An Evolution of Values: Accountability and Equity Oriented Reform In CTE

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Abstract

Competing societal and political values have historically facilitated shifts in the policies surrounding the goals of and the practices within Career and Technical Education (CTE). These values, however, are malleable and are developed in response to demands wrought by economic need. This review sheds light on how a confluence of societal and political factors facilitated changes in the values, goals, and practices of vocational education. In so doing, the present manuscript seeks to underscore how modern attitudes about schooling and society may shape the current landscape of the field. The rise of equity and accountability oriented reform in the field of CTE is especially considered in this study. As the field continues to evolve, CTE is likely to experience more changes informed by societal values. Thus, this article uses a historical analysis to elucidate how political and social shifts in values will have important implications for modern CTE policy and practice.

Keywords: CTE, Accountability, Equity, Values, and Education Policy

Introduction

The Smith-Hughes Act of 1917 was the first national policy in the United States to appropriate funding for Career and Technical Education (CTE) programs, and subsequent reauthorizations have apportioned funds to support vocational education (Martinez, 2007). Since the 1900s, the field has evolved considerably (Martinez, 2007), as competing social and political values, across varying economic eras, have led to changes in the goals of, practices in, and policies surrounding CTE (Lynch, 2000). Although many scholars have examined the effects of CTE program participation on student outcomes (Mohammed & Mohamed, 2015; Rabren et al., 2014; Steele, Bozick & Davis 2016; Toglia, 2013), far less scholarship has systematically analyzed the literature surrounding the evolution in the values that undergird the process of CTE (Martinez, 2007).

The evolution of CTE presents an historical framework of the factors that lead to changes in the field, which is especially

useful for exploring how more modern values, such as equity and accountability, might be expected to influence vocational schooling in the United States moving forward. Such a review is especially important for students and parents seeking to realize the promise of participation in CTE programs because, as this synthesis will show, CTE has not always prioritized students' needs (Lakes, 1985: Lewis & Cheng, 2006). Therefore, this manuscript also offers a critical examination of the extent to which CTE programs have historically prioritized students' needs. To the extent that political and social pressures shape the current policies, goals, and practices of CTE programs, sometimes withoutregard for what is best for students, there likely exists a misalignment between the processes and production of vocational education programs and what students intend to receive from their participation in such programs.

For instance, in the early 1900s, industrialism shaped the social climate in America, as serving an increasingly industrialized world dominated the policy arena (Crain, 2012; Gordon, 2010; Stephens, 1995). During these early years, politicians appropriated funding for CTE programs with the expressed goal that they would equip students with vocational skills needed to operate machinery (Lewis & Cheng, 2006). Policy actors advocating for CTE, therefore, situated the goals of and practices used in CTE programs in utilitarianism— a value premised on the notion that people should serve the needs of society over and above their individual needs (Lakes, 1985). In this way, CTE produced positive externalities to society, and wide- sweeping utilitarian values put political and social pressures on policymakers to ensure that programs served the country well (Stephens, 1995).

While utilitarian values have proximally influenced the evolution of CTE, many other phenomena also elucidate the mechanisms by which the field has changed over time. The present analysis seeks to explicate how the political and social tenor is sensitive to pressures wrought by varying economic eras. In particular, as societal attitudes and policy agendas change to meet the demands of the country, the values, goals, and practices in vocational training continue to evolve (Lewis & Cheng, 2006; Threeton, 2007). With this understanding in mind, an additional aim of the present paper is to elucidate the process by which equity and accountability came to be pillars within CTE, paying particular attention to the social and political pressures that placed them on the policy agenda (Kingdon,2001).

Such an analysis is essential for several reasons. First, the U.S Congress has recently reauthorized the Vocational Education Act (VEA), and the values that have shaped the intent of this legislation may differ starkly from those that predate this iteration. Furthermore, CTE programs have a racist and classist past, as educational stakeholders have historically tracked Black and poor students into such programs (Fletcher, 2012; Fletcher & Zirkle, 2009). In so doing, these stakeholders have perpetuated and exacerbated racist stereotypes about the cognitive abilities of Black and Brown children, which likely diminishes their interest in pursuing vocation degrees. Thus, using historical analysis can shed light on the extent to which more recent CTE police redress the effects of this racist history. Finally, this historical analysis has important implications for ensuring that the goals and practices of CTE are aligned with the best interests of students and their families, as this has not been thecase

historically.

Review of the Foundations of Career and Technical Education

Historically, CTE programs have focused on preparing students for a career in one specific vocation, and they have paid sparse attention to integrating academics into vocational schooling (Findlay, 1993). CTE advocates viewed traditional academic settings, wherein students learned in a classroom, as counter-productive to the process of learning (Findlay, 1993). CTE reformists posited that these educational contexts failed to meet the needs of a growing industrial society because they reduced learning to memorization, and only taught pupils what to think, rather than how to think (Martinez, 2007).

Because CTE advocates were purportedly dissatisfied with classical academic settings, they sought to have programs governed by new principles that were informed by industrialism—principles they thought would prepare students for the workplace adequately. Chief among those principles was the belief that students' needs and interests should guide curriculum to motivate students to learn. Additionally, they postulated that hands-on activities should be the center of learning, rather than teaching students basic facts, which they argued did not produce intellectual curiosity and problem-solving skills (Threeton, 2007). People supporting the need for vocational education also postulated that educational programs should be evaluated based on the extent to which they contributed to the resolution of social problems (Tozer, Violas & Senese, 1993). CTE advocates cast traditional schooling environments as counterproductive to these aims and used each critique against such academic settings to build the case for the utility of vocational training.

Despite agreement with these general principles among CTE reformers, there were both clear and pronounced divisions within the coalition between those who believed in a scientific management educational philosophy and those who endorsed a Democratic Deweyan philosophic construct (Kinchloe, 1999). The former, chiefly sponsored by Charles Prosser, promoted social efficiency, which valued congruence between types of education and types of students (Kinchloe, 1999). Inherent in this position was the notion that some students are innately more fit for Vocational Education while other students are more fit for academic education (Martinez, 2007). The utilization of psychological tests and psychometrics bolstered this position by offering purported quantifiable support to this notion (Martinez, 2007). Students who were deemed academically inclined were placed in traditional academic settings and learned independently from those who were not. The practice of placing students in schooling settings based on perceived notions about their intellectual capacities became known as academic tracking (Haussman, 2012; Lewis & Cheng, 2006) and was a fundamental practice of CTE programs during the early to mid-1900s.

John Dewey, however, emphasized a more integrated learning environment and did not endorse tracking that separated students by perceived ability (Kinchloe, 1999). He sought to promote Democratic Humanism, which posited that vocational education was fit for all students and should not be used to harness students deemed less academically capable (Kim, 2004; Lakes, 1985). He also argued that VE programs

should teach students several vocations rather than a specific one, which circumscribed flexibility and creativity (Martinez, 2007).

Although Dewey's holistic educational philosophy received support, Prosser's social efficiency model was more widely accepted (Martinez, 2007). Therefore, the coalition supporting CTE determined that the best path forward for VE was to keep it separate from traditional education and to teach students one trade (Threeton, 2007). To understand why Prosser's model was so widely accepted, one must keep in mind the reality that utilitarian values (i.e., ones premised on serving society) led to the formation of federally funded CTE programs and that meeting the needs of an increasingly industrial country was a primary justification for investment in vocational education (Martinez, 2007).

As utilitarian values informed U.S policy and societal norms, considerations for how best to leverage programs and policies to support the industry were predominate in political discourse (Kim, 2004) A large body of literature offers substantive support for the notion that industrialism was the primary driver of the federal government's decision to initially fund CTE programs (Gordon et al., 2007; Wonacott, 2003). As the American economy became increasingly dependent on the advent of technology, in response to a seismic shift from a traditional manufacturing economic base in America to one emphasizing information and technology, CTE reformers fervently advocated for vocational education, which they postulated better served a changing economy (Kliebard, 1999; Stephens, 1995; Wirth, 1972). They critiqued traditional school settings as operating in a manner not informed by such a dramatic shift and contended that only separately operated CTE schools could ensure students were equipped with the skill necessary to support the industry (Findlay, 1993; Martinez, 2007).

Such a critique was premised on utilitarian values, as needs for supporting industry dominated policy and social discussions about the advent and direction of CTE programs (Gordon et al., 2007). Utilitarianism focuses on the ways actions benefit society, and in the case of CTE, how they supported industry (Kim, 2004). Utilitarianism shaped the field of CTE by placing intense focus on the value of economic productivity, the importance of serving the growing industry, and of preparing technologically literate students. The sentiment of Kennedy's (1961) seminal quote "Ask not what my country can do for me, but rather, what can I do for my country?" sheds light on the utilitarian values that saturated society in the 1900s and laid the foundation for the earliest CTE programs.

The influences of the social and political pressure to serve industry, produced by utilitarian values, is especially evident in the federal policies about CTE during this time. The Smith-Hughes Act significantly expanded the role of the federal government in the production of VE by providing additional funds to schools that complied with its guidelines (Hayward & Benson, 1993). The purpose of the Act was to develop CTE programs that were informed by and prepared students for the rise of industrialism in American. Thus, the Act dictated that states would only be eligible for federal funds under the Smith-Hughes legislation if they developed separate school boards that focused exclusively on VE (Scott

& Sarkees-Wircenski, 1996), which was consistent with the social efficiency model.

Separate school board were the primary mechanism CTE advocates contended for so as to ensure that students in federally funded vocational education tracts receive different curriculum from traditional schooling (Gray, 1991). CTE reformers created vocational curriculums focused on preparing students for the work necessitated by industry (Gray, 1991; Wonacott, 2003). Politicians wanted to confirm that students would have the proper content knowledge and tactical skills to operate equipment central to boosting the economic base of the country. Further, they wanted to ensure that funds appropriated by the federal government under the Act served the Act's intended goals (Hayward & Benson, 1993; Gray, 1991). The law mandated that vocational students learn in settings isolated from traditional academic students (Wonacott, 2003). With separate school boards, curricula, and learning environments, policymakers sought to maximize the return on their CTE investment by ensuring that vocational programs allotted an optimal amount of time to sufficiently prepare students for work (Lynch, 2000).

In response to industrialism and the federal policies it shaped, the goals of CTE programs concentrated exclusively on equipping students with skills to support industry in order to maximize economic productivity and efficiency (Gordon et al., 2007; Haussman, 2012). For instance, the Smith-Hughes Act required states to submit pre-specified goals that aligned with supporting an expanding industrial world to receive funding for their CTE programs (Gordon et al., 2007). Additionally, eligible states were also required to develop school curricula that relied less on teaching students academic skills and centered more on hands-on learning (Findlay, 1993). In theory, these goals seem benign and student-centric; however, as noted by many CTE scholars (Gordon et al., 2007), the benefits of CTE program participation to students were subservient to those to society. Essential questions about the ramifications of teaching students one trade, while simultaneously relaxing more traditional aspects of learning (i.e., the ability to read, write, and practice basic arithmetic) were left unanswered, which is unsurprising considering the high level of importance placed on utilitarianism (Dirkx, 2011).

The influence of industrialism was also evident in the wide-ranging support for CTE practices that grouped students based on perceptions about their academic abilities. In particular, CTE policies supported tracking to ensure that vocational students obtained the requisite number of credit hours to graduate and to be deemed prepared for industrial work (Aliaga et al., 2014). Politicians who were advancing these policies also developed oversight mechanisms to ensure that programs were aligned with federal guidance (Laird, Chen & Levesque, 2006; Lewis & Cheng,2006). Thus, beliefs that CTE programs should be oriented around what is best for society, even at the expense of student learning, were justified by a desire to support an expanding industrial society.

Industrialism also influenced curricular practices. For instance, vocational students were required to adhere to the '50-25-25 rule' (Lynch, 2000). This rule mandated that students spent 50% of their time in the shop engaging in experiential

learning, 25% in closely related subjects that taught content regarding their field, and only 25% in traditional academic settings (Lynch, 2000). This rule reflects how relaxed academic standards became for vocational students and serves as yet another indication of how CTE programs failed to prioritize students' needs adequately. To that end, there was little alignment between the goals and practices of CTE and what conventional wisdom would suggest students needed from programs to ensure long-term stability, which was the primary underpinning to Dewey's approach to CTE (Martinez, 2009.

At this time, though, considering the detrimental effects of inhibiting students' flexibility by diminishing traditional academic standards and teaching them only one trade would have required a shift from the utilitarian values that shaped the inception of federally funded CTE programs. As such, this consideration was not made, and this had long-term negative ramifications for students during the Great Depression and beyond. So far, this manuscript has focused primarily on the evolution of CTE during early formation stages, which has primarily been purposed to synthesize the literature surrounding the impetus for federally CTE programs. The following sections of the paper underscore how CTE programs have evolved since those earlier stages and synthesizes scholarship arguing the impetus for such changes. Next, I provide a brief methods sections which details how articles were search and used for the following sections.

Methods

With the understanding that economic eras shift priorities and values, which, in turn, influences CTE's policies, goals, and practices, there is considerable opportunity to evaluate how other important historical markers have influenced the processes and production of VE. Accordingly, this article focuses mainly on analyzing peer-reviewed articles about CTE in K–12 public schools in the United States. To investigate each of the economic eras the paper addresses, peer-reviewed manuscripts selected for inclusion examined CTE from the early 1900s up until 2006, which is when the most recent VEA was passed. Specifically, this review includes peer-reviewed articles, book chapters, theses and dissertations, and reports. Studies were collected from a variety of sources, and a multiphase process was used to identify materials suitable for inclusion.

I systematically searched databases from many academic fields, including education, sociology (Social Services Abstracts and Sociological Abstracts), psychology, human development, and history as well as multidisciplinary databases, following the recommendation of recent syntheses of literature reviews (Welsh & Little, 2018). To do so efficiently, I developed full-text search strings, which included "vocational education," and "career and technical education." First, search terms were used to locate studies investigating evolving values in CTE. Separated by the Boolean term "AND," I grouped "CTE" with the following search words corresponding to the era of interest: "industrialism," "the GreatDepression,"

"the Civil Rights movement," and "a 'Nation at Risk.'"

Throughout the manuscript, the paper analyzes a constant cycle of CTE changes. Several vital terms help to conceptualize how such changes influenced CTE throughout the course of history. First, the paper uses "economic era" to refer to the social phenomena or activating events that shift the political and social tenor of society. The four events referred to as such in the present paper are rising *industrialism*, the *great depression*, the *Civil Rights movement*, and increasing *globalism*. These periods are purposefully selected because they each correspond with shifts in the field of CTE.

Using these economic eras, I have used the values that undergird them to evaluate how prevailing social and political sentiments influenced the policies, goals, and practices related to CTE programs. The social and political climate of society is measured by the values advocated for in each economic era, which also bear necessary implications for changes to the goals and practices of CTE. In terms of assessing the intentions of CTE, this review conceptualizes those intentions by what politicians and CTE educators hoped students would be prepared to accomplish by participation in CTE. These inferences are primarily drawn from the scholarship surrounding CTE as well as from assumptions teased from CTE policies. Further, when assessing practices, the paper examines the programmatic elements of the production of VE to understand the ways educational actors sought to realize CTE goals.

Finally, additional commentary is included to assess the degree of alignment between students' educational and vocational needs and the priorities of CTE programs for each respective era. Such an analysis accentuates how current pressures and the values they produce may be expected to inform CTE moving forward, particularly as the most recent iteration of the VEA is implemented. What follows are findings from an examination of peer-reviewed articles that examine changes in CTE in light of the Great Depression, The Civil Rights Movement, and the era of globalization. In full, these three eras are evaluated along with the age of industrialism, which is synthesized and analyzed in similar fashion above and serves as the baseline era for analyses.

Findings

Various Shifts in CTE Across Economic Eras

The Great Depression and CTE. The economic downturn of the Great Depression of 1929 caused President Franklin D. Roosevelt to form a committee tasked with evaluating the effectiveness of CTE programs (Martinez, 2007). Unsurprisingly, as the economy began to experience drastic declines in economic productivity and efficiency, it became increasingly important for the federal government to examine whether its investment in federally funded CTE programs yielded financial returns. The committee's report was completed during the 1930s and determined that the CTE programs were too narrowly focused and circumvented the kind of skill flexibility that students would need to compete and have success during an economic downturn (Grubb, 1978).

However, while the report criticized CTE programs for being too narrowly

focused, the committee maintained that the utilitarian values of CTE programs were advantageous (Grubb, 1978). Thus, this economic era did not produce a significant change in the values shaping CTE (Martinez, 2007). Although the report's critiques of the programs showed some evaluator dissatisfaction, prevailing sentiment regarding the importance of supporting industry superseded the importance of developing comprehensive CTE programs that were no longer exclusively focused on supporting the industry (Threeton, 2007). Further, the development of the committee was motivated by a struggling economy rather than by a genuine concern for how much students benefitted from CTE program participation, further elucidating how policymakers did not prioritize students' needs to the extent that they should have been.

Federal policy surrounding CTE. Further revealing how little this economic era shifted the field of CTE is the fact that there were no changes in national CTE policies, as the next CTE federal policy was not enacted until 1963 (Martinez, 2007). Because the utilitarian values had not shifted in the eyes of policymakers, and despite the acknowledgment that programs circumvented students by severely weakening traditional academic requirements and teaching them only one trade, program advocates and administrators did little to align students' needs with their priorities.

The absence of traction concerning federal CTE policies might be best understood as the result of having too few policy advocates who had sufficient political capital to drive meaningful changes to the field of CTE. As suggested by many policy scholars, activating events are often needed to spark substantive policy changes (Beeland, 2016; Baumgartner, 2016; Kingdon, 2011). As such, the policy process functions such that policy actors seek out windows of opportunity to advance specific agendas and are usually motivated by social or political pressures (Kingdon, 2001). Scholarship on the policy process, then, would suggest that during this era, substantive drivers were not salient enough to pressure policymakers to reform CTE in a way that lessened its reliance on the same utilitarian values that dominated the prior era.

Goals of and practices used in CTE programs. Although neither the federal policies nor the values of the Great Depression did not change significantlyfrom those of the industrial age, CTE programs did seek a new goal for their students. Based on the results from the report conducted by the committee President Roosevelt established, CTE programs aspired to produce more well-rounded students (Kincheloe, 1999). The committee tasked with evaluating the landscape of vocational education was particularly crucial during the economic downturn because students needed to be trained in multiple vocations to remain competitive during a struggling economy. Despite the report, however, this goal of more comprehensively educating students was mostly lip-service, as few changes to CTE are noted in the literature during these years.

This lack of change was also mirrored in the practices of CTE programs, which remained mostly the same. More specifically, academic tracking was still common practice, as students were classified as either vocational or academic. Further, vocational students were still abiding by the '50-25-25 rule' (Lynch, 2000). However, the

results of the committee's report challenged Charles Prosser's notion that students should learn only one trade (Aliaga et al., 2014), which makes this an essential economic era because rejection this notion was central to realizing more comprehensive CTE programs. His view was consistent with the utilitarian values that laid the very foundation of CTE programs, but it is plausible to assume that business owners, students, parents, and other educational actors were, to some degree, concerned about the implications of being pigeon-holed into a single trade when a flexible skillset might better shield the effects of the economic downturn (Aliaga et al., 2014; Saeger, 2017).

In evaluating the literature surrounding CTE during the Great Depression, much of the scholarship suggests few changes from the industrial era in terms of the values undergirding, the goals of, and the practices used in CTE programs (Kinchloe, 1999; Lynch, 2000). As such, students and how programs supported them was not central to vocational education in a meaningful sense. The same themes of utilitarianism and economic productivity were still at the heart of the CTE movement, so much so that after acknowledging that CTE programs did not produce a diversified skill-set that would serve students during a struggling economy, policymakers and reformers did little to redress this problem.

The Civil Rights Movement and CTE. The Civil Rights movement serves as the third economic era that brought about changes to the values, policies, goals, and practices shaping CTE (Gordon, 2014). The precedent set during the Great Depression, whereby the federal government began to evaluate the extent to which CTE programs were beneficial to students (Martinez, 2007), was vital in facilitating the process by which the educational, social, and economic plight of minority and poor students was recognized on a national scale (Gordon, 2014; Sayman, 2007). This era was marked by demands of liberty, equality, and justice for marginalized individuals, which boiled over from the persistence and resiliency of Civil Rights leaders (Fletcher & Zirkle, 2009; Gordon, 2014). Therefore, the political and social climate of the country wrought by this economic era facilitated the advent of equity in CTE, which fundamentally reformed the field.

Political and societal values. The newfound values of the Civil Rights era were access to and equality within education for all individuals, regardless of race, gender, or social class (Gordon, 2003; Sayman, 2007). A focus on access to and equality within education marked a noticeable shift in the primarily utilitarian values that had undergirded CTE programs during prior eras (Crain, 2012; Gordon et al., 2007; Gordon, 2014; Grubb 1978). However, during the era of the Civil Rights Movement, a shift in values occurred as access and equality garnered increasing attention (Martinez, 2007). The significance of this movement in the evolution process of CTE reformation stands out because of how drastically it changed from the preceding eras that had devoted little attention and almost no policy to ensuring that programmatic safeguards were in place to serve students' needs.

Nonetheless, although the more inclusive values of this economic era gained traction, one cannot summarily dismiss the influence of lingering utilitarian values on the field of CTE, as values and goals tied to economic productivity remained central in

the politics and rhetoric surrounding VE (Martinez, 2007). Thus, the values of this economic era did not replace the utilitarian values that shaped the preceding eras but rather expanded them to also prioritize equality, as the political and social climate of the country became vested in realizing equality and justice. This era, therefore, marks the start of what became a progressive shift from the singularly utilitarian values the dominated prior eras (Fletcher & Zirkle, 2009; Gordon, 2014).

Federal policy surrounding CTE. The values of access and equality not only broadened the purpose of VE, they and influenced and were bolstered by federal legislation aimed at promoting these values for all students (Threeton, 2007). The rallying cries of Civil Rights leaders led to the enactment of the Vocational Education Act (VEA) of 1963, which sought to ensure that female, minority, and impoverished students had the same access to and equality within VE as White students (Eardley, & Manvell, 2006; Lufkin et al., 2007). Gordon (2003) noted that the VEA of 1963 intended to ensure "that persons of all ages in all communities would have ready access to vocational training or retraining of high quality, suited to their personal needs, interests, and abilities… that funds be used for persons who have academic, socioeconomic, or other handicaps that prevent them from succeeding in the regular vocational education program" (p. 84). To understand the origins of equity pertaining to CTE, one must realize that fundamental shifts in societal and political values were needed, as evidenced in the language of this federal policy, to shift the aims of CTE programs to feature the needs of all students, particularly minority and poor students.

Further supporting the notion that CTE policies and program should prioritize equity is the fact that as Congress enacted the VEA of 1963, the federal government allocated funds to schools to redress social injustices that permeated society (Hayward & Benson, 1993). Specifically, the federal government mandated that each state use 25% of its federal dollars either on offering vocational training for people who had not completed high school or on building new vocational facilities for disadvantaged students (Grubb & Lazerson, 1982). Additionally, the federal government set aside funds specifically targeted to meet the special vocational needs of students from economically, academically, and socially marginalized communities (Hayward & Benson, 1993).

The importance of equity in CTE was further bolstered under the Vocational Education Amendments of 1968 and 1976 (Threeton, 2007). These amendments specifically targeted gender discrimination and racial stereotypes in schools and sought to strengthen the field of CTE to ensure its goals and practices reflected the values of the Civil Rights era (Gordon, 2003). These amendments stipulated that federal funds could be used for the following students: high school and post-secondary school students who had not completed high school, individuals in the labor market who needed additional training, academically and socioeconomically marginalized students, and students with disabilities (Threeton, 2007; Gordon, 2003).

Goals of and practices used in CTE programs. These federal policies facilitated and expanded the goals of VE programs. In addition to preparing students with the skills necessary to serve industry,

VE programs now sought to redress the social inequalities that had plagued marginalized students (Gordon, 2014; Lufkin et al., 2007). While policy actors' efforts to place broader focus on redressing inequities faced by minoritized students did not fundamentally replace the overall goals of CTE, the field of CTE during the Civil Rights Era was marked by societal progress resulting from the intentional efforts of progressive minded citizens (Martinez, 2007). In this way, then, there was far greater alignment between CTE's policies, practices, and goals and students' needs than was the case during preceding eras.

During this era, the alignment between the goals and practices of CTE and students' needs was stronger, as member of the Civil Rights Movement's directly critiqued Charles Prosser's widely accepted view that students should be regarded as either "academic" or "vocational" (Fletcher & Zirkle, 2009; Martinez, 2007). By that time, tracking primarily functioned such that Black and poor students were clustered in CTE programs, and this practice was not consistent with the values of fairness and equality that Civil Rights leaders demanded (Gordon, 2003). As such, the method was increasingly regarded as wrong and as a platform that perpetuated social and economic inequity in society (Fraser, 2008; Gamoran & Mare, 1989; Gordon, 2003; Kelly & Price, 2009). Therefore, the values of this economic era were the impetuses needed to push policy actors to redress the deep-seated racism, sexism, and classism that led to the mistreatment of Black, low-income, and female students (Gordon, 2003) and, as evident by the enactment of federal policies during this era, there was strong political will to do so.

Civil Rights leaders, therefore, pushed for new practices that promoted an integrated CTE strategy, similar to the Democratic Humanism approach John Dewey advocated for previously (Kim, 2004; Lakes 1985). Black students—in theory—should have no longer been concentrated into vocational tracks and regarded as less academically capable because of their race (Fraser, 2008; Kelly & Price, 2009), but deeply held beliefs about the inferiority of Blacks remained pervasive and continued to impact the educational field. Thus, although equality advocates hoped to redress social and economic injustice through class, racial, and economic integration practices, large swaths of the country still regarded separation of the races as necessary, which is evident by the backlash to the Supreme Court's Brown V. Board decision (Brown, 2003).

Coupled with and evidenced by racist sentiments about intelligence that were still held by large swaths of society, attempts by Civil Rights leaders to eliminate tracking became increasingly challenging because most programs argued that certain students were incapable of engaging with rigorous academic content and needed to pursue a vocational track (Gordon, 2003; Martinez, 2007; Threeton, 2007). Students regarded as academically inept were disproportionately Black, highlighting why even the enactment of federal policies to eliminate racial inequality was necessary, but not sufficient, to substantively improve the schooling conditions of Black and low-income students. Thus, while equity was an important instrument in shaping more inclusive CTE goals, it was not enough to significantly reform the foundational practices industrialism birthed, as students

were still tracked by race and perceived ability (Gordon, 2003). Furthermore, programs continued to operate by the '50-25-25' rule (Doolittle & Camp, 1999).

The Civil Rights era laid the foundation for equity-oriented reform in CTE but was not able to significantly change CTE practices, though not for lack of effort. The inability of values promoting equality and access to shape CTE programs' practices reveals how competing values can yield varying practices. One the one hand, there appeared to be, at the very least, a symbolic appetite for a more just academic environment of marginalized students, as evidenced by federal policy. On the other hand, however, and consistent with interest-convergence literature (Bell, 1980; Milner, 2008), expanding equality would only appear "worth it" to political and societal actors if doing so served additional purposes regarded by them as necessary.

During the Civil Rights Movement, equality and access became important values and had their mark on CTE federal policy and goals—and practices to a lesser degree with regard to sentiments about tracking and the integration of academic into CTE—but they were not enough to replace utilitarianism as the overarching value for CTE (Martinez, 2007) though they did spark more discussions and produce some efforts to achieve access to and equality within CTE for all students.

Globalization and CTE. In analyzing the literature during the years after the Civil Rights movement, globalization adeptly captures prevailing sentiment surrounding factors driving social and political circles. The focus on globalization was reflected in the seminal report entitled 'A Nation at Risk' (Good, 2010). The report asserted:

> History is not kind to idlers. The time is long past when America's destiny was assured simply by an abundance of natural resources and inexhaustible human enthusiasm and by our relative isolation from the malignant problems of older civilizations. The world is indeed one global village (National Commission on Excellence in Education, 1983, p. 8)

This position recognizes that nations had become interwoven in many ways, which inevitably leads to a hierarchy between them (Good, 2010). This realization led many politicians to consider and grow wary of America's global presence and democratic intuitions, namely its education system (NCEE, 1983).

The focus on equity and access in CTE, then, was short-lived as attention shifted to "A Nation at Risk" (NCEE, 1983). The report focused broadly on America's economic standing among other world leaders and advised prescriptive, fundamental changes to public education (NCEE, 1983). It argued that America was severely at risk of losing its standing as a world power and that poor education was the culprit (Castenello et al., 2012; Rojewski, 2002). Thus, the publication facilitated a competition-driven, global economy that involved constant comparisons between nations. The seminal report sent shock waves throughout the educational policy landscape and became the impetus for several federal policies aimed at improving educational quality via accountability pressures (Brewer & Picus, 2014).

Political and societal values. The report supported values that inspired a new direction for CTE. Rather than promoting

equity and access, this report promoted economic stability and global competitiveness (NCEE, 1983). The report advocated for integrated CTE programs, where academics and vocational learning complemented one another (Benson, 1997). Such programs were intended to ensure that students would be sufficiently prepared to serve the economy and increase its production. The need for blended learning settings was especially critical to the NCEE because globalization forced countries to highlight their strengths in order to maintain their standings as world elites (Scott & Sarkees-Wircenski, 2004). Thus, if changes to the landscape of education were not imminent, the report suggested, the demise of America's elite status was dawning.

What was especially significant about this report, however, was that it birthed the movement of accountability-oriented reform in education (Daggett, 2003). Accountability was highly valued during this economic era because policymakers wanted to ensure that programs adequately prepared students to serve the economy, which would, in turn, bolster America's status as a world power (Scott & Sarkees-Wircenski,2004). Thus, "A Nation at Risk" marked a shift from the equity-oriented reform that dominated the Civil Rights era back to the economic productivity and efficiency values of the industrial age. The report suggested that all high school students—whether in vocational or academic tracks—be required to take a more challenging course load (NCEE, 1983), which led to the induction of accountability-enforced academics in CTE (Dagget, 2003).

Federal policy surrounding CTE. Convinced by the warning "A Nation at Risk" birthed, Congress enacted the Carl D. Perkins Vocational Education Act of 1984, which in turn cemented the foundation of accountability-oriented reform in CTE (Aliaga et al., 2014). The vision of the legislation was rooted in what the report regarded as "America's decline' from world prominence, with education to blame (Finch, 1999). The most prominent features of the legislation aimed to strengthen the workforce preparation process and to make graduation requirements more rigorous for CTE students (McCaslin & Parks, 2002). The importance of academics and experiential learning in VE was realized in federal policy and bolstered by the integration of academics in CTE (Gordon, 2003).

The effects of the seminal report continued to permeate CTE as the next VEA further acknowledged the issues the report raised. The VEA of 1998 mandated statewide performance accountability systems, which evaluated the extent to which academic and technical skills were taught concurrently to CTE students (Benson, 1997; Grubb, 1996). This mandate marked the first time such systems were required for VE, thereby highlighting how global competitiveness affected CTE programs' goals and practices. These accountability systems served as checks for CTE programs and were practical tools for ensuring that states' CTE programs complied with the new values of this economic era (Benson, 1997; Grubb, 1996). These VEAs shed light on the progression of accountability-oriented reform in CTE and on how accountability shaped the VE field.

Accountability in CTE continued to rise with the passage of the No Child Left

Behind Act (NCLB) of 2002, which culminated in the integration of academics and VE in CTE programs (Wallace, 2012). Under this legislation, further measures were taken to ensure that all students met Adequate Yearly Progress (Peterson & West, 2003). NCLB mandated that CTE students learn and be tested on the same academic content that traditional students were taught and that states and schools be held accountable for students' outcomes on standardized tests (Wallace, 2012). The legislation's explicit focus was to ensure that students were sufficiently trained for college and the workplace, which policymakers thought would bolster American's standing among other nations [The Association for Career and Technical Education (ACTE), 2006].

This legislation led to the Vocational Education Act in 2006, which aligned its mandates with those of NCLB (ACTE, 2006) and is the most recent iteration of the VEA. Carl D. Perkins (2006) described the new, accountability informed wave of CTE as promoting organized educational activities that offer a sequence of courses that provide individuals with coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in current or emerging professions (p.1). The VEA of 2006 ensured that students in CTE programs (a) were prepared to meet rigorous academic standards, (b) were proficiently equipped with technical skills, (c) received a certificate signaling proof of adequate training, and (d) possessed critical thinking and problem-solving skills, work attitudes, and other relevant work-related skills (Perkins, 2006). Thus, CTE programs were tasked with developing new practices that enhanced students' academic skills, offered career guidance, and honed students' technical skills (ACTE, 2006).

Goals of and practices used in CTE programs. The purposes of CTE programs no longer prioritized remedying social injustices during the era of globalization (Finch, 1999). Rather, the expressed goal of the globalization era shifted to integrating academic and vocational education to ensure that all students were college and career ready (Benson, 1997). Thus, rather than preparing students for a specific vocation or academic careers, the goals of the current era were to prepare students for both, which was more consistent with Dewey's democratic humanism approach which early CTE reformers rejected during CTE's formational years.

These goals fundamentally changed the tracking practices that were so pervasive in CTE, as programs began to focus more prominently on preparing students to meet academic standards while learning a trade (ACTE, 2006). To achieve economic stability, advocates of "A Nation at Risk" realized that students needed to be trained both academically and vocationally (Daggett, 2003; NCEE, 1983). Strong emphasis was placed on shifting from CTE tracking to what the reports called the "new basics" (NCEE, 1983). Accordingly, for the first time, pedagogical shifts in CTE ensued, as implementing academic requirements for CTE graduates became federally mandated for all schools (Rojewski, 2002; Threeton, 2007). For instance, students were required to take four years of English, three years of mathematics and science, three years of social studies, and a half-year of computer science (NCEE, 1983). During this

economic era, a comprehensive education was regarded as necessary, and without one, many feared that America would fall behind other world leaders (Gordon, 2014).

The use of statewide accountability systems to evaluate the extent to which CTE programs integrated vocational and academic education was another new practice during the era of globalization (Hersperger, Slate, & Edmonson, 2013). These systems had not been previously required but were now regarded as a vital element of securing America's world power status. Bolstered by NCLB, these systems mandated that all students, regardless of their racial and socioeconomic background, be tested for minimum academic standards (Perkins, 2006). NCLB, thus, was the federal policy that culminated in the integration of accountability for educational outcomes in CTE programs.

A new practice that emerged in CTE programs by the escalation of accountability was that programs were required to provide career guidance counselors for students (ACTE, 2006; Threeton, 2007). These counselors served as additional support for students as they transitioned from high school to college and/or the workplace (Perkins, 2006). The new role of the counselor was especially important, as counselors provided students with information, helped with life planning, and facilitated the process of making college and employment opportunities more accessible to their students (Threeton, 2007). Another practice that revealed the fundamental changes of CTE programs was the use of standards for technical skills. CTE students were now tested on their professional abilities to ensure that they had both the hands-on training and content knowledge to be prepared for college and/or work (Perkins, 2006). Thus, accountability-oriented reform began with a "Nation at Risk," was bolstered under NCLB, was the defining characteristic of two VEAs, and fundamentally reformed the goals and practices of CTE programs.

The extent to which globalization provided greater congruence between students' needs and CTE actors' priorities is paradoxical. On the one hand, it forced programs to dispel practices that circumscribed students' learning potential by tracking them into single professions. On the other, the centralization of equity and access during this period did not mirror that of the Civil Rights movement as indicated by the federal policies during this time frame. As has been seen in many other issues about the plight of African Americans, it might be the case that many political and social actors feel "enough" was done by way of realizing values of equity and access during the Civil Rights years and that priorities needed to be shifted elsewhere. This leaves much to be known about what a CTE field that prioritized both—accountability and equity—could have yielded for students and society. Looking forward to the enactment and implementation of impending CTE federal policies, researchers and advocates have an opportunity and obligation to ensure that both accountability and equity are prioritized and that they are not regarded as mutually exclusive.

Discussion

The field of CTE has been shaped by an evolving set of values, precipitated in response to the economic needs of society (Martinez, 2007; Threeton, 2007). Shifting

values have culminated in making accountability and equity-oriented reforms foundational in CTE, though the field was not initially concerned with them (Gordon, 2003; Gordon, 2014). Historically, the field has changed its goals and practices in response to varying economic eras; specifically, industrialism, the Civil Rights era, and Globalization, and the era of the Great Depression to a less obvious degree. Each era, however, shaped CTE to different degrees and expressed different goals, which led to different practices for the field. For instance, as America became increasingly industry-oriented in the early 1900s, CTE focused on producing skilled workers to support the industry (Kinchloe, 1999). During this era, tracking and curricular practices were ubiquitous, as CTE programs sought to vocationally prepare students to maximize economic productivity (Haussman, 2012; Lewis & Cheng, 200). During the Civil Rights era, however, CTE was tasked with remedying social and economic inequity (Gordon, 2014). As such, tracking practices that clustered minority and poor students into CTE programs were increasingly regarded as wrong. This change reveals how shifts in societal values prompted new policies, goals, and practices for CTE (Fletcher & Zirkle, 2009).

Should the pattern of history persist, researchers and CTE policymakers can be confident that impending societal and political values will inspire news goals and practices for CTE. The Carl D. Perkins Act of 2006 was the last time Congress reauthorized the VEA (ACTE, 2006), but as it is reauthorized, it will likely be influenced by the current political and social climate of the country. For instance, reports are beginning to show that there is dissatisfaction with college among graduates (Selingo, 2017), which might lead to increased interest in CTE. Increased participation in CTE programs would be sight most welcome to CTE reformers, as it has dipped roughly 14% since the 1980s, which is when federal policy mandated more stringent academic requirements for CTE programs (Hudson, 2013; Jacob, Dynarski, Frank, & Schneider, 2017).

As concern regarding the costs of college mount, it would behoove CTE programs to be well-positioned to capitalize on what could be a high demand for participation. States are preparing for an expected boom, evidenced by the fact that in 2015, 39 states enacted 125 laws pertaining to CTE, specifically along the lines of increased funding. The ACTE (2017) has also recently issued guidance to Congress, which involved an increased focus on accountability, the adoption of CTE standards, and the further integration of academics and technical education.

To be prepared for such potential demand, several changes must be pursued to ensure that CTE programs and the policies that influence them, are aligned with the needs of students and parents first and foremost First, safeguards must be put in place to ensure that all forms of tracking are permanently dispelled from CTE. One concern is that tracking by race can morph into ability tracking (Fletcher & Zirkle, 2009), which would further hamper the equity-oriented goals produced during the Civil Rights era. Additionally, federal policies and CTE programs must increasingly weave traditional education into the process of CTE. Such integration of academics into vocational schools will best prepare students for college and career, rather than a forced choice between the two (Fletcher & Zirkle, 2009; Martinez, 2007).

Furthermore, CTE programs must also hold students to rigorous standards to ensure that they gain the necessary human capital to be economically competitive. In being informed by the current political and social climate of the country, CTE must continue to respond to the present need of this economic era. For instance, the proliferation of automation does not lend itself to traditional CTE settings that focus on teaching students single vocations, and as such, technology must be further infused in the goals and practices of the field. As such, to prioritize students and to better prepare them for success in this era of ever-expanding technology, CTE programs must balance the need to leverage the promise of ever-expanding technology and to ensure students are held to high standards that reflect the importance of providing students with a diverse set of skills.

Lastly, CTE programs must continue to prioritize students' needs rather than be solely influenced by political and social changes that routinely place other initiatives before students. To do this, CTE advocates must position their programs as driven by students and what will best serve them in their pursuit of further their education. The influence of "A Nation at Risk" is unlikely to die soon, and accountability will likely remain central in federal policy—mostly for good reasons—but this does not have to come at the expense of equity, leaving much work for Congress to do in implementing impending iterations of the VEA.

Areas for Future CTE Research

Future research on CTE must investigate whether and to what extent participation in CTE programs fluctuates in response to the political and social climate of the country. The CTE scholarship appears to show a constant tradeoff between traditional academics and vocational education, but conceptually and quantitatively linking participation to shifting values is a relationship not yet evaluated. Additionally, future research must also consider the economic impact of the goals and practices of CTE across varying economic eras. So doing reveals how goals and practices can be developed in concert and work both to serve the benefits of students and to maximize economic productivity. Finally, this research can be bolstered by content and document analyses that delve more deeply into federal legislation and that engage in more archival research to check for consistency in themes across economic eras.

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