability at all levels.
10	L	1	Provide local school divisions with more flexibility concerning program planning.
10	L	1	Provide support for an on-going program evaluation process that measures curriculum relevance.
10	S	1	Require that states use the National Center for Career and Technical Education (NCCTE) exemplary program criteria to evaluate programs.
10	S	1	Provide extra support for programs that use and quantify sustainability criteria in their programs.
10	L	1	Provide state-level support for curriculum development since most schools no longer have the staffing to do this.

Table 12 (Continued)

11	U	2	Require advisory committees to be involved in the leadership, direction, and recommendation process of program policies.
11	L	1	Provide support for CTSOs.
Formula	U & L	2	Restructure the within-state funding formula so that post-secondary CTE institutions receive the majority of funding since post-secondary students are more adept at making career choices.
Formula	S	2	Restructure the within-state funding formula so that state-level CTE receives 25% of Perkins within-state funding. 10% for state administration and 15% for statewide professional development, CTE research and leadership development activities with CTE university professors being a major contributor. Local-level CTE would receive the remaining 75% for only program improvement and expansion.
Formula	L	1	Restructure the within-state funding formula so more funding is distributed to localities.
Formula	L	1	Devise an appropriate within-state funding formula for small vs. large divisions with benchmarks established for each level.
Funding	L	1	Focus on a limited number of objectives so more resources can be focused on those objectives.
Funding	L	1	Return the ability to carry over funds to the next year so state and local-levels can save up for major purposes/projects.
Funding	S	1	Restrict the use of federal funds to just program improvement and expansion and exclude state and local level operational costs.
Funding	U	1	Set aside more funds for the National Center for CTE Research to conduct substantive initiatives.
Funding	U	1	Allow the national center and states to set their own priorities and leave implementation in the hands of the states and universities.
Funding	S	1	Provide more flexibility in the use of Perkins funding.

Note: U – University, L- Local, and S – State

Answering the Research Questions

Research Question 1

Research question 1 sought to define the operational infrastructure of CTE in Virginia. To answer this question, the researcher asked participants to validate, using a 5-point Likert scale, each of the 13 criterion statements that embody the operational infrastructure of CTE in Virginia. All 42 of the participants in Round 1 validated each of the 13 criterion statements using the 5-point Likert scale. The results show a nearly unanimous agreement that all 13 criteria statements should be included. The operational infrastructure of CTE in Virginia validation results can be found in Table 4.

Research Question 2

Research question 2 sought to identify the consequences the 1990 Perkins Act within-state funding formula changes and its accompanying amendments had on the operational infrastructure of CTE in Virginia as it related to secondary CTE programs. To answer this question, the researcher separated the relevancy and effect data by three position levels and analyzed each separately. Using the relevant frequency counts, the mean and standard deviation was calculated for each position level by criterion statement. Using the relevant frequency count mean and standard deviation for each criterion statement, the Standard Error of the Mean (SEM) was calculated. The researcher decided to use +1 SEM delimiting criteria as the benchmark for inclusion as a relevant consequence. Using the delimiting criteria, consequence statements were coded as relevant or irrelevant within each position level. Refer to Table 13, 14, and 15 to view the criterion-level mean, standard deviation, and SEM for local, state, and university-level, respectively. The researcher then further identified the number of relevant consequences within and between the three position levels (state and local, state and university, university and local).

Lastly, the researcher identified the consequences that were considered relevant across all three position levels (local, state, and university). The researcher classified these consequences as power consequences. Because of the importance of the identified power consequences, the researcher further analyzed the effects of the power consequences and categorized them into two groups: (a) those power consequences in which the identified effect was unanimous across position levels and (b) those power consequences in which the effect was varied across position levels. Table 16 shows the number of power consequences by criteria level, as well as the number of consequences identified within and between each position level. A total of 62 of the 223 original consequences (28%) were determined not to be relevant within or between any position levels. The remaining 161 consequences were identified as relevant consequences using the +1 SEM delimiting criteria. Refer to Appendix L for a list of the 161 consequences.

Table 13

<i>Local Only Consequences Statistics</i>						
Criterion	Relevancy			Relevancy Mean + 1 SEM	Consequences Retained	
	Mean (n=15)	Relevancy SD	Relevancy SEM			
1	11.77	2.76	0.71	12.48		14
2	10.26	2.75	0.71	10.97		13
3	9.95	2.24	0.58	10.53		9
4	9.50	1.88	0.49	9.99		7
5	10.35	1.50	0.39	10.74		9
6	8.33	1.92	0.50	8.83		5
7	9.30	1.66	0.43	9.73		13
8	10.29	2.76	0.71	11.00		8
9	10.47	1.36	0.35	10.82		9
10	9.81	2.23	0.58	10.38		11
11	9.58	2.39	0.62	10.20		5
12	10.09	2.30	0.59	10.68		4
13	10.30	2.71	0.70	11.00		4
GC	10.00	1.41	0.37	10.37		1
Total	10.10	2.32	0.60	10.70		112

Table 14

<i>State Only Consequence Statistics</i>					
Criterion	Relevancy Mean (n=8)	Relevancy SD	Relevancy SEM	Relevancy Mean + 1 SEM	Consequences Retained
1	5.92	2.04	0.72	6.64	15
2	6.13	1.69	0.60	6.73	12
3	5.64	2.01	0.71	6.35	8
4	5.25	2.01	0.71	5.96	7
5	6.75	1.07	0.38	7.13	5
6	5.58	2.19	0.78	6.36	5
7	5.70	1.58	0.56	6.25	8
8	5.07	2.09	0.74	5.81	8
9	6.07	1.39	0.49	6.56	6
10	5.00	1.64	0.58	5.58	9
11	5.25	1.86	0.66	5.91	6
12	4.82	2.23	0.79	5.61	5
13	5.90	1.37	0.48	6.38	4
GC	4.00	0.00	0.00	4.00	0
Total	5.67	1.82	0.64	6.32	98

Table 15

<i>University Only Consequence Statistics</i>					
Criterion	Relevancy Mean (n=7)	Relevancy SD	Relevancy SEM	Relevancy Mean + 1 SEM	Consequences Retained
1	5.38	1.44	0.55	5.93	14
2	5.17	1.37	0.52	5.69	11
3	4.77	1.23	0.47	5.24	7
4	4.42	1.73	0.65	5.07	2
5	5.15	1.53	0.58	5.73	9
6	5.00	1.81	0.68	5.68	5
7	4.70	0.76	0.29	4.98	16
8	3.93	1.33	0.50	4.43	5
9	5.07	1.44	0.54	5.61	8
10	4.19	1.25	0.47	4.66	10
11	3.83	1.19	0.45	4.28	3
12	3.64	1.29	0.49	4.12	3
13	4.10	1.79	0.68	4.78	6
GC	5.00	1.41	0.53	5.53	1
Total	4.68	1.44	0.55	5.23	100

Table 16

Number of Consequences Identified by Position Level and Combination of Positions Levels

Criterion	Consequences Identified by a Single Position Level			Consequences Identified by Two Position Levels			Consequences Identified by Three Position Levels (Power Consequences)		Total
	State only	Local only	University only	State and Local only	State and University only	University and Local only	Unanimous Effects	Varied Effects	
1	1	0	1	3	2	2	8	1	18
2	1	2	2	2	0	0	7	2	16
3	0	1	3	5	1	1	2	0	13
4	2	2	0	3	0	0	2	0	9
5	1	3	4	1	0	2	3	0	14
6	2	2	1	1	0	1	2	0	9
7	0	2	5	2	2	5	3	1	20
8	1	1	1	4	1	1	1	1	11
9	1	2	0	0	3	4	2	0	12
10	2	1	2	2	0	3	2	3	15
11	1	2	0	1	1	0	2	0	7
12	0	1	1	3	2	0	0	0	7
13	1	2	3	0	1	0	1	1	9
GC	0	0	0	0	0	1	0	0	1
Total	13	21	23	27	13	20	35	9	161

Research Question 3

Research question 3 sought to identify the consequences that had the greatest perceived impact on Virginia's operational infrastructure at the state, local, and university levels. To answer this question, the researcher analyzed the consequences that met the +1 SEM delimiting criteria in each of the eight position combinations (local only; state only; university only; local and university only; state and university only; state and local only; local, state, and university with varied effects; and local, state, and university with unanimous effects). Then for each of these groupings, the effect of each relevant consequence was determined by examining the selection percentages of the effect rating. Effect was selected based on whether a particular effect (Positive, Neutral, Negative) was selected by 51% or more of the participants. Effects without a majority of participants (at least 51%) selecting positive, neutral, or negative were categorized as having an inconclusive effect. The following subsections identify the consequences that met the +1 SEM delimiting criteria for each of the eight positive combinations. Lastly, when examining the pairings of position levels, the relevant consequences that had different effect ratings for each position level were aggregated into the varied effects section.

Local Only Relevant Consequences

There were 21 consequences that were identified only by local-level participants (n=15) as relevant using the +1 SEM delimiting criteria. Of the relevant consequences identified only by local-level participants, five were considered to have a positive effect, nine were considered to have a negative effect, two were considered to have a neutral effect, and five were considered to have an inconclusive effect on the operation of CTE in Virginia. Table 17 is aggregated by effect ratings and shows the relevant local-level only consequences, as well as the relevancy selection percentage.

A closer examination of the consequences identified by local-level participants as being relevant shows that there were two positively and three negatively rated consequences that tied for the most relevant to the changes in the 1990 Perkins Act this study examines. The two most relevant positive local-only consequences with relevancy ratings of 93.3% were that the changes to the 1990 Perkins Act: (a) placed greater emphasis and responsibility on local advisory committees; and (b) resulted in carefully planned local-level CTE program expenditures due to strict criteria used to annually approve the localities annual plan. The three most relevant negative local-only consequences with relevancy ratings of 80% were that the changes to the 1990 Perkins Act: (a) resulted in state-level CTE's ability to influence higher education; (b) resulted in a shortage of CTE teachers in Virginia; and (c) increased the number of provisionally licensed teachers.

Table 17

Local Only Relevant Consequences

Criterion#	Criterion Statement	Consequence #	Positive Effect Consequences	% Local Deemed Relevant (n=15)
8	Operate and maintain local CTE facilities and equipment.	3	Increased local-level CTE's ability to emulate actual work experiences by emulating facilities and equipment found in the real world.	80.0%
11	Develop, improve, and maintain state and local community relations (e.g., advisory committee, CTSO, other workforce agencies).	5	Resulted in local-level CTE relying on the support of business and industry instead of state to maintain community relations.	73.3%
11		6	Placed greater emphasis and responsibility on local advisory committees.	93.3%
12	Develop, improve, and maintain student services (e.g., student recruitment and admissions, placement, and guidance services).	10	Resulted in localities developing recruiting initiatives and services to increase enrollment.	80.0%
13	Develop, improve, and maintain fiscal management of local CTE programs.	2	Resulted in carefully planned local-level CTE program expenditures due to the strict criteria used to annually approve the localities annual plan.	93.3%

Table 17 (Continued)

Criterion#	Criterion Statement	Consequence #	Negative Effect Consequences	% Local Deemed Relevant (n=15)
2	Provide relevant professional and leadership development to teachers, administrators, and teacher educators.	21	Reduced the participation of local teachers in professional development activities outside of their school divisions.	73.3%
5	Develop, improve, and maintain quality CTE teacher education programs at the bachelors, master's, and doctoral level.	6	Decreased the relevancy of CTE teacher education programs.	73.3%
5		14	Resulted in state-level CTE's ability to influence higher education.	80.0%
5		17	Resulted in a shortage of CTE teachers in Virginia.	80.0%
6	Conduct innovative research projects to assist in meeting unmet CTE needs.	8	Reduced the university-level CTE's ability to provide essential data for decision making at the state and local levels.	60.0%
7	Educate and recruit quality CTE teachers and leaders.	1	Increased the number of provisionally licensed teachers.	80.0%
7		15	Reduced the sources available for recruiting new teachers.	66.7%

Table 17 (Continued)

Criterion#	Criterion Statement	Consequence #	Negative Effect Consequences	% Local Deemed Relevant (n=15)
9	Develop, improve, and maintain statewide professional associations and CTE teachers and administrators at all levels (local, state, and universities).	2	Decrease in professional membership in associations due to greater emphasis on local staff development activities.	73.3%
10	Develop and execute external and internal procedures for program planning, development and evaluation procedures for local CTE programs.	11	Decreased local accountability and led to inconsistencies in the administration of program planning, development, and evaluation procedures.	73.3%

Table 17 (Continued)

Criterion#	Criterion Statement	Consequence #	Neutral Effect Consequences	% Local Deemed Relevant (n=15)
4	Formulate new and improve existing operational policies (standards) at the local level.	6	Resulted in no change in state support and oversight in the formulation of new, as well as the improving of existing operational policies at the local-level.	66.7%
6	Conduct innovative research projects to assist in meeting unmet CTE needs.	9	Increased local-levels ability to support research and development.	66.7%

Table 17 (Continued)

Criterion#	Criterion Statement	Consequence	Inconclusive Effect Consequences	% Local Deemed Relevant (n=15)
2	Provide relevant professional and leadership development to teachers, administrators, and teacher educators.	20	Increased responsibilities of professional organizations for providing the leadership for professional development activities.	80.0%
3	Develop new programs and curricula to respond to current and projected occupational needs.	16	Increased the number of computer technology and keyboarding classes thus reducing the number of traditional CTE program offerings.	73.3%
4	Formulate new and improve existing operational policies (standards) at the local level.	8	Increased the opportunity for local-level CTE to enact or dismiss program policies that did or did not meet short sided or budget priorities.	66.7%
9	Develop, improve, and maintain statewide professional associations and CTE teachers and administrators at all levels (local, state, and universities).	14	Increased local support for teacher/administrator participation in professional associations.	73.3%
13	Develop, improve, and maintain fiscal management of local CTE programs.	10	Increased state-level CTE's authority since local annual plans were required to be approved by the state.	93.3%

State Only Relevant Consequences

There were 13 consequences that were identified only by state-level participants (n=8) as relevant using the +1 SEM delimiting criteria. Of the relevant consequences identified only by state-level participants, one was considered to have a positive effect; eight were considered to have a negative effect; and four were considered to have an inconclusive effect on the operation of CTE in Virginia. Table 19 is aggregated by effect ratings and shows the relevant state-level only consequences, as well as the relevancy selection percentage.

A closer examination of the consequences identified by state-level participants as being relevant shows that there were one positively and three negatively rated consequences that tied for the most relevant to the changes in the 1990 Perkins Act this study examines. The one, and only, relevant positive state-only consequence with a relevancy rating of 87.5% was that the changes to the 1990 Perkins Act increased state-level research initiatives such as Southern Regional Education Board's (SREB) High Schools That Work and the National Association of State Directors of Career Technical Education Consortium's (NASDCTEc) Leadership in Career Pathways. The three most relevant negative state-only consequences with relevancy ratings of 100% were that the changes to the 1990 Perkins Act: (a) because of lack of state and university support, resulted in a lack of advice and counsel for teacher associations; (b) decreased the involvement of university-level faculty/personnel in supporting local-level CTE regarding its ability to operate and maintaining their facilities and equipment; and (c) decreased all level's ability to assist other levels interpret and implement best research practices.

Table 18

State Only Relevant Consequences

Criterion#	Criterion Statement	Consequence #	Positive Effect Consequences	% State Deemed Relevant (n=7)
6	Conduct innovative research projects to assist in meeting unmet CTE needs.	4	Increased state-level research initiatives such as SREB's High Schools That Work and the NASDCTE's Leadership in Career Pathways.	87.5%
Criterion#	Criterion Statement	Consequence	Negative Effect Consequences	% State Deemed Relevant (n=7)
1	Provide state coordination, leadership, and technical assistance for local systems to identify, interpret, and comply with local program standards developed and accepted by the CTE profession, as well as federal and state regulations.	6	Weakened programs due to diminished state involvement and support in establishing and complying with standards and accountability measures.	87.5%
2	Provide relevant professional and leadership development to teachers, administrators, and teacher educators.	15	Reduced funding to support the participation of state-level CTE staff in regional conferences & national conferences	87.5%

Table 18 (Continued)

Criterion#	Criterion Statement	Consequence #	Negative Effect Consequences	% State Deemed Relevant (n=7)
5	Develop, improve, and maintain quality CTE teacher education programs at the bachelors, master's, and doctoral level.	13	Reduced leadership positions at the universities, which resulted in less representation at higher organizational levels.	87.5%
6	Conduct innovative research projects to assist in meeting unmet CTE needs.	5	Decreased all level's ability to assist other levels interpret and implement best research practices.	100.0%
8	Operate and maintain local CTE facilities and equipment.	8	Decreased the involvement of university-level faculty/personnel in supporting local-level CTE regarding this criterion.	100.0%
9	Develop, improve, and maintain statewide professional associations and CTE teachers and administrators at all levels (local, state, and universities).	12	Resulted in a lack of advice and counsel for teacher associations because of a lack of state and university support.	100.0%

Table 18 (Continued)

Criterion#	Criterion Statement	Consequence #	Negative Effect Consequences	% State Deemed Relevant (n=7)
10	Develop and execute external and internal procedures for program planning, development and evaluation procedures for local CTE programs.	7	Reduced the opportunity for program specific evaluations rather than overall CTE evaluations.	75.0%
11	Develop, improve, and maintain state and local community relations (e.g., advisory committee, CTSO, other workforce agencies).	2	Decreased state-level fiscal and administrative control which resulted in less emphasis on the development and maintenance of local and state advisory committees.	87.5%

Table 18 (Continued)

Criterion#	Criterion Statement	Consequence	% State Deemed Relevant (n=7)
		Inconclusive Effect Consequences	
4	Formulate new and improve existing operational policies (standards) at the local level.	5 Increased local-level CTE's responsibility and decision making for formulating new, as well as improving existing operational policies	87.5%
		9 Reduced opportunities for teacher education faculty to provide assist in the formulation of and improving of existing operational policies at the local-level.	75.0%
10	Develop and execute external and internal procedures for program planning, development and evaluation procedures for local CTE programs.	4 Provided an opportunity to initiate a new CTE state evaluation based on standards identified by federal legislation.	87.5%
13	Develop, improve, and maintain fiscal management of local CTE programs.	9 Decreased local-level CTE flexibility in spending as the locally allocated Perkins money had to initially be spent to support Special Needs population in CTE programs	87.5%

University Only Relevant Consequences

There were 23 consequences that were identified only by university-level participants (n=8) as relevant using the +1 SEM delimiting criteria. Of the relevant consequences identified only by university-level participants, one was considered to have a positive effect; 20 were considered to have a negative effect; one was considered to have a neutral effect; and one was considered to have an inconclusive effect on the operation of CTE in Virginia. Table 19 is aggregated by effect ratings and shows the relevant university-level only consequences, as well as the relevancy selection percentage.

A closer examination of the consequences identified by university-level participants as being relevant shows that there were one positively and three negatively rated consequences that tied for the most relevant to the changes in the 1990 Perkins Act this study examines. The one, and only, relevant positive university-only consequence with a relevancy rating of 85.7% was that the changes to the 1990 Perkins Act reduced the one-size fits all approach to CTE programs. The three most relevant negative state-only consequences with relevancy ratings of 100% were that the changes to the 1990 Perkins Act: (a) resulted in the transferring of CTE teacher education faculty to other duties within the institution, (b) eliminated CTE teacher education special projects and grants, and (c) reduced the number of services CTE teacher educators could offer to the CTE community such as in-service classes at local-level CTE schools.

Table 19
University Only Relevant Consequences

Criterion#	Criterion Statement	Consequence #	Positive Effect Consequences	% Relevant (n=8)
1	Provide state coordination, leadership, and technical assistance for local systems to identify, interpret, and comply with local program standards developed and accepted by the CTE profession, as well as federal and state regulations.	14	Reduced the one-size fits all approach to CTE programs.	85.7%
Criterion#	Criterion Statement	Consequence #	Negative Effect Consequences	% Relevant (n=8)
3	Develop new programs and curricula to respond to current and projected occupational needs.	5	Decreased the number of new CTE programs.	85.7%
3		6	Decreased the number of overall student enrollment in CTE programs.	85.7%

Table 19 (Continued)

Criterion#	Criterion Statement	Consequence #	Negative Effect Consequences	% Relevant (n=8)
3	Develop new programs and curricula to respond to current and projected occupational needs.	18	Increased the difficulty of identifying and disseminating new, successful programs that local innovations produced.	85.7%
5	Develop, improve, and maintain quality CTE teacher education programs at the bachelors, master's, and doctoral level.	8	Resulted in the transferring of CTE teacher education faculty to other duties within the institution.	100.0%
5		10	Eliminated CTE teacher education special projects and grants.	100.0%
5		12	Reduced the number of services CTE teacher educators could offer to the CTE community such as in-service classes at local-level CTE schools	100.0%
5		5	Decreased interest in teachers pursuing advanced CTE degrees.	85.7%
6	Conduct innovative research projects to assist in meeting unmet CTE needs.	11	Required university-level researchers to search for research opportunities/funding that not only met some CTE priority, but also looked "good" in the eyes of university administrators.	85.7%
7	Educate and recruit quality CTE teachers and leaders.	5	Shifted hiring priorities away from candidates that have knowledge of running CTE programs.	71.4%
7		19	Decreased the number of CTE programs due to poorly trained provisionally licensed teachers.	71.4%

Table 19 (Continued)

Criterion#	Criterion Statement	Consequence #	Negative Effect Consequences	% Relevant (n=8)
7	Educate and recruit quality CTE teachers and leaders.	20	Resulted in the underlying philosophy of CTE being lost within the CTE profession due to poorly trained provisionally licensed teachers.	71.4%
7		21	Increased the number of CTE teachers completing general education master's programs rather than CTE specific master's programs.	71.4%
7		23	Decreased teacher quality in CTE.	71.4%
8	Operate and maintain local CTE facilities and equipment.	10	Resulted in local-level facility and equipment improvement that was haphazard and lacked focus.	71.4%
10	Develop and execute external and internal procedures for program planning, development and evaluation procedures for local CTE programs.	19	Decreased networking opportunities between localities to share best practices in this area.	71.4%
10		16	Decreased research and testing relative to the curriculum and standards for new programs.	85.7%
12	Develop, improve, and maintain student services (e.g., student recruitment and admissions, placement, and guidance services).	5	Reduced the number of program services and counseling services due to lack of state emphasis and support.	71.4%

Table 19 (Continued)

Criterion#	Criterion Statement	Consequence #	Negative Effect Consequences	% Relevant (n=8)
13	Develop, improve, and maintain fiscal management of local CTE programs.	8	Decreased funding for local-level CTE supervisors and directors has hampered fiscal management.	85.7%
13		3	Reduced state-level CTE's support and guidance regarding fiscal management of local-level CTE.	71.4%
13		7	Resulted in some school districts replacing local funds with Perkins funds which resulting in no additional benefit to the locality.	71.4%
Criterion#	Criterion Statement	Consequence #	Neutral Effect Consequences	% Relevant (n=8)
2	Provide relevant professional and leadership development to teachers, administrators, and teacher educators.	19	Established a free market system for professional and leadership development services to localities.	85.7%

Table 19 (Continued)

Criterion#	Criterion Statement	Consequence #	Inconclusive Effect Consequences	% Relevant (n=8)
2	Provide relevant professional and leadership development to teachers, administrators, and teacher educators.	17	Resulted in the combination of CTE professional development with other subject areas and grade levels within the K-12 system.	100.0%

State and Local Only Relevant Consequences

There were 27 consequences that were identified only by state-level (n=7) and local-level (n=15) as relevant using the +1 SEM delimiting criteria. Of the relevant consequences identified by state and local-level participants, 12 were considered to have a positive effect: nine were considered to have a negative effect: and six were considered to have varied effects on the operation of CTE in Virginia. Table 20 is aggregated by effect ratings and shows the relevant state-level and local-level only consequences, as well as the relevancy selection percentage for both position levels.

A closer examination of the top three most relevant positive and negative consequences identified by state and local-level participants shows that criteria 1, 3, and 12 were positively effected and criteria 1 and 8 were negatively effected by the changes to the 1990 Perkins Act this study examines. The three most relevant positive state and local-level consequences were that the changes to the 1990 Perkins Act: (a) improved the collection and use of local student data; (b) increased funding at the local-level for developing new programs and curriculum; and (c) increased guidance counselors' attention to program completions, placement, and follow-up activities. The three most relevant negative state and local-level consequences were that the changes to the 1990 Perkins Act: (a) decreased contact between state-level CTE and local-level CTE; (b) increased administrative burden on local-level CTE personnel, especially in smaller school divisions; and (c) limited federal dollars for facility maintenance and improvement.

Table 20

State and Local Only Relevant Consequences

Criterion#	Criterion Statement	Consequence #	Positive Effect Consequences	% Local Deemed Relevant (n=15)	% State Deemed Relevant (n=7)
1	Provide state coordination, leadership, and technical assistance for local systems to identify, interpret, and comply with local program standards developed and accepted by the CTE profession, as well as federal and state regulations.	19	Resulted in the development of statewide performance standards developed in conjunction with the localities and the community college system.	86.7%	87.5%
2	Provide relevant professional and leadership development to teachers, administrators, and teacher educators.	2	Increased local coordination of professional development.	73.3%	87.5%
3	Develop new programs and curricula to respond to current and projected occupational needs.	12	Increased funding at the local-level for developing new programs and curriculum.	86.7%	100.0%
3		11	Resulted in the production of uniform curriculum that integrated academic SOLs and industry standards that included industry certifications where applicable.	80.0%	87.5%
3		1	Increased the number of locally developed CTE programs and curricula that best served the occupational needs of the local community.	73.3%	100.0%
3		8	Increased and strengthened participation in Tech Prep program development through community college grants.	73.3%	100.0%

Table 20 (Continued)

Criterion#	Criterion Statement	Consequence #	Positive Effect Consequences	% Local Deemed Relevant (n=15)	% State Deemed Relevant (n=7)
3	Develop new programs and curricula to respond to current and projected occupational needs.	9	Increased local school division participation in high schools that work programs designed to integrate academic and CTE.	73.3%	100.0%
4	Formulate new and improve existing operational policies (standards) at the local level.	7	Improved local operational policies especially in the areas of program completers and follow up.	73.3%	75.0%
8	Operate and maintain local CTE facilities and equipment.	1	Increased local-level CTE's ability to maintain their facilities and equipment.	86.7%	75.0%
10	Develop and execute external and internal procedures for program planning, development and evaluation procedures for local CTE programs.	15	Improved program planning, development, and evaluation in response local advisory committees, industry needs, and economic development.	73.3%	75.0%
12	Develop, improve, and maintain student services (e.g., student recruitment and admissions, placement, and guidance services).	9	Improved the collection and use of local student data.	93.3%	100.0%
12		8	Increased guidance counselors' attention to program completions, placement, and follow up activities.	86.7%	87.5%

Table 20 (Continued)

Criterion#	Criterion Statement	Consequence #	Negative Effect Consequences	% Local Deemed Relevant (n=15)	% State Deemed Relevant (n=7)
1	Provide state coordination, leadership, and technical assistance for local systems to identify, interpret, and comply with local program standards developed and accepted by the CTE profession, as well as federal and state regulations.	5	Decreased contact between state-level CTE and local-level CTE.	100.0%	87.5%
1		20	Increased administrative burden on local-level CTE personnel especially in smaller school divisions.	93.3%	100.0%
4	Formulate new and improve existing operational policies (standards) at the local level.	11	Limited contact between local-level administrators and state-level staff concerning the formulation of new, as well as the improving of existing program policies at the local-level	66.7%	75.0%
5	Develop, improve, and maintain quality CTE teacher education programs at the bachelors, master's, and doctoral level.	3	Reduced the influence CTE teacher educators had within the university structure.	73.3%	100.0%
6	Conduct innovative research projects to assist in meeting unmet CTE needs.	7	Reduced the amount of CTE research conducted and disseminated at all levels.	53.3%	87.5%

Table 20 (Continued)

Criterion#	Criterion Statement	Consequence #	Negative Effect Consequences	% Local Deemed Relevant (n=15)	% State Deemed Relevant (n=7)
7	Educate and recruit quality CTE teachers and leaders.	16	Produced a shortage of CTE teacher educators.	73.3%	87.5%
8	Operate and maintain local CTE facilities and equipment.	13	Limited federal dollars for facility maintenance and improvement.	86.7%	87.5%
8		5	Increased the difficulty of purchasing and maintaining adequate facilities and equipment due to constraints on local budgets.	73.3%	75.0%
11	Develop, improve, and maintain state and local community relations (e.g., advisory committee, CTSO, other workforce agencies).	11	Shifted the role of state and university level personnel from assisting local-level CTE to advising them.	73.3%	75.0%

Table 20 (Continued)

Criterion#	Criterion Statement	Consequence #	Varied Effect Consequences	% Local Deemed Relevant (n=15)	% State Deemed Relevant (n=7)
2	Provide relevant professional and leadership development to teachers, administrators, and teacher educators.	22	Increased resources for locally sponsored professional development programs targeted to specific needs of teachers and administrators.	73.3% (Positive)	87.5% (Inconclusive)
4	Formulate new and improve existing operational policies (standards) at the local level.	12	Increased the need for state support concerning operational policies because of the increase in local-level accountability.	73.3% (Neutral)	100% (Inconclusive)
7	Educate and recruit quality CTE teachers and leaders.	8	Increased emphasis on retraining business and industry professionals to meet the teacher needs of local-level CTE.	66.7% (Neutral)	87.5% (Inconclusive)
8	Operate and maintain local CTE facilities and equipment.	14	Increased local-level CTE's responsibility and burden to operate and maintain local CTE facilities and equipment	86.7% (Negative)	87.5% (Inconclusive)
10	Develop and execute external and internal procedures for program planning, development and evaluation procedures for local CTE programs.	9	Increased complexity of the vocational computerized management system.	73.3% (Negative)	75% (Neutral)
12	Develop, improve, and maintain student services (e.g., student recruitment and admissions, placement, and guidance services).	1	Increased local-level CTE's responsibility and funding to develop and provide CTE student services.	80% (Positive)	75% (Inconclusive)

Local and University Only Relevant Consequences

There were 21 consequences that were identified only by local-level (n=15) and university-level (n=8) as relevant using the +1 SEM delimiting criteria. Of the relevant consequences identified by local and university-level participants, one was considered to have a positive effect; 15 were considered to have a negative effect; and five were considered to have varied effects on the operation of CTE in Virginia. Table 21 is aggregated by effect ratings and shows the relevant local and university-level only consequences, as well as the relevancy selection percentage.

A closer examination of the most relevant positive and negative consequences identified by local and university-level participants shows that criterion 8 was positively affected and criteria 1 and 3 were negatively affected by the changes to the 1990 Perkins Act this study examines. The one and only relevant positive local and university-level consequence was that the changes to the 1990 Perkins Act improved local-level facilities and equipment. The three most relevant negative local and university-level consequences were that the changes to the 1990 Perkins Act: (a) reduced state leadership activities due to decreased state-level Perkins funding, (b) resulted in inconsistencies in local-level CTE program administration and evaluation, and (c) decreased state-level CTE's ability to develop and support statewide curriculum development for new CTE programs.

Table 21

Local and University Only Relevant Consequences

Criterion#	Criterion Statement	Consequence #	Positive Effect Consequences	% Local Deemed Relevant (n=15)	% University Relevant (n=8)
8	Operate and maintain local CTE facilities and equipment.	9	Improved local-level facilities and equipment.	73.3%	71.4%
Criterion#	Criterion Statement	Consequence #	Negative Effect Consequences	% Local Deemed Relevant (n=15)	% University Relevant (n=8)
1	Provide state coordination, leadership, and technical assistance for local systems to identify, interpret, and comply with local program standards developed and accepted by the CTE profession, as well as federal and state regulations.	1	Reduced state leadership activities due to decreased state-level Perkins.	93.3%	100.0%
1		11	Resulted in inconsistencies in local-level CTE program administration and evaluation.	86.7%	85.7%
3	Develop new programs and curricula to respond to current and projected occupational needs.	20	Decreased state-level CTE's ability to develop and support statewide curriculum development for new CTE programs.	86.7%	85.7%

Table 21 (Continued)

Criterion#	Criterion Statement	Consequence #	Negative Effect Consequences	% Local Deemed Relevant (n=15)	% University Relevant (n=8)
5	Develop, improve, and maintain quality CTE teacher education programs at the bachelors, master's, and doctoral level.	7	Resulted in CTE teacher education programs becoming "generic" rather than program specific.	80.0%	100.0%
5		16	Increased the difficulty of locating and recruiting quality CTE teachers.	80.0%	85.7%
6	Conduct innovative research projects to assist in meeting unmet CTE needs.	6	Eliminated CTE program specific research.	60.0%	100.0%
7	Educate and recruit quality CTE teachers and leaders.	2	Increased the number of CTE teachers hired for teaching positions in program areas they were not trained to teach.	66.7%	71.4%
7		3	Decreased ability to attract qualified individuals to the field of CTE.	66.7%	71.4%
7		7	Increased the number of CTE teachers hired for teaching positions in program areas they were not trained to teach in.	66.7%	71.4%
7		10	Increased the number of provisionally licensed teachers who lacked professional teaching skills.	73.3%	71.4%
7		13	Decreased the number of students, teachers, and administrators attending and completing in university/college courses and programs.	66.7%	71.4%

Table 21 (Continued)

Criterion#	Criterion Statement	Consequence #	Negative Effect Consequences	% Local Deemed Relevant (n=15)	% University Relevant (n=8)
9	Develop, improve, and maintain statewide professional associations and CTE teachers and administrators at all levels (local, state, and universities).	10	Decreased resources to promote and advance professional CTE programs.	73.3%	85.7%
10	Develop and execute external and internal procedures for program planning, development and evaluation procedures for local CTE programs.	14	Eliminated most program planning except what the localities wanted to do without thought of what was taking place in other localities or what was best for CTE program overall.	73.3%	71.4%
10		6	Resulted in a decrease in learning from other's successes and failures due to a lack of communication between all levels.	80.0%	71.4%
10		17	Resulted in state-level CTE and university-level teacher educators reducing their involvement with evaluation designs, collection, and interpretation of data.	73.3%	71.4%

Table 21 (Continued)

Criterion#	Criterion Statement	Consequence #	Varied Effect Consequences	% Local Deemed Relevant (n=15)	% University Relevant (n=8)
7	Educate and recruit quality CTE teachers and leaders.	4	Increased local-level CTE's ability to add teachers and additional support to teachers.	66.7% (Inconclusive)	85.7% (Inconclusive)
9	Develop, improve, and maintain statewide professional associations and CTE teachers and administrators at all levels (local, state, and universities).	6	Placed greater emphasis on CTE professional organizations to provide staff development for their teachers and members.	86.7% (Inconclusive)	85.7% (Neutral)
9		4	Decreased the number of professional association meetings.	73.3% (Neutral)	85.7% (Inconclusive)
9		3	Increased the responsibility of individual CTE teachers to plan statewide professional organization activities for students.	80% (Negative)	85.7% (Inconclusive)
GC	General Consequence Category	2	Influenced the move of CTE from secondary level to community college level.	73.3% (Negative)	85.7% (Inconclusive)

State and University Only Relevant Consequences

There were 13 consequences that were identified only by state-level (n=7) and university-level (n=8) participants as relevant using the +1 SEM delimiting criteria. Of the relevant consequences identified by state and university-level participants, one was considered to have a positive effect; nine were considered to have a negative effect; and four were considered to have varied effects on the operation of CTE in Virginia. Table 22 is aggregated by effect ratings and shows the relevant state-level and university-level only consequences, as well as the relevancy selection percentage.

A closer examination of the most relevant positive and negative consequences identified by state and university-level participants shows that criterion 1 was positively effected and criteria 1, 3, and 7 were negatively effected by the changes to the 1990 Perkins Act this study examines. The one and only relevant positive state and university-level consequence was that the changes to the 1990 Perkins Act provided additional resources to localities for providing locally-sponsored technical updates for teacher and administrators due to an increase in local-level Perkins funding. The three most relevant negative local and university-level consequences were that the changes to the 1990 Perkins Act: (a) reduced individual technical assistance to teachers in the field, (b) restricted university-level personnel and faculty from assisting local-level CTE programs to develop new programs and curricula to respond to current and projected occupational needs, and (c) reduced the number of administrators and teachers attending professional conferences.

Table 22

State and University Only Relevant Consequences

Criterion#	Criterion Statement	Consequence #	Positive Effect Consequences	% State Deemed Relevant (n=7)	% University Relevant (n=8)
1	Provide state coordination, leadership, and technical assistance for local systems to identify, interpret, and comply with local program standards developed and accepted by the CTE profession, as well as federal and state regulations.	18	Provided additional resources to localities for providing locally-sponsored technical updates for teacher and administrators due to an increase in local-level Perkins funding.	87.5%	85.7%
Criterion#	Criterion Statement	Consequence #	Negative Effect Consequences	% State Deemed Relevant (n=7)	% University Relevant (n=8)
1	Provide state coordination, leadership, and technical assistance for local systems to identify, interpret, and comply with local program standards developed and accepted by the CTE profession, as well as federal and state regulations.	25	Reduced individual technical assistance to teachers in the field.	100.0%	100.0%

Table 22 (Continued)

Criterion#	Criterion Statement	Consequence #	Negative Effect Consequences	% State Deemed Relevant (n=7)	% University Relevant (n=8)
3	Develop new programs and curricula to respond to current and projected occupational needs.	22	Restricted university-level personnel and faculty from assisting local CTE programs to develop new programs and curricula to respond to current and projected occupational needs.	100.0%	85.7%
7	Educate and recruit quality CTE teachers and leaders.	9	Reduced the ability to respond to critical shortage areas.	87.5%	71.4%
9	Develop, improve, and maintain statewide professional associations and CTE teachers and administrators at all levels (local, state, and universities).	9	Reduced the number of administrators and teachers attending professional conferences.	87.5%	85.7%
11	Develop, improve, and maintain state and local community relations (e.g., advisory committee, CTSO, other workforce agencies).	1	Reduced state-level CTE's ability to assist local secondary CTE schools in developing, growing, and maintaining advisory committees.	87.5%	71.4%
12	Develop, improve, and maintain student services.	2	Reduced state support of student recruitment programs and guidance services due to decreased state-level funding.	87.5%	71.4%
12		7	Reduced state-level CTE's ability to share best practices with local secondary CTE schools in developing, growing, and maintaining student services.	75.0%	71.4%
13	Develop, improve, and maintain fiscal management of local CTE programs.	6	Decreased state-level CTE's ability to monitor and insure compliance with federal laws and requirements.	87.5%	71.4%

Table 22 (Continued)

Criterion#	Criterion Statement	Consequence #	Varied Effect Consequences	% State Deemed Relevant (n=7)	% University Relevant (n=8)
7	Educate and recruit quality CTE teachers and leaders.	2	Increased the need for researching options to certify non-degree teachers.	87.5% (Neutral)	85.7% (Inconclusive)
8	Operate and maintain local CTE facilities and equipment.	11	Eliminated statewide planning approach to priorities.	75% (Inconclusive)	71.4% (Negative)
9	Develop, improve, and maintain statewide professional associations and CTE teachers and administrators at all levels (local, state, and universities).	5	Decreased state-level CTE support for student organizations (CTSOs).	87.5% (Negative)	57.1% (Neutral)
9		15	Resulted in state administrators having less influence over their state and local CTE professional organizations.	100% (Inconclusive)	85.7% (Inconclusive)

Relevant Power Consequences with Varied Effects

As mentioned earlier, some consequences were deemed relevant by all three position levels. These were considered to be the power consequences of the study. The power consequences were divided into two categories: (a) power consequences with varied effects among position levels, and (b) power consequences with unanimous effect ratings among position levels. There were 9 consequences that were identified by state-level (n=7), local-level (n=15), and university-level (n=8) as relevant using the +1 SEM delimiting criteria but had varied effects. The power consequences effected criteria 1, 2, 7, 8, 10, and 13 and were predominantly negative with the exception of three consequences. Additionally, all nine consequences had two of the three position levels agreeing on the effect of the consequence. The six power consequences with two of the three position levels reporting them as having a negative effect on the operation of CTE in Virginia were found in criteria 1, 2, 3, 7, 10, and 13. The three power consequences with two of the three position levels reporting them as having a positive effect on the operation of CTE in Virginia were found in criteria 8 and 10. Table 23 is aggregated by effect ratings and shows the relevant power consequences with varied effects, as well as the relevancy selection percentages for three positions.

Table 23

Relevant Power Consequences with Varied Effects

Criterion#	Criterion Statement	Consequence #	Varied Effect Power Consequences	% Local Deemed Relevant (n=15)	% State Deemed Relevant (n=7)	% University Relevant (n=8)
1	Provide state coordination, leadership, and technical assistance for local systems to identify, interpret, and comply with local program standards developed and accepted by the CTE profession, as well as federal and state regulations.	22	Resulted in state-level CTE adjusting the method in which they provided technical assistance.	93.3% Negative	100% Negative	85.7% Inconclusive
2	Provide relevant professional and leadership development to teachers, administrators, and teacher educators.	11	Reduced CTE program specific professional development, which created an emphasis on overall CTE staff development.	73.3% Negative	87.5% Negative	85.7% Inconclusive
2		12	Modified the role of state-level CTE and teacher education personnel in providing and coordinating leadership and direction.	86.7% Inconclusive	100% Negative	100% Negative
7	Educate and recruit quality CTE teachers and leaders.	17	Increased the number of alternatively licensed CTE teachers.	73.3% Negative	87.5% Inconclusive	71.4% Negative
8	Operate and maintain local CTE facilities and equipment.	6	Increased local-level CTE's accountability concerning updating and purchasing new equipment.	80% Positive	75% Positive	71.4% Inconclusive

Table 23 (Continued)

Criterion#	Criterion Statement	Consequence #	Varied Effect Power Consequences	% Local Deemed Relevant (n=15)	% State Deemed Relevant (n=7)	% University Relevant (n=8)
10	Develop and execute external and internal procedures for program planning, development and evaluation procedures for local CTE programs.	5	Placed greater emphasis on local school divisions in the establishment and development of new programs.	80% Positive	87.5% Inconclusive	85.7% Positive
10		8	Increased federal funds that may be used for program planning, development, and evaluation.	73.3% Inconclusive	87.5% Positive	71.4% Positive
10		12	Placed an additional burden on local personnel for planning, development, and evaluation.	80% Negative	100% Inconclusive	71.4% Negative
13	Develop, improve, and maintain fiscal management of local CTE programs.	5	Increased the workload of local-level CTE administrators by increasing paperwork and forms.	86.7% Negative	87.5% Inconclusive	85.7% Negative

Relevant Power Consequences with Unanimous Effects

There were 35 consequences that were identified by state-level (n=7), local-level (n=15), and university-level (n=8) as relevant using the +1 SEM delimiting criteria. Additionally, all positions levels rated the effect of these consequences similarly. The power consequences with a unanimous effect rating among all position levels affected all criteria except criterion 12. Power consequences with unanimous positive effects were found in criteria 1, 8, and 13. Power consequences with unanimous negative effects were found in criteria 1, 2, 3, 4, 5, 6, 7, 9, 10, and 11. Table 24 is aggregated by effect ratings and shows the relevant power consequences with unanimous effects, as well as the relevancy selection percentages for three positions.

As reported in Table 24, the criteria that all position levels agree were most negatively effected were found in criteria 1 and 2 which dealt with providing state leadership and coordination and relevant professional and leadership development, respectively. Fourteen of the 32 (44%) negatively rated consequences can be found within these two criteria. Within criterion 1 lie the two most relevant consequences out of the power consequences. Both have a negative effect rating. The first of the two highest of relevancy consequences states that the changes to the 1990 Perkins Act this study examined decreased state-level CTE staff's ability to visit schools and give input and advice on how to make local-level decisions. Ninety-three percent of local-level participants, as well as 100% of state and university-level participants, rated this as relevant to the changes found in the 1990 Perkins Act. The second of the two highest relevancy consequences states that the changes to 1990 Perkins Act this study examines reduced state-level staff and increased the workload of remaining state staff. Once again, 93.3% of local-level, as well as 100% of state and university-level participants, rated this as relevant to the changes found in the 1990 Perkins Act.

There were three positive power consequences. The first most relevant positive power consequence affected criterion 1 with 86.7% of local, 87.5% of state, and 85.7% of university-level participants agreeing to its relevancy. This consequence states that the changes to the 1990 Perkins Act this study examined increased local-level CTE's opportunity to customize programs to local needs and standards. The second most relevant positive power consequence affected criterion 8 with 86.7% of local, 87.5% of state, and 71.4% of university-level agreeing to its relevancy. This consequence states that the changes to the 1990 Perkins Act this study examined increased federal funds for equipment purchases and other non-personnel costs at the local-level. The third most relevant positive power consequence affected criterion 13 with 80.0% of local, 87.5% of state, and 71.4% of university-level agreeing to its relevancy. This consequence states that the changes to the 1990 Perkins Act this study examined increased local-level CTE's flexibility concerning the spending of Perkins funding.

Table 24

Relevant Power Consequences with Unanimous Effects

Criterion#	Criterion Statement	Consequence #	Positive Effect Power Consequences	% Local Deemed Relevant (n=15)	% State Deemed Relevant (n=7)	% University Relevant (n=8)
1	Provide state coordination, leadership, and technical assistance for local systems to identify, interpret, and comply with local program standards developed and accepted by the CTE profession, as well as federal and state regulations.	15	Increased local-level CTE's opportunity to customize programs to local needs and standards.	86.7%	87.5%	85.7%
8	Operate and maintain local CTE facilities and equipment.	7	Increased federal funds for equipment purchases and other non-personnel costs at the local-level.	86.7%	87.5%	71.4%
13	Develop, improve, and maintain fiscal management of local CTE programs.	1	Increased local-level CTE's flexibility concerning the spending of Perkins funding	80.0%	87.5%	71.4%

Table 24 (Continued)

Criterion#	Criterion Statement	Consequence #	Negative Effect Power Consequences	% Local Deemed Relevant (n=15)	% State Deemed Relevant (n=7)	% University Relevant (n=8)
1	Provide state coordination, leadership, and technical assistance for local systems to identify, interpret, and comply with local program standards developed and accepted by the CTE profession, as well as federal and state regulations.	2	Decreased state-level CTE's ability to coordinate local CTE programs.	93.3%	87.5%	100.0%
1		4	Decreased university-level CTE's ability to provide any coordination, leadership, or technical assistance at the state and local-level.	86.7%	100.0%	85.7%
1		7	Diminished state-level CTE's ability to visit schools and give input and advice on how to make local-level decisions.	93.3%	100.0%	100.0%
1		10	Encouraged school divisions to give their CTE administrators additional duties because of the decreased state-level support and involvement.	93.3%	100.0%	85.7%
1		12	Reduced state-level CTE's ability to monitor the quality of local CTE programs.	93.3%	87.5%	85.7%
1		23	Reduced state-level CTE's ability to provide local technical assistance due to decreased funding at the state level.	93.3%	87.5%	100.0%

Table 24 (Continued)

Criterion#	Criterion Statement	Consequence #		% Local Deemed Relevant (n=15)	% State Deemed Relevant (n=7)	% University Relevant (n=8)
			Negative Effect Power Consequences			
1		26	Reduced state-level staff and increased the workload of remaining state staff.	93.3%	100.0%	100.0%
2	Provide relevant professional and leadership development to teachers, administrators, and teacher educators.	1	Reduced state-level CTE's ability to plan coordinate, and deliver relevant professional and leadership development activities.	93.3%	87.5%	85.7%
2		6	Decreased professional development activities by the state and universities.	80.0%	87.5%	100.0%
2		7	Decreased leadership development activities by the state and universities.	93.3%	87.5%	85.7%
2		8	Decreased the opportunity for leadership development for teachers, administrators, and collaboration with teacher educators.	93.3%	87.5%	85.7%
2		14	Decreased regional in-service activities.	73.3%	87.5%	85.7%
2		16	Reduced funding to support the participation of university/college personnel in regional conferences and national conferences.	73.3%	100.0%	100.0%
2		23	Reduced cooperative strategic planning between state-level CTE and teacher education institutions	80.0%	100.0%	85.7%
3	Develop new programs and curricula to respond to current and projected occupational needs.	10	Decreased funding at the state-level for the development and dissemination of new programs and curricula, as well as updating existing programs and curricula.	93.3%	87.5%	100.0%

Table 24 (Continued)

Criterion#	Criterion Statement	Consequence #		% Local Deemed Relevant (n=15)	% State Deemed Relevant (n=7)	% University Relevant (n=8)
			Negative Effect Power Consequences			
3	Develop new programs and curricula to respond to current and projected occupational needs.	13	Increased the burden on local school divisions that did not have supervisor staff to assist in new program and curriculum development and to ensure that programs and curricula were based on current research and best practices.	86.7%	87.5%	85.7%
4	Formulate new and improve existing operational policies (standards) at the local level.	1	Reduced state-level CTE's ability to help support and oversee the implementation of local program policies.	86.7%	87.5%	100.0%
4		2	Decreased state-level CTE's ability to create and expand CTE programs.	66.7%	87.5%	100.0%
5	Develop, improve, and maintain quality CTE teacher education programs at the bachelors, master's, and doctoral level.	1	Increased the workloads and responsibilities of remaining CTE teacher educators.	80.0%	100.0%	85.7%
5		2	Decreased the number of CTE teacher education programs and courses at Virginia colleges and universities.	80.0%	100.0%	100.0%
5		9	Decreased the ability of colleges and universities to implement new CTE programs at all levels.	73.3%	100.0%	85.7%
6	Conduct innovative research projects to assist in meeting unmet CTE needs.	1	Reduced the amount of federally funded, university-level research.	73.3%	87.5%	100.0%

Table 24 (Continued)

Criterion#	Criterion Statement	Consequence #		% Local Deemed Relevant (n=15)	% State Deemed Relevant (n=7)	% University Relevant (n=8)
			Negative Effect Power Consequences			
6		10	Reduced state-level funding for CTE research projects.	73.3%	100.0%	100.0%
7	Educate and recruit quality CTE teachers and leaders.	12	Decreased the number of CTE directors at the local-level that had a background in CTE and an understanding of CTE program administration.	73.3%	100.0%	71.4%
7		15	Reduced the ability of colleges to recruit and educate qualified CTE teachers and leaders.	66.7%	87.5%	71.4%
7		22	Increased the burden of local administration to train qualified CTE teachers.	66.7%	87.5%	71.4%
9	Develop, improve, and maintain statewide professional associations and CTE teachers and administrators at all levels (local, state, and universities).	1	Decreased professional memberships in associations due to decrease in funding for travel and conference participation.	73.3%	87.5%	85.7%
9		11	Reduced state-level CTE funding for local and university level professional in-service that was provided by professional organizations.	73.3%	87.5%	85.7%
10	Develop and execute external and internal procedures for program planning, development and evaluation procedures for local CTE programs.	1	Decreased state-level CTE's ability to compare districts and provide comprehensive dissemination of best practices concerning this criterion.	73.3%	75.0%	85.7%

Table 24 (Continued)

Criterion#	Criterion Statement	Consequence #		% Local Deemed Relevant (n=15)	% State Deemed Relevant (n=7)	% University Relevant (n=8)
			Negative Effect Power Consequences			
10	Develop and execute external and internal procedures for program planning, development and evaluation procedures for local CTE programs.	13	Decreased state-level assistance from the state for planning, developing, and evaluating.	86.7%	75.0%	71.4%
11	Develop, improve, and maintain state and local community relations (e.g., advisory committee, CTSO, other workforce agencies).	7	Eliminated federal funding for the state advisory committee appointed by governor.	80.0%	87.5%	71.4%
11		12	Loss of teacher education programs resulted in a loss of pre-service and in-service instruction on community relations and advisory committees.	80.0%	87.5%	85.7%

Research Question 4

Research question 4 sought to identify whether the 1990 Perkins Act within-state allocation funding formula change and its accompanying amendments had an overall positive or negative effect on the operational of secondary CTE in Virginia. To answer this question, the researcher first examined questions 10 to 12 on the Round 1 Survey. These questions asked participants to give their perception as to the overall effect the 1990 Perkins Act amendments to the within-state allocation funding formula as it related to local, state, and university CTE functions. Table 25 shows the 42 (21 local-level, 12 state-level, and 9 university-level) participants' selection percentages for each level.

A closer examination of the 30 participants who completed all three Rounds of the Delphi showed little change when excluding the 12 participants who did not complete all three Rounds. Table 26 shows the selection percentages of the 30 participants for questions 10 to 12 on the Round 1 survey.

Table 25

Participants Answers to Questions 10-12 in Round 1 (n=42)

Quest.	Question	Positive	Negative	No Effect	No Opinion
10	Overall, what is your perception of the 1990 Perkins amendments to the within-state allocation funding formula change concerning its effect on state-level CTE? (state-level CTE is defined as state-level CTE administration)	19.0%	71.4%	2.4%	7.1%
11	Overall, what is your perception of the 1990 Perkins amendments to the within-state allocation funding formula change concerning its effect on university-level teacher education and research?	19.0%	59.9%	4.8%	16.7%
12	Overall, what is your perception of the 1990 Perkins amendments to the within-state allocation funding formula change concerning its effect on local-level CTE (local-level CTE is defined as secondary CTE school divisions and centers)?	45.2%	50.5%	9.5%	4.8%

Table 26

Final Delphi Participants Answers to Question 10-12 in Round 1 (n=30)

Question Number	Question	Positive	Negative	No Effect	No Opinion
10	Overall, what is your perception of the 1990 Perkins amendments to the within-state allocation funding formula change concerning its effect on state-level CTE? (state-level CTE is defined as state-level CTE administration)	16.7%	77.3%	0%	0%
11	Overall, what is your perception of the 1990 Perkins amendments to the within-state allocation funding formula change concerning its effect on university-level teacher education and research?	26.7%	56.7%	6.7%	10.0%
12	Overall, what is your perception of the 1990 Perkins amendments to the within-state allocation funding formula change concerning its effect on local-level CTE (local-level CTE is defined as secondary CTE school divisions and centers)?	36.7%	46.7%	10.0%	6.7%

The researcher then validated the 30 participants' perceived effect ratings by examining the frequency counts of the Round 3 effect rating by position level. The researcher eliminated the Neutral category from the frequency count since participants who selected this either didn't know or care about the effect of the consequence. As shown in Table 27 approximately 24.6% of the 30 participants rated the effects of the consequences as positive and 75.4% rated the effects of the consequences as negative. Thus, this would seem to suggest that the overall effect of the consequences of the 1990 Perkins Act within-state funding allocation formula and its accompanying amendments were negative.

Table 27

Frequency Counts of Effect Ratings by Position Level and Total

Position	Sum of Frequency of Positive Effect Ratings	Sum of Frequency of Negative Effect Ratings	Total Frequency of positive and negative effect ratings	Percent of Frequency of Positive Effect Rating	Percent of Frequency of Negative Effect Rating
Local	423	1243	1666	25.4%	74.6%
State	225	705	930	24.2%	75.8%
University	180	595	775	23.2%	76.8%
Total	828	2543	3371	24.6%	75.4%

In order to determine the overall effect the consequences had on each of the criterion statements, the researcher examined the effect frequency counts of the 161 relevant consequences from the Round 3 effect ratings within each criterion statement. Once again, the neutral responses were extracted since they indicated the participant did not care or know the effect of the consequence. Table 28 shows each criterion's effect frequency counts, as well as the number of negative power consequences with unanimous effect ratings within each criterion.

An examination of Table 28 shows that only one criterion statement, 12, had more positive effect ratings than negative. This criterion focused on the notion of developing, improving, and maintaining student services such as guidance, placement, and student recruitment services. There were seven relevant consequences within this criterion statement. A closer examination of those seven consequences showed that three were rated positive by all position levels, three were rated negative by all position levels, and one consequences rating that could not be determined (inconclusive). None of the consequences that embody this criterion

statement were negative power consequences with unanimous effect ratings.

The remaining 12 criteria statements had more negative than positive effect ratings. In order to determine which of the negatively effected criteria were impacted the most, the researcher only examined the criterion statements in which 75% of the frequency effect counts were negative compared to positive. Seven of the twelve remaining criteria met this delimiting criteria and were therefore deemed to be the most negatively impacted by the 1990 Perkins Act changes this study examined. It is important to note that although the one relevant consequence under the General Consequence category was ranked as highly negative (90%), it was not a part of the 13 original criterion statements that were validated by the Round 1 Delphi participants. Therefore, it was not incorporated in answering this research question.

Table 28

Sum and Percentage of Positive and Negative Ratings Per Criterion

Consequence #	Criterion Statement	Number of Consequences	Neg. Power Consequences	Sum of Positive Ratings	Sum of Negative Ratings
1	Provide state coordination, leadership, and technical assistance for local systems to identify, interpret, and comply with local program standards developed and accepted by the CTE profession, as well as federal and state regulations.	18	7	94 (21.1%)	350 (78.8%)
2	Provide relevant professional and leadership development to teachers, administrators, and teacher educators.	16	7	72 (21.4%)	263 (78.5%)
3	Develop new programs and curricula to respond to current and projected occupational needs.	13	2	125 (42.5%)	169 (57.4%)
4	Formulate new and improve existing operational policies (standards) at the local level.	9	2	57 (34.1%)	110 (65.8%)
5	Develop, improve, and maintain quality CTE teacher education programs at the bachelors, master's, and doctoral level.	14	3	8 (2.5%)	308 (97.4%)
6	Conduct innovative research projects to assist in meeting unmet CTE needs.	9	2	22 (13.4%)	142 (86.5%)
7	Educate and recruit quality CTE teachers and leaders.	20	3	38 (9.4%)	366 (90.5%)
8	Operate and maintain local CTE facilities and equipment.	11	0	113 (48.4%)	120 (51.5%)

Table 28 (Continued)

Consequence #	Criterion Statement	Number of Consequences	Neg. Power Consequences	Sum of Positive Ratings	Sum of Negative Ratings
9	Develop, improve, and maintain statewide professional associations for CTE teachers and administrators at all levels (local, state, and universities).	12	2	45 (18.9%)	193 (81%)
10	Develop and execute external and internal procedures for program planning, development and evaluation procedures for local CTE programs.	15	2	75 (25.3%)	221 (74.6%)
11	Develop, improve, and maintain state and local community relations (e.g., advisory committee, CTSO, other workforce agencies).	7	2	44 (29.7%)	104 (70.2%)
12	Develop, improve, and maintain student services (e.g., student recruitment and admissions, placement, and guidance services).	7	0	79 (54.1%)	67 (45.8%)
13	Develop, improve, and maintain fiscal management of local CTE programs.	9	0	54 (32.5%)	112 (67.4%)
GC	General Consequences – Influenced the move of CTE from secondary level to community college level.	1	0	2 (1%)	18 (90.0%)
	Total	161	32	828 (17.1%)	2543 (52.6%)

A review of the seven negatively effected criterion statements show that criteria 1, 2, 5, 6, 7, 9, and 10 had the most negative ratings of the consequences that were contained within them. Additionally, these seven criteria statements embodied 26 (75%) of the power consequences with a unanimous effect rating. Table 29 shows the seven criterion statements in descending order. Additionally, the Table 29 shows the power consequences with unanimous effect ratings that are located within each of the criterion statements.

Table 29

Most Negatively Rated Criterion Statements and their Power Consequences

Criterion	Unanimous Effect	Consequence
1	NEG.	Decreased state-level CTE's ability to coordinate local CTE programs.
1	NEG.	Decreased university-level CTE's ability to provide any coordination, leadership, or technical assistance at the state and local-level.
1	NEG.	Diminished state-level CTE's ability to visit schools and give input and advice on how to make local-level decisions.
1	NEG.	Encouraged school divisions to give their CTE administrators additional duties due to lack of state support and involvement.
1	NEG.	Reduced state-level CTE's ability to monitor the quality of local CTE programs.
1	POS.	Increased local-level CTE's opportunity to customize programs to local needs and standards.
1	NEG.	Reduced state-level CTE's ability to provide local technical assistance due to decreased funding at the state level.
1	NEG.	Reduced state-level staff and increased the workload of remaining state staff.
2	NEG.	Reduced state-level CTE's ability to plan coordinate, and deliver relevant professional & leadership development activities.
2	NEG.	Decreased professional development activities by the state and universities.
2	NEG.	Decreased leadership development activities by the state and universities.
2	NEG.	Decreased the opportunity for leadership development for teachers, administrators, and collaboration with teacher educators.
2	NEG.	Decreased regional in-service activities.
2	NEG.	Reduced funding to support the participation of university/college personnel in regional conferences & national conferences.

Table 29 (Continued)

Unanimous		
Criterion	Effect	Consequence
2	NEG.	Reduced cooperative strategic planning between state-level CTE and teacher education institutions
3	NEG.	Decreased funding at the state-level for the development and dissemination of new programs and curricula, as well as updating existing programs and curricula.
3	NEG.	Increased the burden on local school divisions that did not have supervisor staff to assist in new program and curriculum development and to ensure that programs and curricula were based on current research and best practices.
4	NEG.	Reduced state-level CTE's ability to help support and oversee the implementation of local program policies.
4	NEG.	Decreased state-level CTE's ability to create and expand CTE programs.
5	NEG.	Increased the workloads and responsibilities of remaining CTE teacher educators.
5	NEG.	Decreased the number of CTE teacher education programs and courses at Virginia colleges and universities.
5	NEG.	Decreased the ability of colleges and universities to implement new CTE programs at all levels.
6	NEG.	Reduced the amount of federally funded, university-level research
6	NEG.	Reduced state-level funding for CTE research projects.
7	NEG.	Decreased the number of CTE directors at the local-level that had a background in CTE and an understanding of CTE program administration.
7	NEG.	Reduced the ability of colleges to recruit and education qualified CTE teachers and leaders.
7	NEG.	Increased the burden of local administration to train qualified CTE teachers.
8	POS.	Increased federal funds for equipment purchases and other non-personnel costs at the local-level.
9	NEG.	Decreased professional memberships in associations due to decrease in funding for travel and conference participation.
9	NEG.	Reduced state-level CTE funding for local and university level professional in-service that was provided by professional organizations.
10	NEG.	Decreased state-level CTE's ability to compare districts and provide comprehensive dissemination of best practices concerning this criterion.
10	NEG.	Decreased state-level assistance from the state for planning, developing, and evaluating.
11	NEG.	Eliminated federal funding for the state advisory committee appointed by governor.

Table 29 (Continued)

Criterion	Unanimous	
	Effect	Consequence
11	NEG.	Resulted in a loss of pre-service and in-service instruction on community relations and advisory committees due to loss of teacher education programs.
13	POS.	Increased local-level CTE's flexibility concerning the spending of Perkins funding
13	POS.	Increased local-level CTE's flexibility concerning the spending of Perkins funding

Note: NEG. = Negative and POS. = Positive

Research Question 5

Research question 5 sought to collect participant's recommendations concerning future use of the within-state allocation of federal funding for CTE. To answer this question, the researcher included a constructed-response question in the Round 3 survey. Twenty-two of the 30 Round 3 participants provided a response to this question. A total of 50 suggestions could be derived from the 22 responses. The 50 suggestions were analyzed for their coherence and relevance to the dissertation topic. Three of the suggestions were classified as general comments that did not meet the suggestion criteria and four of the suggestions were irrelevant either because they had already been implemented in the 2006 Perkins Act or they suggested a funding formula that did not relate to the within-state funding formula. The remaining 43 suggestions were examined for redundancy. Twelve of the 43 suggestions were combined to form a total of 31 suggestions. Refer to Table 30 for a list of the 30 suggestions for future Perkins legislation, the position level(s) of the commenter, the frequency of the suggestions, and the related criterion statement.

Table 30

Participant Suggestions for Future CTE Federal Legislation

Criterion/ Category	Position	Freq.	Suggestion
1	U & L	2	Provide support for increased hand-on state leadership.
1	L	2	Increase financial support for region-wide supervision of programs.
2	S & U	2	Increase collaboration between all levels for the delivery of leadership and development activities.
2	L	1	Provide more support for staff development.
4	L	2	Increase support for work experience and certification programs for students and teachers.
4	U	1	Ensure that legislation requires the inclusion and recognition of college and university standards when designing local-level programs.
4	U	1	Require work-based learning methods are incorporated into CTE classes.
5	U	2	Provide support for CTE teacher education.
6	U & L	2	Require state approved programs to align with best research-based practices from both education and industry.
6	U	2	Provide state-level funding for research that CTE institutions can conduct that is directed toward identifying and developing new and innovative programs; identifying program status and participation; and enhancing CTSO activities.
6	L	1	Provide support for on-going curriculum development and research in technological areas to meet global demands for goods and services.
7	U	1	Define what a qualified CTE teacher is.
10	U & L	2	Require that a percent of funds be used for “solid” program evaluation.
10	L	1	Mandate higher program accountability at all levels.
10	L	1	Provide local school divisions with more flexibility concerning program planning
10	L	1	Provide support for on-going program evaluation process that measures curriculum relevance.

Table 30 (Continued)

Criterion/ Category	Position	Freq.	Suggestion
10	S	1	Require that states use NCCTE exemplary program criteria to evaluate programs.
10	S	1	Provide extra support for programs that use and quantify sustainability criteria in their programs.
10	L	1	Provide state-level support for curriculum development since most schools no longer have the staffing to do this.
11	U	2	Require advisory committees to be involved in the leadership, direction, and recommendation process of program policies.
11	L	1	Provide support for CTSOs.
Formula	U & L	2	Restructure the within-state funding formula so that post-secondary CTE institutions receive the majority of funding since post-secondary students are more adept at making career choices.
Formula	S	2	Restructure the within-state funding formula so that state-level CTE receives 25% of Perkins within-state funding. 10% for state administration and 15% for statewide professional development, CTE research and leadership development activities with CTE university professors being a major contributor to these activities. Local-level CTE would receive the remaining 75% for JUST program improvement and expansion.
Formula	L	1	Restructure the within-state funding formula so more funding is distributed to localities.
Formula	L	1	Devise an appropriate within-state funding formula for small vs. large divisions with benchmarks established for each level.
Funding	L	1	Focus on a limited number of objectives so more resources can be focused on those objectives.
Funding	L	1	Return the ability to carry over funds from the previous year so state and local-levels can save up for major purposes/projects
Funding	S	1	Restrict the use of federal funds to just program improvement and expansion and exclude state and local level operational costs.
Funding	U	1	Set aside more funds for the National Center for CTE Research to conduct substantive initiatives.

Table 30 (Continued)

Criterion/ Category	Position	Freq.	Suggestion
Funding	U	1	Allow the national center and states to set their own priorities and leave implementation in the hands of the states and universities.
Funding	S	1	Provide more flexibility in the use of Perkins funding.

Note: U – University, L- Local, and S – State

Summary

This chapter of the study was designed to present the data that were gathered from the three Delphi rounds to answer the study's research questions. The fifth and final chapter will present the conclusion and recommendations for practice and future study.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS FOR PRACTICE AND FUTURE RESEARCH

The purpose of this study was to identify the impact the 1990 amendments to the Carl D. Perkins Career and Applied Technology Act within-state allocation of federal funds had on the operational infrastructure of career and technical education (CTE) in Virginia as specifically related to the overall quality of secondary CTE programs. A three round modified Delphi technique was used to identify and rate the consequences of the within-state allocation amendments from a panel of CTE local administrators, state administrators, and university researchers and/or teacher educators. This chapter of the study is designed to conclude and discuss the pertinent information that was gathered from the three Delphi rounds to answer the following research questions:

1. What is the operational infrastructure of CTE in the Commonwealth of Virginia?
2. What effects did the 1990 within-state funding formula changes have on the operational infrastructure of CTE in Virginia as it related to secondary CTE programs?
3. Which consequences were perceived by local, state, and/or university level as having the greatest impact on Virginia's CTE operational infrastructure examined in this study?
4. Was the change in the within-state allocation of federal funds overall a positive or negative change?
5. What are the Delphi participant's recommendations concerning future use of within-state allocation of federal funding for CTE?

Additionally, this chapter was designed to share the recommendations for practice and recommendations for future research.

Conclusion

Introduction

The 1986 National Assessment of Vocational Education (NAVE) Report recommended that 70% of the within-state allocation of federal funding should be decentralized from the state and forwarded directly to local education agencies. The House and Senate followed this recommendation despite the fact that the GAO Report suggested that the previous Perkins Act (1984) "...likely brought about a major shift in federal emphasis from maintaining outdated curricula and toward improving and modernizing local programs, and increasing the participation of targeted population groups" and that the "...states efforts to use Perkins funds to improve and/or modernize programs, through activities such as curriculum development or modernization and CTE teacher training...were consistent with the acts intent" (U.S. Senate, 1989, pp. 46-47). Additionally, a review of the transcripts from the six Senate subcommittee hearings held between June 22, 1989, and July 27, 1989, show that of the 123 individuals who testified and/or submitted statements, 17 specifically expressed support for increased fiscal and administrative control of Perkins funding at the local level while 35 individuals specifically expressed their non-support. Among the 35 non-supporters was Dr. Lauro Cavazos, Secretary of the U.S. Department of Education, who testified that the changes to the within-state allocation would "...diminish the State leadership in managing and improving [CTE] programs by reducing funds available for state level research, technical assistance, program monitoring, and teacher training" (U.S. Senate, p. 7). This study looked to discover if there was some validity to the hypothesized consequences Dr. Cavazos and others postulated shortly before and after the passage of the 1990 Carl D. Perkins Act. In addition, this study sought to identify and validate any other positive or negative

consequences that arose from the 1990 Perkins Act changes to the within-state allocation funding formula and its accompanying amendments, specifically program evaluation procedures.

Using a sample (n=30) of Virginia CTE teacher educators (n=8), local-level administrators (n=15), and state-level administrators (n=7) who worked before, during, and after 1990 reauthorization of the Perkins Act, the researcher was able to identify consequences the eight known and published effects of the 1990 Carl D. Perkins Act had on the operation of secondary CTE within Virginia using a modified Policy Delphi technique. The eight known and published effects were that the changes to the 1990 Perkins Act within-state funding formula:

1. decreased state-level Perkins funding for administrative and leadership purposes (AVA, 1989; Jennings, 1991; U.S. Congress, 1984; U.S. Congress, 1990);
2. increased local-level Perkins funding (VDOE, 1993);
3. decreased states' fiscal and administrative authority over Perkins funding (Jennings, 1991; Swanson, 1991);
4. increased localities' fiscal and administrative authority over Perkins funding (Jennings, 1991);
5. decentralized program evaluation onto the local systems (Jennings, 1991);
6. increased local systems' responsibilities and administrative burden (Jennings, 1991);
7. decreased Perkins funding to university/college CTE teacher education programs (Camp & Heath-Camp, 2007; Lynch, 1993; VDOE, 1991); and
8. decreased university/college CTE teacher education personnel (Camp & Heath-Camp, 2007; Lynch, 1993).

The operation of secondary CTE was defined by a researcher-developed set of criteria statements called the Operational Infrastructure of CTE (OICTE) in Virginia. These criteria

statements were gleaned from extant literature on the operation of CTE. Comprised of 13 criteria statements, the OICTE is defined as the basic, underlying framework of criteria that Virginia state leaders in CTE (state and local administrators and leaders and university-level teacher educators and/or researchers) must develop, grow, and/or maintain in order to effectively and efficiently operate a statewide CTE program. These 13 criteria statements were overwhelming validated by the 42 participants who responded to Delphi Round 1 and therefore answered research question 1. The following 13 criteria statements compose the Operational Infrastructure of CTE in Virginia.

1. Provide state coordination, leadership, and technical assistance for local systems to identify, interpret, and comply with local program standards developed and accepted by the CTE profession, as well as federal and state regulations.
2. Provide relevant professional and leadership development to teachers, administrators, and teacher educators.
3. Develop new programs and curricula to respond to current and projected occupational needs.
4. Formulate new and improve existing operational policies (standards) at the local level.
5. Develop, improve, and maintain quality CTE teacher education programs at the bachelors, master's, and doctoral level.
6. Conduct innovative research projects to assist in meeting unmet CTE needs.
7. Educate and recruit quality CTE teachers and leaders.
8. Operate and maintain local CTE facilities and equipment.
9. Develop, improve, and maintain statewide professional associations and CTE teachers and administrators at all levels (local, state, and universities).

10. Develop and execute external and internal procedures for program planning, development and evaluation procedures for local CTE programs.
11. Develop, improve, and maintain state and local community relations (e.g., advisory committee, CTSO, other workforce agencies).
12. Develop, improve, and maintain student services (e.g., student recruitment and admissions, placement, and guidance services).
13. Develop, improve, and maintain fiscal management of local CTE programs.

Using the OICTE as a guide, the participants were asked to first identify consequences the eight known effects had on the OICTE and then validate the relevancy and effect of each participant-identified consequence.

Study's Methodology

In Round 1, 42 participants identified 223 consequences resulting from the effects of the 1990 Perkins Act. These consequences were returned to participants in Round 2 to have them rate the relevancy each consequence had to the changes within the 1990 Perkins Act on a three-point scale (Relevant, Don't Know/Care, or Irrelevant). Additionally they were asked to rate the effect of the consequence on a three-point scale (Positive, Neutral, or Negative) and asked to provide any comments concerning the consequences. Thirty-two participants completed this round. Round 3 asked the participants to compare their relevancy and effect ratings to the overall selection percentage rating of the entire participant group and then decide if they wanted to retain or change their ratings. Additionally, the participants were asked to provide their thoughts about the overall effect of the 1990 changes on which this study focused. Lastly, they were asked to provide recommendations concerning future federal CTE legislation. 30 participants completed

this round for a total participant rate of 56% when compared to the 54 original participants who received the Round 1 survey.

The relevancy ratings of the 30 participants were aggregated by position level. Then the relevancy mean and standard deviation was calculated for each criterion statement for each position level. Next, the standard error of the mean (SEM) was calculated. The researcher chose to use +1 SEM as the delimiting criteria for determining if a consequence was highly relevant to the 1990 within-state funding allocation formula changes. This methodology enabled the researcher to determine which consequences were the most relevant for each position level. Following this, an analysis of the effect ratings enabled the researcher to make a determination as to the effect, if any, the consequence had on the operation of secondary CTE in Virginia. Additionally, the researcher combined the relevant consequences to find congruency between position levels. The consequences that had congruency between all position levels were labeled as power consequences. There were two types of power consequences: consequences with varied effect ratings between position levels and consequences with unanimous effect ratings between position levels. Below are the findings of an examination of the power consequences with unanimous effect ratings.

Conclusions by Power Consequences with Unanimous Effect Ratings

The changes to the within-state funding allocation formula that occurred with the passage of the 1990 Perkins Act resulted in a marginally positive impact on the criterion related to developing, improving, and maintaining student services. This criterion had 54.1% positive effect ratings compared to 45.8% negative effect ratings.

Although only one criterion statement was positively impacted on a marginal level, the 1990 changes to the Perkins Act did have three unanimously positive consequences scattered

within other negatively impacted criteria statements. Below are the criteria statements with their positively impacted consequence.

C. Virginia CTE's ability to provide state coordination, leadership, and technical assistance for local systems to identify, interpret, and comply with local program standards developed and accepted by the CTE profession, as well as federal and state regulations, was positively impacted in the following way:

1. Increased local-level CTE opportunity to customize programs to local needs and standards.

D. Virginia CTE's ability to operate and maintain local CTE facilities and equipment was positively impacted in the following way:

1. Increased federal funds for equipment purchases and other non-personnel cost at the local level.

E. Virginia CTE's ability to develop, improve, and maintain fiscal management of local CTE programs was positively impacted in the following way:

1. Increased local level CTE flexibility concerning the spending of Perkins funding.

The 1990 Perkins Act changes this study examined negatively impacted ten of the 13 criteria statements that embody the operational infrastructure of CTE in Virginia. Below are the ten negatively impacted criteria statements with their negatively rated consequences.

F. Virginia CTE's ability develop, improve, and maintain quality CTE teacher education programs at the bachelors, master's, and doctoral level was negatively impacted in the following ways:

1. Increased the workloads and responsibilities of remaining CTE teacher educators.

2. Decreased the number of CTE teacher education programs and courses at Virginia colleges and universities.
 3. Decreased the ability of colleges and universities to implement new CTE programs at all levels.
- E. Virginia CTE's ability to educate and recruit quality CTE teachers and leaders was negatively impacted in the following ways:
1. Decreased the number of CTE directors at the local-level who had a background in CTE and an understanding of CTE program administration.
 2. Reduced the ability of colleges to recruit and educate qualified CTE teachers and leaders.
 3. Increased the burden of local administration to train qualified CTE teachers.
- F. Virginia CTE's ability to conduct innovative research projects to assist in meeting unmet CTE needs was negatively impacted in the following ways:
1. Reduced the amount of federally funded, university-level research.
 2. Reduced state-level funding for CTE research projects.
- H. Virginia CTE's ability to develop, improve, and maintain statewide professional associations for CTE teachers and administrators at all levels was negatively impacted in the following ways:
1. Decreased professional memberships in associations due to decrease in funding for travel and conference participation.
 2. Reduced state-level CTE funding for local and university-level professional in-service that was provided by professional organizations.

- I. Virginia CTE's ability to provide state coordination, leadership, and technical assistance for local systems to identify, interpret, and comply with local program standards developed and accepted by the CTE profession, as well as federal and state regulations was negatively impacted in the following ways:
 1. Decreased state-level CTE's ability to coordinate local CTE programs.
 2. Decreased university-level CTE's ability to provide any coordination, leadership, or technical assistance at the state and local-level.
 3. Diminished state-level CTE's ability to visit schools and give input and advice on how to make local-level decisions.
 4. Encouraged school divisions to give their CTE administrators additional duties due to decreased state-level support and involvement.
 5. Reduced state-level CTE's ability to monitor the quality of local CTE programs.
 6. Reduced state-level CTE's ability to provide local technical assistance due to decreased funding at the state level.
 7. Reduced state-level staff and increased the workload of remaining state staff.
- J. Virginia CTE's ability to provide relevant professional and leadership development to teachers, administrators, and teacher educators was negatively impacted in the following ways:
 1. Reduced state-level CTE's ability to plan, coordinate, and deliver relevant professional and leadership development activities.
 2. Decreased professional development activities by the state and universities.
 3. Decreased leadership development activities by the state and universities.

4. Decreased the opportunity for leadership development for teachers and administrators and collaboration with teacher educators.
 5. Decreased regional in-service activities.
 6. Reduced funding to support the participation of university/college personnel in regional conferences and national conferences.
 7. Reduced cooperative strategic planning between state-level CTE and teacher education institutions
- K. Virginia CTE's ability to develop and execute external and internal procedures for program planning, development, and evaluation procedures for local CTE programs was negatively impacted in the following ways:
1. Decreased state-level CTE's ability to compare districts and provide comprehensive dissemination of best practices concerning this criterion.
 2. Decreased state-level assistance for planning, developing, and evaluating.
- L. Virginia CTE's ability to develop, improve, and maintain state and local community relations was negatively impacted in the following ways:
1. Eliminated federal funding for the state advisory committee appointed by the governor.
 2. Loss of teacher education programs resulted in a loss of pre-service and in-service instruction on community relations and advisory committees.
- M. Virginia CTE's ability to formulate new and improve existing operational policies (standards) at the local level was negatively impacted in the following ways:
1. Reduced state-level CTE's ability to help support and oversee the implementation of local program policies.

2. Decreased state-level CTE's ability to create and expand CTE programs.
- N. Virginia CTE's ability to develop new programs and curricula to respond to current and projected occupational needs was negatively impacted in the following ways:
1. Increased the burden on local school divisions that did not have supervisor staff to assist in new program and curriculum development and to ensure that programs and curricula were based on current research and best practices.
 2. Decreased funding at the state level for the development and dissemination of new programs and curricula, as well as updating existing programs and curricula

Conclusions by Position Level

While the previous section showed the conclusions derived from the power consequences and answered research question number two, this section examines the consequences by position level and answers research question number three. The following bulleted items list the top three, when possible, most relevant positive and negative consequences within each position or position combination. The percentage of position or position combination participants who felt it was relevant can be found within parentheses at the end of the consequence statement.

Local-level Only

- A. The four (tie between one and two, as well as three and four) most relevant positive consequences as identified by local-level participants were that the legislative changes this study examined:
1. Placed greater emphasis and responsibility on local advisory committees (93%).
 2. Resulted in carefully planned local-level CTE program expenditures due to the strict criteria used to annually approve the localities' annual plan (93%).

3. Increased local-level CTE's ability to emulate actual work experiences by emulating facilities and equipment found in the real world (80%).
4. Resulted in localities developing recruiting initiatives and services to increase enrollment (80%).

B. The three most relevant negative consequences as identified by local-level participants were that the legislative changes this study examined:

1. Resulted in state-level CTE's ability to influence higher education (80%).
2. Resulted in a shortage of CTE teachers in Virginia (80%).
3. Increased the number of provisionally licensed teachers (80%).

State-level Only

C. The only relevant positive consequences as identified by state-level participants was that the legislative changes this study examined:

1. Increased state-level research initiatives such as SREB's High Schools That Work and the NASDCTE's Leadership in Career Pathways (87.5%).

D. The three most relevant negative consequences as identified by state-level participants were that the legislative changes this study examined:

1. Resulted in a lack of advice and counsel for teacher associations because of the lack of state and university support (100%).
2. Decreased the involvement of university-level faculty/personnel in supporting local-level CTE regarding its ability to operate and maintaining their facilities and equipment (100%).
3. Decreased all levels' ability to assist other levels interpret and implement best research practices (100%).

University-level Only

E. The only relevant positive consequence as identified by university-level participants was that the legislative changes this study examined:

1. Reduced the one-size fits all approach to CTE programs (86%).

F. The three most relevant negative consequences as identified by university-level participants were that the legislative changes this study examined:

1. Resulted in the transferring of CTE teacher education faculty to other duties with the institution (100%).
2. Eliminated CTE teacher education special projects and grants (100%).
3. Reduced the number of services CTE teacher educators could offer to the CTE community, such as in-service classes at local-level CTE schools (100%).

State and Local-level Only

G. The four (tie between three and four) most relevant positive consequences as identified by state and local-level participants were that the legislative changes this study examined:

1. Improved the collection and use of local student data (93% local, 100% state).
2. Increased funding at the local level for developing new programs and curriculum (87% local, 100% state).
3. Increased guidance counselors' attention to program completions, placement, and follow-up activities (87% local, 88% state).
4. Resulted in the development of statewide performance standards in conjunction with the localities and the community college system (87% local, 88% state).

H. The three most relevant negative consequences as identified by state and local-level participants were that the legislative changes this study examined:

1. Increased administrative burden on local-level CTE personnel especially in smaller school divisions (93% local, 100% state).
2. Decreased contact between state-level CTE and local-level CTE (100% local, 88% state).
3. Limited federal dollars for facility maintenance and improvement (87% local, 88% state).

Local and University-level Only

I. The only relevant positive consequence identified by local and university-level participants was that the legislative changes this study examined:

1. Improved local-level facilities and equipment (73% local, 71% university).

J. The three most relevant negative consequences as identified by local and university-level participants were that the legislative changes this study examined:

1. Reduced state leadership activities due to decreased state-level Perkins funding (93% local, 100% university).
2. Resulted in inconsistencies in local-level CTE program administration and evaluation (87% local, 86% university).
3. Decreased state-level CTE's ability to develop and support statewide curriculum development for new CTE programs (87% local, 86% university).

State and University-level Only

- K. The only relevant positive consequence identified by state and university-level participants was that the legislative changes this study examined:
1. Increased local-level Perkins funding provided for additional resources to localities for providing locally sponsored technical updates for teachers and administrators (88% state, 86% university).
- L. The three most relevant negative consequences as identified by state and university-level participants were that the legislative changes this study examined:
1. Reduced individual technical assistance to teachers in the field (100% state, 100% university).
 2. Restricted university-level personnel and faculty from assisting local-level CTE programs to develop new programs and curricula to respond to current and projected occupational needs (100% state, 86% university).
 3. Reduced the number of administrators and teachers attending professional conferences (88% state, 86% university).

Overall Effect Conclusions

In research question number four, the researcher wanted to identify the overall effect of the legislative changes this study examined. An examination of the frequency of positive versus negative ratings between all position levels in the Round 3 survey strongly suggested that the effects of the changes this study examined to the within-state allocation of federal funds and its accompanying amendments had an overly negative effect on the operation of secondary CTE in Virginia. When compared to the number of positive effect ratings, 74.6% of local-level participant, 75.8% of state-level participant, and 76.8% of university participant consequence

effect ratings were negative. These figures, when combined, resulted in 75.4% of the consequence effect ratings being negative when compared to the positive effect ratings.

Recommendations

This section of Chapter 5 is divided into two subsections. The first subsection will share the Delphi participants' recommendations for future CTE legislation. The second subsection will share the researcher's recommendations.

Participant Recommendations

In order to answer research question number five, the participants were asked to provide recommendations for future CTE legislation. This was the last item they were asked to complete during Round 3. The researcher felt this would be the best time to ask the participants for their recommendations since they had recently gone through the entire Delphi process. Twenty-two of the 30 participants provided a total of 50 suggestions that were then analyzed for their relevancy to the dissertation topic and coherency. After eliminating seven, 43 suggestions remained. These suggestions were interpreted by the researcher, shortened or rephrased for congruency, examined for redundancy and consolidated, and categorized into one of the 13 criteria, if possible. The more general suggestions were categorized into a funding suggestion category or a formula suggestion category. Table 31 in Chapter 4 shows the participants' recommendations in detail. The following is a summary of their recommendations.

Criterion 1 – Provide state coordination, leadership, and technical assistance

Some participants suggested that the legislation should provide support for more hands-on state leadership, as well as an increase in financial support for region-wide supervision of programs.

Criterion 2 – Provide relevant professional and leadership development

Some participants suggested that the legislation should help to increase collaboration between all levels of CTE for the delivery of leadership and development activities. Additionally, it should provide more support for staff development.

Criterion 3 – Develop new programs and curricula

There were no suggestions for this criterion.

Criterion 4 – Formulate new and improve existing operational policies

Some participants suggested that the legislation should increase support for work experience programs for students and teachers. Additionally, one participant felt that the legislation should require the inclusion and recognition of college and university standards when designing local programs.

Criterion 5 – Develop, improve, and maintain quality CTE teacher education programs

Some participants suggested that the legislation should provide support for CTE teacher education.

Criterion 6 – Conduct innovative research projects

Some participants suggested that the legislation should provide support for state-level research that would be conducted by CTE teacher education institutions. Additionally, one participant suggested that the legislation should provide support for on-going curriculum development and research in technological areas.

Criterion 7 – Educate and recruit quality CTE teachers and leaders

One participant suggested that the legislation should define what a qualified CTE teacher is.

Criterion 8 – Operate and maintain CTE facilities

There were no suggestions for this criterion.

Criterion 9 – Develop, improve, and maintain statewide professional associations

There were no suggestions for this criterion.

Criterion 10 – Develop and execute procedures for program planning and evaluation

There were more suggestions for this criterion statement than any other. One participant suggested that the legislation should provide local school divisions with more flexibility concerning program planning. The rest of the suggestions asked for extra state-level support for program planning and evaluation, including providing funds for more “solid” program evaluation. Additionally, one participant suggested the need for more support for a program evaluation process that measures the relevancy of curriculum. On a similar note, one participant suggested that extra support should be provided to programs that use and quantify sustainability criteria in their programs. Lastly, one participant suggested that the legislation should provide state-level support for the development of curriculum since most schools no longer have the staff to do so.

Criterion 11 – Develop, improve, and maintain state and local community relations

Some participants suggested that the legislation should require that advisory committees be involved in the leadership, direction, and recommendation process of program policies. Additionally, one participant suggested that the legislation should provide support for CTSOs.

Within-state funding formula suggestions

Some participants suggested that the within-state funding formula should be restructured so that state-level CTE receives 25% of the federal funds. Ten percent of these funds would be allocated for state administrative duties while 15% of the funds would be for statewide

professional development, research, and leadership development. They suggested that CTE teacher education institutions would be a major contributor to these efforts. Inversely, one participant felt that more funding should be allocated to localities. Lastly, some participants felt that more Perkins funding should be allocated to post-secondary CTE since these students are more adept at making career choices.

General funding suggestions

There were two general themes found within these suggestions: (a) more flexibility and (b) less federal objectives. In terms of flexibility, one participant suggested that state and local-level CTE should be allowed to carry over Perkins funding from previous years. Another participant suggested that the national center (NRCCTE) and states should be allowed to set their own priorities and leave implementation in the hands of the states and universities. Another participant suggested that more funds should be allocated to the NRCCTE so they can do more substantive research initiatives. In terms of less federal objectives, one participant suggested that the legislation should limit the number of objectives so more resources can be focused on those objectives. Another participant stated that federal funding should be restricted to just program improvement and expansion and exclude state and local-level operational costs.

Researcher Recommendations

The findings of this study suggest that the changes to the within-state funding formula and its accompanying amendments did have a negative effect on the operation of secondary CTE in Virginia. More specifically, the changes to the Perkins Act this study examined seemed to adversely effect CTE teacher education, state-level CTE research initiatives, and state-level CTE's ability to provide localities with hands-on technical assistance, professional and leadership development, and coordination. The findings also suggest the legislative changes

negatively altered the manner in which program evaluation occurred within the state by decreasing the state-level assistance for developing methods of program evaluation. In other words, the findings of this study seem to suggest there is a lack of leadership, development, and direction within Virginia's CTE program. The researcher offers several recommendations.

First, the researcher recommends that state-level CTE leaders examine the manner in which their current allotment (15%) of Perkins funding is distributed and spent and entertain the notion of providing some of this money to teacher education institutions within the state. From what the researcher had gleaned from conversations with teacher educators in Virginia, no Perkins funding is being distributed to teacher education institutions. Since current Perkins legislation allows for such expenditure, what does this say about Virginia CTE's philosophy toward teacher education? Other states are providing their teacher education institutions with some operational and/or research funding that is partly or fully derived from Perkins funding. Although money is not always the answer to educational issues, teacher education institutions within Virginia have witnessed what limited or no federal funding can do to their ability to recruit and educate high-quality CTE teacher talent. Lack of funding at these institutions has led to a sharp decline in personnel, which, as the findings suggest, has reduced the ability of CTE teacher education institutions to recruit and educate CTE teachers and leaders. This dilemma may have exacerbated another consequence, which was the decreased number of CTE administrators with an educational and occupational background in CTE. Also, as a result of the reduction of Virginia's CTE teacher education institutions, many local-level CTE administrators now have the added burden of seeking or developing professional development opportunities for their staff, as well as finding ways to alternatively educate the new and often non-pedagogically trained workforce professionals they have hired to fill empty teaching positions. Lastly, even though the

number has decreased substantially since 1990, these institutions house CTE personnel with varied research talents that are either being used by other CTE entities outside of Virginia or outside of our nation's borders. While this research is good for the general cause, it does little to improve the operation, and therefore effectiveness, of secondary CTE in Virginia. Also, many, if not all, of these individuals are veteran CTE teachers who could offer localities quality professional development if provided with the funding to do so.

Secondly, the researcher recommends examining local program evaluation procedures, which currently is tantamount to local CTE programs evaluating themselves and submitting the information to the state. While efficient, there is very little state-level assistance in program planning, developing, and evaluation. As explained in Chapter 2, this was not always the method used for local CTE program evaluation. The researcher recommends examining the impact the "hand-offs" evaluation approach has on the effective operation of secondary CTE in Virginia.

On a similar note, the researcher's third recommendation entails state-level coordination of professional and leadership development, as well as technical assistance. It was obvious from the findings that the state's ability to coordinate professional and leadership development, as well as offer technical assistance to localities, has been greatly reduced as a result of the changes to the within-state funding allocation this study examines. Correlating with this issue is the factor of communication among all position levels (local, state, and university). While technological advances in electronic communication has allowed much of the professional and leadership development and technical assistance offered by the state to be shared via the Internet, there seems to still be a need for the inclusion of face-to-face, hands-on interaction. Once again, CTE teacher educators could assist in this matter if given the necessary resources.

Of course, it is critical to consider the lack of adequate federal funding for state-level initiatives. Since 1990, state-level CTE administrators in Virginia, as well as all other states, have seen a continual decrease of federal funding. Without adequate state-level funding, it is difficult to provide hands-on program evaluation, technical assistance, and professional and leadership development. Additionally, it is even more difficult to justify and allocate funding for research and teacher training when there is not enough funding to do what is mentioned above. That is why the researcher's last recommendation concerns a closer examination of the within-state allocation funding formula itself and therefore transcends the state-level and goes directly to the national leaders and legislators who deal with the Carl D. Perkins Act reauthorization.

By considering these issues, it may be possible to come to a consensus on what within-state allocation funding formula would be best for America's CTE system.

Recommendations for Future Study

The researcher offers a few recommendations for future study. First, the study should be replicated in other states with similar secondary and post-secondary allotment formulas. This would allow for identification of similarities or differences from state to state and allow researchers to compare and contrast identified consequences.

Secondly, a study to nationally validate the Operational Infrastructure of CTE developed for this study would be beneficial on three levels. First, it would provide CTE state leaders with a framework to begin examining the effectiveness of their CTE system. Second, it would provide a framework for further research on the effectiveness of state CTE programs. Last, it would allow for the development of 13 evaluations, one for each criterion, on which a state CTE program could be evaluated. This assessment would allow state CTE programs to measure their

effectiveness on meeting each criterion, as well as comparing with other states the overall performance of their CTE program.

The methodology and operational infrastructure designed for this study could be used to examine the consequences that other significant pieces of education policy had on CTE. For example, a Delphi study examining the impact of the No Child Left Behind Act or Title I on the operational infrastructure of CTE could provide valuable insight into the effect of such policy.

Concluding Remarks

In closing, Virginia CTE needs a strong state leadership component that provides adequate funding for teacher training, state and university-level research, meaningful and effective technical assistance, and statewide, rigorous professional and leadership development. In the researcher's informed opinion, these critical components cannot be improved by continuing to provide federal funding for CTE at the same, minimal level, nor by limiting the federal funding that can be expended at the state level rather than the local level. Therefore, it is the hope of this researcher that the members of Congress charged with drafting the 2012 Carl D. Perkins Career and Technical Education Act will closely examine the effectiveness of the 1990 within-state funding formula change and ask the following questions:

1. Will the within-state funding formula enacted with the passage of the 1990 Perkins Act, which formally decentralized 75% of federal funding directly to the local CTE education agencies, provide enough state-level funding to meet the purposes of the reauthorized Perkins Act?
2. Did the change to the within-state funding formula enacted with the passage of the 1998 Perkins Act, which provided for an increase in local-level funding from 75% to 85%,

significantly benefit local-level CTE agencies or could it have been more effectively and efficiently used at the state-level?

3. Will a within-state funding formula that allocates an increased percentage of funding to the state level help states meet the purposes of the reauthorized Perkins Act?
4. Would it be beneficial to allow state-level CTE administration, under the advisement of a state board of CTE, to determine how the federal funding received from the Perkins Act would be distributed among state, local, and university-levels?
5. If the funding formula must remain the same (85% to localities, 15% to state), would it be beneficial to allow states to determine how they are allowed to spend their Perkins allotment?
6. Would it be beneficial to allocate a percentage of the state's allotment for teacher training and state and/or university-level research?

There has simply not been enough discussion concerning these funding issues. Therefore, the researcher challenges CTE leaders at all levels, including federal, to begin researching the answer to these questions. Doing so would be a measureable step in the right direction.

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APPENDIX A
SECONDARY VS. POST-SECONDARY PERKINS FUNDING ALLOCATIONS BY
STATE

Secondary vs. Post-Secondary Perkins Funding Allocations by State		
State	Secondary Allocation Percentage	Post- secondary Allocation Percentage
Alabama	80	20
Alaska	85	15
Arizona	85	15
Arkansas	69.6	30.4
California	45	55
Colorado	40	60
Connecticut	81	19
Delaware	85	15
Florida	51.44	48.56
Georgia	50	50
Hawaii	50	50
Idaho	65	35
Illinois	60	40
Indiana	63.6	36.4
Iowa	50.6	49.4
Kansas	50	50
Kentucky	49	51
Louisiana	56	44
Maine	50	50
Maryland	65	35
Massachusetts	70	30
Michigan	60	40
Minnesota*	40	60
Mississippi	53	47
Missouri	72	28
Montana	65	35
Nebraska	55	45
Nevada	68	32
New Hampshire	79.5	20.5
New Jersey	55	45
New Mexico	50	50
New York	52	48
North Carolina	66	33
North Dakota	65	35
Ohio	79	21
Oklahoma	84	16

State	Secondary Allocation Percentage	Post- secondary Allocation Percentage
Oregon	50	50
Pennsylvania	70	30
Rhode Island	85	15
South Carolina	70	30
South Dakota	50	50
Tennessee	85	15
Texas	70	30
Utah	60	40
Vermont	74	26
Virginia	85	15
Washington	44	56
West Virginia	72.55	27.44
Wisconsin	45	55
Wyoming	60	40

APPENDIX B
JOHN WIRT'S WRITTEN TESTIMONY TO CONGRESS CONCERNING THE
FINDINGS AND RECOMMENDATIONS OF THE 1986 NAVE REPORT

Findings

1. Certain regulatory interpretations have weakened important statutory provisions. For example, although the Perkins Act guarantees handicapped and disadvantaged students equal access to full range of vocational programs and services, through regulation this guarantee has been limited to activities supported with federal funds. In another example, the statutory prohibition on supplanting state and local with federal funds has been rendered ineffective through the lack of any regulatory interpretation.
2. States have been allowed to use funds distribution methods that result in widely varying allotments among different educational levels and classes of institutions. Although setaside funds for handicapped and disadvantaged students is distributed among grantees according to a federally-specified formula, states have been allowed to decide to apportion such funds between the secondary and postsecondary levels, as well as between local education agencies and area CTE schools before applying these distribution formulas.
3. When a set of institutions is administered by a state office responsible for Perkins administration, funds tend to flow disproportionately to the set of institutions. In the most common example, when a state education agency is directly responsible for administration of area CTE schools federal funds tend to flow to the set of institutions at a higher rate than their overall CTE enrollments.

4. Nationally, separate area vocational school districts receive a disproportionate share of the federal funds that flow to secondary vocational education. Nationally, the area vocational education centers only comprise 9% of the total CTE credits earned, yet they receive 30% of the Perkins funding. Furthermore, comprehensive high schools who students are considered to be of a lower socioeconomic status are least likely to be linked to area CTE centers.
5. The intrastate formula for the handicapped and disadvantaged setasides did not change the amount of funds for school districts with high poverty rates. Looking at five years worth of data, regular school districts with high poverty rates received roughly the same amount of funding.
6. Most grants to school districts are too small to carry out any substantial activity. Grants to area schools districts are larger. The median award to a school district was \$7,900. About 63% receive grants, but most very small districts did not. 75% of all school district grants were \$25,000 or less. On the other hand, the median reward to area school districts is \$91,300.
7. Some services provided through federal Perkins funding were not improving student's access to high quality CTE offerings. Wirt noted that some funds were being used to continue ongoing and expensive activities that were already occurring excess costs. These activities in many instances were not increasing the amount of CTE offerings and service.
8. At secondary and postsecondary levels, the Perkins program improvement funds are used primarily as general aid to purchase equipment. While some were related to introducing a new program, most purchases were for routine replacement and

updating. At the secondary level, computers were the most common piece of equipment purchased using program improvement funds. There were a few states that prohibited the purchase of equipment using program improvement funds. In these states, CTSO support, in-service training, and adoption of the Principles of Technology curriculum topped out the list of program improvement fund use.

9. A small share of set-aside funds and a substantial share of program improvement funds were retained for statewide activities. Most statewide projects involved assistance to secondary CTE. Most states retained 10 to 40% of program improvement funding for statewide activities. Most commonly, these funds were used for curriculum development. Other uses included establishing and maintaining regional resource centers for CTE and staff development (including in-service and preservice education). A few states used federal resources to develop curricula and stimulate change aimed at general work-based skills or at curriculum and model program development for vocational-academic integration.

Federal Policy Recommendations for Secondary CTE

1. Revise and rebuild the high school CTE curriculum to upgrade skill levels and provide different students with the mix of occupationally specific and transferable skills they need to get good jobs or to pursue further training and education at the postsecondary level.
2. Integrate high school academic and CTE curricula so that students come to vocational programs well equipped with fundamental academic skills and CTE courses provide an applied context based on broad and specific job training that

reinforces and enhances academic skills and motivates students to excel in both academic and CTE courses.

3. Accelerate the education of at-risk students by providing them with the extra assistance they need to succeed in demanding and highly rewarding CTE courses
4. Expand efforts to place student in good jobs that make full use of their CTE and academic training
5. Act to improve the linkages between secondary and postsecondary training so that the training is highly complementary for the large group of student who obtain training at both levels.
6. Raise the quality of CTE programs in schools with high concentrations of poor and low achieving students.

Federal Policy Change that can help Secondary CTE accomplish these objectives

1. Implementation of Performance Indicators – Each state would develop performance indicators to measure the success of CTE for different populations of students and to achieve reform. The indicators would collect information on (1) academic achievement, (2) vocational attainment and occupational skill, (3) employment outcomes, (4) the continuity of student progress between the secondary and postsecondary levels. NAVE suggests that states begin reporting this data two years after reauthorization.
2. Implementation of State Reform Plans – In order to create a climate of reform at the state level, states would develop and submit state reform plans to the federal government for accomplishing the six objectives of reform. The reform plan would focus on the entire system of secondary CTE in the state,

not just federally funded programs. States would emphasize the improvements they need, such as upgrading their CTE teacher education and certification programs.

3. Local Improvement Grants. 70% of the Basic Grant would be competitively awarded among schools with high concentrations of disadvantaged student for upgrading their CTE programs. The grants would be limited in the number of years. They would be at least \$50,000 per year for small schools and \$100,000 per year for large schools. The grants would provide support for local schools to: (1) align and integrate academic and CTE education; (2) increase the placement of student in jobs that use the skills required in high school; (3) increase the continuity in training between secondary and post-secondary institutions; (4) ensure that at-risk students likely to drop out, handicapped students, limited English proficient students, teenage parents, and women enrolled in nontraditional programs obtain the assistance necessary to enroll and succeed in upgraded CTE programs; (5) design and collect performance data intended to measure the success of local improvement effort. Eligibility to compete for local improvement grants should be limited to schools with the largest concentrations of disadvantaged students.
4. Program Demonstration Grants. 10% of Basic Grant funding would be competitively awarded among all the schools in the state to conduct demonstrations and rigorously evaluate innovative approaches to CTE. The intention of the program would be to further the base of knowledge about effective practices in CTE. Schools receiving the award would focus on

developing an effective program for accomplishing one of the six reform objectives.

5. Experimental State Assistance Grants. This would be a \$50 million separate authorization under the National Programs title in Perkins II. This grant would test alternative ways of linking performance and improvement through allocating resources on the basis of information from the performance indicators. The 10% of states that make the most progress in developing the indicators would receive award grants that could be used to help local schools.
6. States should receive 20% of the Basic Grant. This money could be used to develop performance indicators and implement the reform plan at the secondary level. (U.S. Senate, 1989; U.S. House of Representatives, 1989)

APPENDIX C EMAIL AND PHONE CALL SCRIPT

Email Script

Dear [insert last name here],

I am a Ph.D. Candidate in CTE at Virginia Tech. I am in the process of identifying and locating potential respondents for my study. From what I can gather, you were the [insert job title here] from at least 1989 to 1993. If so, your insight, expertise, and experience concerning Virginia CTE would add validity to the study.

My research study examines a particularly important change in within-state funding flow of Perkins money that occurred within the 1990 Perkins Act. The study will have local, state, and university-level CTE professionals from the time of the change (1989 to 1993) identify what consequences the effects of this change had on the effective and efficient operation of secondary CTE.

This is a particularly important study because the legislative changes I am examining have not changed since they were enacted with the 1990 Perkins legislation and, therefore, are still in effect. There is still much debate on whether these legislative changes had a positive or negative impact on secondary CTE in Virginia. Hopefully this study will help to determine what impact it had. Additionally, since the 2012 Perkins reauthorization is coming up soon, my goal is to provide a copy of this study's findings to our state's House and Senate members. Lastly, I would like to forward the findings of this study to the Senate and House subcommittee members that will be in charge of developing the 2012 Perkins Act.

The study will utilize a three round Policy Delphi technique. This research technique will provide local, state, and university-level CTE professionals, such as you, an opportunity to complete three surveys together, but in an anonymous setting. Participants will have a choice of completing these surveys online or by paper copy.

There is no compensation for your time, but your participation will be greatly appreciated. By participating in this study you along with other state, local, and university leaders in CTE in Virginia from that time, will have a chance to not only provide insight into the consequences of this legislative change, but to also provide suggestions as to how legislators could resolve some of the negative consequences that may have resulted from this change.

If the position you held in CTE from 1989 to 1993 does match the position noted above, I would like to send you an information packet about the study and the study's topic. Would you prefer that information packet be sent via email or mail?

If you do not want to participate in this study, please email me with a response indicating this.

Sincerely,

Adam Manley

Ph.D. Candidate in CTE

Virginia Polytechnic Institute and State University

Phone Script

Name of Potential Participant _____

Phone Number _____

Date and Time Called _____

Hi, my name is Adam Manley.

I am a doctoral student in Career and Technical Education at Virginia Tech. I am trying to locate [insert name here].

Mr(s). [insert last name here] were you at one time the [insert known job title here]?

Great! I have been trying to locate local, state, and university level CTE professionals who worked in the field from 1989 to 1993 in Virginia for a study I am doing. Through my research I have found that you may be someone who did work in CTE during this time.

Did you have this position from at least 1989 to 1993? _____

(if no) What positions within CTE did you hold during this timeframe?

Because you do meet the study's criteria, I would really like to send you some more information about the study I am conducting, but first, do you mind if spend a couple of minutes explaining what the study is about?

This study that I am asking you to participate in will examine a particularly important change in within-state funding flow of Perkins money that occurred within the 1990 Perkins Act.

The study will have local, state, and university-level CTE professionals from the time of the change (1989 to 1993), such as yourself, identify what consequences the effects of this change had on the effective and efficient operation of secondary CTE.

This is a particularly important study because the changes I am examining in this study have not been further revised since they were enacted with the 1990 Perkins legislation and are still in effect today. There is still much debate on whether these particular changes have had a positive or negative impact on secondary CTE in Virginia and nationally. Hopefully this study will help to determine what impact it had in Virginia.

Additionally, since the 2012 Perkins reauthorization is coming up soon, my goal is to provide a copy of this study's findings to our state's House and Senate members. Also, I plan to provide this information to our professional organizations, such as ACTE. Lastly, I would like to forward the findings of this study to the Senate and House subcommittee members that will be in charge of developing the 2012 Perkins Act.

Without taking up too much of your time, I can tell you that it s a three-round Policy Delphi study.

You will be asked to complete three different surveys. You have the choice of completing these surveys online or by paper copy.

There is no compensation for your time because as a poor grad student I have limited resources, but I can tell you that your participation will be greatly appreciated and is sorely needed.

By participating in this study, you, along with other state, local, and university leaders in CTE in Virginia from that time, will have a chance to not only provide insight into the consequences of this legislative change, but to also provide suggestions as to how legislators could resolve some of the negative consequences that may have resulted from this change.

Do I have your permission to send you more information about the study? _____

(If no) Is there a particular reason why you do not want to participate?

(Answer – Too long ago)

The information I can send you will provide you with greater details about the study and provide you with more detail about the change and its effects. This may help you remember more from that time. Any input you can provide in the study would be greatly appreciated.

How would you like me to send you the information packet (by mail or email)? _____
What is the address you would like me to use?

Thank you so much for your time [insert name here]! I hope that you will decide to participate in this interesting and important study.

APPENDIX D ROUND 1 SURVEY INSTRUMENT

July 1, 2009

Name
Street Address
City, State Zip

Mr. [last name],

Thank you for your interest in participating in the doctoral research study that I'm conducting at Virginia Tech. Your expertise in the field of Career and Technical Education (CTE) and years of service makes your participation invaluable to the validity of this study.

The purpose of this study is to examine eight specific effects caused by changes to the 1990 within-state allocation of Perkins funding and the associated consequences these effects had on the operational infrastructure of CTE in the state of Virginia. I plan to document both positive and negative consequences regarding this legislative change and its effect on the operational efficiency of secondary CTE in Virginia. To give each effect full consideration, I have chosen a three-round Delphi survey technique which allows individual participants to review and consider other participant responses before responding to the next round.

To assist you, this packet contains background information on the study's topic, as well as the research procedures.

If you choose to participate, please do the following:

- Complete the *Round 1 Survey* (blue sheets) and return it using the envelope provided **or** online at www.1990Perkins.com by **July 17th, 2009**.
 - The Password for the online version is: **cteva**

If you decide NOT to participate, please do the following:

- Answer questions 1 & 2 on the Information Section of the *Round 1 Survey* (blue sheets) and return it using the envelope provided **or** email me at manley@vt.edu indicating you do not want to participate by **July 17th, 2009**.

I hope you find the time to participate in this important study. I look forward to receiving your valuable input!

If you have any questions call at 540-761-2386 or email me at manley@vt.edu.

Sincerely,

R. Adam Manley
Ph.D. Candidate in Career and Technical Education
Virginia Polytechnic Institute & State University

Virginia CTE Delphi Study
Background Information & Research Procedures

Principal Investigator
R. Adam Manley

Background Information

The 1990 amendments to the Perkins Act mandated that 75% of Perkins funding allocated to the states (within-state Perkins) must be distributed directly to local secondary and post-secondary institutions (comprehensive high schools with CTE programs, CTE technical centers, community colleges, trade schools, etc.). Prior to the 1990 amendments, state-level CTE administration, working under the mandates of the 1984 Perkins Act, received all of the within-state Perkins funds and distributed the money as they saw fit while keeping within the boundaries of the federal mandates. During this time (1984-1991), the bulk of the within-state Perkins funding went to local secondary and post-secondary institutions, but approximately 20% to 25% of the within-state funding was retained at the state level for state leadership activities and administrative duties. A large portion of this state-retained Perkins funding went to support teacher education institutions within the state. Another large portion of state-retained Perkins funding went to develop curriculum and instructional materials, provide state-wide professional development and technical assistance, and operate the statewide program evaluation system (VEEVA). It is also important to note that while the majority of the within-state Perkins funding went to localities under the 1984 Perkins Act, the money had to be spent according to federal and, in some instances, state-developed requirements. These state-developed requirements often went beyond the federal requirements and focused on state-level initiatives and mandates. In other words, even though the majority of the within-state Perkins funding under the 1984 Act went to local CTE institutions, it was for purposes, mandates, and initiatives decided upon at the federal and state levels.

As mentioned above, the 1990 Perkins Act decentralized fiscal and administrative control of 75% of the within-state Perkins funds to the localities. The decentralization of both administrative and fiscal control of Perkins funding to the local CTE school divisions created at least eight known and documentable effects. These effects and their descriptions are listed on the next page.

Eight effects of the 1990 Perkins within-state funding change

1. **Decreased state-level Perkins funding for administrative and leadership purposes –**
The 1990 amendments to the Perkins Act decreased state-level Perkins funding for administrative purposes by 2% (from 7% to 5% of total Perkins funding to Virginia, which equated to a 29% cut in Perkins funding). Additionally, it decreased the amount of funding available for state leadership activities by at least 5.5% (from 13% to 8.5%, which equated to a 35% decrease in Perkins funding available for state leadership activities) (AVA, 1989; U.S. Congress, 1984; U.S. Congress, 1990; Jennings, 1991).
2. **Increased local-level Perkins funding –**
The average CTE school division received a 36.2% gain in Perkins funding (VDOE, 1993).
3. **Decreased state's fiscal and administrative authority over Perkins funding-**
The state-level CTE administration experienced a decrease in fiscal control over the spending of Perkins dollars and administrative control over implementation of Perkins mandates and initiatives (Jennings, 1991; Swanson, 1991).
4. **Increased localities' fiscal and administrative authority over Perkins funding –**
The local-level CTE administration experienced an increase in fiscal control over the spending of Perkins dollars and administrative control over implementation of Perkins mandates and initiatives (Jennings, 1991).
5. **Decentralized program evaluation onto the local systems -**
The 1990 amendments changed the manner in which states regulated and evaluated local CTE programs. Prior to the 1990 amendments, state-level CTE administration oversaw the evaluation of local programs. After the enactment of the 1990 Perkins Act, state-level CTE administration took on a monitoring role. In other words, state-level CTE administration monitored the program evaluation procedures that local CTE programs conducted of themselves (Jennings, 1991).
6. **Increased local system's responsibilities and administrative burden -**
By easing state regulatory responsibilities, the 1990 Perkins Act increased the local-level CTE administration's responsibilities for measuring program performance and the administrative burden of managing the implementation of Perkins mandates and Perkins funding (Jennings, 1991).
7. **Decreased Perkins funding to University/College CTE teacher education programs -**
Prior to the 1990 Amendments, Perkins funding was available at the state-level for preservice teacher education institutions. Additionally, many research and professional development grants were awarded to teacher education institutions. After the enactment of the 1990 Perkins Act, this funding stream from the state-level CTE decreased (VDOE, 1991; Lynch, 1998; Camp & Heath-Camp, 2007).
8. **Decreased University/College CTE teacher education personnel -**
Prior to 1990, many teacher education positions were being partially funded by Perkins money. The reduction in federal money led to a decrease in the number of faculty members in CTE teacher education institutions, not only in Virginia, but in all other states (Lynch, 1998; Camp & Heath-Camp, 2007).

On the next page you will find more information about the study and how you will pair these eight effects of the 1990 change in Perkins legislation with a set of operational criteria to identify the positive and negative consequences this legislation had on Virginia's efficient and effective operation of secondary CTE.

Introduction to the Study

The purpose of this study is to examine the effects of the 1990 change to the within-state allocation of federal Perkins funds and identify the consequences these eight effects had on the *operational infrastructure of CTE in Virginia* as it relates to secondary CTE.

As mentioned earlier, you will identify consequences by pairing the eight effects of the legislative change (on page 3) with a set of criteria for the statewide operation of CTE called the *operational infrastructure of CTE in Virginia*.

The *operational infrastructure of CTE in Virginia* is defined as the basic, underlying framework of criteria that state leaders in CTE (state and local administrators and university level teacher educators) must develop, improve and/or maintain in order to effectively and efficiently operate a statewide CTE program. These criteria were derived by the researcher using state and national literature and research. Below are the 13 criteria statements that embody the *operational infrastructure of CTE in Virginia*.

1. Provide state coordination, leadership, and technical assistance for local systems to identify, interpret, and comply with local program standards developed and accepted by the CTE profession, as well as federal and state regulations.
2. Provide relevant professional and leadership development to teachers, administrators, and teacher educators.
3. Develop new programs and curricula to respond to current and projected occupational needs.
4. Formulate new and improve existing operational policies (standards) at the local level.
5. Develop, improve and maintain quality CTE teacher education programs at the bachelor's, master's, and doctoral level.
6. Conduct innovative research projects to assist in meeting unmet CTE needs.
7. Educate and recruit quality CTE teachers and leaders.
8. Operate and maintain local CTE facilities and equipment.
9. Develop and execute external and internal procedures for program planning, development, and evaluation procedures for local CTE programs.
10. Develop, improve, and maintain state and local community relations (e.g., advisory committee, CTSO, other workforce agencies).
11. Develop, improve, and maintain statewide professional associations and CTE teachers and administrators at all levels (local, state and universities).
12. Develop, improve, and maintain student services (e.g., student recruitment and admissions, placement, guidance services).
13. Develop, improve, and maintain fiscal management of local CTE programs.

Delphi Rounds

This Delphi research study will be conducted over a series of three surveys. Each survey constitutes a “round.” You will have two weeks to complete each round. Below is a description of your responsibilities for each round.

Round 1

Round 1 will ask you validate a set of criteria that make up the operational infrastructure of CTE in Virginia. Then you will identify the consequences of the eight documented effects the change in the within-state Perkins funding and program evaluation procedures had on the operational infrastructure of CTE in Virginia. This round will be the most time consuming and is estimated to take 30 to 60 minutes to complete. It is also important to note that you may not have many, if any, consequences to provide in this round. This is fine. In round 2 and 3, your experience within your position will undoubtedly be very helpful and informative.

Round 2

In round 2, you will have an opportunity to view your fellow Delphi respondents’ consequences. You will rate your level of agreement concerning the relevance of each consequence to the legislative change. Additionally you will rate the impact that change had on the statewide operation of secondary CTE (positive to negative).

Round 3

In round 3, you will view the ratings of all of your fellow Delphi respondents and be given a chance to defend or explain your ratings or change them to better align with the group. Additionally, you will be given an opportunity to think reflectively on this change and its consequences and recommend future alterations (if any) to the within-state funding formula and program evaluation procedures.

Confidentiality Statement

Your responses for each Delphi round are completely anonymous. In fact, unless given permission from you, I will not report your name as a participant in the study. This high degree of anonymity allows you to respond freely without risk of individual judgment, ridicule, or bias from the other Delphi respondents. Therefore, any written response you submit during the Delphi rounds will be checked for identifying characteristics and changed to protect your anonymity before it is viewed by other participants.

I want to thank you for your time and potential participation in this important study. As we near another reauthorization of the Carl D. Perkins legislation in 2012, it is my hope that the results of this study can be used by state and federal legislators as a resource when debating and developing Perkins V.

Please proceed to www.1990Perkins.com and complete the Round 1 survey by **July 17, 2009**. The password to access the survey is: **cteva**

1990 Perkins Delphi Study

Round 1

Must be completed and postmarked by July 17, 2009

Principal Researcher:
R. Adam Manley

Participant Information Sheet

1. Name: _____
2. Would you like to participate in this study? (circle one)
 - a. Yes
 - b. No

If **No**, you are finished with the information sheet. Please mail back to me in the envelope provided.
3. Phone number: _____
4. What is your age? _____
5. What was your highest level of education by the end of 1990? (circle one)
 - a. High School
 - b. Associate's
 - c. Bachelor's
 - d. Master's
 - e. Education Specialist or Certificate of Advanced Graduate Study
 - f. Doctorate
6. What was your major job position(s)/duty in Career and Technical Education (CTE) between 1989 and 1993? (circle all that apply)
 - a. State-level CTE administrator, coordinator, or supervisor
 - b. State-level CTE board member
 - c. State-level CTE advisory council member
 - d. Regional-level CTE administrator, coordinator, or supervisor
 - e. University-level CTE researcher
 - f. University-level CTE teacher educator
 - g. Local-level CTE administrator, coordinator, or supervisor
 - h. Local-level advisory council member
 - i. Other (please specify) _____
7. Identify the impact the 1990 within-state Perkins funding change had on your employment status.(circle one)
 - a. No impact – I remained in the same position
 - b. I was forced to make a lateral move with the same organization
 - c. I chose to make a lateral move with the same organization
 - d. I was forced to move to a new position outside of my organization
 - e. I chose to move to a new position outside of my organization
 - f. Other (please specify) _____
8. How many cumulative years of experience do you have in the field of CTE? (please include all CTE related experiences) _____
9. How many cumulative years of experience do you have in the field of CTE in Virginia? _____

10. Overall, what is your perception of the 1990 Perkins amendments to the within-state allocation of funding concerning its effect on state, local, and university-level CTE? (circle one selection for each level)

<u>State-level CTE</u>	<u>Local-level CTE</u>	<u>University-level CTE</u>
a. Positive Effect	a. Positive Effect	a. Positive Effect
b. Negative Effect	b. Negative Effect	b. Negative Effect
c. No Effect	c. No Effect	c. No Effect
d. No Opinion	d. No Opinion	d. No Opinion

11. How would you rate the relationship between each of the following organizations and agencies **before** the 1990 Perkins within-state funding change? (place a check in the box that corresponds with your answer for each of the different relationship levels)

		Relationship With Each Other		
		Strong	Moderate	Weak
Relationship Pairs	State-level CTE & Local-level secondary CTE			
	State-level CTE & University-level CTE teacher education			
	Local-level secondary CTE & University-level CTE teacher education			

12. How would you rate the relationship between each of the following organizations and agencies **after** the 1990 Perkins within-state funding change? (place a check in the box that corresponds with your answer for each of the different relationship levels)

		Relationship With Each Other		
		Strong	Moderate	Weak
Relationship Pairs	State-level CTE & Local-level secondary CTE			
	State-level CTE & University-level CTE teacher education			
	Local-level secondary CTE & University-level CTE teacher education			

13. May I add your name, job title, and years of experience in CTE to the Delphi participant list that will be located in the Appendix section of the study? (This is optional, but because of your work experience, it would add validity to the study)(Circle one)
- a. Yes
- b. No

Please proceed to the next page to begin Round 1.

Delphi Round 1 – Introduction

This Policy Delphi Round consists of two sections. In Section 1, you will validate the researcher-defined operational infrastructure of CTE in Virginia. In Section 2, you will identify consequences of the eight known effects as they relate to the Operational Infrastructure of CTE in Virginia.

Delphi Round 1-Section 1

For Section 1, you will validate the 13 criterion statements that the researcher has identified as embodying the operational infrastructure of CTE in Virginia. You are to indicate your level of agreement regarding the inclusion of each of the 13 criterion statements within the operational infrastructure of CTE in Virginia by circling the corresponding agreement circle under each criterion statement. In addition, you may enter a comment regarding each specific criterion statement (e.g., editorial changes, concerns, suggestions) as well as add a criterion statement you deem was absent from the researcher-defined operational infrastructure of CTE in Virginia at the end of this section.

You will use the following five-point Likert scale when rating your level of agreement on each of the researcher-identified criterion statements:

1. **Strongly Agree (SA)** - This criterion is a required component of the operational infrastructure of CTE in Virginia.
2. **Agree (A)** - This criterion is likely a component of the operational infrastructure of CTE in Virginia.
3. **Neutral (N)** - I have no opinion regarding the inclusion of this criterion in the operational infrastructure of CTE in Virginia.
4. **Disagree (D)** - This criterion likely should **not** be included as a component of the operational infrastructure of CTE in Virginia.
5. **Strongly Disagree (SD)** - This criterion definitely should **not** be included as a component of the operational infrastructure of CTE in Virginia.

Operational Infrastructure of CTE in Virginia Criteria Statements

When reading these statements, you may want to preface each statement with the following phrase:

In order for CTE in Virginia to operate effectively and efficiently, leaders and administrators in CTE (local, state, and/or university-level) must:

1. Provide state coordination, leadership, and technical assistance for local systems to identify, interpret, and comply with local program standards developed and accepted by the CTE profession, as well as federal and state regulations.

(SA) (A) (N) (D) (SD)

Comment (optional): _____

2. Provide relevant professional and leadership development to teachers, administrators, and teacher educators.

(SA) (A) (N) (D) (SD)

Comment (optional): _____

3. Develop new programs and curricula to respond to current and projected occupational needs.

(SA) (A) (N) (D) (SD)

Comment (optional): _____

In order for CTE in Virginia to operate effectively and efficiently, leaders and administrators in CTE (local, state, and/or university-level) must:

4. Formulate new and improve existing operational policies (standards) at the local level.

☐ SA ☐ A ☐ N ☐ D ☐ SD

Comment (optional): _____

5. Develop, improve, and maintain quality CTE teacher education programs at the bachelor's, master's and PhD level.

☐ SA ☐ A ☐ N ☐ D ☐ SD

Comment (optional): _____

6. Conduct innovative research projects to assist in meeting unmet CTE needs

☐ SA ☐ A ☐ N ☐ D ☐ SD

Comment (optional): _____

7. Educate and recruit quality CTE teachers and leaders.

☐ SA ☐ A ☐ N ☐ D ☐ SD

Comment (optional): _____

8. Operate and maintain local CTE facilities and equipment.

☐ SA ☐ A ☐ N ☐ D ☐ SD

Comment (optional): _____

9. Develop and execute external and internal procedures for program planning, development and evaluation procedures for local CTE programs.

☐ SA ☐ A ☐ N ☐ D ☐ SD

Comment (optional): _____

10. Develop, improve, and maintain state and local community relations (advisory committee, CTSO, other workforce agencies...).

☐ SA ☐ A ☐ N ☐ D ☐ SD

Comment (optional): _____

11. Develop, improve, and maintain statewide professional associations and CTE teachers and administrators at all levels (local, state and universities).

☐ SA ☐ A ☐ N ☐ D ☐ SD

Comment (optional): _____

In order for CTE in Virginia to operate effectively and efficiently, leaders and administrators in CTE (local, state, and/or university-level) must:

12. Develop, improve, and maintain student services (e.g... Student recruitment and admissions, placement, and guidance services).

☐ SA ☐ A ☐ N ☐ D ☐ SD

Comment (optional): _____

13. Develop, improve, and maintain fiscal management of local CTE programs.

☐ SA ☐ A ☐ N ☐ D ☐ SD

Comment (optional): _____

Add criterion statement here (optional):

Please proceed to Section 2 on the next page

Delphi Round 1 – Section 2

In this section, you will identify the consequences of the eight known effects of the 1990 change in the within-state funding formula and program evaluation procedures as they relate to the operational infrastructure of CTE in Virginia.

While completing section two, it is important to consider the following things:

- This study only focuses on the consequences this policy change had on the operational infrastructure of CTE as it relates to secondary CTE. Therefore, consequences this policy change may have had on post-secondary CTE (e.g., community college, trade schools) are beyond the scope of this study and therefore should not be submitted as consequences.
- The Delphi process ensures that your comments are completely anonymous to everyone (readers of the study, dissertation committee members, and other Delphi participants) with the exception being the researcher. Therefore, please submit any consequence you believe may have occurred as a result of one or more of the eight known effects as it relates to secondary CTE. In rounds two and three, you and your fellow Delphi participants will determine if your suggested consequence is generally accepted to be a consequence of these effects.
- You are not required to identify consequences under each of the thirteen criterion statements. Some of the criterion statements may have not been affected by the 1990 Perkins within-state funding change.
- The words *effect* and *consequence* are synonyms. They both are defined as something that naturally or logically follows an action or condition (American Heritage College Dictionary, 2007). For clarity, the researcher decided to use "consequence" to define something that followed one of the eight effects of the 1990 Perkins within-state funding change and "effect" to define the occurrences that followed the 1990 Perkins within-state funding change.

Carefully read each criterion statement that embodies the operational infrastructure of CTE in Virginia. Then using the eight effects located on page 3 of the background information, list any consequences you believe were a result of these effects as they relate to that particular criterion statement. If you agree with the example provided, you can list it as one of your consequences.

In order for CTE in Virginia to operate effectively and efficiently, leaders and administrators in CTE (local, state, and/or university-level) must:

1. Provide state coordination, leadership, and technical assistance for local systems to identify, interpret, and comply with local program standards developed and accepted by the CTE profession, as well as federal and state regulations.

Please list the consequences (if any) of these effects as they relate to the criterion statement.

Example: Reduced state's ability to provide technical assistance due to decreased funding at the state level.

Consequence(s): _____

In order for CTE in Virginia to operate effectively and efficiently, leaders and administrators in CTE (local, state, and/or university-level) must:

2. Provide relevant, professional and leadership development to teachers, administrators and teacher educators.

Please list the consequences (if any) of these effects as they relate to the criterion statement.

Example: Reduced resources for coordinated state-level professional development activities.

Consequence(s): _____

3. Develop new programs and curricula to respond to current and projected occupational needs.

Please list the consequences (if any) of these effects as they relate to the criterion statement.

Example: Increased the number of local CTE programs that best served the occupational needs of the local community.

Consequence(s): _____

4. Formulate new and improve existing operational policies (standards) at the local level.

Please list the consequences (if any) of these effects as they relate to the criterion statement.

Example: Reduced state-level CTE's ability to help support and oversee the implementation of local program policies.

Consequence(s): _____

5. Develop, improve, and maintain quality CTE teacher education programs at the bachelor's, master's and PhD level.

Please list the consequences (if any) of these effects as they relate to the criterion statement.

Example: Increased the work loads and responsibilities of remaining CTE teacher educators.

Consequence(s): _____

In order for CTE in Virginia to operate effectively and efficiently, leaders and administrators in CTE (local, state, and/or university-level) must:

6. Conduct innovative research projects to assist in meeting unmet CTE needs

Please list the consequences (if any) of these effects as they relate to the criterion statement.

Example: Reduced the amount of federally-funded, university-level research in CTE.

Consequence(s): _____

7. Educate and recruit quality CTE teachers and leaders.

Please list the consequences (if any) of these effects as they relate to the criterion statement.

Example: Increased the number of provisionally licensed teachers.

Consequence(s): _____

8. Operate and maintain local CTE facilities and equipment.

Please list the consequences (if any) of these effects as they relate to the criterion statement.

Example: Increased local-level CTE's ability to maintain their facilities and equipment.

Consequence(s): _____

9. Develop and execute external and internal procedures for program planning, development and evaluation procedures for local CTE programs.

Please list the consequences (if any) of these effects as they relate to the criterion statement.

Example: Decreased state-level CTE's ability to compare districts and provide comprehensive dissemination of best practices.

Consequence(s): _____

In order for CTE in Virginia to operate effectively and efficiently, leaders and administrators in CTE (local, state, and/or university-level) must:

10. Develop, improve, and maintain state and local community relations (advisory committee, CTSO, other workforce agencies...).

Please list the consequences (if any) of these effects as they relate to the criterion statement.

Example: Reduced state-level CTE's ability to assist local secondary CTE schools in developing advisory committees.

Consequence(s): _____

11. Develop, improve, and maintain statewide professional associations and CTE teachers and administrators at all levels (local, state and universities).

Please list the consequences (if any) of these effects as they relate to the criterion statement.

Example: Decrease in professional membership in associations due to decrease of funding for travel and conference participation.

Consequence(s): _____

12. Develop, improve, and maintain student services (e.g.. Student recruitment and admissions, placement, and guidance services).

Please list the consequences (if any) of these effects as they relate to the criterion statement.

Example: Increased local-level CTE's responsibility to develop and provide CTE student services.

Consequence(s): _____

13. Develop, improve, and maintain fiscal management of local CTE programs.

Please list the consequences (if any) of these effects as they relate to the criterion statement.

Example: Increased local-level CTE's flexibility concerning the spending of Perkins funding.

Consequence(s): _____

You have completed Round 1!

Please keep the white papers and mail this blue packet using the envelope provided.

APPENDIX E
THE OPERATIONAL INFRASTRUCTURE OF CTE IN VIRGINIA

1. Provide state coordination, leadership, and technical assistance for local systems to identify, interpret, and comply with local program standards developed and accepted by the CTE profession, as well as federal and state regulations.
2. Provide relevant professional and leadership development to teachers, administrators, and teacher educators.
3. Develop new programs and curricula to respond to current and projected occupational needs.
4. Formulate new and improve existing operational policies (standards) at the local level.
5. Develop, improve and maintain quality CTE teacher education programs at the bachelor's, master's, and doctoral level.
6. Conduct innovative research projects to assist in meeting unmet CTE needs.
7. Educate and recruit quality CTE teachers and leaders.
8. Operate and maintain local CTE facilities and equipment.
9. Develop and execute external and internal procedures for program planning, development, and evaluation procedures for local CTE programs.
10. Develop, improve, and maintain state and local community relations (e.g., advisory committee, CTSO, other workforce agencies).
11. Develop, improve, and maintain statewide professional associations and CTE teachers and administrators at all levels (local, state and universities).
12. Develop, improve, and maintain student services (e.g., student recruitment and admissions, placement, guidance services).
13. Develop, improve, and maintain fiscal management of local CTE programs.

APPENDIX F ROUND 2 SURVEY INSTRUMENT

August 12, 2009

John Doe
55555 East Drive
Richmond, VA 88888

Mr. Doe,

I want to thank you for your participation in the first round of this study. It truly shows your continued commitment to helping the field of CTE. Round 1 results indicate agreement regarding the thirteen criteria statements that embody the Operational Infrastructure of CTE in Virginia. Therefore, no changes were made to those statements (copies are attached for your reference).

A total of 648 “consequences” of the 1990 Perkins Act were submitted. Each was reviewed for redundancy, correct placement, format, and relevancy to the study’s purpose. The review resulted in the identification of 225 unique consequences linked to the eight documented effects the 1990 Perkins Act had on secondary CTE in Virginia. General comments, criticisms, and praises were separated from participant-identified consequences and will be included in the dissertation’s “conclusions and appendices” as appropriate.

Round 2 asks that you “rate” the 225 consequences on two scales:

1. The RELEVANCY of the consequence to the Act.
2. The EFFECT each consequence had on the operation of CTE in Virginia.

Please allow 90 minutes to complete the Round 2 survey. Comments can be made by using the “Comment Sheet” or adding a comment after a specific consequence. This information will be shared with all participants in a condensed form during Round 3 (final).

You have two submission options:

1. US Mail: complete the *Round 2 Survey* (ivory sheets) and return it using the envelope provided.
2. Online at www.1990Perkins.com (password: **cteva**) Additionally information about the study is also available at this website.

Regardless of how you respond, please **complete Round 2 by August 25, 2009** and THANK YOU in advance for your continued participation in this important study.

Sincerely,

R. Adam Manley

P.S.: My new contact information: 2961 Hunters Meadows, Kalamazoo, MI 49048 (269-270-3528)

Operational Infrastructure of CTE in Virginia

1. Provide state coordination, leadership, and technical assistance for local systems to identify, interpret, and comply with local program standards developed and accepted by the CTE profession, as well as federal and state regulations.
2. Provide relevant professional and leadership development to teachers, administrators, and teacher educators.
3. Develop new programs and curricula to respond to current and projected occupational needs.
4. Formulate new and improve existing operational policies (standards) at the local level.
5. Develop, improve and maintain quality CTE teacher education programs at the bachelor's, master's, and doctoral level.
6. Conduct innovative research projects to assist in meeting unmet CTE needs.
7. Educate and recruit quality CTE teachers and leaders.
8. Operate and maintain local CTE facilities and equipment.
9. Develop, improve, and maintain statewide professional associations and CTE teachers and administrators at all levels (local, state and universities).
10. Develop and execute external and internal procedures for program planning, development, and evaluation procedures for local CTE programs.
11. Develop, improve, and maintain state and local community relations (e.g., advisory committee, CTSO, other workforce agencies).
12. Develop, improve, and maintain student services (e.g., student recruitment and admissions, placement, guidance services).
13. Develop, improve, and maintain fiscal management of local CTE programs.

Eight Effects of the 1990 Carl D. Perkins Act

1. Decreased state-level Perkins funding
2. Increased local-level Perkins funding
3. Decreased state's fiscal and administrative control
4. Increased localities' fiscal and administrative control
5. Decentralized program evaluation onto the local systems
6. Decreased Perkins funding to University/College CTE teacher education programs
7. Reduced University/College CTE teacher education personnel
8. Increased local system's responsibilities and administrative burden

1990 Perkins Delphi Study

Round 2

Must be completed and postmarked by August 26, 2009

Principal Researcher:
R. Adam Manley

Delphi Round 2 – Introduction

This Delphi Round consists of one section that contains 14 subsections (one for each of the 13 criterion statements and one for general consequences). In this Round, you will rate the following for each consequence:

3. The relevancy of the consequence to the 1990 Perkins Act changes to the within-state funding formula and program evaluation procedures.
4. The effect this consequence had on the operation of secondary CTE in Virginia

Additionally, you will be given an opportunity, if you wish, to comment on your ratings and/or comment on each consequence using the comment sheet.

Delphi Round 2 – Rating Scales

Below are the rating scales you will use for this round. Please review them before beginning.

You will use the following three-point scale when **rating the relevancy** of each of the participant-identified consequences to the changes in the 1990 Perkins Act.

1. **Relevant (R)** – This consequence was **most likely a result** of the changes to the within state funding formula and its accompanying amendments that occurred with the passage of the 1990 Carl D. Perkins Act.
2. **Neutral (NEU)** – I either have insufficient knowledge or don't care as to the relevancy of this consequence.
3. **Irrelevant (I)** - This consequence was **most likely not a result** of the changes to the within state funding formula and its accompanying amendments that occurred with the passage of the 1990 Carl D. Perkins Act.

You will use the following three-point scale when **rating the effect** of each of the participant-identified consequences as they relate to the operation of secondary CTE in Virginia:

1. **Positive (POS)** – This consequence had a positive effect on the operation of secondary CTE in Virginia.
2. **Neutral (NEU)** – This consequence had neither a positive nor negative effect on the operation of secondary CTE in Virginia.
3. **Negative (NEG)** - This consequence had a negative effect on the operation of secondary CTE in Virginia.

Delphi Round 2 – Providing Comments

Lastly, you will be given an opportunity to comment on any or all of the consequences. You can comment by either using the comment sheet provided or by commenting by the actual consequence.

I strongly encourage you to comment on your rating or the consequence if you feel the need to. The comment can be anything (explanation of your rating, opposing argument, clarification etc...) as long as it relates to the consequence. I do ask that you keep your comments as short as possible since many consequences have been identified. Long comments will be revised and shortened. Any characteristics that could be identifying will be removed and redundant comments will be combined. In the last round, Round 3, I will post the pertinent comments under each consequence and you will be given an opportunity to change the ratings you will provide in this round, if you wish.

Round 2 – Directions

Circle your corresponding relevancy and effect rating for each of the consequences. If you wish to add a comment, use the comment sheet. When complete, mail all the ivory-colored sheets back to me in the envelope provided.

Criterion 1 - Provide state coordination, leadership, and technical assistance for local systems to identify, interpret, and comply with local program standards developed and accepted by the CTE profession, as well as federal and state regulations.

Participant-identified Consequences

1. Reduced state leadership activities due to decreased state-level Perkins.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

2. Decreased state-level CTE's ability to coordinate local CTE programs.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

3. Decreased state-level CTE's ability to identify trends and innovative programs

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

4. Decreased university-level CTE's ability to provide any coordination, leadership, or technical assistance at the state and local-level.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

5. Decreased contact between state-level CTE and local-level CTE.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

6. Weakened programs due to diminished state involvement and support in establishing and complying with standards and accountability measures.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

7. Diminished state-level CTE's ability to visit schools and give input and advice on how to make local-level decisions.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

8. Resulted in happenstance program structure and policies at the local-level

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

9. Reduced local CTE communication with other localities. Only communication between state and local systems took place.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

10. The decreased state-level support and involvement encouraged school divisions to give their CTE administrators additional duties.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

11. Resulted in inconsistencies in local-level CTE program administration and evaluation.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

12. Reduced state-level CTE's ability to monitor the quality of local CTE programs.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

13. Removed some of the state-level politics involved in decision making. Especially related to teacher hiring, program offerings, and teacher assignments.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

14. Reduced the one size fits all approach to CTE programs.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

15. Increased local-level CTE's opportunity to customize programs to local needs and standards.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

16. Decreased state-level support increased the likelihood that local-level CTE directional changes were based on political motives or hunches rather than solid research.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

17. Decreased local-level CTE's ability to see the "big picture" concerning program decisions.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

18. Increased local-level Perkins funding provided for additional resources to localities for providing locally-sponsored technical updates for teacher and administrators.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

19. Resulted in the development of state-wide performance standards developed in conjunction with the localities and the community college system.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

20. Increased administrative burden on local-level CTE personnel especially in smaller school divisions.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

21. Increased networking between local-level CTE school divisions concerning this criterion.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

22. Resulted in state-level CTE adjusting the method in which they provided technical assistance.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

23. Reduced state-level CTE's ability to provide local technical assistance due to decreased funding at the state level.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

24. Created confusion among local-level CTE administrators concerning the application of Perkins funding.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

25. Reduced individual technical assistance to teachers in the field.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

26. Reduced state-level staff and increased the workload of remaining state staff.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

Criterion 2 - Provide relevant, professional and leadership development to teachers, administrators and teacher educators.

Participant-identified Consequences

1. Reduced state-level CTE's ability to plan coordinate, and deliver relevant professional & leadership development activities.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

2. Increased local coordination of professional development.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

3. Lack of professional development, increased the number of CTE teachers leaving the profession.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

4. Reduced the number of T&I teacher education courses held at the local-level.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

5. Resulted in teacher education programs that do not prepare teachers for their role.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

6. Decreased professional development activities by the state and universities.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

7. Decreased leadership development activities by the state and universities.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

8. Decreased the opportunity for leadership development for teachers, administrators, and collaboration with teacher educators.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

9. Increased the quality of the annual CTE state conference.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

10. Reduced the amount of teamwork and information sharing among teachers and administrators.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

11. Reduced CTE program specific professional development which created an emphasis on overall CTE staff development.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

12. Modified the role of state-level CTE and teacher education personnel in providing and coordinating leadership and direction.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

13. Decreased local-level CTE funding participants cost for attending state-level CTE professional development activities.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

14. Decreased regional inservice activities.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

15. Reduced funding to support the participation of state-level CTE staff in regional conferences & national conferences

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

16. Reduced funding to support the participation of university/college personnel in regional conferences & national conferences.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

17. Resulted in the combination of CTE professional development with other subject areas and grade levels within the K-12 system.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

18. Redirected university-level resources from administrator training to secondary teacher certification.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

19. Established a free market system for professional and leadership development services to localities.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

20. Increased responsibilities of professional organizations for providing the leadership for professional development activities.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

21. Reduced the participation of local teachers in professional development activities outside of their school divisions.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

22. Increased resources for locally sponsored professional development programs targeted to specific needs of teachers and administrators.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

23. Reduced cooperative strategic planning between state-level CTE and teacher education institutions

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

Criterion 3 - Develop new programs and curricula to respond to current and projected occupational needs.
Participant-identified Consequences

1. Increased the number of locally developed CTE programs and curricula that best served the occupational needs of the local community.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

2. Resulted in many of newly developed programs and curriculum lacking a global perspective.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

3. Increased networking with other localities for developing new programs and curriculum to respond to current and projected occupational needs.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

4. Resulted in an inability for local-level CTE programs to keep up with changing technology trends.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

5. Decreased the number of new CTE programs.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

6. Decreased the number of overall student enrollment in CTE programs.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

7. Resulted in Virginia reemerging as a leader in curriculum development.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

8. Increased and strengthened participation in Tech Prep program development through community college grants.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

9. Increased local school division participation in high schools that work programs designed to integrate academic and CTE.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

10. Decreased funding at the state-level for the development and dissemination of new programs and curricula, as well as updating existing programs and curricula.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

11. Resulted in the production of uniform curriculum that integrated academic SOLs and industry standards that included industry certifications where applicable.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

12. Increased funding at the local-level for developing new programs and curriculum.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

13. Increased the burden on local school divisions that did not have supervisor staff to assist in new program and curriculum development and to ensure that programs and curricula were based on current research and best practices.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

14. Resulted in state-level CTE's curriculum development losing its direction.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

15. Resulted in some local-level CTE school divisions reducing the amount of CTE programs in their middle and high schools and moving them to the regional career centers.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

16. Increased the number of computer technology and keyboarding classes thus reducing the number of traditional CTE program offerings.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

17. Resulted in an "explosion" of new courses everywhere and the attitude that more is better.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

18. Increased the difficulty of identifying and disseminating new, successful programs that local innovations produced.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

19. Increased the difficulty to rigorously test local innovations to see if they really worked.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

20. Decreased state-level CTE's ability to develop and support statewide curriculum development for new CTE programs.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

21. Resulted in a reliance on untrained CTE teachers to develop new programs and curriculum.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

22. Restricted university-level personnel and faculty from assisting local CTE programs to develop new programs and curricula to respond to current and projected occupational needs.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

Criterion 4-Formulate new and improve existing operational policies (standards) at the local level.

Participant-identified Consequences

1. Reduced state-level CTE's ability to help support and oversee the implementation of local program policies.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

2. Decreased state-level CTE's ability to create and expand CTE programs.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

3. Resulted in a lack of local program policies.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

4. Resulted in decreased coordination of local operational policies.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

5. Increased local-level CTE's responsibility and decision making for formulating new, as well as improving existing operational policies

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

6. Resulted in no change in state support and oversight in the formulation of new, as well as the improving of existing operational policies at the local-level.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

7. Improved local operational policies especially in the areas of program completers and follow up.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

8. Increased the opportunity for local-level CTE to enact or dismiss program policies that did or did not meet short sided or budget priorities.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

9. Reduced opportunities for teacher education faculty to provide assist in the formulation of and improving of existing operational policies at the local-level.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

10. Increased the difficulty of identifying and disseminating successful local program policies.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

11. Limited contact between local-level administrators and state-level staff concerning the formulation of new, as well as the improving of existing program policies at the local-level

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

12. The increase in local-level accountability increased the need for state support concerning operational policies.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

Criterion 5 - Develop, improve and maintain quality CTE teacher education programs at the bachelor's, master's, and doctoral level.

Participant-identified Consequences

1. Increased the workloads and responsibilities of remaining CTE teacher educators.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

2. Decreased the number of CTE teacher education programs and courses at Virginia colleges and universities.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

3. Reduced the influence CTE teacher educators had within the university structure.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

4. Resulted in CTE teacher education programs inability to keep abreast of changes in Business and Information Technology.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

5. Decreased interest in teachers pursuing advanced CTE degrees.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

6. Decreased the relevancy of CTE teacher education programs.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

7. Resulted in CTE teacher education programs becoming "generic" rather than program specific.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

8. Resulted in the transferring of CTE teacher education faculty to other duties within the institution.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

9. Decreased the ability of colleges and universities to implement new CTE programs at all levels.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

10. Eliminated CTE teacher education special projects and grants.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

11. Resulted in a need to redesign teacher preparation programs regarding the teaching of new knowledge and skills.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

12. Reduced the number of services CTE teacher educators could offer to the CTE community such as inservice classes at local-level CTE schools

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

13. Reduced leadership positions at the universities which resulted in less representation at higher organizational levels.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

14. Resulted in state-level CTE's ability to influence higher education.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

15. Increased the teachers and administrators cost of attending courses and workshops.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

16. Increased the difficulty of locating and recruiting quality CTE teachers.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

17. Resulted in a shortage of CTE teachers in Virginia.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

18. Decreased the quality of training at all levels of CTE teacher education programs.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

19. Increased the need to search out of state for qualified CTE teacher candidates.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

20. Decreased CTE teachers' opportunity to update skills, find courses for full licensure, or to reinvent themselves to work with emerging technologies.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

Criterion 6 – Conduct innovative research projects to assist in meeting unmet CTE needs.

Participant-identified Consequences

1. Reduced the amount of federally funded, university-level research

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

2. Increased the need to involve teacher educators in the process of selecting research needs to be addressed.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

3. Resulted in research that did not address the needs of teachers.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

4. Increased state-level research initiatives such as SREB's High Schools That Work and the NASDCTE's Leadership in Career Pathways.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

5. Decreased all level's ability to assist other levels interpret and implement best research practices.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

6. Eliminated CTE program specific research.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

7. Reduced the amount of CTE research conducted and disseminated at all levels.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

8. Reduced the university-level CTE's ability to provide essential data for decision making at the state and local levels.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

9. Increased local-levels ability to support research and development.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

10. Reduced state-level funding for CTE research projects.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

11. Required university-level researchers to search for research opportunities/funding that not only met some CTE priority, but also looked “good” in the eyes of university administrators.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

12. Decreased state-level funding for research resulted in an increase in the state's ability to conduct innovative research projects to assist in meeting unmet CTE needs.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

Criterion 7 – Educate and recruit quality CTE teachers and leaders.

Participant-identified Consequences

1. Increased the number of provisionally licensed teachers.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

2. Increased the number of CTE teachers hired for teaching positions in program areas they were not trained to teach.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

3. Increased the need for researching options to certify non-degree teachers.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

4. Decreased ability to attract qualified individuals to the field of CTE.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

5. Increased local-level CTE's ability to add teachers and additional support to teachers.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

6. Shifted hiring priorities away from candidates that have knowledge of running CTE programs.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

7. Reduced staffing which created a decline in communication.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

8. Increased the number of CTE teachers hired for teaching positions in program areas they were not trained to teach in.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

9. Increased emphasis on retraining business and industry professionals to meet the teacher needs of local-level CTE.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

10. Reduced the ability to respond to critical shortage areas.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

11. Increased the number of provisionally licensed teachers who lacked professional teaching skills.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

12. Decreased the number of teachers who supported professional associations that promote and advance CTE programs.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

13. Decreased the number of CTE directors at the local-level that had a background in CTE and an understanding of CTE program administration.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

14. Decreased the number of students, teachers, and administrators attending and completing in university/college courses and programs.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

15. Reduced the sources available for recruiting new teachers.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

16. Reduced the ability of colleges to recruit and education qualified CTE teachers and leaders.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

17. Produced a shortage of CTE teacher educators.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

18. Increased the number of alternatively licensed CTE teachers.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

19. Encouraged the state to lower requirements for CTE teachers that soon became outdated.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

20. Decreased the number of CTE programs due to poorly trained provisionally licensed teachers.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

21. Resulted in the underlying philosophy of CTE being lost within the CTE profession due to poorly trained provisionally licensed teachers.

Relevancy Rating: REL NEU IRR *Effect Rating:* POS NEU NEG

22. Increased the number of CTE teachers completing general education master's programs rather than CTE specific master's programs.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

23. Increased the burden of local administration to train qualified CTE teachers.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

24. Decreased teacher quality in CTE.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

Criterion 8 – Operate and maintain local CTE facilities and equipment.

Participant-identified Consequences

1. Increased local-level CTE's ability to maintain their facilities and equipment.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

2. Resulted in a decrease of real world applications for students.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

3. Increased local-level CTE's ability to emulate actual work experiences by emulating facilities and equipment found in the real world.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

4. Reduced facility management systems.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

5. Increased the difficulty of purchasing and maintaining adequate facilities and equipment due to constraints on local budgets.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

6. Increased local-level CTE's accountability concerning updating and purchasing new equipment.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

7. Increased federal funds for equipment purchases and other non-personnel costs at the local-level.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

8. Decreased the involvement of university-level faculty/personnel in supporting local-level CTE regarding this criterion.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

9. Improved local-level facilities and equipment.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

10. Resulted in local-level facility and equipment improvement that was haphazard and lacked focus.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

11. Increased the burden on local school divisions to purchase highly-priced state of the art equipment that federal funding could not cover.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

12. Eliminated statewide planning approach to priorities.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

13. Limited federal dollars for facility maintenance and improvement.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

14. Increased local-level CTE's responsibility and burden to operate and maintain local CTE facilities and equipment

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

Criterion 9 - Develop, improve, and maintain statewide professional associations and CTE teachers and administrators at all levels (local, state and universities).

Participant-identified Effects

1. Decreased professional memberships in associations due to decrease in funding for travel and conference participation.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

2. Decrease in professional membership in associations due to greater emphasis on local staff development activities.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

3. Increased the responsibility of individual CTE teachers to plan statewide professional organization activities for students.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

4. Decreased the number of professional association meetings.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

5. Decreased state-level CTE support for student organizations (CTSOs).

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

6. Placed greater emphasis on CTE professional organizations to provide staff development for their teachers and members.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

7. Lack of involvement of university-level CTE resulted in less effective state organizations.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

8. Reduced state and university-level contact about the value of professional organizations, reduced memberships in professional organizations.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

9. Reduced the number of administrators and teachers attending professional conferences.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

10. Decreased resources to promote and advance professional CTE programs.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

11. Reduced state-level CTE funding for local and university level professional inservice that was provided by professional organizations.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

12. Lack of state and university support resulted in a lack of advice and counsel for teacher associations.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

13. Decreased coordination between CTE program area professional associations.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

14. Increased local support for teacher/administrator participation in professional associations.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

15. Resulted in state administrators having less influence over their state and local CTE professional organizations.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

Criterion 10- Develop and execute external and internal procedures for program planning, development and evaluation procedures for local CTE programs.

Participant-identified Consequences

1. Decreased state-level CTE's ability to compare districts and provide comprehensive dissemination of best practices concerning this criterion.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

2. Increased state-level CTE's ability to compare districts and provide comprehensive dissemination of best practices.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

3. Resulted in program implementation, improvement, and development becoming uncoordinated and unstructured.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

4. Provided an opportunity to initiate a new CTE state evaluation based on standards identified by federal legislation.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

5. Placed greater emphasis on local school divisions in the establishment and development of new programs.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

6. Lack of communication between all levels resulted in a decrease in learning from other's successes and failures.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

7. Reduced the opportunity for program specific evaluations rather than overall CTE evaluations.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

8. Increased federal funds that may be used for program planning, development, and evaluation.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

9. Increased complexity of the vocational computerized management system.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

10. Increased the number of academically underperforming students in CTE programs without regard to their career needs.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

11. Decreased local accountability and led to inconsistencies in the administration of program planning, development, and evaluation procedures.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

12. Placed an additional burden on local personnel for planning, development, and evaluation.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

13. Decreased state-level assistance from the state for planning, developing, and evaluating.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

14. Eliminated most program planning except what the localities wanted to do without thought of what was taking place in other localities or what was best for CTE program overall.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

15. Improved program planning, development, and evaluation in response local advisory committees, industry needs, and economic development.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

16. Decreased research and testing relative to the curriculum and standards for new programs.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

17. Resulted in state-level CTE and university-level teacher educators reducing their involvement with evaluation designs, collection, and interpretation of data.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

18. Resulted in the elimination of CTE-related data as it has been merged with other school reporting (e.g. completer report is now part of the division End of Year report).

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

19. Decreased networking opportunities between localities to share best practices in this area.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

20. Increased networking opportunities between localities to share best practices in this area.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

21. Resulted in students not being prepared for employment.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

Criterion 11 - Develop, improve, and maintain state and local community relations (e.g., advisory committee, CTSO, other workforce agencies).

Participant-identified Consequences

1. Reduced state-level CTE's ability to assist local secondary CTE schools in developing, growing, and maintaining advisory committees.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

2. Decreased state-level fiscal and administrative control resulted in less emphasis on the development and maintenance of local and state advisory committees.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

3. Resulted in CTE educational agency (all levels) becoming non-responsive to the needs of the employment community.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

4. Resulted in independent coordination of advisory committee members rather than coordination between all levels of CTE.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

5. Resulted in local-level CTE relying on the support of business and industry instead of state to maintain community relations.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

6. Placed greater emphasis and responsibility on local advisory committees.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

7. Eliminated federal funding for the state advisory committee appointed by governor.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

8. Increased federal funds that may be used to support local advisory committee activities.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

9. Eliminated the development, growth, and maintenance of state and local community relations.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

10. Eliminated regional activities that supported local-level CTE in this area.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

11. Shifted the role of state and university level personnel from assisting local-level CTE to advising them.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

12. Loss of teacher education programs resulted in a loss of preservice and inservice instruction on community relations and advisory committees.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

Criterion 12 - Develop, improve and maintain student services (e.g., Student recruitment and admissions, placement, and guidance services).

Participant-identified Consequences

1. Increased local-level CTE's responsibility and funding to develop and provide CTE student services.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

2. Reduced state support of student recruitment programs and guidance services due to decreased state-level funding.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

3. Improved local-level CTE guidance services.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

4. Reduction in state involvement resulted in a decrease in the relationship between CTE school divisions and their respective high schools.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

5. Lack of state emphasis and support reduced the number of program services and counseling services.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

6. Resulted in an inability to maintain student services at previous levels.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

7. Reduced state-level CTE's ability to share best practices with local secondary CTE schools in developing, growing, and maintaining student services.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

8. Increased guidance counselors' attention to program completions, placement, and follow up activities.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

9. Improved the collection and use of local student data.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

10. Resulted in localities developing recruiting initiatives and services to increase enrollment.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

11. Increased the opportunity for local-level CTE to provide actual work experience programs and guidance.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

Criterion 13 - Develop, improve and maintain fiscal management of local CTE programs.

Participant-identified Consequences

1. Increased local-level CTE's flexibility concerning the spending of Perkins funding

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

2. Resulted in carefully planned local-level CTE program expenditures due to the strict criteria used to annually approve the localities annual plan.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

3. Reduced state-level CTE's support and guidance regarding fiscal management of local-level CTE.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

4. Increased the quality of CTE programs.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

5. Increased the workload of local-level CTE administrators by increasing paperwork and forms.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

6. Decreased state-level CTE's ability to monitor and insure compliance with federal laws and requirements.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

7. Resulted in some school districts replacing local funds with Perkins funds which resulting in no additional benefit to the locality.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

8. Decreased funding for local-level CTE supervisors and directors has hampered fiscal management.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

9. Decreased local-level CTE flexibility in spending as the locally allocated Perkins money had to initially be spent to support

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

10. Special Needs population in CTE programs.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

11. Increased state-level CTE's authority since local annual plans were required to be approved by the state.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

General Consequences – These are consequences that were identified by participants, but were too broad to categorize under the original 13 criteria statements.

Participant-identified Consequences

1. Reduced the size, scope, and influence of CTE in Virginia

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

2. Influenced the move of CTE from secondary level to community college level.

Relevancy Rating: REL NEU IRR Effect Rating: POS NEU NEG

You are finished with Round 2. Please mail all ivory-colored sheets back to me using the envelope provided. Thank you for participating! In a few weeks you will receive the final Round.

Round 2 Comment Sheet

Directions:

Please put the criterion number (1-13) and the consequence number to the left of each one of your comments.

<u>Criterion #</u>	<u>Consequence #</u>	<u>My Comment</u>
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Round 2 Comment Sheet

Directions:

Please put the criterion number (1-13) and the consequence number to the left of each one of your comments.

<u>Criterion #</u>	<u>Consequence #</u>	<u>My Comment</u>
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APPENDIX G
ROUND 3 SURVEY INSTRUMENT

September 22, 2009

NAME
ADDRESS
ADDRESS

Dr.[LAST NAME],

Thank you for your continued participation in this study, your hard work and professional dedication has been inspiring. We are now ready to complete the third and final round of the survey.

Round 3 asks you to:

1. Review the overall *relevancy* and *effect rating* for each of the 224 consequences and any associated comments for other participants;
2. Consider the overall ratings and comments as compared to your ratings and feeling on the topic;
3. Change or retain your relevancy and/or effect rating;
4. Provide your overall impression of modifications made to the within-state funding allocation and accompanying amendments that occurred with the passage of the 1990 Perkins Act;
5. Provide suggestion(s), if any, as to the direction of future Perkins legislation.

Please allow 60 minutes to complete Round 3. Use the “Comment Sheet” for adding additional comments or simply add comments after a specific consequence. Return the completed survey in the envelope provided by **October 9, 2009**.

A synopsis of this study will be forwarded to the Senate and House subcommittee members, as well as Virginia’s House and Senate members. You will be copied on that communication.

Sincerely,

R. Adam Manley

P.S.: Please accept the enclosed gift as a “Thank you” for participating in this important study.

1990 Perkins Delphi Study

Round 3 Final Round

Must be completed and postmarked by October 9, 2009

Principal Researcher:
R. Adam Manley

ROUND THREE DIRECTIONS

Introduction

For each of the consequences, you are provided the overall respondent selection percentages for the relevancy and effect rating. Additionally, where applicable, you are provided with respondents' comments from Round 2.

Directions for Section 1

You are to review the rating percentages and comments, where applicable, and decide if you want to retain or change your original relevancy and/or effect rating. If you do not wish to change a rating you can leave the "new rating" cell for that consequence blank. In other words, you only need to indicate your new rating if it is, in fact, different than your original rating.

If you **DO** change a rating please use the following letters for the *relevancy and effect* ratings:

Relevancy Rating	
Desired Selection	Use this
Relevant	POS
Neutral (I don't know/care)	NEU
Not relevant	NEG

Please use the ***Comment Sheet*** if you wish to add a comment. As in Round 2, comments can be anything you think pertains to your rating and/or the consequence. For coding purposes, please note the "criterion" number and "consequence" number to the left of your comment.

Directions for Section 2

Please complete the two questions at the end of this survey. The suggestions and opinions you provide will be compiled in the findings chapter of the dissertation.

My New Contact Information (If you have any questions)

Adam Manley
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 Email: manley@vt.edu

	Criterion 1	Group Average Relevancy Ratings					Group Average Effect Ratings				
	Provide state coordination, leadership, and technical assistance for local systems to identify, interpret, and comply with local program standards developed and accepted by the CTE profession, as well as federal and state regulations.	REL	NEU	IRR	Your Rating	New Rating	POS	NEU	NEG	Your Rating	New Rating
1	Reduced state leadership activities due to decreased state-level Perkins.	93.8%	3.1%	3.1%	«R001»		0.0%	12.5%	87.5%	«E001»	
2	Decreased state-level CTE's ability to coordinate local CTE programs.	84.4%	6.3%	9.4%	«R002»		6.3%	18.8%	75.0%	«E002»	
3	Decreased state-level CTE's ability to identify trends and innovative programs	59.4%	28.1%	12.5%	«R003»		0.0%	40.6%	59.4%	«E003»	
4	Decreased university-level CTE's ability to provide any coordination, leadership, or technical assistance at the state and local-level.	78.1%	15.6%	6.3%	«R004»		0.0%	25.0%	75.0%	«E004»	
5	Decreased contact between state-level CTE and local-level CTE.	81.3%	15.6%	3.1%	«R005»		3.1%	28.1%	68.8%	«E005»	
6	Weakened programs due to diminished state involvement and support in establishing and complying with standards and accountability measures.	65.6%	18.8%	15.6%	«R006»		3.1%	37.5%	59.4%	«E006»	
7	Diminished state-level CTE's ability to visit schools and give input and advice on how to make local-level decisions.	90.6%	0.0%	9.4%	«R007»		6.3%	15.6%	78.1%	«E007»	
8	Resulted in happenstance program structure and policies at the local-level	46.9%	31.3%	21.9%	«R008»		0.0%	43.8%	56.3%	«E008»	
9	Reduced local CTE communication with other localities. Only communication between state and local systems took place.	31.3%	40.6%	28.1%	«R009»		3.1%	62.5%	34.4%	«E009»	
10	The decreased state-level support and involvement encouraged school divisions to give their CTE administrators additional duties.	84.4%	6.3%	9.4%	«R010»		3.1%	15.6%	81.3%	«E010»	
11	Resulted in inconsistencies in local-level CTE program administration and evaluation.	65.6%	18.8%	15.6%	«R011»		3.1%	34.4%	62.5%	«E011»	
12	Reduced state-level CTE's ability to monitor the quality of local CTE programs.	87.5%	3.1%	9.4%	«R012»		3.1%	18.8%	78.1%	«E012»	
13	Removed some of the state-level politics involved in decision making. Especially related to teacher hiring, program offerings, and teacher assignments.	40.6%	25.0%	34.4%	«R013»		31.3%	53.1%	15.6%	«E013»	

	Criterion 1, cont.	Group Average Relevancy Ratings					Group Average Effect Ratings				
	Provide state coordination, leadership, and technical assistance for local systems to identify, interpret, and comply with local program standards developed and accepted by the CTE profession, as well as federal and state regulations.	REL	NEU	IRR	Your Rating	New Rating	POS	NEU	NEG	Your Rating	New Rating
14	Reduced the one size fits all approach to CTE programs.	50.0%	31.3%	18.8%			46.9%	43.8%	9.4%	«E014»	
15	Increased local-level CTE's opportunity to customize programs to local needs and standards.	78.1%	12.5%	9.4%	«R015»		68.8%	18.8%	12.5%	«E015»	
16	Decreased state-level support increased the likelihood that local-level CTE directional changes were based on political motives or hunches rather than solid research.	59.4%	25.0%	15.6%	«R016»		3.1%	43.8%	53.1%	«E016»	
17	Decreased local-level CTE's ability to see the "big picture" concerning program decisions.	50.0%	25.0%	25.0%	«R017»		0.0%	50.0%	50.0%	«E017»	
18	Increased local-level Perkins funding provided for additional resources to localities for providing locally-sponsored technical updates for teacher and administrators.	78.1%	15.6%	6.3%	«R018»		50.0%	28.1%	21.9%	«E018»	
19	Resulted in the development of state-wide performance standards developed in conjunction with the localities and the community college system.	75.0%	18.8%	6.3%	«R019»		75.0%	18.8%	6.3%	«E019»	
20	Increased administrative burden on local-level CTE personnel especially in smaller school divisions.	81.3%	15.6%	3.1%	«R020»		6.3%	25.0%	68.8%	«E020»	
21	Increased networking between local-level CTE school divisions concerning this criterion.	53.1%	40.6%	6.3%	«R021»		50.0%	46.9%	3.1%	«E021»	
22	Resulted in state-level CTE adjusting the method in which they provided technical assistance. Comment(s): Reduced contact and opportunities to provide assistance	90.6%	3.1%	6.3%	«R022»		21.9%	37.5%	40.6%	«E022»	
23	Reduced state-level CTE's ability to provide local technical assistance due to decreased funding at the state level.	87.5%	6.3%	6.3%	«R023»		3.1%	15.6%	81.3%	«E023»	
24	Created confusion among local-level CTE administrators concerning the application of Perkins funding.	62.5%	31.3%	6.3%	«R024»		3.1%	43.8%	53.1%	«E024»	
25	Reduced individual technical assistance to teachers in the field.	87.5%	12.5%	0.0%	«R025»		3.1%	15.6%	81.3%	«E025»	
26	Reduced state-level staff and increased the workload of remaining state staff.	90.6%	9.4%	0.0%	«R026»		3.1%	18.8%	78.1%	«E026»	

	Criterion 2	Group Average Relevancy Ratings					Group Average Effect Ratings				
	Provide relevant professional and leadership development to teachers, administrators, and teacher educators.	REL	NEU	IRR	Your Rating	New Rating	POS	NEU	NEG	Your Rating	New Rating
1	Reduced state-level CTE's ability to plan coordinate, and deliver relevant professional & leadership development activities.	90.6%	6.3%	3.1%	«R027»		3.1%	18.8%	78.1%	«E027»	
2	Increased local coordination of professional development.	71.9%	18.8%	9.4%	«R028»		46.9%	40.6%	12.5%	«E028»	
3	Lack of professional development, increased the number of CTE teachers leaving the profession.	34.4%	25.0%	40.6%	«R029»		6.3%	59.4%	34.4%	«E029»	
4	Reduced the number of T&I teacher education courses held at the local-level.	62.5%	31.3%	6.3%	«R030»		3.1%	43.8%	53.1%	«E030»	
5	Resulted in teacher education programs that do not prepare teachers for their role.	53.1%	28.1%	18.8%	«R031»		3.1%	43.8%	53.1%	«E031»	
6	Decreased professional development activities by the state and universities.	81.3%	15.6%	3.1%	«R032»		0.0%	18.8%	81.3%	«E032»	
7	Decreased leadership development activities by the state and universities.	81.3%	15.6%	3.1%	«R033»		3.1%	21.9%	75.0%	«E033»	
8	Decreased the opportunity for leadership development for teachers, administrators, and collaboration with teacher educators.	81.3%	9.4%	9.4%	«R034»		3.1%	15.6%	81.3%	«E034»	
9	Increased the quality of the annual CTE state conference. Comment(s): (1)I disagree, if anything they were harmed by the loss of state-level funding; (2) Quality did not increase, but remained about the same.	50.0%	18.8%	31.3%	«R035»		34.4%	50.0%	15.6%	«E035»	
10	Reduced the amount of teamwork and information sharing among teachers and administrators.	46.9%	31.3%	21.9%	«R036»		0.0%	59.4%	40.6%	«E036»	
11	Reduced CTE program specific professional development which created an emphasis on overall CTE staff development.	75.0%	15.6%	9.4%	«R037»		12.5%	34.4%	53.1%	«E037»	
12	Modified the role of state-level CTE and teacher education personnel in providing and coordinating leadership and direction. Comment(s): Weakened the outreach role of teacher educators.	93.8%	6.3%	0.0%	«R038»		21.9%	25.0%	53.1%	«E038»	
13	Decreased local-level CTE funding participants cost for attending state-level CTE professional development activities.	65.6%	18.8%	15.6%	«R039»		6.3%	31.3%	62.5%	«E039»	

	Criterion 2, cont.	Group Average Relevancy Ratings					Group Average Effect Ratings				
	Provide relevant professional and leadership development to teachers, administrators, and teacher educators.	REL	NEU	IRR	Your Rating	New Rating	POS	NEU	NEG	Your Rating	New Rating
14	Decreased regional inservice activities.	75.0%	18.8%	6.3%	«R040»		0.0%	21.9%	78.1%	«E040»	
15	Reduced funding to support the participation of state-level CTE staff in regional conferences & national conferences	75.0%	15.6%	9.4%	«R041»		0.0%	21.9%	78.1%	«E041»	
16	Reduced funding to support the participation of university/college personnel in regional conferences & national conferences.	78.1%	15.6%	6.3%	«R042»		0.0%	28.1%	71.9%	«E042»	
17	Resulted in the combination of CTE professional development with other subject areas and grade levels within the K-12 system. Comment(s): Tech Prep programs provided some of this development	62.5%	18.8%	18.8%	«R043»		37.5%	43.8%	18.8%	«E043»	
18	Redirected university-level resources from administrator training to secondary teacher certification.	43.8%	46.9%	9.4%	«R044»		12.5%	62.5%	25.0%	«E044»	
19	Established a free market system for professional and leadership development services to localities.	59.4%	37.5%	3.1%	«R045»		31.3%	53.1%	15.6%	«E045»	
20	Increased responsibilities of professional organizations for providing the leadership for professional development activities. Comment(s): Professional organizations assumed responsibility, but lacked the necessary funding.	78.1%	15.6%	6.3%	«R046»		31.3%	56.3%	12.5%	«E046»	
21	Reduced the participation of local teachers in professional development activities outside of their school divisions.	71.9%	12.5%	15.6%	«R047»		0.0%	28.1%	71.9%	«E047»	
22	Increased resources for locally sponsored professional development programs targeted to specific needs of teachers and administrators.	71.9%	21.9%	6.3%	«R048»		53.1%	34.4%	12.5%	«E048»	
23	Reduced cooperative strategic planning between state-level CTE and teacher education institutions. Comment(s): Reduced opportunities for teacher educators to interact with state CTE people. Example – teacher education advisory committee to State CTE and local CTE administration.	78.1%	15.6%	6.3%	«R049»		0.0%	28.1%	71.9%	«E049»	

	Criterion 3	Group Average Relevancy Ratings					Group Average Effect Ratings				
	Develop new programs and curricula to respond to current and projected occupational needs.	REL	NEU	IRR	Your Rating	New Rating	POS	NEU	NEG	Your Rating	New Rating
1	Increased the number of locally developed CTE programs and curricula that best served the occupational needs of the local community.	78.1%	15.6%	6.3%	«R050»		65.6%	28.1%	6.3%	«E050»	
2	Resulted in many of newly developed programs and curriculum lacking a global perspective.	53.1%	34.4%	12.5%	«R051»		6.3%	50.0%	43.8%	«E051»	
3	Increased networking with other localities for developing new programs and curriculum to respond to current and projected occupational needs. Comment(s): I saw a decrease in the amount of networking as a result of the funding loss at the state-level.	56.3%	28.1%	15.6%	«R052»		50.0%	50.0%	0.0%	«E052»	
4	Resulted in an inability for local-level CTE programs to keep up with changing technology trends.	53.1%	21.9%	25.0%	«R053»		0.0%	40.6%	59.4%	«E053»	
5	Decreased the number of new CTE programs.	59.4%	18.8%	21.9%	«R054»		6.3%	31.3%	62.5%	«E054»	
6	Decreased the number of overall student enrollment in CTE programs. Comment(s): Localities used “lack of state funding” to cut programs and teachers	62.5%	12.5%	25.0%	«R055»		3.1%	34.4%	62.5%	«E055»	
7	Resulted in Virginia reemerging as a leader in curriculum development. Comment(s): (1) Virginia has never been a leader in curr. dev. and the funding cuts just made it worse; (2) Virginia has always been a leader in curr. dev.	43.8%	37.5%	18.8%	«R056»		40.6%	50.0%	9.4%	«E056»	
8	Increased and strengthened participation in Tech Prep program development through community college grants.	78.1%	15.6%	6.3%	«R057»		68.8%	25.0%	6.3%	«E057»	
9	Increased local school division participation in high schools that work programs designed to integrate academic and CTE.	78.1%	18.8%	3.1%	«R058»		68.8%	25.0%	6.3%	«E058»	
10	Decreased funding at the state-level for the development and dissemination of new programs and curricula, as well as updating existing programs and curricula.	87.5%	9.4%	3.1%	«R059»		9.4%	18.8%	71.9%	«E059»	

Criterion 3, cont.		Group Average Relevancy Ratings					Group Average Effect Ratings				
	Develop new programs and curricula to respond to current and projected occupational needs.	REL	NEU	IRR	Your Rating	New Rating	POS	NEU	NEG	Your Rating	New Rating
11	Resulted in the production of uniform curriculum that integrated academic SOLs and industry standards that included industry certifications where applicable.	78.1%	12.5%	9.4%	«R060»		71.9%	15.6%	12.5%	«E060»	
12	Increased funding at the local-level for developing new programs and curriculum.	78.1%	18.8%	3.1%	«E061»		71.9%	25.0%	3.1%	«E061»	
13	Increased the burden on local school divisions that did not have supervisor staff to assist in new program and curriculum development and to ensure that programs and curricula were based on current research and best practices. Comment(s): Additionally, CTE supervisors and admin. Did not always have a CTE background or had a unrelated CTE background compared to the programs they had.	84.4%	12.5%	3.1%	«R062»		6.3%	28.1%	65.6%	«E062»	
14	Resulted in state-level CTE's curriculum development losing its direction.	56.3%	21.9%	21.9%	«R063»		3.1%	43.8%	53.1%	«E063»	
15	Resulted in some local-level CTE school divisions reducing the amount of CTE programs in their middle and high schools and moving them to the regional career centers. Comment(s): Saw significant reductions in programs. Local admins. "strength" seemed to have some relationship on CTE program losses.	59.4%	25.0%	15.6%	«R064»		12.5%	37.5%	50.0%	«E064»	
16	Increased the number of computer technology and keyboarding classes thus reducing the number of traditional CTE program offerings. Comment(s): Some CTE programs were replaced with "keyboarding" classes that were perceived as "technology" classes that taught technology literacy.	65.6%	21.9%	12.5%	«R065»		12.5%	46.9%	40.6%	«E065»	
17	Resulted in an "explosion" of new courses everywhere and the attitude that more is better.	28.1%	46.9%	25.0%	«R066»		9.4%	65.6%	25.0%	«E066»	
18	Increased the difficulty of identifying and disseminating new, successful programs that local innovations produced.	65.6%	21.9%	12.5%	«R067»		3.1%	21.9%	75.0%	«E067»	
19	Increased the difficulty to rigorously test local innovations to see if they really worked.	59.4%	28.1%	12.5%	«R068»		3.1%	46.9%	50.0%	«E068»	

	Criterion 3, cont.	Group Average Relevancy Ratings					Group Average Effect Ratings				
	Develop new programs and curricula to respond to current and projected occupational needs.	REL	NEU	IRR	Your Rating	New Rating	POS	NEU	NEG	Your Rating	New Rating
20	Decreased state-level CTE's ability to develop and support statewide curriculum development for new CTE programs.	81.3%	9.4%	9.4%	«R069»		3.1%	15.6%	81.3%	«E069»	
21	Resulted in a reliance on untrained CTE teachers to develop new programs and curriculum. Comment(s): Programs developed by the CTE resource center used experience teachers and professionals from B&I. May or may not have been the case in the local areas.	50.0%	28.1%	21.9%	«R070»		3.1%	34.4%	62.5%	«E070»	
22	Restricted university-level personnel and faculty from assisting local CTE programs to develop new programs and curricula to respond to current and projected occupational needs.	75.0%	15.6%	9.4%	«R071»		0.0%	21.9%	78.1%	«E071»	

Criterion 4		Group Average Relevancy Ratings					Group Average Effect Ratings				
	Formulate new and improve existing operational policies (standards) at the local level.	REL	NEU	IRR	Your Rating	New Rating	POS	NEU	NEG	Your Rating	New Rating
1	Reduced state-level CTE's ability to help support and oversee the implementation of local program policies.	87.5%	6.3%	6.3%	«R072»		12.5%	18.8%	68.8%	«E072»	
2	Decreased state-level CTE's ability to create and expand CTE programs.	78.1%	9.4%	12.5%	«R073»		3.1%	25.0%	71.9%	«E073»	
3	Resulted in a lack of local program policies.	37.5%	43.8%	18.8%	«R074»		3.1%	59.4%	37.5%	«E074»	
4	Resulted in decreased coordination of local operational policies.	46.9%	37.5%	15.6%	«R075»		0.0%	50.0%	50.0%	«E075»	
5	Increased local-level CTE's responsibility and decision making for formulating new, as well as improving existing operational policies	65.6%	21.9%	12.5%	«R076»		34.4%	40.6%	25.0%	«E076»	
6	Resulted in no change in state support and oversight in the formulation of new, as well as the improving of existing operational policies at the local-level. Comment(s): (1)Definitely was a decrease in oversight, but state staff was always available (at least by phone) to provide information and support;(2)statement is simply inaccurate.	46.9%	15.6%	37.5%	«R077»		0.0%	59.4%	40.6%	«E077»	
7	Improved local operational policies especially in the areas of program completers and follow up.	59.4%	21.9%	18.8%	«R078»		59.4%	28.1%	12.5%	«E078»	
8	Increased the opportunity for local-level CTE to enact or dismiss program policies that did or did not meet short sided or budget priorities.	56.3%	34.4%	9.4%	«R079»		40.6%	37.5%	21.9%	«E079»	
9	Reduced opportunities for teacher education faculty to provide assist in the formulation of and improving of existing operational policies at the local-level. Comment(s): Not sure how involved teacher educators were in this at anytime.	62.5%	28.1%	9.4%	«R080»		0.0%	46.9%	53.1%	«E080»	
10	Increased the difficulty of identifying and disseminating successful local program policies. Comment(s): Because there was less state staff to assist the locals with this.	59.4%	21.9%	18.8%	«R081»		3.1%	37.5%	59.4%	«E081»	

	Criterion 4, cont.	Group Average Relevancy Ratings					Group Average Effect Ratings				
	Formulate new and improve existing operational policies (standards) at the local level.	REL	NEU	IRR	Your Rating	New Rating	POS	NEU	NEG	Your Rating	New Rating
11	Limited contact between local-level administrators and state-level staff concerning the formulation of new, as well as the improving of existing program policies at the local-level	62.5%	21.9%	15.6%	«R08 2»		3.1%	28.1%	68.8%	«E08 2»	
12	The increase in local-level accountability increased the need for state support concerning operational policies. Comment(s): State-level assistance provided some policy direction across the state.	75.0%	21.9%	3.1%	«R08 3»		28.1%	37.5%	34.4%	«E08 3»	

	Criterion 5	Group Average Relevancy Ratings					Group Average Effect Ratings				
	Develop, improve, and maintain quality CTE teacher education programs at the bachelors, master's, and doctoral level.	REL	NEU	IRR	Your Rating	New Rating	POS	NEU	NEG	Your Rating	New Rating
1	Increased the workloads and responsibilities of remaining CTE teacher educators. Comment(s): Forced CTE teacher educators to become a more engaged participant concerning policy and programming with the K-12 system.	78.1%	15.6%	6.3%	«R08 4»		0.0%	25.0%	75.0%	«E08 4»	
2	Decreased the number of CTE teacher education programs and courses at Virginia colleges and universities. Comment(s): Some of which were “less-then-effective”	87.5%	9.4%	3.1%	«R08 5»		0.0%	18.8%	81.3%	«E08 5»	
3	Reduced the influence CTE teacher educators had within the university structure. Comment(s): My observation was that influence within the university didn't change, but funding formulas concerning travel, equipment, and local CTE assistance did change.	65.6%	25.0%	9.4%	«R08 6»		0.0%	34.4%	65.6%	«E08 6»	
4	Resulted in CTE teacher education programs inability to keep abreast of changes in Business and Information Technology.	50.0%	34.4%	15.6%	«R08 7»		0.0%	46.9%	53.1%	«E08 7»	
5	Decreased interest in teachers pursuing advanced CTE degrees. Comment(s): Did not witness a decrease in graduate interest in CTE	59.4%	28.1%	12.5%	«R08 8»		6.3%	37.5%	56.3%	«E08 8»	
6	Decreased the relevancy of CTE teacher education programs.	65.6%	25.0%	9.4%	«R08 9»		0.0%	31.3%	68.8%	«E08 9»	
7	Resulted in CTE teacher education programs becoming "generic" rather than program specific.	78.1%	18.8%	3.1%	«R09 0»		6.3%	25.0%	68.8%	«E09 0»	
8	Resulted in the transferring of CTE teacher education faculty to other duties within the institution.	62.5%	31.3%	6.3%	«R09 1»		0.0%	31.3%	68.8%	«E09 1»	
9	Decreased the ability of colleges and universities to implement new CTE programs at all levels.	81.3%	9.4%	9.4%	«R09 2»		0.0%	21.9%	78.1%	«E09 2»	
10	Eliminated CTE teacher education special projects and grants.	75.0%	18.8%	6.3%	«R09 3»		3.1%	28.1%	68.8%	«E09 3»	
11	Resulted in a need to redesign teacher preparation programs regarding the teaching of new knowledge and skills.	65.6%	21.9%	12.5%	«R09 4»		31.3%	31.3%	37.5%	«E09 4»	

Criterion 5, cont.		Group Average Relevancy Ratings					Group Average Effect Ratings				
	Develop, improve, and maintain quality CTE teacher education programs at the bachelors, master's, and doctoral level.	REL	NEU	IRR	Your Rating	New Rating	POS	NEU	NEG	Your Rating	New Rating
12	Reduced the number of services CTE teacher educators could offer to the CTE community such as inservice classes at local-level CTE schools	78.1%	12.5%	9.4%	«R09 5»		3.1%	21.9%	75.0%	«E09 5»	
13	Reduced leadership positions at the universities which resulted in less representation at higher organizational levels.	68.8%	28.1%	3.1%	«R09 6»		3.1%	31.3%	65.6%	«E09 6»	
14	Resulted in state-level CTE's ability to influence higher education. Comment(s): These entities had a good working relationship. However, communication and shared activities and projects were observed.	65.6%	25.0%	9.4%	«R09 7»		12.5%	28.1%	59.4%	«E09 7»	
15	Increased the teachers and administrators cost of attending courses and workshops.	62.5%	21.9%	15.6%	«R09 8»		0.0%	25.0%	75.0%	«E09 8»	
16	Increased the difficulty of locating and recruiting quality CTE teachers.	81.3%	9.4%	9.4%	«R09 9»		3.1%	9.4%	87.5%	«E09 9»	
17	Resulted in a shortage of CTE teachers in Virginia. Comment(s): A significant decline in the number of CTE teachers has resulted in the shortage.	78.1%	9.4%	12.5%	«R10 0»		0.0%	15.6%	84.4%	«E10 0»	
18	Decreased the quality of training at all levels of CTE teacher education programs. Comment(s): Quality has not declined, but offerings and availability of CTE teacher programs has diminished	65.6%	21.9%	12.5%	«R10 1»		0.0%	31.3%	68.8%	«E10 1»	
19	Increased the need to search out of state for qualified CTE teacher candidates. Comment(s): Many CTE administrators are looking out of the state for CTE teachers.	65.6%	28.1%	6.3%	«R10 2»		3.1%	46.9%	50.0%	«E10 2»	
20	Decreased CTE teachers' opportunity to update skills, find courses for full licensure, or to reinvent themselves to work with emerging technologies.	71.9%	12.5%	15.6%	«R10 3»		3.1%	28.1%	68.8%	«E10 3»	

	Criterion 6	Group Average Relevancy Ratings					Group Average Effect Ratings				
	Conduct innovative research projects to assist in meeting unmet CTE needs.	REL	NEU	IRR	Your Rating	New Rating	POS	NEU	NEG	Your Rating	New Rating
1	Reduced the amount of federally funded, university-level research	68.8%	25.0%	6.3%	«R104»		0.0%	37.5%	62.5%	«E104»	
2	Increased the need to involve teacher educators in the process of selecting research needs to be addressed.	46.9%	34.4%	18.8%	«R105»		34.4%	50.0%	15.6%	«E105»	
3	Resulted in research that did not address the needs of teachers.	25.0%	53.1%	21.9%	«R106»		3.1%	59.4%	37.5%	«E106»	
4	Increased state-level research initiatives such as SREB's High Schools That Work and the NASDCTE's Leadership in Career Pathways.	56.3%	34.4%	9.4%	«R107»		43.8%	46.9%	9.4%	«E107»	
5	Decreased all level's ability to assist other levels interpret and implement best research practices.	56.3%	34.4%	9.4%	«R108»		0.0%	43.8%	56.3%	«E108»	
6	Eliminated CTE program specific research. Comment(s): "Eliminated" is too strong. More like "reduced"	68.8%	25.0%	6.3%	«R109»		6.3%	31.3%	62.5%	«E109»	
7	Reduced the amount of CTE research conducted and disseminated at all levels.	65.6%	28.1%	6.3%	«R110»		0.0%	37.5%	62.5%	«E110»	
8	Reduced the university-level CTE's ability to provide essential data for decision making at the state and local levels.	59.4%	34.4%	6.3%	«R111»		3.1%	43.8%	53.1%	«E111»	
9	Increased local-levels ability to support research and development. Comment(s): Not sure about this	50.0%	34.4%	15.6%	«R112»		18.8%	53.1%	28.1%	«E112»	
10	Reduced state-level funding for CTE research projects.	75.0%	21.9%	3.1%	«R113»		0.0%	28.1%	71.9%	«E113»	
11	Required university-level researchers to search for research opportunities/funding that not only met some CTE priority, but also looked "good" in the eyes of university administrators.	59.4%	31.3%	9.4%	«R114»		18.8%	40.6%	40.6%	«E114»	
12	Decreased state-level funding for research resulted in an increase in the state's ability to conduct innovative research projects to assist in meeting unmet CTE needs. Comment(s): I disagree with the premise.	56.3%	31.3%	12.5%	«R115»		15.6%	40.6%	43.8%	«E115»	

	Criterion 7	Group Average Relevancy Ratings					Group Average Effect Ratings				
	Educate and recruit quality CTE teachers and leaders.	REL	NEU	IRR	Your Rating	New Rating	POS	NEU	NEG	Your Rating	New Rating
1	Increased the number of provisionally licensed teachers. Comment(s): In many cases this has been negative, but it has brought CTE some good teachers from B&I.	71.9%	21.9%	6.3%	«R116»		9.4%	25.0%	65.6%	«E116»	
2	Increased the number of CTE teachers hired for teaching positions in program areas they were not trained to teach.	56.3%	28.1%	15.6%	«R117»		0.0%	31.3%	68.8%	«E117»	
3	Increased the need for researching options to certify non-degree teachers.	71.9%	12.5%	15.6%	«R118»		25.0%	40.6%	34.4%	«E118»	
4	Decreased ability to attract qualified individuals to the field of CTE.	59.4%	21.9%	18.8%	«R119»		0.0%	34.4%	65.6%	«E119»	
5	Increased local-level CTE's ability to add teachers and additional support to teachers.	65.6%	18.8%	15.6%	«R120»		40.6%	25.0%	34.4%	«E120»	
6	Shifted hiring priorities away from candidates that have knowledge of running CTE programs.	46.9%	34.4%	18.8%	«R121»		0.0%	46.9%	53.1%	«E121»	
7	Reduced staffing which created a decline in communication.	46.9%	40.6%	12.5%	«R122»		0.0%	53.1%	46.9%	«E122»	
8	Increased the number of CTE teachers hired for teaching positions in program areas they were not trained to teach in.	62.5%	28.1%	9.4%	«R123»		0.0%	34.4%	65.6%	«E123»	
9	Increased emphasis on retraining business and industry professionals to meet the teacher needs of local-level CTE. Comment(s): (1)In many cases this has been negative, but it has brought CTE some good teachers from B&I. ; (2) Some are not as successful as others or compare to teacher-education prepared CTE teachers.	62.5%	25.0%	12.5%	«R124»		43.8%	50.0%	6.3%	«E124»	
10	Reduced the ability to respond to critical shortage areas.	62.5%	25.0%	12.5%	«R125»		0.0%	31.3%	68.8%	«E125»	
11	Increased the number of provisionally licensed teachers who lacked professional teaching skills.	68.8%	25.0%	6.3%	«R126»		6.3%	34.4%	59.4%	«E126»	
12	Decreased the number of teachers who supported professional associations that promote and advance CTE programs.	56.3%	31.3%	12.5%	«R127»		3.1%	40.6%	56.3%	«E127»	
13	Decreased the number of CTE directors at the local-level that had a background in CTE and an understanding of CTE program administration.	75.0%	15.6%	9.4%	«R128»		0.0%	18.8%	81.3%	«E128»	

	Criterion 7, cont.	Group Average Relevancy Ratings					Group Average Effect Ratings				
	Educate and recruit quality CTE teachers and leaders.	REL	NEU	IRR	Your Rating	New Rating	POS	NEU	NEG	Your Rating	New Rating
14	Decreased the number of students, teachers, and administrators attending and completing in university/college courses and programs.	62.5%	18.8%	18.8%	«R129»		0.0%	34.4%	65.6%	«E129»	
15	Reduced the sources available for recruiting new teachers.	59.4%	25.0%	15.6%	«R130»		0.0%	37.5%	62.5%	«E130»	
16	Reduced the ability of colleges to recruit and education qualified CTE teachers and leaders.	62.5%	34.4%	3.1%	«R131»		0.0%	37.5%	62.5%	«E131»	
17	Produced a shortage of CTE teacher educators. Comment(s): There are other factors that affect the decision to become a CTE teacher educator.	65.6%	18.8%	15.6%	«R132»		0.0%	18.8%	81.3%	«E132»	
18	Increased the number of alternatively licensed CTE teachers. Comment(s): In many cases this has been negative, but it has brought CTE some good teachers from B&I.	68.8%	18.8%	12.5%	«R133»		6.3%	37.5%	56.3%	«E133»	
19	Encouraged the state to lower requirements for CTE teachers that soon became outdated.	37.5%	34.4%	28.1%	«R134»		0.0%	56.3%	43.8%	«E134»	
20	Decreased the number of CTE programs due to poorly trained provisionally licensed teachers.	53.1%	28.1%	18.8%	«R135»		0.0%	43.8%	56.3%	«E135»	
21	Resulted in the underlying philosophy of CTE being lost within the CTE profession due to poorly trained provisionally licensed teachers.	46.9%	28.1%	25.0%	«R136»		0.0%	43.8%	56.3%	«E136»	
22	Increased the number of CTE teachers completing general education master's programs rather than CTE specific master's programs.	46.9%	40.6%	12.5%	«R137»		6.3%	46.9%	46.9%	«E137»	
23	Increased the burden of local administration to train qualified CTE teachers.	68.8%	21.9%	9.4%	«R138»		3.1%	43.8%	53.1%	«E138»	
24	Decreased teacher quality in CTE.	50.0%	31.3%	18.8%	«R139»		0.0%	50.0%	50.0%	«E139»	

	Criterion 8	Group Average Relevancy Ratings					Group Average Effect Ratings				
	Operate and maintain local CTE facilities and equipment.	REL	NEU	IRR	Your Rating	New Rating	POS	NEU	NEG	Your Rating	New Rating
1	Increased local-level CTE's ability to maintain their facilities and equipment.	68.8%	25.0%	6.3%	«R14 0»		62.5%	25.0%	12.5%	«E14 0»	
2	Resulted in a decrease of real world applications for students. Comment(s): CTE has always used real world apps. for students. This didn't change because of legislation.	34.4%	28.1%	37.5%	«R14 1»		0.0%	50.0%	50.0%	«E14 1»	
3	Increased local-level CTE's ability to emulate actual work experiences by emulating facilities and equipment found in the real world.	65.6%	15.6%	18.8%	«R14 2»		53.1%	31.3%	15.6%	«E14 2»	
4	Reduced facility management systems.	31.3%	59.4%	9.4%	«R14 3»		3.1%	62.5%	34.4%	«E14 3»	
5	Increased the difficulty of purchasing and maintaining adequate facilities and equipment due to constraints on local budgets.	62.5%	21.9%	15.6%	«R14 4»		6.3%	31.3%	62.5%	«E14 4»	
6	Increased local-level CTE's accountability concerning updating and purchasing new equipment.	68.8%	15.6%	15.6%	«R14 5»		50.0%	34.4%	15.6%	«E14 5»	
7	Increased federal funds for equipment purchases and other non-personnel costs at the local-level.	71.9%	18.8%	9.4%	«R14 6»		65.6%	21.9%	12.5%	«E14 6»	
8	Decreased the involvement of university-level faculty/personnel in supporting local-level CTE regarding this criterion.	53.1%	37.5%	9.4%	«R14 7»		3.1%	46.9%	50.0%	«E14 7»	
9	Improved local-level facilities and equipment. Comment(s): (1) True for equipment, but not sure about facilities. ;(2) Local budgets generally don't fund maintenance and support adequately.	65.6%	21.9%	12.5%	«R14 8»		59.4%	31.3%	9.4%	«E14 8»	
10	Resulted in local-level facility and equipment improvement that was haphazard and lacked focus. Comment(s): (1) There was a decrease in state involvement in this which could have resulted in a negative effect.;(2) true for some instances, but others were very well managed.	50.0%	28.1%	21.9%	«R14 9»		15.6%	34.4%	50.0%	«E14 9»	
11	Increased the burden on local school divisions to purchase highly-priced state of the art equipment that federal funding could not cover.	46.9%	31.3%	21.9%	«R15 0»		6.3%	53.1%	40.6%	«E15 0»	

	Criterion 8, cont.	Group Average Relevancy Ratings					Group Average Effect Ratings				
	Operate and maintain local CTE facilities and equipment.	REL	NEU	IRR	Your Rating	New Rating	POS	NEU	NEG	Your Rating	New Rating
12	Eliminated statewide planning approach to priorities.	59.4%	18.8%	21.9%	«R15 1»		6.3%	46.9%	46.9%	«E15 1»	
13	Limited federal dollars for facility maintenance and improvement.	71.9%	21.9%	6.3%	«R15 2»		3.1%	34.4%	62.5%	«E15 2»	
14	Increased local-level CTE's responsibility and burden to operate and maintain local CTE facilities and equipment Comment(s): While probably true, localities did see an increase in funding that could be used for buying equipment.	71.9%	21.9%	6.3%	«R15 3»		18.8%	34.4%	46.9%	«E15 3»	

Criterion 9		Group Average Relevancy Ratings					Group Average Effect Ratings				
	Develop, improve, and maintain statewide professional associations and CTE teachers and administrators at all levels (local, state, and universities).	REL	NEU	IRR	Your Rating	New Rating	POS	NEU	NEG	Your Rating	New Rating
1	Decreased professional memberships in associations due to decrease in funding for travel and conference participation.	75.0%	15.6%	9.4%	«R154»		3.1%	18.8%	78.1%	«E154»	
2	Decrease in professional membership in associations due to greater emphasis on local staff development activities. Comment(s): There has been a decrease in membership, but I am not sure if it is because of this.	59.4%	18.8%	21.9%	«R155»		12.5%	43.8%	43.8%	«E155»	
3	Increased the responsibility of individual CTE teachers to plan statewide professional organization activities for students. Comment(s): increased teacher involvement had a positive impact	71.9%	21.9%	6.3%	«R156»		25.0%	43.8%	31.3%	«E156»	
4	Decreased the number of professional association meetings.	65.6%	34.4%	0.0%	«R157»		15.6%	43.8%	40.6%	«E157»	
5	Decreased state-level CTE support for student organizations (CTSOs). Comment(s): (1) Still a state-level priority, but not enough state staff limits the support they can provide.; (2) No decline in support. If anything, student organizations may be stronger.	71.9%	18.8%	9.4%	«R158»		6.3%	34.4%	59.4%	«E158»	
6	Placed greater emphasis on CTE professional organizations to provide staff development for their teachers and members.	81.3%	15.6%	3.1%	«R159»		40.6%	37.5%	21.9%	«E159»	
7	Lack of involvement of university-level CTE resulted in less effective state organizations.	62.5%	21.9%	15.6%	«R160»		0.0%	53.1%	46.9%	«E160»	
8	Reduced state and university-level contact about the value of professional organizations, reduced memberships in professional organizations.	59.4%	25.0%	15.6%	«R161»		0.0%	46.9%	53.1%	«E161»	
9	Reduced the number of administrators and teachers attending professional conferences.	71.9%	15.6%	12.5%	«R162»		0.0%	31.3%	68.8%	«E162»	
10	Decreased resources to promote and advance professional CTE programs.	75.0%	9.4%	15.6%	«R163»		0.0%	28.1%	71.9%	«E163»	

	Criterion 9, cont.	Group Average Relevancy Ratings					Group Average Effect Ratings				
	Develop, improve, and maintain statewide professional associations and CTE teachers and administrators at all levels (local, state, and universities).	REL	NEU	IRR	Your Rating	New Rating	POS	NEU	NEG	Your Rating	New Rating
11	Reduced state-level CTE funding for local and university level professional inservice that was provided by professional organizations.	78.1%	15.6%	6.3%	«R16 4»		0.0%	34.4%	65.6%	«E16 4»	
12	Lack of state and university support resulted in a lack of advice and counsel for teacher associations.	68.8%	15.6%	15.6%	«R16 5»		0.0%	43.8%	56.3%	«E16 5»	
13	Decreased coordination between CTE program area professional associations.	56.3%	34.4%	9.4%	«R16 6»		3.1%	46.9%	50.0%	«E16 6»	
14	Increased local support for teacher/administrator participation in professional associations.	53.1%	31.3%	15.6%	«R16 7»		40.6%	40.6%	18.8%	«E16 7»	
15	Resulted in state administrators having less influence over their state and local CTE professional organizations.	78.1%	15.6%	6.3%	«R16 8»		18.8%	40.6%	40.6%	«E16 8»	

	Criterion 10	Group Average Relevancy Ratings					Group Average Effect Ratings				
	Develop and execute external and internal procedures for program planning, development and evaluation procedures for local CTE programs.	REL	NEU	IRR	Your Rating	New Rating	POS	NEU	NEG	Your Rating	New Rating
1	Decreased state-level CTE's ability to compare districts and provide comprehensive dissemination of best practices concerning this criterion.	65.6%	15.6%	18.8%	«R169»		0.0%	40.6%	59.4%	«E169»	
2	Increased state-level CTE's ability to compare districts and provide comprehensive dissemination of best practices.	40.6%	25.0%	34.4%	«R170»		28.1%	46.9%	25.0%	«E170»	
3	Resulted in program implementation, improvement, and development becoming uncoordinated and unstructured. Comment(s): This statement is too strong, but it did result in reduced accountability and lack of consistency in administering these processes.	53.1%	34.4%	12.5%	«R171»		0.0%	40.6%	59.4%	«E171»	
4	Provided an opportunity to initiate a new CTE state evaluation based on standards identified by federal legislation.	59.4%	37.5%	3.1%	«R172»		37.5%	50.0%	12.5%	«E172»	
5	Placed greater emphasis on local school divisions in the establishment and development of new programs. Comment(s): The impact of this depended on the school district. Some used state resources and experts. Some used “haphazard” approaches.	81.3%	15.6%	3.1%	«R173»		53.1%	37.5%	9.4%	«E173»	
6	Lack of communication between all levels resulted in a decrease in learning from other's successes and failures.	65.6%	18.8%	15.6%	«R174»		3.1%	28.1%	68.8%	«E174»	
7	Reduced the opportunity for program specific evaluations rather than overall CTE evaluations.	50.0%	37.5%	12.5%	«R175»		0.0%	46.9%	53.1%	«E175»	
8	Increased federal funds that may be used for program planning, development, and evaluation.	68.8%	25.0%	6.3%	«R176»		46.9%	43.8%	9.4%	«E176»	
9	Increased complexity of the vocational computerized management system. Comment(s): Data collection became more complex and was offset by computerization of records and data.	59.4%	31.3%	9.4%	«R177»		15.6%	46.9%	37.5%	«E177»	
10	Increased the number of academically underperforming students in CTE programs without regard to their career needs.	50.0%	34.4%	15.6%	«R178»		3.1%	40.6%	56.3%	«E178»	

Criterion 10, cont.		Group Average Relevancy Ratings					Group Average Effect Ratings				
	Develop and execute external and internal procedures for program planning, development and evaluation procedures for local CTE programs.	REL	NEU	IRR	Your Rating	New Rating	POS	NEU	NEG	Your Rating	New Rating
11	Decreased local accountability and led to inconsistencies in the administration of program planning, development, and evaluation procedures.	50.0%	28.1%	21.9%	«R179»		0.0%	34.4%	65.6%	«E179»	
12	Placed an additional burden on local personnel for planning, development, and evaluation.	78.1%	9.4%	12.5%	«R180»		18.8%	18.8%	62.5%	«E180»	
13	Decreased state-level assistance from the state for planning, developing, and evaluating.	71.9%	21.9%	6.3%	«R181»		3.1%	31.3%	65.6%	«E181»	
14	Eliminated most program planning except what the localities wanted to do without thought of what was taking place in other localities or what was best for CTE program overall.	46.9%	28.1%	25.0%	«R182»		3.1%	40.6%	56.3%	«E182»	
15	Improved program planning, development, and evaluation in response local advisory committees, industry needs, and economic development. Comment(s): True for some school divisions.	62.5%	28.1%	9.4%	«R183»		56.3%	37.5%	6.3%	«E183»	
16	Decreased research and testing relative to the curriculum and standards for new programs. Comment(s): I don't fully understand this statement	56.3%	28.1%	15.6%	«R184»		6.3%	40.6%	53.1%	«E184»	
17	Resulted in state-level CTE and university-level teacher educators reducing their involvement with evaluation designs, collection, and interpretation of data.	59.4%	21.9%	18.8%	«R185»		0.0%	37.5%	62.5%	«E185»	
18	Resulted in the elimination of CTE-related data as it has been merged with other school reporting (e.g. completer report is now part of the division End of Year report). Comment(s): Didn't eliminate CTE data, just merged it into a larger document with other school data.	53.1%	31.3%	15.6%	«R186»		9.4%	50.0%	40.6%	«E186»	
19	Decreased networking opportunities between localities to share best practices in this area.	56.3%	25.0%	18.8%	«R187»		0.0%	37.5%	62.5%	«E187»	
20	Increased networking opportunities between localities to share best practices in this area. Comment(s): Not sure this happened.	37.5%	31.3%	31.3%	«R188»		40.6%	43.8%	15.6%	«E188»	

	Criterion 10, cont.	Group Average Relevancy Ratings					Group Average Effect Ratings				
	Develop and execute external and internal procedures for program planning, development and evaluation procedures for local CTE programs.	REL	NEU	IRR	Your Rating	New Rating	POS	NEU	NEG	Your Rating	New Rating
21	Resulted in students not being prepared for employment. Comment(s): (1)Statement too general to be meaningful. I am confident many more students are prepared for employment. (2) some students, but not all.	31.3%	31.3%	37.5%	«R18 9»		0.0%	53.1%	46.9%	«E18 9»	

	Criterion 11	Group Average Relevancy Ratings					Group Average Effect Ratings				
	Develop, improve, and maintain state and local community relations (e.g., advisory committee, CTSO, other workforce agencies).	REL	NEU	IRR	Your Rating	New Rating	POS	NEU	NEG	Your Rating	New Rating
1	Reduced state-level CTE's ability to assist local secondary CTE schools in developing, growing, and maintaining advisory committees.	62.5%	18.8%	18.8%	«R190»		3.1%	37.5%	59.4%	«E190»	
2	Decreased state-level fiscal and administrative control resulted in less emphasis on the development and maintenance of local and state advisory committees.	65.6%	28.1%	6.3%	«R191»		0.0%	40.6%	59.4%	«E191»	
3	Resulted in CTE educational agency (all levels) becoming non-responsive to the needs of the employment community. Comment(s): Statement too general to be meaningful. The way its stated is simply not true.	37.5%	18.8%	43.8%	«R192»		0.0%	40.6%	59.4%	«E192»	
4	Resulted in independent coordination of advisory committee members rather than coordination between all levels of CTE.	37.5%	40.6%	21.9%	«R193»		3.1%	62.5%	34.4%	«E193»	
5	Resulted in local-level CTE relying on the support of business and industry instead of state to maintain community relations. Comment(s): Local school divisions have never relied on the state to maintain community relations.	56.3%	21.9%	21.9%	«R194»		59.4%	31.3%	9.4%	«E194»	
6	Placed greater emphasis and responsibility on local advisory committees.	71.9%	18.8%	9.4%	«R195»		71.9%	18.8%	9.4%	«E195»	
7	Eliminated federal funding for the state advisory committee appointed by governor.	71.9%	25.0%	3.1%	«R196»		3.1%	31.3%	65.6%	«E196»	
8	Increased federal funds that may be used to support local advisory committee activities.	50.0%	31.3%	18.8%	«R197»		40.6%	50.0%	9.4%	«E197»	
9	Eliminated the development, growth, and maintenance of state and local community relations.	50.0%	31.3%	18.8%	«R198»		0.0%	43.8%	56.3%	«E198»	
10	Eliminated regional activities that supported local-level CTE in this area.	50.0%	37.5%	12.5%	«R199»		3.1%	43.8%	53.1%	«E199»	
11	Shifted the role of state and university level personnel from assisting local-level CTE to advising them. Comment(s): This had a significant impact on local CTE and teacher educators.	65.6%	31.3%	3.1%	«R200»		9.4%	40.6%	50.0%	«E200»	

	Criterion 11, cont.	Group Average Relevancy Ratings					Group Average Effect Ratings				
	Develop, improve, and maintain state and local community relations (e.g., advisory committee, CTSO, other workforce agencies).	REL	NEU	IRR	Your Rating	New Rating	POS	NEU	NEG	Your Rating	New Rating
12	Loss of teacher education programs resulted in a loss of preservice and inservice instruction on community relations and advisory committees.	78.1%	15.6%	6.3%	«R201»		0.0%	31.3%	68.8%	«E201»	

	Criterion 12	Group Average Relevancy Ratings					Group Average Effect Ratings				
	Develop, improve, and maintain student services (e.g., student recruitment and admissions, placement, and guidance services).	REL	NEU	IRR	Your Rating	New Rating	POS	NEU	NEG	Your Rating	New Rating
1	Increased local-level CTE's responsibility and funding to develop and provide CTE student services. Comment(s): It did increase funding for these services, but this has always been a local responsibility	65.6%	28.1%	6.3%	«R20 2»		40.6%	40.6%	18.8%	«E20 2»	
2	Reduced state support of student recruitment programs and guidance services due to decreased state-level funding.	65.6%	25.0%	9.4%	«R20 3»		3.1%	37.5%	59.4%	«E20 3»	
3	Improved local-level CTE guidance services.	40.6%	31.3%	28.1%	«R20 4»		37.5%	40.6%	21.9%	«E20 4»	
4	Reduction in state involvement resulted in a decrease in the relationship between CTE school divisions and their respective high schools.	40.6%	28.1%	31.3%	«R20 5»		0.0%	59.4%	40.6%	«E20 5»	
5	Lack of state emphasis and support reduced the number of program services and counseling services. Comment(s): This statement is too general.	53.1%	34.4%	12.5%	«R20 6»		0.0%	46.9%	53.1%	«E20 6»	
6	Resulted in an inability to maintain student services at previous levels.	37.5%	53.1%	9.4%	«R20 7»		0.0%	65.6%	34.4%	«E20 7»	
7	Reduced state-level CTE's ability to share best practices with local secondary CTE schools in developing, growing, and maintaining student services.	62.5%	25.0%	12.5%	«R20 8»		0.0%	40.6%	59.4%	«E20 8»	
8	Increased guidance counselors' attention to program completions, placement, and follow up activities.	71.9%	18.8%	9.4%	«R20 9»		62.5%	31.3%	6.3%	«E20 9»	
9	Improved the collection and use of local student data.	71.9%	9.4%	18.8%	«R21 0»		68.8%	18.8%	12.5%	«E21 0»	
10	Resulted in localities developing recruiting initiatives and services to increase enrollment.	59.4%	28.1%	12.5%	«R21 1»		59.4%	28.1%	12.5%	«E21 1»	
11	Increased the opportunity for local-level CTE to provide actual work experience programs and guidance. Comment(s): This is positive IF the statement is true.	37.5%	43.8%	18.8%	«R21 2»		50.0%	43.8%	6.3%	«E21 2»	

Criterion 13		Group Average Relevancy Ratings					Group Average Effect Ratings				
	Develop, improve, and maintain fiscal management of local CTE programs.	REL	NEU	IRR	Your Rating	New Rating	POS	NEU	NEG	Your Rating	New Rating
1	Increased local-level CTE's flexibility concerning the spending of Perkins funding.	71.9%	18.8%	9.4%	«R213»		59.4%	31.3%	9.4%	«E213»	
2	Resulted in carefully planned local-level CTE program expenditures due to the strict criteria used to annually approve the localities annual plan.	68.8%	25.0%	6.3%	«R214»		56.3%	34.4%	9.4%	«E214»	
3	Reduced state-level CTE's support and guidance regarding fiscal management of local-level CTE.	62.5%	21.9%	15.6%	«R215»		3.1%	46.9%	50.0%	«E215»	
4	Increased the quality of CTE programs. Comment(s): Not sure this is happening.	40.6%	40.6%	18.8%	«R216»		40.6%	43.8%	15.6%	«E216»	
5	Increased the workload of local-level CTE administrators by increasing paperwork and forms.	81.3%	12.5%	6.3%	«R217»		6.3%	25.0%	68.8%	«E217»	
6	Decreased state-level CTE's ability to monitor and insure compliance with federal laws and requirements.	65.6%	15.6%	18.8%	«R218»		0.0%	50.0%	50.0%	«E218»	
7	Resulted in some school districts replacing local funds with Perkins funds which resulting in no additional benefit to the locality. Comment(s): Supplanting funds is a violation of federal law. This may be occurring with reduced accountability at the local level.	62.5%	34.4%	3.1%	«R219»		0.0%	34.4%	65.6%	«E219»	
8	Decreased funding for local-level CTE supervisors and directors has hampered fiscal management.	68.8%	21.9%	9.4%	«R220»		3.1%	40.6%	56.3%	«E220»	
9	Decreased local-level CTE flexibility in spending as the locally allocated Perkins money had to initially be spent to support Special Needs population in CTE programs. Comment from Adam: In round 2, there was a typo. This is the entire statement.	50.0%	40.6%	9.4%	«R221»		0.0%	56.3%	43.8%	«E221»	
10	Increased state-level CTE's authority since local annual plans were required to be approved by the state.	56.3%	18.8%	25.0%	«R223»		37.5%	40.6%	21.9%	«E223»	

General Consequences		Group Average Relevancy Ratings					Group Average Effect Ratings				
These are consequences that were identified by participants, but were too broad to categorize under the original 13 criteria statements.		REL	NEU	IRR	Your Rating	New Rating	POS	NEU	NEG	Your Rating	New Rating
1	Reduced the size, scope, and influence of CTE in Virginia	53.1%	21.9%	25.0%	«R22 4»		0.0%	40.6%	59.4%	«E22 4»	
2	Influenced the move of CTE from secondary level to community college level. Comment(s): (1)Not accurate as stated. There has been a reduction of CTE at the secondary level, which has been unfortunate for the students that stay in school because of these programs. Many times these are the students that do not go to community college. (2) There has been a coordinated effort to increase dual enrollment courses, which has been positive. (3) Yes, Perkins did influence the shift to CC. I believe this is a negative since career preparation should begin early and continue through CC. (4) CTE programs are needed at both levels. Secondary should be an “entry pathway” into the higher technical programs located at CCs.	65.6%	15.6%	18.8%	«R22 5»		9.4%	37.5%	53.1%	«E22 5»	

APPENDIX H FINAL DELPHI PARTICIPANTS

Harry J. Bagnell
Local-level administrator

Dr. Ben L. Baines
State-level administrator

Lydia M. Bell
State-level administrator

James N. Brooks
Local-level administrator

Neils W. Brooks Sr.
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Dr. William Camp
Teacher educator, Virginia Polytechnic and
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Dr. Walter Deal
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Forest Fowler
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Charles Friedl
Local-level administrator

Sharon Glasscock
State-level administrator

James A. Gray, Jr.
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Dr. Patrick Konopnicki
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F. Wendell Latham
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State-level administrator

Michael Snavely
Local-level administrator

Dr. Ned K. Swartz
State-level administrator

Carlton Tew
Local-level administrator

Dr. John E. Turner
Teacher Educator, Old Dominion University

Doris K. Wimmer
Local-level Administrator

Wilbert Ware
Local-level administrator

APPENDIX I

EIGHT KNOWN EFFECTS OF THE 1990 PERKINS ACT WITHIN-STATE FUNDING FORMULA CHANGE

1. **Decreased state-level Perkins funding for administrative and leadership purposes –**
The 1990 amendments to the Perkins Act decreased state-level Perkins funding for administrative purposes by 2% (from 7% to 5% of total Perkins funding to Virginia, which equated to a 29% cut in Perkins funding). Additionally, it decreased the amount of funding available for state leadership activities by at least 5.5% (from 13% to 8.5%, which equated to a 35% decrease in Perkins funding available for state leadership activities) (AVA, 1989; U.S. Congress, 1984; U.S. Congress, 1990; Jennings, 1991).
2. **Increased local-level Perkins funding –**
The average CTE school division received a 36.2% gain in Perkins funding (VDOE, 1993).
3. **Decreased state's fiscal and administrative authority over Perkins funding-**
The state-level CTE administration experienced a decrease in fiscal control over the spending of Perkins dollars and administrative control over implementation of Perkins mandates and initiatives (Jennings, 1991; Swanson, 1991).
4. **Increased localities' fiscal and administrative authority over Perkins funding –**
The local-level CTE administration experienced an increase in fiscal control over the spending of Perkins dollars and administrative control over implementation of Perkins mandates and initiatives (Jennings, 1991).
5. **Decentralized program evaluation onto the local systems -**
The 1990 amendments changed the manner in which states regulated and evaluated local CTE programs. Prior to the 1990 amendments, state-level CTE administration oversaw the evaluation of local programs. After the enactment of the 1990 Perkins Act, state-level CTE administration took on a monitoring role. In other words, state-level CTE administration monitored the program evaluation procedures that local CTE programs conducted of themselves (Jennings, 1991).
6. **Increased local system's responsibilities and administrative burden -**
By easing state regulatory responsibilities, the 1990 Perkins Act increased the local-level CTE administration's responsibilities for measuring program performance and the administrative burden of managing the implementation of Perkins mandates and Perkins funding (Jennings, 1991).
7. **Decreased Perkins funding to University/College CTE teacher education programs -**
Prior to the 1990 Amendments, Perkins funding was available at the state-level for preservice teacher education institutions. Additionally, many research and professional development grants were awarded to teacher education institutions. After the enactment of the 1990 Perkins Act, this funding stream from the state-level CTE decreased (VDOE, 1991; Lynch, 1998; Camp & Heath-Camp, 2007).
8. **Decreased University/College CTE teacher education personnel -**
Prior to 1990, many teacher education positions were being partially funded by Perkins money. The reduction in federal money led to a decrease in the number of faculty members in CTE teacher education institutions, not only in Virginia, but in all other states (Lynch, 1998; Camp & Heath-Camp, 2007).

APPENDIX J
223 CONSEQUENCES OF THE EIGHT KNOWN EFFECTS OF THE 1990 PERKINS
WITHIN-STATE ACT FUNDING FORMULA CHANGE

	Criterion 1	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Provide state coordination, leadership, and technical assistance for local systems to identify, interpret, and comply with local program standards developed and accepted by the CTE profession, as well as federal and state regulations.	REL	NEU	IRR	POS	NEU	NEG
1	Reduced state leadership activities due to decreased state-level Perkins.	93.8%	3.1%	3.1%	0.0%	12.5%	87.5%
2	Decreased state-level CTE's ability to coordinate local CTE programs.	84.4%	6.3%	9.4%	6.3%	18.8%	75.0%
3	Decreased state-level CTE's ability to identify trends and innovative programs	59.4%	28.1%	12.5%	0.0%	40.6%	59.4%
4	Decreased university-level CTE's ability to provide any coordination, leadership, or technical assistance at the state and local-level.	78.1%	15.6%	6.3%	0.0%	25.0%	75.0%
5	Decreased contact between state-level CTE and local-level CTE.	81.3%	15.6%	3.1%	3.1%	28.1%	68.8%
6	Weakened programs due to diminished state involvement and support in establishing and complying with standards and accountability measures.	65.6%	18.8%	15.6%	3.1%	37.5%	59.4%
7	Diminished state-level CTE's ability to visit schools and give input and advice on how to make local-level decisions.	90.6%	0.0%	9.4%	6.3%	15.6%	78.1%
8	Resulted in happenstance program structure and policies at the local-level	46.9%	31.3%	21.9%	0.0%	43.8%	56.3%
9	Reduced local CTE communication with other localities. Only communication between state and local systems took place.	31.3%	40.6%	28.1%	3.1%	62.5%	34.4%
10	The decreased state-level support and involvement encouraged school divisions to give their CTE administrators additional duties.	84.4%	6.3%	9.4%	3.1%	15.6%	81.3%
11	Resulted in inconsistencies in local-level CTE program administration and evaluation.	65.6%	18.8%	15.6%	3.1%	34.4%	62.5%
12	Reduced state-level CTE's ability to monitor the quality of local CTE programs.	87.5%	3.1%	9.4%	3.1%	18.8%	78.1%
13	Removed some of the state-level politics involved in decision making. Especially related to teacher hiring, program offerings, and teacher assignments.	40.6%	25.0%	34.4%	31.3%	53.1%	15.6%
14	Reduced the one size fits all approach to CTE programs.	50.0%	31.3%	18.8%	46.9%	43.8%	9.4%
15	Increased local-level CTE's opportunity to customize programs to local needs and standards.	78.1%	12.5%	9.4%	68.8%	18.8%	12.5%
16	Decreased state-level support increased the likelihood that local-level CTE directional changes were based on political motives or hunches rather than solid research.	59.4%	25.0%	15.6%	3.1%	43.8%	53.1%
17	Decreased local-level CTE's ability to see the "big picture" concerning program decisions.	50.0%	25.0%	25.0%	0.0%	50.0%	50.0%
18	Increased local-level Perkins funding provided for additional resources to localities for providing locally-sponsored technical updates for teacher and administrators.	78.1%	15.6%	6.3%	50.0%	28.1%	21.9%

	Criterion 1, cont.	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Provide state coordination, leadership, and technical assistance for local systems to identify, interpret, and comply with local program standards developed and accepted by the CTE profession, as well as federal and state regulations.	REL	NEU	IRR	POS	NEU	NEG
19	Resulted in the development of state-wide performance standards developed in conjunction with the localities and the community college system.	75.0%	18.8%	6.3%	75.0%	18.8%	6.3%
20	Increased administrative burden on local-level CTE personnel especially in smaller school divisions.	81.3%	15.6%	3.1%	6.3%	25.0%	68.8%
21	Increased networking between local-level CTE school divisions concerning this criterion.	53.1%	40.6%	6.3%	50.0%	46.9%	3.1%
22	Resulted in state-level CTE adjusting the method in which they provided technical assistance. Comment(s): Reduced contact and opportunities to provide assistance	90.6%	3.1%	6.3%	21.9%	37.5%	40.6%
23	Reduced state-level CTE's ability to provide local technical assistance due to decreased funding at the state level.	87.5%	6.3%	6.3%	3.1%	15.6%	81.3%
24	Created confusion among local-level CTE administrators concerning the application of Perkins funding.	62.5%	31.3%	6.3%	3.1%	43.8%	53.1%
25	Reduced individual technical assistance to teachers in the field.	87.5%	12.5%	0.0%	3.1%	15.6%	81.3%
26	Reduced state-level staff and increased the workload of remaining state staff.	90.6%	9.4%	0.0%	3.1%	18.8%	78.1%
	Criterion 2	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Provide relevant professional and leadership development to teachers, administrators, and teacher educators.	REL	NEU	IRR	POS	NEU	NEG
1	Reduced state-level CTE's ability to plan coordinate, and deliver relevant professional & leadership development activities.	90.6%	6.3%	3.1%	3.1%	18.8%	78.1%
2	Increased local coordination of professional development.	71.9%	18.8%	9.4%	46.9%	40.6%	12.5%
3	Lack of professional development, increased the number of CTE teachers leaving the profession.	34.4%	25.0%	40.6%	6.3%	59.4%	34.4%
4	Reduced the number of T&I teacher education courses held at the local-level.	62.5%	31.3%	6.3%	3.1%	43.8%	53.1%
5	Resulted in teacher education programs that do not prepare teachers for their role.	53.1%	28.1%	18.8%	3.1%	43.8%	53.1%
6	Decreased professional development activities by the state and universities.	81.3%	15.6%	3.1%	0.0%	18.8%	81.3%
7	Decreased leadership development activities by the state and universities.	81.3%	15.6%	3.1%	3.1%	21.9%	75.0%
8	Decreased the opportunity for leadership development for teachers, administrators, and collaboration with teacher educators.	81.3%	9.4%	9.4%	3.1%	15.6%	81.3%
9	Increased the quality of the annual CTE state conference. Comment(s): (1)I disagree, if anything they were harmed by the loss of state-level funding; (2) Quality did not increase, but remained about the same.	50.0%	18.8%	31.3%	34.4%	50.0%	15.6%

	Criterion 2 cont.	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Provide relevant professional and leadership development to teachers, administrators, and teacher educators.	REL	NEU	IRR	POS	NEU	NEG
10	Reduced the amount of teamwork and information sharing among teachers and administrators.	46.9%	31.3%	21.9%	0.0%	59.4%	40.6%
11	Reduced CTE program specific professional development which created an emphasis on overall CTE staff development.	75.0%	15.6%	9.4%	12.5%	34.4%	53.1%
12	Modified the role of state-level CTE and teacher education personnel in providing and coordinating leadership and direction. Comment(s): Weakened the outreach role of teacher educators.	93.8%	6.3%	0.0%	21.9%	25.0%	53.1%
13	Decreased local-level CTE funding participants cost for attending state-level CTE professional development activities.	65.6%	18.8%	15.6%	6.3%	31.3%	62.5%
14	Decreased regional inservice activities.	75.0%	18.8%	6.3%	0.0%	21.9%	78.1%
15	Reduced funding to support the participation of state-level CTE staff in regional conferences & national conferences	75.0%	15.6%	9.4%	0.0%	21.9%	78.1%
16	Reduced funding to support the participation of university/college personnel in regional conferences & national conferences.	78.1%	15.6%	6.3%	0.0%	28.1%	71.9%
17	Resulted in the combination of CTE professional development with other subject areas and grade levels within the K-12 system. Comment(s): Tech Prep programs provided some of this development	62.5%	18.8%	18.8%	37.5%	43.8%	18.8%
18	Redirected university-level resources from administrator training to secondary teacher certification.	43.8%	46.9%	9.4%	12.5%	62.5%	25.0%
19	Established a free market system for professional and leadership development services to localities.	59.4%	37.5%	3.1%	31.3%	53.1%	15.6%
20	Increased responsibilities of professional organizations for providing the leadership for professional development activities. Comment(s): Professional organizations assumed responsibility, but lacked the necessary funding.	78.1%	15.6%	6.3%	31.3%	56.3%	12.5%
21	Reduced the participation of local teachers in professional development activities outside of their school divisions.	71.9%	12.5%	15.6%	0.0%	28.1%	71.9%
22	Increased resources for locally sponsored professional development programs targeted to specific needs of teachers and administrators.	71.9%	21.9%	6.3%	53.1%	34.4%	12.5%
23	Reduced cooperative strategic planning between state-level CTE and teacher education institutions. Comment(s): Reduced opportunities for teacher educators to interact with state CTE people. Example – teacher education advisory committee to State CTE and local CTE administration.	78.1%	15.6%	6.3%	0.0%	28.1%	71.9%

	Criterion 3	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Develop new programs and curricula to respond to current and projected occupational needs.	REL	NEU	IRR	POS	NEU	NEG
1	Increased the number of locally developed CTE programs and curricula that best served the occupational needs of the local community.	78.1%	15.6%	6.3%	65.6%	28.1%	6.3%
2	Resulted in many of newly developed programs and curriculum lacking a global perspective.	53.1%	34.4%	12.5%	6.3%	50.0%	43.8%
3	Increased networking with other localities for developing new programs and curriculum to respond to current and projected occupational needs. Comment(s): I saw a decrease in the amount of networking as a result of the funding loss at the state-level.	56.3%	28.1%	15.6%	50.0%	50.0%	0.0%
4	Resulted in an inability for local-level CTE programs to keep up with changing technology trends.	53.1%	21.9%	25.0%	0.0%	40.6%	59.4%
5	Decreased the number of new CTE programs.	59.4%	18.8%	21.9%	6.3%	31.3%	62.5%
6	Decreased the number of overall student enrollment in CTE programs. Comment(s): Localities used “lack of state funding” to cut programs and teachers	62.5%	12.5%	25.0%	3.1%	34.4%	62.5%
7	Resulted in Virginia reemerging as a leader in curriculum development. Comment(s): (1) Virginia has never been a leader in curr. dev. and the funding cuts just made it worse; (2) Virginia has always been a leader in curr. dev.	43.8%	37.5%	18.8%	40.6%	50.0%	9.4%
8	Increased and strengthened participation in Tech Prep program development through community college grants.	78.1%	15.6%	6.3%	68.8%	25.0%	6.3%
9	Increased local school division participation in high schools that work programs designed to integrate academic and CTE.	78.1%	18.8%	3.1%	68.8%	25.0%	6.3%
10	Decreased funding at the state-level for the development and dissemination of new programs and curricula, as well as updating existing programs and curricula.	87.5%	9.4%	3.1%	9.4%	18.8%	71.9%
11	Resulted in the production of uniform curriculum that integrated academic SOLs and industry standards that included industry certifications where applicable.	78.1%	12.5%	9.4%	71.9%	15.6%	12.5%
12	Increased funding at the local-level for developing new programs and curriculum.	78.1%	18.8%	3.1%	71.9%	25.0%	3.1%
13	Increased the burden on local school divisions that did not have supervisor staff to assist in new program and curriculum development and to ensure that programs and curricula were based on current research and best practices. Comment(s): Additionally, CTE supervisors and admin. Did not always have a CTE background or had a unrelated CTE background compared to the programs they had.	84.4%	12.5%	3.1%	6.3%	28.1%	65.6%
14	Resulted in state-level CTE’s curriculum development losing its direction.	56.3%	21.9%	21.9%	3.1%	43.8%	53.1%

	Criterion 3, cont.	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Develop new programs and curricula to respond to current and projected occupational needs.	REL	NEU	IRR	POS	NEU	NEG
15	Resulted in some local-level CTE school divisions reducing the amount of CTE programs in their middle and high schools and moving them to the regional career centers. Comment(s): Saw significant reductions in programs. Local admins. "strength" seemed to have some relationship on CTE program losses.	59.4%	25.0%	15.6%	12.5%	37.5%	50.0%
16	Increased the number of computer technology and keyboarding classes thus reducing the number of traditional CTE program offerings. Comment(s): Some CTE programs were replaced with "keyboarding" classes that were perceived as "technology" classes that taught technology literacy.	65.6%	21.9%	12.5%	12.5%	46.9%	40.6%
17	Resulted in an "explosion" of new courses everywhere and the attitude that more is better.	28.1%	46.9%	25.0%	9.4%	65.6%	25.0%
18	Increased the difficulty of identifying and disseminating new, successful programs that local innovations produced.	65.6%	21.9%	12.5%	3.1%	21.9%	75.0%
19	Increased the difficulty to rigorously test local innovations to see if they really worked.	59.4%	28.1%	12.5%	3.1%	46.9%	50.0%
20	Decreased state-level CTE's ability to develop and support statewide curriculum development for new CTE programs.	81.3%	9.4%	9.4%	3.1%	15.6%	81.3%
21	Resulted in a reliance on untrained CTE teachers to develop new programs and curriculum. Comment(s): Programs developed by the CTE resource center used experience teachers and professionals from B&I. May or may not have been the case in the local areas.	50.0%	28.1%	21.9%	3.1%	34.4%	62.5%
22	Restricted university-level personnel and faculty from assisting local CTE programs to develop new programs and curricula to respond to current and projected occupational needs.	75.0%	15.6%	9.4%	0.0%	21.9%	78.1%
	Criterion 4	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Formulate new and improve existing operational policies (standards) at the local level.	REL	NEU	IRR	POS	NEU	NEG
1	Reduced state-level CTE's ability to help support and oversee the implementation of local program policies.	87.5%	6.3%	6.3%	12.5%	18.8%	68.8%
2	Decreased state-level CTE's ability to create and expand CTE programs.	78.1%	9.4%	12.5%	3.1%	25.0%	71.9%
3	Resulted in a lack of local program policies.	37.5%	43.8%	18.8%	3.1%	59.4%	37.5%
4	Resulted in decreased coordination of local operational policies.	46.9%	37.5%	15.6%	0.0%	50.0%	50.0%
5	Increased local-level CTE's responsibility and decision making for formulating new, as well as improving existing operational policies	65.6%	21.9%	12.5%	34.4%	40.6%	25.0%
6	Resulted in no change in state support and oversight in the formulation of new, as well as the improving of existing operational policies at the local-level. Comment(s): (1) Definitely was a decrease in oversight, but state staff was always available (at least by phone) to provide information and support; (2) statement is simply inaccurate.	46.9%	15.6%	37.5%	0.0%	59.4%	40.6%

	Criterion 4, cont.	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Formulate new and improve existing operational policies (standards) at the local level.	REL	NEU	IRR	POS	NEU	NEG
7	Improved local operational policies especially in the areas of program completers and follow up.	59.4%	21.9%	18.8%	59.4%	28.1%	12.5%
8	Increased the opportunity for local-level CTE to enact or dismiss program policies that did or did not meet short sided or budget priorities.	56.3%	34.4%	9.4%	40.6%	37.5%	21.9%
9	Reduced opportunities for teacher education faculty to provide assist in the formulation of and improving of existing operational policies at the local-level. Comment(s): Not sure how involved teacher educators were in this at anytime.	62.5%	28.1%	9.4%	0.0%	46.9%	53.1%
10	Increased the difficulty of identifying and disseminating successful local program policies. Comment(s): Because there was less state staff to assist the locals with this.	59.4%	21.9%	18.8%	3.1%	37.5%	59.4%
11	Limited contact between local-level administrators and state-level staff concerning the formulation of new, as well as the improving of existing program policies at the local-level	62.5%	21.9%	15.6%	3.1%	28.1%	68.8%
12	The increase in local-level accountability increased the need for state support concerning operational policies. Comment(s): State-level assistance provided some policy direction across the state.	75.0%	21.9%	3.1%	28.1%	37.5%	34.4%
	Criterion 5	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Develop, improve, and maintain quality CTE teacher education programs at the bachelors, master's, and doctoral level.	REL	NEU	IRR	POS	NEU	NEG
1	Increased the workloads and responsibilities of remaining CTE teacher educators. Comment(s): Forced CTE teacher educators to become a more engaged participant concerning policy and programming with the K-12 system.	78.1%	15.6%	6.3%	0.0%	25.0%	75.0%
2	Decreased the number of CTE teacher education programs and courses at Virginia colleges and universities. Comment(s): Some of which were "less-then-effective"	87.5%	9.4%	3.1%	0.0%	18.8%	81.3%
3	Reduced the influence CTE teacher educators had within the university structure. Comment(s): My observation was that influence within the university didn't change, but funding formulas concerning travel, equipment, and local CTE assistance did change.	65.6%	25.0%	9.4%	0.0%	34.4%	65.6%
4	Resulted in CTE teacher education programs inability to keep abreast of changes in Business and Information Technology.	50.0%	34.4%	15.6%	0.0%	46.9%	53.1%
5	Decreased interest in teachers pursuing advanced CTE degrees. Comment(s): Did not witness a decrease in graduate interest in CTE	59.4%	28.1%	12.5%	6.3%	37.5%	56.3%
6	Decreased the relevancy of CTE teacher education programs.	65.6%	25.0%	9.4%	0.0%	31.3%	68.8%
7	Resulted in CTE teacher education programs becoming "generic" rather than program specific.	78.1%	18.8%	3.1%	6.3%	25.0%	68.8%
8	Resulted in the transferring of CTE teacher education faculty to other duties within the institution.	62.5%	31.3%	6.3%	0.0%	31.3%	68.8%

	Criterion 5 Cont.	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Develop, improve, and maintain quality CTE teacher education programs at the bachelors, master's, and doctoral level.	REL	NEU	IRR	POS	NEU	NEG
9	Decreased the ability of colleges and universities to implement new CTE programs at all levels.	81.3%	9.4%	9.4%	0.0%	21.9%	78.1%
10	Eliminated CTE teacher education special projects and grants.	75.0%	18.8%	6.3%	3.1%	28.1%	68.8%
11	Resulted in a need to redesign teacher preparation programs regarding the teaching of new knowledge and skills.	65.6%	21.9%	12.5%	31.3%	31.3%	37.5%
12	Reduced the number of services CTE teacher educators could offer to the CTE community such as inservice classes at local-level CTE schools	78.1%	12.5%	9.4%	3.1%	21.9%	75.0%
13	Reduced leadership positions at the universities which resulted in less representation at higher organizational levels.	68.8%	28.1%	3.1%	3.1%	31.3%	65.6%
14	Resulted in state-level CTE's ability to influence higher education. Comment(s): These entities had a good working relationship. However, communication and shared activities and projects were observed.	65.6%	25.0%	9.4%	12.5%	28.1%	59.4%
15	Increased the teachers and administrators cost of attending courses and workshops.	62.5%	21.9%	15.6%	0.0%	25.0%	75.0%
16	Increased the difficulty of locating and recruiting quality CTE teachers.	81.3%	9.4%	9.4%	3.1%	9.4%	87.5%
17	Resulted in a shortage of CTE teachers in Virginia. Comment(s): A significant decline in the number of CTE teachers has resulted in the shortage.	78.1%	9.4%	12.5%	0.0%	15.6%	84.4%
18	Decreased the quality of training at all levels of CTE teacher education programs. Comment(s): Quality has not declined, but offerings and availability of CTE teacher programs has diminished	65.6%	21.9%	12.5%	0.0%	31.3%	68.8%
19	Increased the need to search out of state for qualified CTE teacher candidates. Comment(s): Many CTE administrators are looking out of the state for CTE teachers.	65.6%	28.1%	6.3%	3.1%	46.9%	50.0%
20	Decreased CTE teachers' opportunity to update skills, find courses for full licensure, or to reinvent themselves to work with emerging technologies.	71.9%	12.5%	15.6%	3.1%	28.1%	68.8%
	Criterion 6	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Conduct innovative research projects to assist in meeting unmet CTE needs.	REL	NEU	IRR	POS	NEU	NEG
1	Reduced the amount of federally funded, university-level research	68.8%	25.0%	6.3%	0.0%	37.5%	62.5%
2	Increased the need to involve teacher educators in the process of selecting research needs to be addressed.	46.9%	34.4%	18.8%	34.4%	50.0%	15.6%
3	Resulted in research that did not address the needs of teachers.	25.0%	53.1%	21.9%	3.1%	59.4%	37.5%
4	Increased state-level research initiatives such as SREB's High Schools That Work and the NASDCTE's Leadership in Career Pathways.	56.3%	34.4%	9.4%	43.8%	46.9%	9.4%
5	Decreased all level's ability to assist other levels interpret and implement best research practices.	56.3%	34.4%	9.4%	0.0%	43.8%	56.3%
6	Eliminated CTE program specific research. Comment(s): "Eliminated" is too strong. More like "reduced"	68.8%	25.0%	6.3%	6.3%	31.3%	62.5%

	Criterion 6 Cont.	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Conduct innovative research projects to assist in meeting unmet CTE needs.	REL	NEU	IRR	POS	NEU	NEG
7	Reduced the amount of CTE research conducted and disseminated at all levels.	65.6%	28.1%	6.3%	0.0%	37.5%	62.5%
8	Reduced the university-level CTE's ability to provide essential data for decision making at the state and local levels.	59.4%	34.4%	6.3%	3.1%	43.8%	53.1%
9	Increased local-levels ability to support research and development. Comment(s): Not sure about this	50.0%	34.4%	15.6%	18.8%	53.1%	28.1%
10	Reduced state-level funding for CTE research projects.	75.0%	21.9%	3.1%	0.0%	28.1%	71.9%
11	Required university-level researchers to search for research opportunities/funding that not only met some CTE priority, but also looked "good" in the eyes of university administrators.	59.4%	31.3%	9.4%	18.8%	40.6%	40.6%
12	Decreased state-level funding for research resulted in an increase in the state's ability to conduct innovative research projects to assist in meeting unmet CTE needs. Comment(s): I disagree with the premise.	56.3%	31.3%	12.5%	15.6%	40.6%	43.8%
	Criterion 7	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Educate and recruit quality CTE teachers and leaders.	REL	NEU	IRR	POS	NEU	NEG
1	Increased the number of provisionally licensed teachers. Comment(s): In many cases this has been negative, but it has brought CTE some good teachers from B&I.	71.9%	21.9%	6.3%	9.4%	25.0%	65.6%
2	Increased the need for researching options to certify non-degree teachers.	71.9%	12.5%	15.6%	25.0%	40.6%	34.4%
3	Decreased ability to attract qualified individuals to the field of CTE.	59.4%	21.9%	18.8%	0.0%	34.4%	65.6%
4	Increased local-level CTE's ability to add teachers and additional support to teachers.	65.6%	18.8%	15.6%	40.6%	25.0%	34.4%
5	Shifted hiring priorities away from candidates that have knowledge of running CTE programs.	46.9%	34.4%	18.8%	0.0%	46.9%	53.1%
6	Reduced staffing which created a decline in communication.	46.9%	40.6%	12.5%	0.0%	53.1%	46.9%
7	Increased the number of CTE teachers hired for teaching positions in program areas they were not trained to teach in.	62.5%	28.1%	9.4%	0.0%	34.4%	65.6%
8	Increased emphasis on retraining business and industry professionals to meet the teacher needs of local-level CTE. Comment(s): (1) In many cases this has been negative, but it has brought CTE some good teachers from B&I. ; (2) Some are not as successful as others or compare to teacher-education prepared CTE teachers.	62.5%	25.0%	12.5%	43.8%	50.0%	6.3%
9	Reduced the ability to respond to critical shortage areas.	62.5%	25.0%	12.5%	0.0%	31.3%	68.8%
10	Increased the number of provisionally licensed teachers who lacked professional teaching skills.	68.8%	25.0%	6.3%	6.3%	34.4%	59.4%
11	Decreased the number of teachers who supported professional associations that promote and advance CTE programs.	56.3%	31.3%	12.5%	3.1%	40.6%	56.3%
12	Decreased the number of CTE directors at the local-level that had a background in CTE and an understanding of CTE program administration.	75.0%	15.6%	9.4%	0.0%	18.8%	81.3%

	Criterion 7, cont.	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Educate and recruit quality CTE teachers and leaders.	REL	NEU	IRR	POS	NEU	NEG
13	Decreased the number of students, teachers, and administrators attending and completing in university/college courses and programs.	62.5%	18.8%	18.8%	0.0%	34.4%	65.6%
14	Reduced the sources available for recruiting new teachers.	59.4%	25.0%	15.6%	0.0%	37.5%	62.5%
15	Reduced the ability of colleges to recruit and education qualified CTE teachers and leaders.	62.5%	34.4%	3.1%	0.0%	37.5%	62.5%
16	Produced a shortage of CTE teacher educators. Comment(s): There are other factors that affect the decision to become a CTE teacher educator.	65.6%	18.8%	15.6%	0.0%	18.8%	81.3%
17	Increased the number of alternatively licensed CTE teachers. Comment(s): In many cases this has been negative, but it has brought CTE some good teachers from B&I.	68.8%	18.8%	12.5%	6.3%	37.5%	56.3%
18	Encouraged the state to lower requirements for CTE teachers that soon became outdated.	37.5%	34.4%	28.1%	0.0%	56.3%	43.8%
19	Decreased the number of CTE programs due to poorly trained provisionally licensed teachers.	53.1%	28.1%	18.8%	0.0%	43.8%	56.3%
20	Resulted in the underlying philosophy of CTE being lost within the CTE profession due to poorly trained provisionally licensed teachers.	46.9%	28.1%	25.0%	0.0%	43.8%	56.3%
21	Increased the number of CTE teachers completing general education master's programs rather than CTE specific master's programs.	46.9%	40.6%	12.5%	6.3%	46.9%	46.9%
22	Increased the burden of local administration to train qualified CTE teachers.	68.8%	21.9%	9.4%	3.1%	43.8%	53.1%
23	Decreased teacher quality in CTE.	50.0%	31.3%	18.8%	0.0%	50.0%	50.0%
	Criterion 8	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Operate and maintain local CTE facilities and equipment.	REL	NEU	IRR	POS	NEU	NEG
1	Increased local-level CTE's ability to maintain their facilities and equipment.	68.8%	25.0%	6.3%	62.5%	25.0%	12.5%
2	Resulted in a decrease of real world applications for students. Comment(s): CTE has always used real world apps. for students. This didn't change because of legislation.	34.4%	28.1%	37.5%	0.0%	50.0%	50.0%
3	Increased local-level CTE's ability to emulate actual work experiences by emulating facilities and equipment found in the real world.	65.6%	15.6%	18.8%	53.1%	31.3%	15.6%
4	Reduced facility management systems.	31.3%	59.4%	9.4%	3.1%	62.5%	34.4%
5	Increased the difficulty of purchasing and maintaining adequate facilities and equipment due to constraints on local budgets.	62.5%	21.9%	15.6%	6.3%	31.3%	62.5%
6	Increased local-level CTE's accountability concerning updating and purchasing new equipment.	68.8%	15.6%	15.6%	50.0%	34.4%	15.6%
7	Increased federal funds for equipment purchases and other non-personnel costs at the local-level.	71.9%	18.8%	9.4%	65.6%	21.9%	12.5%
8	Decreased the involvement of university-level faculty/personnel in supporting local-level CTE regarding this criterion.	53.1%	37.5%	9.4%	3.1%	46.9%	50.0%

	Criterion 8, cont.	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Operate and maintain local CTE facilities and equipment.	REL	NEU	IRR	POS	NEU	NEG
9	Improved local-level facilities and equipment. Comment(s): (1) True for equipment, but not sure about facilities. ;(2) Local budgets generally don't fund maintenance and support adequately.	65.6%	21.9%	12.5%	59.4%	31.3%	9.4%
10	Resulted in local-level facility and equipment improvement that was haphazard and lacked focus. Comment(s): (1) There was a decrease in state involvement in this which could have resulted in a negative effect.;(2) true for some instances, but others were very well managed.	50.0%	28.1%	21.9%	15.6%	34.4%	50.0%
11	Increased the burden on local school divisions to purchase highly-priced state of the art equipment that federal funding could not cover.	46.9%	31.3%	21.9%	6.3%	53.1%	40.6%
12	Eliminated statewide planning approach to priorities.	59.4%	18.8%	21.9%	6.3%	46.9%	46.9%
13	Limited federal dollars for facility maintenance and improvement.	71.9%	21.9%	6.3%	3.1%	34.4%	62.5%
14	Increased local-level CTE's responsibility and burden to operate and maintain local CTE facilities and equipment Comment(s): While probably true, localities did see an increase in funding that could be used for buying equipment.	71.9%	21.9%	6.3%	18.8%	34.4%	46.9%
	Criterion 9	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Develop, improve, and maintain statewide professional associations and CTE teachers and administrators at all levels (local, state, and universities).	REL	NEU	IRR	POS	NEU	NEG
1	Decreased professional memberships in associations due to decrease in funding for travel and conference participation.	75.0%	15.6%	9.4%	3.1%	18.8%	78.1%
2	Decrease in professional membership in associations due to greater emphasis on local staff development activities. Comment(s): There has been a decrease in membership, but I am not sure if it is because of this.	59.4%	18.8%	21.9%	12.5%	43.8%	43.8%
3	Increased the responsibility of individual CTE teachers to plan statewide professional organization activities for students. Comment(s): increased teacher involvement had a positive impact	71.9%	21.9%	6.3%	25.0%	43.8%	31.3%
4	Decreased the number of professional association meetings.	65.6%	34.4%	0.0%	15.6%	43.8%	40.6%
5	Decreased state-level CTE support for student organizations (CTSOs). Comment(s): (1) Still a state-level priority, but not enough state staff limits the support they can provide.; (2) No decline in support. If anything, student organizations may be stronger.	71.9%	18.8%	9.4%	6.3%	34.4%	59.4%
6	Placed greater emphasis on CTE professional organizations to provide staff development for their teachers and members.	81.3%	15.6%	3.1%	40.6%	37.5%	21.9%
7	Lack of involvement of university-level CTE resulted in less effective state organizations.	62.5%	21.9%	15.6%	0.0%	53.1%	46.9%
8	Reduced state and university-level contact about the value of professional organizations, reduced memberships in professional organizations.	59.4%	25.0%	15.6%	0.0%	46.9%	53.1%
9	Reduced the number of administrators and teachers attending professional conferences.	71.9%	15.6%	12.5%	0.0%	31.3%	68.8%

	Criterion 9 Cont.	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Develop, improve, and maintain statewide professional associations and CTE teachers and administrators at all levels (local, state, and universities).	REL	NEU	IRR	POS	NEU	NEG
10	Decreased resources to promote and advance professional CTE programs.	75.0%	9.4%	15.6%	0.0%	28.1%	71.9%
11	Reduced state-level CTE funding for local and university level professional inservice that was provided by professional organizations.	78.1%	15.6%	6.3%	0.0%	34.4%	65.6%
12	Lack of state and university support resulted in a lack of advice and counsel for teacher associations.	68.8%	15.6%	15.6%	0.0%	43.8%	56.3%
13	Decreased coordination between CTE program area professional associations.	56.3%	34.4%	9.4%	3.1%	46.9%	50.0%
14	Increased local support for teacher/administrator participation in professional associations.	53.1%	31.3%	15.6%	40.6%	40.6%	18.8%
15	Resulted in state administrators having less influence over their state and local CTE professional organizations.	78.1%	15.6%	6.3%	18.8%	40.6%	40.6%
	Criterion 10	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Develop and execute external and internal procedures for program planning, development and evaluation procedures for local CTE programs.	REL	NEU	IRR	POS	NEU	NEG
1	Decreased state-level CTE's ability to compare districts and provide comprehensive dissemination of best practices concerning this criterion.	65.6%	15.6%	18.8%	0.0%	40.6%	59.4%
2	Increased state-level CTE's ability to compare districts and provide comprehensive dissemination of best practices.	40.6%	25.0%	34.4%	28.1%	46.9%	25.0%
3	Resulted in program implementation, improvement, and development becoming uncoordinated and unstructured. Comment(s): This statement is too strong, but it did result in reduced accountability and lack of consistency in administering these processes.	53.1%	34.4%	12.5%	0.0%	40.6%	59.4%
4	Provided an opportunity to initiate a new CTE state evaluation based on standards identified by federal legislation.	59.4%	37.5%	3.1%	37.5%	50.0%	12.5%
5	Placed greater emphasis on local school divisions in the establishment and development of new programs. Comment(s): The impact of this depended on the school district. Some used state resources and experts. Some used "haphazard" approaches.	81.3%	15.6%	3.1%	53.1%	37.5%	9.4%
6	Lack of communication between all levels resulted in a decrease in learning from other's successes and failures.	65.6%	18.8%	15.6%	3.1%	28.1%	68.8%
7	Reduced the opportunity for program specific evaluations rather than overall CTE evaluations.	50.0%	37.5%	12.5%	0.0%	46.9%	53.1%
8	Increased federal funds that may be used for program planning, development, and evaluation.	68.8%	25.0%	6.3%	46.9%	43.8%	9.4%
9	Increased complexity of the vocational computerized management system. Comment(s): Data collection became more complex and was offset by computerization of records and data.	59.4%	31.3%	9.4%	15.6%	46.9%	37.5%
10	Increased the number of academically underperforming students in CTE programs without regard to their career needs.	50.0%	34.4%	15.6%	3.1%	40.6%	56.3%

	Criterion 10, cont.	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Develop and execute external and internal procedures for program planning, development and evaluation procedures for local CTE programs.	REL	NEU	IRR	POS	NEU	NEG
11	Decreased local accountability and led to inconsistencies in the administration of program planning, development, and evaluation procedures.	50.0%	28.1%	21.9%	0.0%	34.4%	65.6%
12	Placed an additional burden on local personnel for planning, development, and evaluation.	78.1%	9.4%	12.5%	18.8%	18.8%	62.5%
13	Decreased state-level assistance from the state for planning, developing, and evaluating.	71.9%	21.9%	6.3%	3.1%	31.3%	65.6%
14	Eliminated most program planning except what the localities wanted to do without thought of what was taking place in other localities or what was best for CTE program overall.	46.9%	28.1%	25.0%	3.1%	40.6%	56.3%
15	Improved program planning, development, and evaluation in response local advisory committees, industry needs, and economic development. Comment(s): True for some school divisions.	62.5%	28.1%	9.4%	56.3%	37.5%	6.3%
16	Decreased research and testing relative to the curriculum and standards for new programs. Comment(s): I don't fully understand this statement	56.3%	28.1%	15.6%	6.3%	40.6%	53.1%
17	Resulted in state-level CTE and university-level teacher educators reducing their involvement with evaluation designs, collection, and interpretation of data.	59.4%	21.9%	18.8%	0.0%	37.5%	62.5%
18	Resulted in the elimination of CTE-related data as it has been merged with other school reporting (e.g. completer report is now part of the division End of Year report). Comment(s): Didn't eliminate CTE data, just merged it into a larger document with other school data.	53.1%	31.3%	15.6%	9.4%	50.0%	40.6%
19	Decreased networking opportunities between localities to share best practices in this area.	56.3%	25.0%	18.8%	0.0%	37.5%	62.5%
20	Increased networking opportunities between localities to share best practices in this area. Comment(s): Not sure this happened.	37.5%	31.3%	31.3%	40.6%	43.8%	15.6%
21	Resulted in students not being prepared for employment. Comment(s): (1)Statement too general to be meaningful. I am confident many more students are prepared for employment. (2) some students, but not all.	31.3%	31.3%	37.5%	0.0%	53.1%	46.9%
	Criterion 11	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Develop, improve, and maintain state and local community relations (e.g., advisory committee, CTSO, other workforce agencies).	REL	NEU	IRR	POS	NEU	NEG
1	Reduced state-level CTE's ability to assist local secondary CTE schools in developing, growing, and maintaining advisory committees.	62.5%	18.8%	18.8%	3.1%	37.5%	59.4%
2	Decreased state-level fiscal and administrative control resulted in less emphasis on the development and maintenance of local and state advisory committees.	65.6%	28.1%	6.3%	0.0%	40.6%	59.4%
3	Resulted in CTE educational agency (all levels) becoming non-responsive to the needs of the employment community. Comment(s): Statement too general to be meaningful. The way its stated is simply not true.	37.5%	18.8%	43.8%	0.0%	40.6%	59.4%

	Criterion 11, cont.	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Develop, improve, and maintain state and local community relations (e.g., advisory committee, CTSO, other workforce agencies).	REL	NEU	IRR	POS	NEU	NEG
4	Resulted in independent coordination of advisory committee members rather than coordination between all levels of CTE.	37.5%	40.6%	21.9%	3.1%	62.5%	34.4%
5	Resulted in local-level CTE relying on the support of business and industry instead of state to maintain community relations. Comment(s): Local school divisions have never relied on the state to maintain community relations.	56.3%	21.9%	21.9%	59.4%	31.3%	9.4%
6	Placed greater emphasis and responsibility on local advisory committees.	71.9%	18.8%	9.4%	71.9%	18.8%	9.4%
7	Eliminated federal funding for the state advisory committee appointed by governor.	71.9%	25.0%	3.1%	3.1%	31.3%	65.6%
8	Increased federal funds that may be used to support local advisory committee activities.	50.0%	31.3%	18.8%	40.6%	50.0%	9.4%
9	Eliminated the development, growth, and maintenance of state and local community relations.	50.0%	31.3%	18.8%	0.0%	43.8%	56.3%
10	Eliminated regional activities that supported local-level CTE in this area.	50.0%	37.5%	12.5%	3.1%	43.8%	53.1%
11	Shifted the role of state and university level personnel from assisting local-level CTE to advising them. Comment(s): This had a significant impact on local CTE and teacher educators.	65.6%	31.3%	3.1%	9.4%	40.6%	50.0%
12	Loss of teacher education programs resulted in a loss of preservice and inservice instruction on community relations and advisory committees.	78.1%	15.6%	6.3%	0.0%	31.3%	68.8%
	Criterion 12	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Develop, improve, and maintain student services (e.g., student recruitment and admissions, placement, and guidance services).	REL	NEU	IRR	POS	NEU	NEG
1	Increased local-level CTE's responsibility and funding to develop and provide CTE student services. Comment(s): It did increase funding for these services, but this has always been a local responsibility	65.6%	28.1%	6.3%	40.6%	40.6%	18.8%
2	Reduced state support of student recruitment programs and guidance services due to decreased state-level funding.	65.6%	25.0%	9.4%	3.1%	37.5%	59.4%
3	Improved local-level CTE guidance services.	40.6%	31.3%	28.1%	37.5%	40.6%	21.9%
4	Reduction in state involvement resulted in a decrease in the relationship between CTE school divisions and their respective high schools.	40.6%	28.1%	31.3%	0.0%	59.4%	40.6%
5	Lack of state emphasis and support reduced the number of program services and counseling services. Comment(s): This statement is too general.	53.1%	34.4%	12.5%	0.0%	46.9%	53.1%
6	Resulted in an inability to maintain student services at previous levels.	37.5%	53.1%	9.4%	0.0%	65.6%	34.4%
7	Reduced state-level CTE's ability to share best practices with local secondary CTE schools in developing, growing, and maintaining student services.	62.5%	25.0%	12.5%	0.0%	40.6%	59.4%
8	Increased guidance counselors' attention to program completions, placement, and follow up activities.	71.9%	18.8%	9.4%	62.5%	31.3%	6.3%

	Criterion 12 Cont.	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Develop, improve, and maintain student services (e.g., student recruitment and admissions, placement, and guidance services).	REL	NEU	IRR	POS	NEU	NEG
9	Improved the collection and use of local student data.	71.9%	9.4%	18.8%	68.8%	18.8%	12.5%
10	Resulted in localities developing recruiting initiatives and services to increase enrollment.	59.4%	28.1%	12.5%	59.4%	28.1%	12.5%
11	Increased the opportunity for local-level CTE to provide actual work experience programs and guidance. Comment(s): This is positive IF the statement is true.	37.5%	43.8%	18.8%	50.0%	43.8%	6.3%
	Criterion 13	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Develop, improve, and maintain fiscal management of local CTE programs.	REL	NEU	IRR	POS	NEU	NEG
1	Increased local-level CTE's flexibility concerning the spending of Perkins funding.	71.9%	18.8%	9.4%	59.4%	31.3%	9.4%
2	Resulted in carefully planned local-level CTE program expenditures due to the strict criteria used to annually approve the localities annual plan.	68.8%	25.0%	6.3%	56.3%	34.4%	9.4%
3	Reduced state-level CTE's support and guidance regarding fiscal management of local-level CTE.	62.5%	21.9%	15.6%	3.1%	46.9%	50.0%
4	Increased the quality of CTE programs. Comment(s): Not sure this is happening.	40.6%	40.6%	18.8%	40.6%	43.8%	15.6%
5	Increased the workload of local-level CTE administrators by increasing paperwork and forms.	81.3%	12.5%	6.3%	6.3%	25.0%	68.8%
6	Decreased state-level CTE's ability to monitor and insure compliance with federal laws and requirements.	65.6%	15.6%	18.8%	0.0%	50.0%	50.0%
7	Resulted in some school districts replacing local funds with Perkins funds which resulting in no additional benefit to the locality. Comment(s): Supplanting funds is a violation of federal law. This may be occurring with reduced accountability at the local level.	62.5%	34.4%	3.1%	0.0%	34.4%	65.6%
8	Decreased funding for local-level CTE supervisors and directors has hampered fiscal management.	68.8%	21.9%	9.4%	3.1%	40.6%	56.3%
9	Decreased local-level CTE flexibility in spending as the locally allocated Perkins money had to initially be spent to support Special Needs population in CTE programs. Comment from Adam: In round 2, there was a typo. This is the entire statement.	50.0%	40.6%	9.4%	0.0%	56.3%	43.8%
10	Increased state-level CTE's authority since local annual plans were required to be approved by the state.	56.3%	18.8%	25.0%	37.5%	40.6%	21.9%

	General Consequences	Group Average Relevancy Ratings			Group Average Effect Ratings		
	These are consequences that were identified by participants, but were too broad to categorize under the original 13 criteria statements.	REL	NEU	IRR	POS	NEU	NEG
1	Reduced the size, scope, and influence of CTE in Virginia	53.1%	21.9%	25.0%	0.0%	40.6%	59.4%
2	<p>Influenced the move of CTE from secondary level to community college level.</p> <p>Comment(s): (1)Not accurate as stated. There has been a reduction of CTE at the secondary level, which has been unfortunate for the students that stay in school because of these programs. Many times these are the students that do not go to community college. (2) There has been a coordinated effort to increase dual enrollment courses, which has been positive. (3) Yes, Perkins did influence the shift to CC. I believe this is a negative since career preparation should begin early and continue through CC. (4) CTE programs are needed at both levels. Secondary should be an “entry pathway” into the higher technical programs located at CCs.</p>	65.6%	15.6%	18.8%	9.4%	37.5%	53.1%

APPENDIX K
ROUND 3 SURVEY RESULTS

	Criterion 1	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Provide state coordination, leadership, and technical assistance for local systems to identify, interpret, and comply with local program standards developed and accepted by the CTE profession, as well as federal and state regulations.	REL	NEU	IRR	POS	NEU	NEG
1	Reduced state leadership activities due to decreased state-level Perkins.	90.0%	3.3%	6.7%	0.0%	10.0%	90.0%
2	Decreased state-level CTE's ability to coordinate local CTE programs.	93.3%	0.0%	6.7%	3.3%	10.0%	86.7%
3	Decreased state-level CTE's ability to identify trends and innovative programs	63.3%	23.3%	13.3%	0.0%	36.7%	63.3%
4	Decreased university-level CTE's ability to provide any coordination, leadership, or technical assistance at the state and local-level.	90.0%	3.3%	6.7%	0.0%	13.3%	86.7%
5	Decreased contact between state-level CTE and local-level CTE.	90.0%	6.7%	3.3%	3.3%	20.0%	76.7%
6	Weakened programs due to diminished state involvement and support in establishing and complying with standards and accountability measures.	80.0%	10.0%	10.0%	3.3%	23.3%	73.3%
7	Diminished state-level CTE's ability to visit schools and give input and advice on how to make local-level decisions.	96.7%	0.0%	3.3%	6.7%	10.0%	83.3%
8	Resulted in happenstance program structure and policies at the local-level	43.3%	33.3%	23.3%	0.0%	40.0%	60.0%
9	Reduced local CTE communication with other localities. Only communication between state and local systems took place.	33.3%	46.7%	20.0%	0.0%	73.3%	26.7%
10	The decreased state-level support and involvement encouraged school divisions to give their CTE administrators additional duties.	93.3%	0.0%	6.7%	3.3%	6.7%	90.0%
11	Resulted in inconsistencies in local-level CTE program administration and evaluation.	80.0%	16.7%	3.3%	3.3%	20.0%	76.7%
12	Reduced state-level CTE's ability to monitor the quality of local CTE programs.	90.0%	0.0%	10.0%	0.0%	20.0%	80.0%
13	Removed some of the state-level politics involved in decision making. Especially related to teacher hiring, program offerings, and teacher assignments.	43.3%	20.0%	36.7%	26.7%	63.3%	10.0%
14	Reduced the one size fits all approach to CTE programs.	56.7%	26.7%	16.7%	50.0%	43.3%	6.7%
15	Increased local-level CTE's opportunity to customize programs to local needs and standards.	86.7%	6.7%	6.7%	76.7%	13.3%	10.0%
16	Decreased state-level support increased the likelihood that local-level CTE directional changes were based on political motives or hunches rather than solid research.	63.3%	23.3%	13.3%	0.0%	40.0%	60.0%
17	Decreased local-level CTE's ability to see the "big picture" concerning program decisions.	53.3%	20.0%	26.7%	3.3%	43.3%	53.3%
18	Increased local-level Perkins funding provided for additional resources to localities for providing locally-sponsored technical updates for teacher and administrators.	83.3%	16.7%	0.0%	60.0%	26.7%	13.3%

	Criterion 1, cont.	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Provide state coordination, leadership, and technical assistance for local systems to identify, interpret, and comply with local program standards developed and accepted by the CTE profession, as well as federal and state regulations.	REL	NEU	IRR	POS	NEU	NEG
19	Resulted in the development of state-wide performance standards developed in conjunction with the localities and the community college system.	83.3%	16.7%	0.0%	80.0%	20.0%	0.0%
20	Increased administrative burden on local-level CTE personnel especially in smaller school divisions.	90.0%	6.7%	3.3%	3.3%	20.0%	76.7%
21	Increased networking between local-level CTE school divisions concerning this criterion.	56.7%	36.7%	6.7%	60.0%	40.0%	0.0%
22	Resulted in state-level CTE adjusting the method in which they provided technical assistance. Comment(s): Reduced contact and opportunities to provide assistance	93.3%	3.3%	3.3%	13.3%	30.0%	56.7%
23	Reduced state-level CTE's ability to provide local technical assistance due to decreased funding at the state level.	93.3%	6.7%	0.0%	3.3%	10.0%	86.7%
24	Created confusion among local-level CTE administrators concerning the application of Perkins funding.	66.7%	26.7%	6.7%	0.0%	40.0%	60.0%
25	Reduced individual technical assistance to teachers in the field.	90.0%	10.0%	0.0%	0.0%	13.3%	86.7%
26	Reduced state-level staff and increased the workload of remaining state staff.	96.7%	3.3%	0.0%	3.3%	10.0%	86.7%
	Criterion 2	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Provide relevant professional and leadership development to teachers, administrators, and teacher educators.	REL	NEU	IRR	POS	NEU	NEG
1	Reduced state-level CTE's ability to plan coordinate, and deliver relevant professional & leadership development activities.	90.0%	6.7%	3.3%	3.3%	16.7%	80.0%
2	Increased local coordination of professional development.	76.7%	16.7%	6.7%	56.7%	40.0%	3.3%
3	Lack of professional development, increased the number of CTE teachers leaving the profession.	26.7%	23.3%	50.0%	6.7%	60.0%	33.3%
4	Reduced the number of T&I teacher education courses held at the local-level.	63.3%	30.0%	6.7%	3.3%	43.3%	53.3%
5	Resulted in teacher education programs that do not prepare teachers for their role.	60.0%	26.7%	13.3%	3.3%	40.0%	56.7%
6	Decreased professional development activities by the state and universities.	86.7%	10.0%	3.3%	0.0%	16.7%	83.3%
7	Decreased leadership development activities by the state and universities.	90.0%	6.7%	3.3%	3.3%	13.3%	83.3%
8	Decreased the opportunity for leadership development for teachers, administrators, and collaboration with teacher educators.	90.0%	3.3%	6.7%	3.3%	10.0%	86.7%
9	Increased the quality of the annual CTE state conference. Comment(s): (1) I disagree, if anything they were harmed by the loss of state-level funding; (2) Quality did not increase, but remained about the same.	56.7%	20.0%	23.3%	23.3%	60.0%	16.7%

	Criterion 2	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Provide relevant professional and leadership development to teachers, administrators, and teacher educators.	REL	NEU	IRR	POS	NEU	NEG
10	Reduced the amount of teamwork and information sharing among teachers and administrators.	50.0%	33.3%	16.7%	0.0%	66.7%	33.3%
11	Reduced CTE program specific professional development which created an emphasis on overall CTE staff development.	80.0%	13.3%	6.7%	10.0%	33.3%	56.7%
12	Modified the role of state-level CTE and teacher education personnel in providing and coordinating leadership and direction. Comment(s): Weakened the outreach role of teacher educators.	93.3%	6.7%	0.0%	13.3%	26.7%	60.0%
13	Decreased local-level CTE funding participants cost for attending state-level CTE professional development activities.	66.7%	16.7%	16.7%	3.3%	30.0%	66.7%
14	Decreased regional inservice activities.	80.0%	16.7%	3.3%	0.0%	20.0%	80.0%
15	Reduced funding to support the participation of state-level CTE staff in regional conferences & national conferences	76.7%	13.3%	10.0%	0.0%	23.3%	76.7%
16	Reduced funding to support the participation of university/college personnel in regional conferences & national conferences.	86.7%	10.0%	3.3%	0.0%	23.3%	76.7%
17	Resulted in the combination of CTE professional development with other subject areas and grade levels within the K-12 system. Comment(s): Tech Prep programs provided some of this development	70.0%	10.0%	20.0%	36.7%	53.3%	10.0%
18	Redirected university-level resources from administrator training to secondary teacher certification.	40.0%	53.3%	6.7%	3.3%	63.3%	33.3%
19	Established a free market system for professional and leadership development services to localities.	63.3%	33.3%	3.3%	30.0%	60.0%	10.0%
20	Increased responsibilities of professional organizations for providing the leadership for professional development activities. Comment(s): Professional organizations assumed responsibility, but lacked the necessary funding.	76.7%	16.7%	6.7%	26.7%	66.7%	6.7%
21	Reduced the participation of local teachers in professional development activities outside of their school divisions.	73.3%	10.0%	16.7%	0.0%	23.3%	76.7%
22	Increased resources for locally sponsored professional development programs targeted to specific needs of teachers and administrators.	70.0%	23.3%	6.7%	56.7%	36.7%	6.7%
23	Reduced cooperative strategic planning between state-level CTE and teacher education institutions. Comment(s): Reduced opportunities for teacher educators to interact with state CTE people. Example – teacher education advisory committee to State CTE and local CTE administration.	86.7%	6.7%	6.7%	0.0%	20.0%	80.0%

	Criterion 3	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Develop new programs and curricula to respond to current and projected occupational needs.	REL	NEU	IRR	POS	NEU	NEG
1	Increased the number of locally developed CTE programs and curricula that best served the occupational needs of the local community.	76.7%	16.7%	6.7%	73.3%	23.3%	3.3%
2	Resulted in many of newly developed programs and curriculum lacking a global perspective.	53.3%	33.3%	13.3%	0.0%	56.7%	43.3%
3	Increased networking with other localities for developing new programs and curriculum to respond to current and projected occupational needs. Comment(s): I saw a decrease in the amount of networking as a result of the funding loss at the state-level.	63.3%	23.3%	13.3%	46.7%	53.3%	0.0%
4	Resulted in an inability for local-level CTE programs to keep up with changing technology trends.	60.0%	20.0%	20.0%	0.0%	40.0%	60.0%
5	Decreased the number of new CTE programs.	60.0%	16.7%	23.3%	6.7%	30.0%	63.3%
6	Decreased the number of overall student enrollment in CTE programs. Comment(s): Localities used “lack of state funding” to cut programs and teachers	70.0%	6.7%	23.3%	0.0%	33.3%	66.7%
7	Resulted in Virginia reemerging as a leader in curriculum development. Comment(s): (1) Virginia has never been a leader in curr. dev. and the funding cuts just made it worse; (2) Virginia has always been a leader in curr. dev.	53.3%	33.3%	13.3%	40.0%	56.7%	3.3%
8	Increased and strengthened participation in Tech Prep program development through community college grants.	80.0%	13.3%	6.7%	73.3%	23.3%	3.3%
9	Increased local school division participation in high schools that work programs designed to integrate academic and CTE.	76.7%	20.0%	3.3%	76.7%	20.0%	3.3%
10	Decreased funding at the state-level for the development and dissemination of new programs and curricula, as well as updating existing programs and curricula.	93.3%	3.3%	3.3%	3.3%	20.0%	76.7%
11	Resulted in the production of uniform curriculum that integrated academic SOLs and industry standards that included industry certifications where applicable.	80.0%	13.3%	6.7%	80.0%	13.3%	6.7%
12	Increased funding at the local-level for developing new programs and curriculum.	86.7%	10.0%	3.3%	80.0%	20.0%	0.0%
13	Increased the burden on local school divisions that did not have supervisor staff to assist in new program and curriculum development and to ensure that programs and curricula were based on current research and best practices. Comment(s): Additionally, CTE supervisors and admin. Did not always have a CTE background or had a unrelated CTE background compared to the programs they had.	86.7%	10.0%	3.3%	3.3%	26.7%	70.0%
14	Resulted in state-level CTE’s curriculum development losing its direction.	56.7%	20.0%	23.3%	3.3%	46.7%	50.0%

	Criterion 3, cont.	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Develop new programs and curricula to respond to current and projected occupational needs.	REL	NEU	IRR	POS	NEU	NEG
15	Resulted in some local-level CTE school divisions reducing the amount of CTE programs in their middle and high schools and moving them to the regional career centers. Comment(s): Saw significant reductions in programs. Local admins. "strength" seemed to have some relationship on CTE program losses.	63.3%	23.3%	13.3%	10.0%	36.7%	53.3%
16	Increased the number of computer technology and keyboarding classes thus reducing the number of traditional CTE program offerings. Comment(s): Some CTE programs were replaced with "keyboarding" classes that were perceived as "technology" classes that taught technology literacy.	66.7%	20.0%	13.3%	16.7%	46.7%	36.7%
17	Resulted in an "explosion" of new courses everywhere and the attitude that more is better.	30.0%	43.3%	26.7%	13.3%	70.0%	16.7%
18	Increased the difficulty of identifying and disseminating new, successful programs that local innovations produced.	66.7%	23.3%	10.0%	3.3%	23.3%	73.3%
19	Increased the difficulty to rigorously test local innovations to see if they really worked.	56.7%	30.0%	13.3%	0.0%	46.7%	53.3%
20	Decreased state-level CTE's ability to develop and support statewide curriculum development for new CTE programs.	83.3%	6.7%	10.0%	0.0%	16.7%	83.3%
21	Resulted in a reliance on untrained CTE teachers to develop new programs and curriculum. Comment(s): Programs developed by the CTE resource center used experience teachers and professionals from B&I. May or may not have been the case in the local areas.	53.3%	30.0%	16.7%	3.3%	33.3%	63.3%
22	Restricted university-level personnel and faculty from assisting local CTE programs to develop new programs and curricula to respond to current and projected occupational needs.	76.7%	13.3%	10.0%	0.0%	23.3%	76.7%
	Criterion 4	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Formulate new and improve existing operational policies (standards) at the local level.	REL	NEU	IRR	POS	NEU	NEG
1	Reduced state-level CTE's ability to help support and oversee the implementation of local program policies.	90.0%	3.3%	6.7%	13.3%	13.3%	73.3%
2	Decreased state-level CTE's ability to create and expand CTE programs.	80.0%	10.0%	10.0%	3.3%	26.7%	70.0%
3	Resulted in a lack of local program policies.	36.7%	46.7%	16.7%	0.0%	70.0%	30.0%
4	Resulted in decreased coordination of local operational policies.	46.7%	36.7%	16.7%	0.0%	56.7%	43.3%
5	Increased local-level CTE's responsibility and decision making for formulating new, as well as improving existing operational policies	70.0%	16.7%	13.3%	33.3%	50.0%	16.7%

	Criterion 4, cont.	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Formulate new and improve existing operational policies (standards) at the local level.	REL	NEU	IRR	POS	NEU	NEG
6	Resulted in no change in state support and oversight in the formulation of new, as well as the improving of existing operational policies at the local-level. Comment(s): (1) Definitely was a decrease in oversight, but state staff was always available (at least by phone) to provide information and support; (2) statement is simply inaccurate.	46.7%	16.7%	36.7%	0.0%	66.7%	33.3%
7	Improved local operational policies especially in the areas of program completers and follow up.	63.3%	20.0%	16.7%	70.0%	26.7%	3.3%
8	Increased the opportunity for local-level CTE to enact or dismiss program policies that did or did not meet short sided or budget priorities.	60.0%	33.3%	6.7%	43.3%	40.0%	16.7%
9	Reduced opportunities for teacher education faculty to provide assist in the formulation of and improving of existing operational policies at the local-level. Comment(s): Not sure how involved teacher educators were in this at anytime.	66.7%	23.3%	10.0%	0.0%	43.3%	56.7%
10	Increased the difficulty of identifying and disseminating successful local program policies. Comment(s): Because there was less state staff to assist the locals with this.	60.0%	23.3%	16.7%	6.7%	40.0%	53.3%
11	Limited contact between local-level administrators and state-level staff concerning the formulation of new, as well as the improving of existing program policies at the local-level	70.0%	16.7%	13.3%	3.3%	23.3%	73.3%
12	The increase in local-level accountability increased the need for state support concerning operational policies. Comment(s): State-level assistance provided some policy direction across the state.	76.7%	23.3%	0.0%	23.3%	53.3%	23.3%
	Criterion 5	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Develop, improve, and maintain quality CTE teacher education programs at the bachelors, master's, and doctoral level.	REL	NEU	IRR	POS	NEU	NEG
1	Increased the workloads and responsibilities of remaining CTE teacher educators. Comment(s): Forced CTE teacher educators to become a more engaged participant concerning policy and programming with the K-12 system.	86.7%	6.7%	6.7%	0.0%	20.0%	80.0%
2	Decreased the number of CTE teacher education programs and courses at Virginia colleges and universities. Comment(s): Some of which were "less-then-effective"	90.0%	6.7%	3.3%	0.0%	20.0%	80.0%
3	Reduced the influence CTE teacher educators had within the university structure. Comment(s): My observation was that influence within the university didn't change, but funding formulas concerning travel, equipment, and local CTE assistance did change.	73.3%	20.0%	6.7%	0.0%	30.0%	70.0%
4	Resulted in CTE teacher education programs inability to keep abreast of changes in Business and Information Technology.	53.3%	30.0%	16.7%	0.0%	50.0%	50.0%
5	Decreased interest in teachers pursuing advanced CTE degrees. Comment(s): Did not witness a decrease in graduate interest in CTE	63.3%	26.7%	10.0%	6.7%	36.7%	56.7%

Criterion 5, cont.		Group Average Relevancy Ratings			Group Average Effect Ratings		
	Develop, improve, and maintain quality CTE teacher education programs at the bachelors, master's, and doctoral level.	REL	NEU	IRR	POS	NEU	NEG
6	Decreased the relevancy of CTE teacher education programs.	66.7%	26.7%	6.7%	0.0%	33.3%	66.7%
7	Resulted in CTE teacher education programs becoming "generic" rather than program specific.	83.3%	13.3%	3.3%	6.7%	20.0%	73.3%
8	Resulted in the transferring of CTE teacher education faculty to other duties within the institution.	66.7%	26.7%	6.7%	0.0%	26.7%	73.3%
9	Decreased the ability of colleges and universities to implement new CTE programs at all levels.	83.3%	6.7%	10.0%	0.0%	23.3%	76.7%
10	Eliminated CTE teacher education special projects and grants.	80.0%	16.7%	3.3%	3.3%	26.7%	70.0%
11	Resulted in a need to redesign teacher preparation programs regarding the teaching of new knowledge and skills.	70.0%	16.7%	13.3%	33.3%	30.0%	36.7%
12	Reduced the number of services CTE teacher educators could offer to the CTE community such as inservice classes at local-level CTE schools	80.0%	10.0%	10.0%	3.3%	23.3%	73.3%
13	Reduced leadership positions at the universities which resulted in less representation at higher organizational levels.	73.3%	26.7%	0.0%	0.0%	30.0%	70.0%
14	Resulted in state-level CTE's ability to influence higher education. Comment(s): These entities had a good working relationship. However, communication and shared activities and projects were observed.	76.7%	20.0%	3.3%	6.7%	26.7%	66.7%
15	Increased the teachers and administrators cost of attending courses and workshops.	66.7%	20.0%	13.3%	0.0%	26.7%	73.3%
16	Increased the difficulty of locating and recruiting quality CTE teachers.	83.3%	6.7%	10.0%	0.0%	13.3%	86.7%
17	Resulted in a shortage of CTE teachers in Virginia. Comment(s): A significant decline in the number of CTE teachers has resulted in the shortage.	80.0%	6.7%	13.3%	0.0%	16.7%	83.3%
18	Decreased the quality of training at all levels of CTE teacher education programs. Comment(s): Quality has not declined, but offerings and availability of CTE teacher programs has diminished	66.7%	20.0%	13.3%	0.0%	33.3%	66.7%
19	Increased the need to search out of state for qualified CTE teacher candidates. Comment(s): Many CTE administrators are looking out of the state for CTE teachers.	66.7%	26.7%	6.7%	3.3%	46.7%	50.0%
20	Decreased CTE teachers' opportunity to update skills, find courses for full licensure, or to reinvent themselves to work with emerging technologies.	73.3%	10.0%	16.7%	3.3%	26.7%	70.0%

	Criterion 6	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Conduct innovative research projects to assist in meeting unmet CTE needs.	REL	NEU	IRR	POS	NEU	NEG
1	Reduced the amount of federally funded, university-level research	83.3%	13.3%	3.3%	0.0%	30.0%	70.0%
2	Increased the need to involve teacher educators in the process of selecting research needs to be addressed.	53.3%	33.3%	13.3%	33.3%	50.0%	16.7%
3	Resulted in research that did not address the needs of teachers.	20.0%	66.7%	13.3%	3.3%	63.3%	33.3%
4	Increased state-level research initiatives such as SREB's High Schools That Work and the NASDCTE's Leadership in Career Pathways.	60.0%	36.7%	3.3%	43.3%	50.0%	6.7%
5	Decreased all level's ability to assist other levels interpret and implement best research practices.	63.3%	30.0%	6.7%	0.0%	43.3%	56.7%
6	Eliminated CTE program specific research. Comment(s): "Eliminated" is too strong. More like "reduced"	70.0%	23.3%	6.7%	6.7%	30.0%	63.3%
7	Reduced the amount of CTE research conducted and disseminated at all levels.	73.3%	23.3%	3.3%	0.0%	33.3%	66.7%
8	Reduced the university-level CTE's ability to provide essential data for decision making at the state and local levels.	63.3%	30.0%	6.7%	3.3%	43.3%	53.3%
9	Increased local-levels ability to support research and development. Comment(s): Not sure about this	53.3%	30.0%	16.7%	10.0%	60.0%	30.0%
10	Reduced state-level funding for CTE research projects.	86.7%	10.0%	3.3%	0.0%	20.0%	80.0%
11	Required university-level researchers to search for research opportunities/funding that not only met some CTE priority, but also looked "good" in the eyes of university administrators.	66.7%	26.7%	6.7%	10.0%	43.3%	46.7%
12	Decreased state-level funding for research resulted in an increase in the state's ability to conduct innovative research projects to assist in meeting unmet CTE needs. Comment(s): I disagree with the premise.	63.3%	26.7%	10.0%	6.7%	46.7%	46.7%
	Criterion 7	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Educate and recruit quality CTE teachers and leaders.	REL	NEU	IRR	POS	NEU	NEG
1	Increased the number of provisionally licensed teachers. Comment(s): In many cases this has been negative, but it has brought CTE some good teachers from B&I.	73.3%	20.0%	6.7%	10.0%	16.7%	73.3%
2	Increased the need for researching options to certify non-degree teachers.	73.3%	10.0%	16.7%	16.7%	46.7%	36.7%
3	Decreased ability to attract qualified individuals to the field of CTE.	66.7%	16.7%	16.7%	0.0%	30.0%	70.0%
4	Increased local-level CTE's ability to add teachers and additional support to teachers.	73.3%	13.3%	13.3%	50.0%	20.0%	30.0%
5	Shifted hiring priorities away from candidates that have knowledge of running CTE programs.	53.3%	30.0%	16.7%	0.0%	40.0%	60.0%

	Criterion 7, cont.	Group Average Relevancy Ratings			Group Average Effect Ratings		
		REL	NEU	IRR	POS	NEU	NEG
6	Reduced staffing which created a decline in communication.	46.7%	43.3%	10.0%	0.0%	60.0%	43.3%
7	Increased the number of CTE teachers hired for teaching positions in program areas they were not trained to teach in.	70.0%	23.3%	6.7%	0.0%	26.7%	73.3%
8	Increased emphasis on retraining business and industry professionals to meet the teacher needs of local-level CTE. Comment(s): (1) In many cases this has been negative, but it has brought CTE some good teachers from B&I. ; (2) Some are not as successful as others or compare to teacher-education prepared CTE teachers.	66.7%	23.3%	10.0%	36.7%	56.7%	6.7%
9	Reduced the ability to respond to critical shortage areas.	66.7%	20.0%	13.3%	0.0%	30.0%	70.0%
10	Increased the number of provisionally licensed teachers who lacked professional teaching skills.	73.3%	23.3%	3.3%	3.3%	33.3%	63.3%
11	Decreased the number of teachers who supported professional associations that promote and advance CTE programs.	60.0%	26.7%	13.3%	3.3%	36.7%	60.0%
12	Decreased the number of CTE directors at the local-level that had a background in CTE and an understanding of CTE program administration.	80.0%	13.3%	6.7%	0.0%	16.7%	83.3%
13	Decreased the number of students, teachers, and administrators attending and completing in university/college courses and programs.	80.0%	13.3%	6.7%	0.0%	16.7%	83.3%
14	Reduced the sources available for recruiting new teachers.	70.0%	13.3%	16.7%	0.0%	30.0%	70.0%
15	Reduced the ability of colleges to recruit and education qualified CTE teachers and leaders.	66.7%	20.0%	13.3%	0.0%	33.3%	66.7%
16	Produced a shortage of CTE teacher educators. Comment(s): There are other factors that affect the decision to become a CTE teacher educator.	73.3%	23.3%	3.3%	0.0%	33.3%	66.7%
17	Increased the number of alternatively licensed CTE teachers. Comment(s): In many cases this has been negative, but it has brought CTE some good teachers from B&I.	73.3%	13.3%	13.3%	0.0%	13.3%	86.7%
18	Encouraged the state to lower requirements for CTE teachers that soon became outdated.	76.7%	10.0%	13.3%	3.3%	33.3%	63.3%
19	Decreased the number of CTE programs due to poorly trained provisionally licensed teachers.	43.3%	30.0%	26.7%	0.0%	60.0%	40.0%
20	Resulted in the underlying philosophy of CTE being lost within the CTE profession due to poorly trained provisionally licensed teachers.	63.3%	20.0%	16.7%	0.0%	33.3%	66.7%
21	Increased the number of CTE teachers completing general education master's programs rather than CTE specific master's programs.	53.3%	23.3%	23.3%	0.0%	40.0%	60.0%
22	Increased the burden of local administration to train qualified CTE teachers.	53.3%	33.3%	13.3%	6.7%	40.0%	53.3%
23	Decreased teacher quality in CTE.	73.3%	16.7%	10.0%	0.0%	33.3%	66.7%

Criterion 8		Group Average Relevancy Ratings			Group Average Effect Ratings		
Operate and maintain local CTE facilities and equipment.		REL	NEU	IRR	POS	NEU	NEG
1	Increased local-level CTE's ability to maintain their facilities and equipment.	76.7%	20.0%	3.3%	76.7%	16.7%	6.7%
2	Resulted in a decrease of real world applications for students. Comment(s): CTE has always used real world apps. for students. This didn't change because of legislation.	30.0%	26.7%	43.3%	0.0%	50.0%	50.0%
3	Increased local-level CTE's ability to emulate actual work experiences by emulating facilities and equipment found in the real world.	70.0%	13.3%	16.7%	63.3%	26.7%	10.0%
4	Reduced facility management systems.	23.3%	70.0%	6.7%	0.0%	76.7%	23.3%
5	Increased the difficulty of purchasing and maintaining adequate facilities and equipment due to constraints on local budgets.	70.0%	20.0%	10.0%	3.3%	30.0%	66.7%
6	Increased local-level CTE's accountability concerning updating and purchasing new equipment.	76.7%	13.3%	10.0%	56.7%	26.7%	16.7%
7	Increased federal funds for equipment purchases and other non-personnel costs at the local-level.	83.3%	13.3%	3.3%	73.3%	16.7%	10.0%
8	Decreased the involvement of university-level faculty/personnel in supporting local-level CTE regarding this criterion.	60.0%	33.3%	6.7%	3.3%	43.3%	53.3%
9	Improved local-level facilities and equipment. Comment(s): (1) True for equipment, but not sure about facilities. ;(2) Local budgets generally don't fund maintenance and support adequately.	70.0%	16.7%	13.3%	63.3%	30.0%	6.7%
10	Resulted in local-level facility and equipment improvement that was haphazard and lacked focus. Comment(s): (1) There was a decrease in state involvement in this which could have resulted in a negative effect.;(2) true for some instances, but others were very well managed.	53.3%	23.3%	23.3%	10.0%	33.3%	56.7%
11	Increased the burden on local school divisions to purchase highly-priced state of the art equipment that federal funding could not cover.	56.7%	23.3%	20.0%	6.7%	46.7%	46.7%
12	Eliminated statewide planning approach to priorities.	70.0%	13.3%	16.7%	6.7%	40.0%	53.3%
13	Limited federal dollars for facility maintenance and improvement.	80.0%	13.3%	6.7%	0.0%	30.0%	70.0%
14	Increased local-level CTE's responsibility and burden to operate and maintain local CTE facilities and equipment Comment(s): While probably true, localities did see an increase in funding that could be used for buying equipment.	80.0%	16.7%	3.3%	20.0%	30.0%	50.0%

Criterion 9		Group Average Relevancy Ratings			Group Average Effect Ratings		
	Develop, improve, and maintain statewide professional associations and CTE teachers and administrators at all levels (local, state, and universities).	REL	NEU	IRR	POS	NEU	NEG
1	Decreased professional memberships in associations due to decrease in funding for travel and conference participation.	80.0%	13.3%	6.7%	0.0%	16.7%	83.3%
2	Decrease in professional membership in associations due to greater emphasis on local staff development activities. Comment(s): There has been a decrease in membership, but I am not sure if it is because of this.	63.3%	16.7%	20.0%	6.7%	43.3%	50.0%
3	Increased the responsibility of individual CTE teachers to plan statewide professional organization activities for students. Comment(s): increased teacher involvement had a positive impact	76.7%	16.7%	6.7%	26.7%	36.7%	36.7%
4	Decreased the number of professional association meetings.	70.0%	30.0%	0.0%	3.3%	53.3%	43.3%
5	Decreased state-level CTE support for student organizations (CTSOs). Comment(s): (1) Still a state-level priority, but not enough state staff limits the support they can provide.; (2) No decline in support. If anything, student organizations may be stronger.	73.3%	16.7%	10.0%	3.3%	33.3%	63.3%
6	Placed greater emphasis on CTE professional organizations to provide staff development for their teachers and members.	83.3%	13.3%	3.3%	43.3%	40.0%	16.7%
7	Lack of involvement of university-level CTE resulted in less effective state organizations.	66.7%	16.7%	16.7%	0.0%	50.0%	50.0%
8	Reduced state and university-level contact about the value of professional organizations, reduced memberships in professional organizations.	63.3%	20.0%	16.7%	0.0%	40.0%	60.0%
9	Reduced the number of administrators and teachers attending professional conferences.	76.7%	13.3%	10.0%	0.0%	23.3%	76.7%
10	Decreased resources to promote and advance professional CTE programs.	76.7%	6.7%	16.7%	0.0%	23.3%	76.7%
11	Reduced state-level CTE funding for local and university level professional inservice that was provided by professional organizations.	80.0%	13.3%	6.7%	0.0%	26.7%	73.3%
12	Lack of state and university support resulted in a lack of advice and counsel for teacher associations.	70.0%	13.3%	16.7%	0.0%	36.7%	63.3%
13	Decreased coordination between CTE program area professional associations.	60.0%	30.0%	10.0%	0.0%	43.3%	56.7%
14	Increased local support for teacher/administrator participation in professional associations.	60.0%	26.7%	13.3%	46.7%	40.0%	13.3%
15	Resulted in state administrators having less influence over their state and local CTE professional organizations.	80.0%	13.3%	6.7%	20.0%	33.3%	46.7%

Criterion 10		Group Average Relevancy Ratings			Group Average Effect Ratings		
	Develop and execute external and internal procedures for program planning, development and evaluation procedures for local CTE programs.	REL	NEU	IRR	POS	NEU	NEG
1	Decreased state-level CTE's ability to compare districts and provide comprehensive dissemination of best practices concerning this criterion.	76.7%	10.0%	13.3%	0.0%	36.7%	63.3%
2	Increased state-level CTE's ability to compare districts and provide comprehensive dissemination of best practices.	43.3%	23.3%	33.3%	26.7%	46.7%	26.7%
3	Resulted in program implementation, improvement, and development becoming uncoordinated and unstructured. Comment(s): This statement is too strong, but it did result in reduced accountability and lack of consistency in administering these processes.	56.7%	36.7%	6.7%	0.0%	36.7%	63.3%
4	Provided an opportunity to initiate a new CTE state evaluation based on standards identified by federal legislation.	70.0%	26.7%	3.3%	40.0%	46.7%	13.3%
5	Placed greater emphasis on local school divisions in the establishment and development of new programs. Comment(s): The impact of this depended on the school district. Some used state resources and experts. Some used "haphazard" approaches.	83.3%	13.3%	3.3%	56.7%	36.7%	6.7%
6	Lack of communication between all levels resulted in a decrease in learning from other's successes and failures.	73.3%	13.3%	13.3%	3.3%	20.0%	76.7%
7	Reduced the opportunity for program specific evaluations rather than overall CTE evaluations.	53.3%	33.3%	13.3%	0.0%	40.0%	60.0%
8	Increased federal funds that may be used for program planning, development, and evaluation.	76.7%	20.0%	3.3%	50.0%	40.0%	10.0%
9	Increased complexity of the vocational computerized management system. Comment(s): Data collection became more complex and was offset by computerization of records and data.	66.7%	26.7%	6.7%	10.0%	60.0%	30.0%
10	Increased the number of academically underperforming students in CTE programs without regard to their career needs.	56.7%	30.0%	13.3%	3.3%	36.7%	60.0%
11	Decreased local accountability and led to inconsistencies in the administration of program planning, development, and evaluation procedures.	60.0%	20.0%	20.0%	0.0%	26.7%	73.3%
12	Placed an additional burden on local personnel for planning, development, and evaluation.	83.3%	3.3%	13.3%	16.7%	13.3%	70.0%
13	Decreased state-level assistance from the state for planning, developing, and evaluating.	80.0%	13.3%	6.7%	3.3%	23.3%	73.3%
14	Eliminated most program planning except what the localities wanted to do without thought of what was taking place in other localities or what was best for CTE program overall.	63.3%	13.3%	23.3%	3.3%	33.3%	63.3%
15	Improved program planning, development, and evaluation in response local advisory committees, industry needs, and economic development. Comment(s): True for some school divisions.	70.0%	23.3%	6.7%	60.0%	33.3%	6.7%

	Criterion 10, cont.	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Develop and execute external and internal procedures for program planning, development and evaluation procedures for local CTE programs.	REL	NEU	IRR	POS	NEU	NEG
16	Decreased research and testing relative to the curriculum and standards for new programs. Comment(s): I don't fully understand this statement	60.0%	26.7%	13.3%	6.7%	53.3%	53.3%
17	Resulted in state-level CTE and university-level teacher educators reducing their involvement with evaluation designs, collection, and interpretation of data.	66.7%	20.0%	13.3%	0.0%	30.0%	70.0%
18	Resulted in the elimination of CTE-related data as it has been merged with other school reporting (e.g. completer report is now part of the division End of Year report). Comment(s): Didn't eliminate CTE data, just merged it into a larger document with other school data.	60.0%	30.0%	10.0%	6.7%	53.3%	40.0%
19	Decreased networking opportunities between localities to share best practices in this area.	60.0%	23.3%	16.7%	0.0%	33.3%	66.7%
20	Increased networking opportunities between localities to share best practices in this area. Comment(s): Not sure this happened.	40.0%	30.0%	30.0%	40.0%	46.7%	13.3%
21	Resulted in students not being prepared for employment. Comment(s): (1)Statement too general to be meaningful. I am confident many more students are prepared for employment. (2) some students, but not all.	30.0%	33.3%	36.7%	0.0%	50.0%	50.0%
	Criterion 11	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Develop, improve, and maintain state and local community relations (e.g., advisory committee, CTSO, other workforce agencies).	REL	NEU	IRR	POS	NEU	NEG
1	Reduced state-level CTE's ability to assist local secondary CTE schools in developing, growing, and maintaining advisory committees.	70.0%	13.3%	16.7%	0.0%	33.3%	66.7%
2	Decreased state-level fiscal and administrative control resulted in less emphasis on the development and maintenance of local and state advisory committees.	66.7%	26.7%	6.7%	0.0%	36.7%	63.3%
3	Resulted in CTE educational agency (all levels) becoming non-responsive to the needs of the employment community. Comment(s): Statement too general to be meaningful. The way its stated is simply not true.	30.0%	16.7%	53.3%	0.0%	40.0%	60.0%
4	Resulted in independent coordination of advisory committee members rather than coordination between all levels of CTE.	40.0%	40.0%	20.0%	0.0%	73.3%	26.7%
5	Resulted in local-level CTE relying on the support of business and industry instead of state to maintain community relations. Comment(s): Local school divisions have never relied on the state to maintain community relations.	63.3%	13.3%	20.0%	66.7%	26.7%	6.7%
6	Placed greater emphasis and responsibility on local advisory committees.	76.7%	16.7%	6.7%	76.7%	13.3%	10.0%
7	Eliminated federal funding for the state advisory committee appointed by governor.	80.0%	20.0%	0.0%	3.3%	26.7%	70.0%
8	Increased federal funds that may be used to support local advisory committee activities.	56.7%	23.3%	20.0%	40.0%	46.7%	13.3%

	Criterion 11, cont.	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Develop, improve, and maintain state and local community relations (e.g., advisory committee, CTSO, other workforce agencies).	REL	NEU	IRR	POS	NEU	NEG
9	Eliminated the development, growth, and maintenance of state and local community relations.	53.3%	26.7%	20.0%	0.0%	40.0%	60.0%
10	Eliminated regional activities that supported local-level CTE in this area.	56.7%	30.0%	13.3%	3.3%	40.0%	56.7%
11	Shifted the role of state and university level personnel from assisting local-level CTE to advising them. Comment(s): This had a significant impact on local CTE and teacher educators.	70.0%	26.7%	3.3%	0.0%	43.3%	56.7%
12	Loss of teacher education programs resulted in a loss of preservice and inservice instruction on community relations and advisory committees.	83.3%	10.0%	6.7%	0.0%	26.7%	73.3%
	Criterion 12	Group Average Relevancy Ratings			Group Average Effect Ratings		
	Develop, improve, and maintain student services (e.g., student recruitment and admissions, placement, and guidance services).	REL	NEU	IRR	POS	NEU	NEG
1	Increased local-level CTE's responsibility and funding to develop and provide CTE student services. Comment(s): It did increase funding for these services, but this has always been a local responsibility	73.3%	23.3%	3.3%	46.7%	40.0%	13.3%
2	Reduced state support of student recruitment programs and guidance services due to decreased state-level funding.	73.3%	20.0%	6.7%	0.0%	36.7%	63.3%
3	Improved local-level CTE guidance services.	50.0%	26.7%	23.3%	40.0%	36.7%	23.3%
4	Reduction in state involvement resulted in a decrease in the relationship between CTE school divisions and their respective high schools.	46.7%	23.3%	30.0%	0.0%	60.0%	40.0%
5	Lack of state emphasis and support reduced the number of program services and counseling services. Comment(s): This statement is too general.	56.7%	30.0%	13.3%	0.0%	43.3%	56.7%
6	Resulted in an inability to maintain student services at previous levels.	33.3%	56.7%	10.0%	0.0%	76.7%	23.3%
7	Reduced state-level CTE's ability to share best practices with local secondary CTE schools in developing, growing, and maintaining student services.	70.0%	16.7%	13.3%	0.0%	33.3%	66.7%
8	Increased guidance counselors' attention to program completions, placement, and follow up activities.	80.0%	13.3%	6.7%	70.0%	23.3%	6.7%
9	Improved the collection and use of local student data.	86.7%	6.7%	6.7%	80.0%	13.3%	6.7%
10	Resulted in localities developing recruiting initiatives and services to increase enrollment.	70.0%	20.0%	10.0%	66.7%	23.3%	10.0%
11	Increased the opportunity for local-level CTE to provide actual work experience programs and guidance. Comment(s): This is positive IF the statement is true.	40.0%	43.3%	16.7%	50.0%	46.7%	3.3%

Criterion 13		Group Average Relevancy Ratings			Group Average Effect Ratings		
Develop, improve, and maintain fiscal management of local CTE programs.		REL	NEU	IRR	POS	NEU	NEG
1	Increased local-level CTE's flexibility concerning the spending of Perkins funding.	80.0%	16.7%	3.3%	63.3%	30.0%	6.7%
2	Resulted in carefully planned local-level CTE program expenditures due to the strict criteria used to annually approve the localities annual plan.	73.3%	26.7%	0.0%	66.7%	26.7%	6.7%
3	Reduced state-level CTE's support and guidance regarding fiscal management of local-level CTE.	63.3%	20.0%	16.7%	3.3%	43.3%	53.3%
4	Increased the quality of CTE programs. Comment(s): Not sure this is happening.	43.3%	46.7%	10.0%	36.7%	50.0%	13.3%
5	Increased the workload of local-level CTE administrators by increasing paperwork and forms.	86.7%	10.0%	3.3%	6.7%	23.3%	70.0%
6	Decreased state-level CTE's ability to monitor and insure compliance with federal laws and requirements.	66.7%	13.3%	20.0%	0.0%	46.7%	53.3%
7	Resulted in some school districts replacing local funds with Perkins funds which resulting in no additional benefit to the locality. Comment(s): Supplanting funds is a violation of federal law. This may be occurring with reduced accountability at the local level.	66.7%	30.0%	3.3%	0.0%	30.0%	70.0%
8	Decreased funding for local-level CTE supervisors and directors has hampered fiscal management.	73.3%	16.7%	10.0%	3.3%	36.7%	60.0%
9	Decreased local-level CTE flexibility in spending as the locally allocated Perkins money had to initially be spent to support Special Needs population in CTE programs. Comment from Adam: In round 2, there was a typo. This is the entire statement.	60.0%	33.3%	6.7%	0.0%	60.0%	40.0%
10	Increased state-level CTE's authority since local annual plans were required to be approved by the state.	63.3%	16.7%	20.0%	36.7%	50.0%	13.3%

	General Consequences	Group Average Relevancy Ratings			Group Average Effect Ratings		
	These are consequences that were identified by participants, but were too broad to categorize under the original 13 criteria statements.	REL	NEU	IRR	POS	NEU	NEG
1	Reduced the size, scope, and influence of CTE in Virginia	56.7%	20.0%	23.3%	0.0%	36.7%	63.3%
2	Influenced the move of CTE from secondary level to community college level. Comment(s): (1)Not accurate as stated. There has been a reduction of CTE at the secondary level, which has been unfortunate for the students that stay in school because of these programs. Many times these are the students that do not go to community college. (2) There has been a coordinated effort to increase dual enrollment courses, which has been positive. (3) Yes, Perkins did influence the shift to CC. I believe this is a negative since career preparation should begin early and continue through CC. (4) CTE programs are needed at both levels. Secondary should be an “entry pathway” into the higher technical programs located at CCs.	70.0%	13.3%	16.7%	6.7%	33.3%	60.0%

APPENDIX L
161 RELEVANT CONSEQUENCES OF THE EIGHT KNOWN EFFECTS OF THE 1990
PERKINS ACT WITHIN-STATE FUNDING FORMULA CHANGE

Criterion	Con. #	Consequence	Overall Effect
Criterion 1	1	Reduced state leadership activities due to decreased state-level Perkins.	N
Criterion 1	2	Decreased state-level CTE's ability to coordinate local CTE programs.	N
Criterion 1	4	Decreased university-level CTE's ability to provide any coordination, leadership, or technical assistance at the state and local-level.	N
Criterion 1	5	Decreased contact between state-level CTE and local-level CTE.	N
Criterion 1	6	Weakened programs due to diminished state involvement and support in establishing and complying with standards and accountability measures.	N
Criterion 1	7	Diminished state-level CTE's ability to visit schools and give input and advice on how to make local-level decisions.	N
Criterion 1	10	The decreased state-level support and involvement encouraged school divisions to give their CTE administrators additional duties.	N
Criterion 1	11	Resulted in inconsistencies in local-level CTE program administration and evaluation.	N
Criterion 1	12	Reduced state-level CTE's ability to monitor the quality of local CTE programs.	N
Criterion 1	14	Reduced the one size fits all approach to CTE programs.	INC
Criterion 1	15	Increased local-level CTE's opportunity to customize programs to local needs and standards.	P
Criterion 1	18	Increased local-level Perkins funding provided for additional resources to localities for providing locally-sponsored technical updates for teacher and administrators.	P
Criterion 1	19	Resulted in the development of state-wide performance standards developed in conjunction with the localities and the community college system.	P
Criterion 1	20	Increased administrative burden on local-level CTE personnel especially in smaller school divisions.	N
Criterion 1	22	Resulted in state-level CTE adjusting the method in which they provided technical assistance.	N
Criterion 1	23	Reduced state-level CTE's ability to provide local technical assistance due to decreased funding at the state level.	N
Criterion 1	25	Reduced individual technical assistance to teachers in the field.	N
Criterion 1	26	Reduced state-level staff and increased the workload of remaining state staff.	N
Criterion 2	1	Reduced state-level CTE's ability to plan coordinate, and deliver relevant professional & leadership development activities.	N
Criterion 2	2	Increased local coordination of professional development.	P
Criterion 2	6	Decreased professional development activities by the state and universities.	N
Criterion 2	7	Decreased leadership development activities by the state and universities.	N
Criterion 2	8	Decreased the opportunity for leadership development for teachers, administrators, and collaboration with teacher educators.	N
Criterion 2	11	Reduced CTE program specific professional development which created an emphasis on overall CTE staff development.	N
Criterion 2	12	Modified the role of state-level CTE and teacher education personnel in providing and coordinating leadership and direction.	N
Criterion 2	14	Decreased regional inservice activities.	N
Criterion 2	15	Reduced funding to support the participation of state-level CTE staff in regional conferences & national conferences	N
Criterion 2	16	Reduced funding to support the participation of university/college personnel in regional conferences & national conferences.	N
Criterion 2	17	Resulted in the combination of CTE professional development with other subject areas and grade levels within the K-12 system.	Neu

Criterion	Con. #	Consequence	Overall Effect
Criterion 2	19	Established a free market system for professional and leadership development services to localities.	Neu
Criterion 2	20	Increased responsibilities of professional organizations for providing the leadership for professional development activities.	Neu
Criterion 2	21	Reduced the participation of local teachers in professional development activities outside of their school divisions.	N
Criterion 2	22	Increased resources for locally sponsored professional development programs targeted to specific needs of teachers and administrators.	P
Criterion 2	23	Reduced cooperative strategic planning between state-level CTE and teacher education institutions	N
Criterion 3	1	Increased the number of locally developed CTE programs and curricula that best served the occupational needs of the local community.	P
Criterion 3	5	Decreased the number of new CTE programs.	N
Criterion 3	6	Decreased the number of overall student enrollment in CTE programs.	N
Criterion 3	8	Increased and strengthened participation in Tech Prep program development through community college grants.	P
Criterion 3	9	Increased local school division participation in high schools that work programs designed to integrate academic and CTE.	P
Criterion 3	10	Decreased funding at the state-level for the development and dissemination of new programs and curricula, as well as updating existing programs and curricula.	N
Criterion 3	11	Resulted in the production of uniform curriculum that integrated academic SOLs and industry standards that included industry certifications where applicable.	P
Criterion 3	12	Increased funding at the local-level for developing new programs and curriculum.	P
Criterion 3	13	Increased the burden on local school divisions that did not have supervisor staff to assist in new program and curriculum development and to ensure that programs and curricula were based on current research and best practices.	N
Criterion 3	16	Increased the number of computer technology and keyboarding classes thus reducing the number of traditional CTE program offerings.	INC
Criterion 3	18	Increased the difficulty of identifying and disseminating new, successful programs that local innovations produced.	N
Criterion 3	20	Decreased state-level CTE's ability to develop and support statewide curriculum development for new CTE programs.	N
Criterion 3	22	Restricted university-level personnel and faculty from assisting local CTE programs to develop new programs and curricula to respond to current and projected occupational needs.	N
Criterion 4	1	Reduced state-level CTE's ability to help support and oversee the implementation of local program policies.	N
Criterion 4	2	Decreased state-level CTE's ability to create and expand CTE programs.	N
Criterion 4	5	Increased local-level CTE's responsibility and decision making for formulating new, as well as improving existing operational policies	INC
Criterion 4	6	Resulted in no change in state support and oversight in the formulation of new, as well as the improving of existing operational policies at the local-level.	Neu
Criterion 4	7	Improved local operational policies especially in the areas of program completers and follow up.	P
Criterion 4	8	Increased the opportunity for local-level CTE to enact or dismiss program policies that did or did not meet short sided or budget priorities.	INC
Criterion 4	9	Reduced opportunities for teacher education faculty to provide assist in the formulation of and improving of existing operational policies at the local-level.	N
Criterion 4	11	Limited contact between local-level administrators and state-level staff concerning the formulation of new, as well as the improving of existing program policies at the local-level	N
Criterion 4	12	The increase in local-level accountability increased the need for state support concerning operational policies.	Neu
Criterion 5	1	Increased the workloads and responsibilities of remaining CTE teacher educators.	N

Criterion	Con. #	Consequence	Overall Effect
Criterion 5	2	Decreased the number of CTE teacher education programs and courses at Virginia colleges and universities.	N
Criterion 5	3	Reduced the influence CTE teacher educators had within the university structure.	N
Criterion 5	5	Decreased interest in teachers pursuing advanced CTE degrees.	N
Criterion 5	6	Decreased the relevancy of CTE teacher education programs.	N
Criterion 5	7	Resulted in CTE teacher education programs becoming "generic" rather than program specific.	N
Criterion 5	8	Resulted in the transferring of CTE teacher education faculty to other duties within the institution.	N
Criterion 5	9	Decreased the ability of colleges and universities to implement new CTE programs at all levels.	N
Criterion 5	10	Eliminated CTE teacher education special projects and grants.	N
Criterion 5	12	Reduced the number of services CTE teacher educators could offer to the CTE community such as inservice classes at local-level CTE schools	N
Criterion 5	13	Reduced leadership positions at the universities which resulted in less representation at higher organizational levels.	N
Criterion 5	14	Resulted in state-level CTE's ability to influence higher education.	N
Criterion 5	16	Increased the difficulty of locating and recruiting quality CTE teachers.	N
Criterion 5	17	Resulted in a shortage of CTE teachers in Virginia.	N
Criterion 6	1	Reduced the amount of federally funded, university-level research	N
Criterion 6	4	Increased state-level research initiatives such as SREB's High Schools That Work and the NASDCTE's Leadership in Career Pathways.	INC
Criterion 6	5	Decreased all level's ability to assist other levels interpret and implement best research practices.	N
Criterion 6	6	Eliminated CTE program specific research.	N
Criterion 6	7	Reduced the amount of CTE research conducted and disseminated at all levels.	N
Criterion 6	8	Reduced the university-level CTE's ability to provide essential data for decision making at the state and local levels.	N
Criterion 6	9	Increased local-levels ability to support research and development.	Neu
Criterion 6	10	Reduced state-level funding for CTE research projects.	N
Criterion 6	11	Required university-level researchers to search for research opportunities/funding that not only met some CTE priority, but also looked "good" in the eyes of university administrators.	INC
Criterion 7	1	Increased the number of provisionally licensed teachers.	N
Criterion 7	3	Increased the need for researching options to certify non-degree teachers.	INC
Criterion 7	4	Decreased ability to attract qualified individuals to the field of CTE.	N
Criterion 7	5	Increased local-level CTE's ability to add teachers and additional support to teachers.	INC
Criterion 7	6	Shifted hiring priorities away from candidates that have knowledge of running CTE programs.	N
Criterion 7	8	Increased the number of CTE teachers hired for teaching positions in program areas they were not trained to teach in.	N
Criterion 7	9	Increased emphasis on retraining business and industry professionals to meet the teacher needs of local-level CTE.	Neu
Criterion 7	10	Reduced the ability to respond to critical shortage areas.	N
Criterion 7	11	Increased the number of provisionally licensed teachers who lacked professional teaching skills.	N
Criterion 7	13	Decreased the number of CTE directors at the local-level that had a background in CTE and an understanding of CTE program administration.	N
Criterion 7	14	Decreased the number of students, teachers, and administrators attending and completing in university/college courses and programs.	N

Criterion	Con. #	Consequence	Overall Effect
Criterion 7	15	Reduced the sources available for recruiting new teachers.	N
Criterion 7	16	Reduced the ability of colleges to recruit and education qualified CTE teachers and leaders.	N
Criterion 7	17	Produced a shortage of CTE teacher educators.	N
Criterion 7	18	Increased the number of alternatively licensed CTE teachers.	N
Criterion 7	20	Decreased the number of CTE programs due to poorly trained provisionally licensed teachers.	N
Criterion 7	21	Resulted in the underlying philosophy of CTE being lost within the CTE profession due to poorly trained provisionally licensed teachers.	N
Criterion 7	22	Increased the number of CTE teachers completing general education master's programs rather than CTE specific master's programs.	N
Criterion 7	23	Increased the burden of local administration to train qualified CTE teachers.	N
Criterion 7	24	Decreased teacher quality in CTE.	N
Criterion 8	1	Increased local-level CTE's ability to maintain their facilities and equipment.	P
Criterion 8	3	Increased local-level CTE's ability to emulate actual work experiences by emulating facilities and equipment found in the real world.	P
Criterion 8	5	Increased the difficulty of purchasing and maintaining adequate facilities and equipment due to constraints on local budgets.	N
Criterion 8	6	Increased local-level CTE's accountability concerning updating and purchasing new equipment.	P
Criterion 8	7	Increased federal funds for equipment purchases and other non-personnel costs at the local-level.	P
Criterion 8	8	Decreased the involvement of university-level faculty/personnel in supporting local-level CTE regarding this criterion.	N
Criterion 8	9	Improved local-level facilities and equipment.	P
Criterion 8	10	Resulted in local-level facility and equipment improvement that was haphazard and lacked focus.	N
Criterion 8	12	Eliminated statewide planning approach to priorities.	N
Criterion 8	13	Limited federal dollars for facility maintenance and improvement.	N
Criterion 8	14	Increased local-level CTE's responsibility and burden to operate and maintain local CTE facilities and equipment	INC
Criterion 9	1	Decreased professional memberships in associations due to decrease in funding for travel and conference participation.	N
Criterion 9	2	Decrease in professional membership in associations due to greater emphasis on local staff development activities.	INC
Criterion 9	3	Increased the responsibility of individual CTE teachers to plan statewide professional organization activities for students.	INC
Criterion 9	4	Decreased the number of professional association meetings.	Neu
Criterion 9	5	Decreased state-level CTE support for student organizations (CTSOs).	N
Criterion 9	6	Placed greater emphasis on CTE professional organizations to provide staff development for their teachers and members.	INC
Criterion 9	9	Reduced the number of administrators and teachers attending professional conferences.	N
Criterion 9	10	Decreased resources to promote and advance professional CTE programs.	N
Criterion 9	11	Reduced state-level CTE funding for local and university level professional inservice that was provided by professional organizations.	N
Criterion 9	12	Lack of state and university support resulted in a lack of advice and counsel for teacher associations.	N
Criterion 9	14	Increased local support for teacher/administrator participation in professional associations.	INC
Criterion 9	15	Resulted in state administrators having less influence over their state and local CTE professional organizations.	INC
Criterion 10	1	Decreased state-level CTE's ability to compare districts and provide comprehensive dissemination of best practices concerning this criterion.	N

Criterion	Con. #	Consequence	Overall Effect
Criterion 10	4	Provided an opportunity to initiate a new CTE state evaluation based on standards identified by federal legislation.	INC
Criterion 10	5	Placed greater emphasis on local school divisions in the establishment and development of new programs.	P
Criterion 10	6	Lack of communication between all levels resulted in a decrease in learning from other's successes and failures.	N
Criterion 10	7	Reduced the opportunity for program specific evaluations rather than overall CTE evaluations.	N
Criterion 10	8	Increased federal funds that may be used for program planning, development, and evaluation.	INC
Criterion 10	9	Increased complexity of the vocational computerized management system.	Neu
Criterion 10	11	Decreased local accountability and led to inconsistencies in the administration of program planning, development, and evaluation procedures.	N
Criterion 10	12	Placed an additional burden on local personnel for planning, development, and evaluation.	N
Criterion 10	13	Decreased state-level assistance from the state for planning, developing, and evaluating.	N
Criterion 10	14	Eliminated most program planning except what the localities wanted to do without thought of what was taking place in other localities or what was best for CTE program overall.	N
Criterion 10	15	Improved program planning, development, and evaluation in response local advisory committees, industry needs, and economic development.	P
Criterion 10	16	Decreased research and testing relative to the curriculum and standards for new programs.	N
Criterion 10	17	Resulted in state-level CTE and university-level teacher educators reducing their involvement with evaluation designs, collection, and interpretation of data.	N
Criterion 10	19	Decreased networking opportunities between localities to share best practices in this area.	N
Criterion 11	1	Reduced state-level CTE's ability to assist local secondary CTE schools in developing, growing, and maintaining advisory committees.	N
Criterion 11	2	Decreased state-level fiscal and administrative control resulted in less emphasis on the development and maintenance of local and state advisory committees.	N
Criterion 11	5	Resulted in local-level CTE relying on the support of business and industry instead of state to maintain community relations.	P
Criterion 11	6	Placed greater emphasis and responsibility on local advisory committees.	P
Criterion 11	7	Eliminated federal funding for the state advisory committee appointed by governor.	N
Criterion 11	11	Shifted the role of state and university level personnel from assisting local-level CTE to advising them.	N
Criterion 11	12	Loss of teacher education programs resulted in a loss of preservice and inservice instruction on community relations and advisory committees.	N
Criterion 12	1	Increased local-level CTE's responsibility and funding to develop and provide CTE student services.	INC
Criterion 12	2	Reduced state support of student recruitment programs and guidance services due to decreased state-level funding.	N
Criterion 12	5	Lack of state emphasis and support reduced the number of program services and counseling services.	N
Criterion 12	7	Reduced state-level CTE's ability to share best practices with local secondary CTE schools in developing, growing, and maintaining student services.	N
Criterion 12	8	Increased guidance counselors' attention to program completions, placement, and follow up activities.	P
Criterion 12	9	Improved the collection and use of local student data.	P

Criterion	Con. #	Consequence	Overall Effect
Criterion 12	10	Resulted in localities developing recruiting initiatives and services to increase enrollment.	P
Criterion 13	1	Increased local-level CTE's flexibility concerning the spending of Perkins funding	P
Criterion 13	2	Resulted in carefully planned local-level CTE program expenditures due to the strict criteria used to annually approve the localities annual plan.	P
Criterion 13	3	Reduced state-level CTE's support and guidance regarding fiscal management of local-level CTE.	N
Criterion 13	5	Increased the workload of local-level CTE administrators by increasing paperwork and forms.	N
Criterion 13	6	Decreased state-level CTE's ability to monitor and insure compliance with federal laws and requirements.	N
Criterion 13	7	Resulted in some school districts replacing local funds with Perkins funds which resulting in no additional benefit to the locality.	N
Criterion 13	8	Decreased funding for local-level CTE supervisors and directors has hampered fiscal management.	N
Criterion 13	9	Decreased local-level CTE flexibility in spending as the locally allocated Perkins money had to initially be spent to support Special Needs population in CTE programs	Neu
Criterion 13	10	Increased state-level CTE's authority since local annual plans were required to be approved by the state.	INC
Criterion Gen	2	Influenced the move of CTE from secondary level to community college level.	N