



Career and Technical Education Leadership Series

LANDSCAPE OF CTE LEADERS

The power of career and technical education (CTE) programs rests in the strength of the teachers and administrators working to provide quality CTE for students. While the scope and nature of teacher certification is fairly well documented, the scope and nature of requirements for those professionals in administrative roles in CTE is not. The goal of this study was to begin establishing a greater understanding of CTE leader certification and training needs by mapping and examining efforts nationally. This research focused on identifying and locating critically important data about CTE leaders that will be used to inform the design of professional development materials and further establish and broaden the channels of communications about new resources for CTE administrative professionals.

CONCERNS

There is currently a shortage of leaders for CTE programs and concerns with the type of educational leadership preparation available for CTE (Clark & Cole, 2015; Zirkle & Cotton, 2001; Zirkle, Parker & McCaslin, 2005). Leaders of CTE programs or centers are often seen as similar to traditional principals or superintendents and many states have developed a general administrative credential for CTE administrators (Clark & Cole, 2015; Zirkle & Jeffery, 2017), however, as Clark and Cole (2015) found, "having a principal certification is not enough to be an effective CTE administrator" (p. 76). Zirkle & Jeffery (2017) reported that

new CTE teachers sometimes leave the profession due to a lack of administrator support. Absent CTE specific training, administrators may be challenged to properly address the problems facing CTE as a whole.

State CTE directors had concerns regarding CTE administrators' appropriate CTE programming and instructional knowledge, CTE facility and equipment management, and working with industry/business advisory groups (Clark & Cole, 2015). Although each year, more teachers from non-CTE academic disciplines transition to CTE administration, they often question the need for additional coursework in CTE and are often surprised in their first CTE positions by the differences between CTE and other areas of education (Pinchak & Berns, 2014). CTE administrator preparation requires additional knowledge and skills related to CTE program costs and funding, marketing CTE programs, safety & liability concerns, data-driven decision-making, needs of future employers, business/industry partnerships, industry standards, changes in student demographics, CTE policy development, academic and technical skill performance, and CTE teacher recruitment and licensure (Clark, Farmer, & Welch, 2010; Zirkle & Jeffery, 2017; Zirkle, Parker, & McCaslin, 2005).

Clark & Cole (2015) state that "it is deeply concerning that administrators with little experience in the pedagogy, expectations, accountability, and theoretical frameworks of CTE are hiring and evaluating instructors and providing leadership for cutting edge CTE" (p. 76). Zirkle & Jeffery (2017) found that only 16 states require a specific CTE administrator certification/license and that preparation programs vary from state to state. Administrator preparation throughout the country is disjointed (Clark & Cole, 2015). No national standards currently exist specifically for CTE administration and college/university CTE administration programs are diminishing (Zirkle & Jeffery, 2017). In order for the U.S. to stay competitive in the global marketplace, students must have the 21st century knowledge and skills demanded in high-tech, high-wage industries (Clark & Cole, 2015; Clark, Famer, & Welch, 2010; Dean, McKeeney, & Parker, 2005). The CTE community needs to determine the credentials needed to supervise, administer, and lead CTE programs for the demands of industry (Clark & Cole, 2015; Zirkle & Jeffery, 2017).

RESEARCH PROCESS

To begin establishing a greater understanding of CTE leader certification training and needs on a national scale, The Association for Career and Technical Education (ACTE) undertook an initiative to study each states' CTE leadership structure. For the purposes of this research, "CTE leaders" were defined as: 1) district-level CTE supervisors; 2) principals of comprehensive technical high schools and middle colleges; and 3) principals of technology centers serving high school students. 4) school-level vice principals or division or teacher leaders responsible for oversee CTE programs in comprehensive high schools.

A team of 5 researchers reviewed each state's structure related to CTE state leadership through online resources from the states' departments of education (elementary/secondary), departments of higher education, and CTE administrator organizations (if applicable). In collaboration with ACTE and Advance CTE, an email introduction of the study was sent to CTE state leaders. Beyond email contact, in an effort to obtain a more complete data set, additional email contacts and follow up phone calls were made to state CTE leaders using the state directors list found on Advance CTE's website. Every attempt was made to contact all 50 state CTE directors and the District of Columbia over a period of approximately 5 weeks in April and May 2017. Data (complete or partial) was collected on 44 of the 51 states plus the District of Columbia

Following the collection process, data was analyzed to identify the population of CTE administrators, the types of schools where CTE programs are administered, and the requirements for holding CTE administrative positions.

Observation 1:

While conducting this study, several interesting issues were noted. First, a number of states had no single individual to contact in order to obtain information about CTE programs and administrators. It was somewhat expected that the state director, the initial point of contact, might refer us to another individual in the department to secure the information, however, it was not expected that some of the information might be held in another state agency. For example in at least one case, certification information was held in one state entity, while programmatic responsibility for CTE was held in another.

FINDINGS

Numbers of administrators. As expected, the reported number of CTE administrators is hard to pin down. A number of states reported that they did not collect data on the number of administrators for CTE responsible for CTE programs. Comments included "only aware of 74 based on our Carl Perkins application requirements", "estimate 100" and "not a separate designation". Less than half of the states reported an actual or estimated number of CTE administrators, most not providing the number of administrators or any explanation as to why they did not have access to this number. Estimated number of administrators were developed based on the reported number of secondary schools offering CTE programs and/or the number of districts offering CTE programs. The total number of reported and estimated CTE administrators was over 6000; it is important to note that many of these people are not full-time CTE administrators. (See Table 1. Programs and Administrators by State).

CTE responsibilities as an addition to other responsibilities. In some states, there were few individuals that were solely CTE administrators; many individuals wear multiple hats. For example, South Dakota reported "Within the state, there are five standalone CTE administrators. All other CTE leaders or administrators do so as an additional duty on top of a teaching position or administrative role (principal, superintendent)." Nebraska responded that they have "18 that are solely CTE administrations in local districts, but have numerous leaders and administrators at the Educational Service Unit and districts that have shared responsibility for CTE and other areas." With only four states (Missouri, Nebraska, North Dakota, South Dakota) specifically noting their full-time administrators, the issue of numerous CTE administrators having non-CTE administrative duties raises a concern with regard to the time administrators can dedicate to CTE programs and the level of preparation for CTE administration they receive.

Variety of types of school structures. CTE administrators also work with a variety of school structures as school leaders. States reported that CTE programs are found in comprehensive high schools (48 states), shared time centers and full time centers (44 states), "state approved" schools (5 states), multicounty centers (44 states) and unspecified "other schools" (5 states). Each of these structures brings a set of challenges that are distinct from each other.

CTE-specific certification. As Zirkle & Jeffery (2017) found, this study also found that certification standards, too, varied widely. Almost all states required some level of certification, but the vast majority of states reporting indicated that they had no CTE-specific requirement for a CTE administrator. Most CTE administrators (about 56%) were required to hold an administrator (principal or superintendent)

credential that involved graduate level coursework, but required coursework included general administration subjects. A review of the CTE-specific certification coursework revealed that most required four to five CTE specific courses, with the balance being from general administration subjects or electives. Several states that did not have a CTE specific certification did support new CTE administrators with additional post-certification programs and mentoring (Kansas, Maine,

Observation 2:

State CTE leaders were also asked about the program areas taught in their state. It was discovered that there is a point of confusion around the term “skilled trades” or “skilled technical science.” While these phrases replaced the terms “T & I” several years ago at the national level, there is no clear-cut term for what was once pretty widely understood as the program area “T & I”. Just as the student organization changed from VICA to SkillsUSA, the characterization of the programs in this area is changing and programs are being regrouped in many states. For example, HFTFS has recently defined “skilled trades” as those that “emphasize the expert use of tools and materials to build or repair products and structures, leading to high-demand, and high-wage careers”, including Automotive mechanics and repair, Carpentry, Construction, Electrical, HVAC (heating, ventilation, air conditioning), Plumbing, and Welding.

As a result of the changes taking place around these programs, responses included that this data was “not collected”, “not sure what you mean”, and “Unsure, as Skilled Trades is not a term used in...”. Referring back to “T & I” did yield the data, but this confusion raises another concern. If those in the field don’t have a clear understanding of the meaning of a CTE program area title, then there is little chance of developing understanding of that area among potential students and their parents! That being said, once the meaning was clarified during interviews, the responses seemed to indicate that skilled trades were still at the core of the CTE offerings. Even though the numbers may not have been readily available, comments such as the skilled trades programs being “extensive” and “all schools have these programs” seem to indicate that skilled trades programs continue to be a significant component of the CTE offerings around the country.

Michigan, Minnesota, South Carolina, South Dakota, Tennessee, and Virginia). However, most of these post-certification programs were not required. (See Table 2. States Reporting CTE-specific Certification and/or Continuing Education).

CONCLUSION

There is no such thing as a typical CTE administrator or CTE administrator preparation. The wide variability in school structures, CTE administrative organization, state certification requirements and ongoing professional development support have led to wide variability in the preparation for and certification of CTE administrators. This variability alone does not indicate a broken system, but it does point to the opportunity and need for a consistent and common support structure for all CTE administrators. Regardless of how a CTE administrator enters the profession or obtains certification, the role of a CTE administrator as a CTE leader is critically important to the success of the programs and teachers under his or her leadership. And while there is no such thing as typical, there is such a thing as a common need for CTE leaders to connect with other CTE leaders on topics of current significance and sharpen their skills. The information collected through this project provides the foundation for addressing this need.

ACTE has initiated a number of activities influenced by the information learned from this project. First is the development of a CTE leader/administrator contact database. With a contact database, a more direct means will exist to facilitate and support the growth and networking of CTE leaders nationwide. ACTE has partnered with NOCTI to develop content for a series of CTE publications specifically designed for new CTE leaders (www.acteonline.org/shopacte), and has developed a new online course geared specifically toward CTE administrators (www.ctelearn.org/ctelessons). The potential for a national recognition/certification for CTE administrators who possess demonstrated skills and abilities is being explored, and future research is planned to link these efforts with ACTE’s High Quality CTE initiative. These initiatives, as well as the efforts of many ACTE partners, are serving as a platform for reaching and connecting the varied professionals serving as CTE administrators and leaders. And while the titles and organizational structures they work in are as varied the students they serve, connecting these CTE leaders around the country can only strengthen the career and technical education system for all students.

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**Table 1. Programs and Administrators by State
(only states reporting data)**

STATE	Number of Secondary Schools Offering CTE Programs <i>(including area/regional centers)</i>	Number of Secondary CTE Programs in the State	Total Number of CTE Leaders/Administrators <i>(estimated counts are in italics)</i>
Alabama	426		136
Arkansas	468	2356	65
California			6
Colorado*	147	1306	147
Connecticut*			134
Delaware*		~350	38
Hawaii	44 includes 1 "other" school	34	46
Idaho	189	719	189
Illinois*	724		724
Indiana	361	Unsure	50
Iowa	343		343
Kansas	307	2751	277
Kentucky	>95	>600	95
Louisiana	324		324
Maine	125	333	42
Maryland*	229	673	229
Massachusetts	91	940	91
Michigan	171	2145	76
Minnesota	370	2298	54
Mississippi	160	3562	147
Missouri	575	2344	68
Montana*	>500		500
Nebraska	260	Unsure	260 numerous with shared responsibility
Nevada*	86	714	86
New Hampshire	28		28
New Mexico*	55		55
North Carolina	1188	2712	127
North Dakota	167	568	19
Oklahoma*	623		623
Oregon	324	661	324
South Carolina*	279		279
South Dakota	160	705	5***
Tennessee	396	3386	130
Vermont	65		17
Virginia	392		175
West Virginia	154	1324	63
Wisconsin	362		74
Wyoming	88	687	88
TOTALS **	9637	30218	6123

* - Researcher-identified information

**Totals of all data collected; not all states provided data for all categories

*** "five standalone CTE administrators. All other CTE leaders or administrators do so as an additional duty on top of a teaching position or administrative role..."

Table 2. States Reporting CTE-specific Certification and/or Continuing Education.

States requiring CTE Administrator Certification	States reporting that Formal CTE Administrator Training is available after certification.	States reporting a mentoring program for CTE administrators
Colorado	Alabama	Arkansas
Idaho	Idaho	Alabama
Indiana****	Indiana	Massachusetts
Kentucky	Kansas	Missouri
Louisiana	Louisiana	New Hampshire
Massachusetts	Maine	North Carolina
Mississippi	Massachusetts	Ohio
Missouri	Michigan	South Carolina
New Hampshire	Minnesota	South Dakota
North Carolina	Mississippi	
North Dakota	Missouri	
Oklahoma	New Hampshire	
Vermont	North Carolina	
Washington	North Dakota	
Wisconsin	South Carolina	
	South Dakota	
	Tennessee	
	Vermont	
	Virginia	

**** Offered but not required



The Association for Career and Technical Education (ACTE) is the nation's largest education association dedicated to the advancement of education that prepares youth and adults for successful careers. For more information, contact ACTE at 1410 King Street, Alexandria, VA22314; 703-683-3111; 703-683-7424 (Fax); www.acteonline.org