Stakeholder Engagement Report

for the

Strengthening Career and Technical Education for the 21st Century Act (Perkins V)

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Stakeholder Engagement Report

Passage of the federal Strengthening Career and Technical Education for the 21st Century Act provides all states the opportunity to re-examine priorities for career and technical education at the secondary and post-secondary levels. A requirement under this legislation is the involvement of multiple stakeholder groups in developing the state plan.

The Wisconsin Department of Public Instruction (DPI) contracted with the University of Wisconsin-Stout (UW-Stout) Emerging Center for Career and Technical Education Excellence (Center) to gather input from career and technical education (CTE) stakeholders across the state of Wisconsin through face-to-face listening sessions and through electronic survey instruments. These stakeholders included community members, business/industry representatives, educators, and students or recent graduates. Questions asked of stakeholders at the listening sessions and through the surveys were developed in collaboration with DPI staff to ensure data collected would meet DPI's requirements. Data was collected from February 19 through April 19 of 2019, followed by data analysis and preparation of a report for DPI.

Beginning February 27, notice of the first public listening session on March 8 was distributed via email by DPI. Notification of four additional public sessions was emailed March 6 and again prior to each session by DPI staff. A total of eight face-to-face sessions (Table 1) were held in the following regions of the state: Central (Wisconsin Dells), Southwest (Fennimore), Northwest (Rice Lake), Northeast (Green Bay, Three Lakes), Southeast (Pewaukee), and North Central (Curtiss).

Table 1.

Summary of Face-to-Face Listening Sessions

Location	Date (2019)	Audience	No. of Participants
Published public sessions			
Wisconsin Dells, Kilbourne Public Library	March 8	CTE stakeholder groups	19
Fennimore, CESA 3	March 26	CTE stakeholder groups	5
Rice Lake, Wisconsin Indianhead Technical College	March 28	CTE stakeholder groups	11
Green Bay, Northeast Wisconsin Technical College	April 1	CTE stakeholder groups	39
Pewaukee, Waukesha County Technical College	April 15	CTE stakeholder groups	24
Sessions held in collaboration with partner events			
Three Lakes High School Fab Lab Night, Three Lakes, WI	February 19	Community members	6
Wisconsin Technology Education Association Conference, Wisconsin Dells	March 8	Educators (secondary and postsecondary), business/industry	23
CEO Roundtable, Curtiss, WI	March 26	Business executives	6
Total participants			133

Four electronic surveys were developed, one for each of the targeted stakeholder groups: community members, business/industry representatives, educators, and students or recent graduates. The questions were developed in consultation with DPI staff to parallel listening session questions in order to gather input from stakeholders unable to attend face-to-face listening sessions. Survey links were posted on the DPI Perkins V web page and were available for respondents from April 2 through April 19, with email reminders sent by DPI staff to CTE stakeholder email lists. A total of 1,890 individuals accessed the surveys (Table 2). Participants from the surveys and listening sessions were further categorized according to the stakeholder groups identified in the Perkins V legislation and are presented in Appendix A. More detailed demographic information about the stakeholder groups is provided in Appendices B and C. To enhance readability of this report, some student survey data is presented in Appendix C and referenced in the body of the report.

Table 2.

Summary of Survey Participation

Stakeholder Group	Number of Counties Represented	Number who Started Survey	Number who completed 80% or more of survey	Percent who completed 80% or more of survey
Business/Industry	33	145	80	
Community	44	163	105	
Student/Recent Graduate	27	221	149	
Educators	72	1,361	969	
Total		1,890	1,303	

Data gathered from the listening sessions and open-ended survey questions was analyzed independently by two Center staff using qualitative coding techniques to determine themes that emerged. In addition, the data was analyzed by UW-Stout Applied Research Center staff using NVivo software to identify themes and patterns. Major themes from the NVivo analysis were compared to themes identified by Center staff members. The remainder of this report provides the themes identified, including quantitative survey data related to relevant themes.

The themes presented provide a guide in which to present the key findings. They do not represent any order of prioritization or level of importance. Figure 1 represents the themes and subthemes presented in this report. Researchers' conclusions drawn from the data are provided at the end of the report along with appendices.
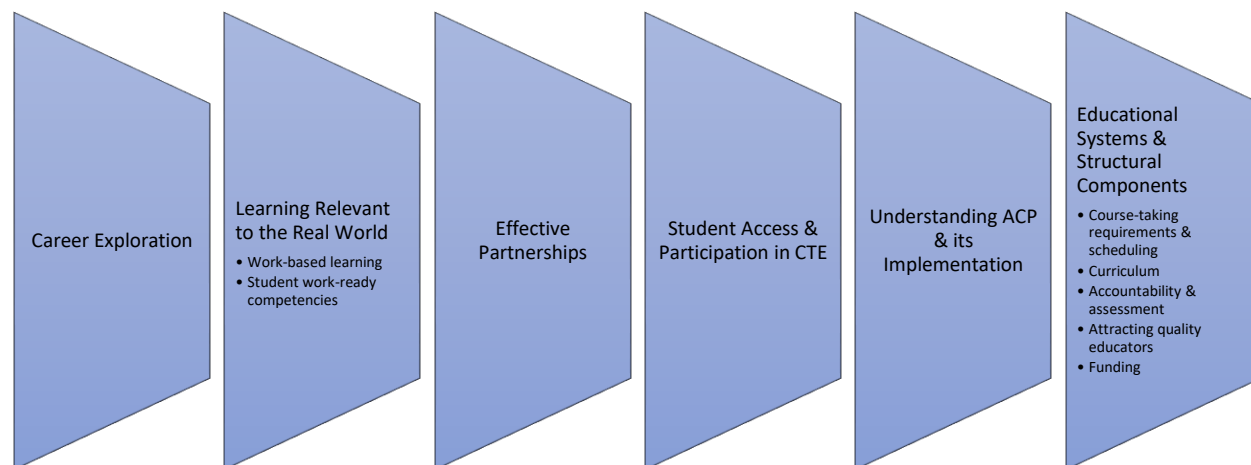
Career Exploration

Learning Relevant to the Real World
• Work-based learning
• Student work-ready competencies

Effective Partnerships

Student Access & Participation in CTE

Understanding ACP & its Implementation

Educational Systems & Structural Components
• Course-taking requirements & scheduling
• Curriculum
• Accountability & assessment
• Attracting quality educators
• Funding

Figure 1. Themes and Sub-themes Identified from Stakeholder Input

Career Exploration

The career exploration theme is embedded in some of the themes that follow, however, it came through so strongly in the listening session discussions as well as in the surveys that we felt it was important to capture by itself. Participants repeatedly emphasized providing young people with exposure to many kinds of career options that help prepare them for life after high school, and to begin this exposure as early as elementary school. For example, business participants suggested speakers in the classroom share careers relative to their business, a "life in the day of..." discussion, including how workers use core academic skills like math in the workplace. The emphasis was on providing varied opportunities across grade levels without ranking one experience over another. Suggestions for exposing students to careers and the workplace included: class speakers, career day/fair, job shadow, field trips, mentors, internships, co-ops, youth apprenticeship, and work study. Examples of experiences that would prepare students for the world of work were ranked by educators for both middle school and high school students (Tables 3 and 4), with CTE courses ranked first for both middle school and high school students. (Bold items in the tables received the highest response for the ranking; italicized items received the next highest response for the ranking.) Survey respondents also indicated that curriculum in all areas should introduce career options, such as meteorology or surveyor in science classes; lessons that tie into careers (e.g., reading or writing about different careers); and include projects that reflect work-based situations. Offering industry certifications was also mentioned as an example of an experience that would prepare students for the world of work. Helping students understand the value of all types of work was important to stakeholders.

Table 3.

Educator Responses to Experiences Middle School Students (Grades 6-8) Should have to Better

Prepare for the World of Work (n=900)

Ranking	General career exploration course	A rotation through various career and technical education (CTE) courses	Guest speakers from business in their courses	Tours of local businesses	Other
1st choice	*216* *(24.0%)*	**628** **(69.8%)**	16 (1.8%)	28 (3.1%)	12 (1.3%)
2nd choice	**417** **(46.3%)**	173 (19.2%)	*170* *(18.9%)*	125 (13.9%)	15 (1.7%)
3rd choice	96 (10.7%)	53 (5.9%)	**457** **(50.8%)**	*280* *(31.1%)*	14 (1.6%)
4th choice	161 (17.9%)	43 (4.8%)	*239* *(26.6%)*	**451** **(50.1%)**	6 (0.7%)

Note: Bold items received the highest response for the ranking; italicized items received the next

highest response for the ranking.

Table 4.

Educator Responses to Experiences High School Students (Grades 9-12) Should have to Better Prepare for the World of Work (n=942)

Ranking	General employability skills course	Career and technical education courses	Guest speakers from business in their courses	Classroom projects based on work-based situations	Work-based learning opportunities (e.g., job co-op, internship, youth apprenticeship)	Other
1st choice	*253* *(26.9%)*	**471** **(50.0%)**	9 (1.0%)	75 (8.0%)	126 (13.4%)	8 (0.8%)
2nd choice	176 (18.7%)	**259** **(27.5%)**	68 (7.2%)	*240* *(25.5%)*	195 (20.7%)	4 (0.4%)
3rd choice	151 (16.0%)	133 (14.1%)	143 (15.2%)	*248* *(26.3%)*	**264** **(28.0%)**	3 (0.3%)
4th choice	192 (20.4%)	67 (7.1%)	**290** **(30.8%)**	189 (20.1%)	*197* *(20.9%)*	7 (0.7%)
5th choice	162 (17.2)	12 (1.3%)	**425** **(45.1%)**	*185* *(19.6%)*	154 (16.3%)	4 (0.4%)

Note: Bold items received the highest response for the ranking; italicized item*s* received the next highest response for the ranking.

Participants also indicated that students, particularly in the middle school, should be allowed to explore their personal interests and aptitudes and that all students should be more aware of career options beyond those requiring a 4-year college degree, including apprenticeships and the military. Academic and career planning was mentioned as a key component, particularly the planning process and focusing high school course planning more around careers. Academic and career planning itself is addressed as a separate theme in this report.

In addition, having a relationship with a career guidance "champion" was described as an important component to provide career guidance for students. A career guidance "champion" was described as an individual who would establish a relationship with a student and support them in their learning. This could be a school counselor, parent, mentor, coach, or teacher. Importance was placed on the relationship being long term and meaningful. An example given

was a consistent homeroom teacher throughout grades 9-12. Participants understood that teachers and other adults should share this responsibility with school counselors. As a business person stated, "It is everyone's job to help and guide young students." A related sub-theme was to provide training to the adults (parents, teachers, school counselors) about career options, particularly those that do not require a 4-year degree, and how to use programs of study or academic and career plans in order to effectively help young people in the academic and career planning process.

Learning Relevant to the Real World

Authentic application of knowledge to the workplace and real life was suggested by participants at all listening sessions. Participants made it clear that students must be able to transfer skills from learning situations (classroom and workplace) to a job, because the workplace and technology change so rapidly. Holding students to high standards and helping them self-evaluate their work readiness were suggestions to address this. Participants also recognized career connections should be embedded across the curriculum as well as through work-based learning activities, and they recommended integrating workplace applications into curriculum and melding CTE with core academics. Externships for teachers were suggested as a means to help all teachers make the connections between their curriculum and the workplace.

Work-based learning. Work-based learning was a reoccurring theme throughout listening session questions and the surveys. When discussing work-based learning, listening session participants recognized the value of these experiences in helping students become aware of and explore careers; in learning employability skills, particularly interpersonal skills; and learning how to improve after failing at something. Community survey respondents also expressed the importance of work-based learning, with 89.4% marking 8 or higher on a scale where 10 indicated extremely important, and none marking it lower than a 5.

While work-based learning was viewed as important, approximately one-third or less of community members and students seemed to know about the various types of work-based learning opportunities except for youth apprenticeship (Table 5). Youth apprenticeship (YA) was the most identified work-based learning option in listening sessions and surveys (Tables 5 and 6), followed by school-based enterprise. School-based enterprise was seldom mentioned in listening session discussions about work-based learning, however when presented as an option in surveys, adult respondents chose it second behind YA, suggesting school-based enterprise may be viewed as work-based learning only when presented that way.

Table 5.

Community Member and Student Identified Work-based Learning Opportunities Available to Students (More than one choice could be selected)

	Youth Apprenticeship	Job Co-Op	Internship	School-Based Business/ Enterprise	Supervised Occupational Experience	Other	Do not know what experiences are available in the district
Community Members (n=104)	71 (68.3%)	35 (33.7%)	26 (25.0%)	39 (37.5%)	N/A	18 (17.3%)	23 (22.1%)
Students/Recent graduates (n=149)	82 (55.0%)	47 (31.5%)	48 (32.2%)	56 (37.6%)	25 (16.8%)	1 (0.7%)	(Last row of table)
Students indicating WBL experience is available and they participated	14 (17.1%)	3 (6.4%)	1 (2.1%)	13 (23.2%)	5 (20.0%)	---	---
Students not sure what is available (n=149)	53 (35.6%)	73 (49.0%)	73 (49.0%)	53 (35.6%)	91 (61.1%)	---	---

Table 6.

Employers' Top Three Most Valuable Career-based, Work-Readiness Experiences for Students (n=80)

Ranking	Career-focused courses	Company Tours	Job Shadow	Part-time Job	Co-op/ Intern	YA	Industry Credential	Other
1st choice	**37** **(46.3%)**	3 (3.8%)	5 (6.3%)	2 (2.5%)	13 (16.3%)	*23* *(28.8%)*	1 (1.3%)	4 (5.0%)
2nd choice	15 (18.8%)	3 (3.8%)	12 (15.0%)	5 (6.3%)	**24** **(30.0%)**	*21* *(26.3%)*	6 (7.5%)	0 (0%)
3rd choice	10 (12.5%)	21 (26.3%)	39 (48.8%)	28 (35.0%)	*59* *(73.8%)*	**60** **(75.0%)**	23 (28.8%)	9 (11.3%)

Note: Bold items received the highest response for the ranking; italicized item*s* received the next highest response for the ranking.

Work-based learning opportunities that emerged from the listening sessions were mainly youth apprenticeship and skills certified co-op, also referred to as job co-op. Skills certified co-op was seen as a good option for pathways in which YA is not available. Concerns were expressed that there was too narrow a focus on YA, that it was seen as the "only option."

Participants indicated YA does not fit in all pathways and YA checklists were inaccurate and in need of updating. Both YA and skills certified co-op were acknowledged as programs that provide rigor and structure for work-based learning when implemented with fidelity. Inconsistency in YA programs across districts was noted, with different expectations of students depending on the school district, leading to concerns about programs meeting the necessary requirements to receive YA funds.

Participants in both listening sessions and surveys identified a number of specific characteristics of a quality work-based learning program, which fall into the following categories.

- *Relationships with employers*. Good employer partners were identified most frequently as key to quality work-based learning. These employers were described as those who are willing to invest in student learning in the workplace and provide learning experiences across the organization. Workplace mentors were identified as a critical component of a quality program, and training for mentors was identified as an area of need by both educators and employers, to ensure the mentor understands expectations of him/her and provides a quality learning experience for the student.

- *Dedicated staff to oversee the program*. Participants in all listening sessions mentioned the need for well-qualified, dedicated individuals who are given time during the day to lead and oversee work-based learning programs in order to provide students with a meaningful experience; CTE Coordinators were specifically mentioned. This person was seen as the person collaborating not only with business partners but also with students' CTE teachers to help students connect school to work. Businesspeople also valued having a point of contact for youth programs.

- *Administrative support*. Administrative support was considered key to successful work-based learning opportunities and a school culture that values work-based learning. Support for students to have time for work-based learning and have experiences that fit their career goals while holding students accountable were identified as part of administrative support.

- *Related instruction*. There were a few contradictory views about the need for curriculum as part of work-based learning—some participants saw it as essential and others saw simply any work experience as valuable. However, to ensure rigor and structure, listening session participants agreed that quality work-based learning

should have related instruction and not be a stand-alone, add-on program. Employers surveyed indicated career-focused courses as their top choice (46.3%) for the most valuable career-based, work-readiness experiences (Table 6). Work-based learning embedded in curriculum with standards set by employers and third-party industry certifications were noted in listening sessions as adding to the rigor and structure. Setting high expectations for students to meet competencies was also important for business persons and community members.

A number of challenges and concerns were identified for work-based learning in general, including lack of curriculum tied to work-based learning. Two other key concerns were lack of time in students' schedules to participate in work-based learning, both during the school year and summer, and limited access for low SES students and other special populations students. Transportation costs and availability were named specifically as barriers to participation.

Suggestions for enhancing work-based learning opportunities included summer opportunities with school supervision, shorter experiences (less than a full semester), and revisiting credit assigned to work-based learning opportunities. Participants also suggested including CTE and work-based learning as success measures for schools.

Student work-ready competencies. Competencies that would help students be successful in the workplace were also identified in listening sessions and surveys. These competencies could be classified into two categories: specific academic/technical/job-seeking skills often included in course content and professional skills or employability skills.

Specific academic/technical/job-seeking skills. These skills are often taught within units of instruction in a course. They included communication skills (reading and writing, particularly technical reading and writing; speaking, including participation in a conversation; communicating as part of a team; math skills; life skills (cooking, home and vehicle maintenance); financial literacy (particularly budgeting); computer and technology use (including phones); safety in the workplace; coding; and job-seeking skills of writing resumes, cover letters, and interviewing. Of all the skills mentioned, financial literacy was the most common.

Employability skills. These skills or attributes could be categorized into what were identified as "executive function" skills, problem-solving and decision-making skills, collaborating with others, and personal attributes (Table 7). Many of the skills were specified

because participants felt they were valuable skills or noticed they were lacking in young people they worked with.

Table 7.

Employability Skills Identified

Category	Skill or Attribute
Executive Function	Time management Organizational skills Responsibility - recognize work to be done and do it with pride Accountability
Problem-solving and Decision-making	Set realistic goals Have a Plan A and a Plan B Process oriented/logical Resourceful Creative
Collaborating with others	Work as a team member Understand authority structure Interpersonal skills Ability to resolve conflict
Personal Attributes	Grit/perseverance – able to fail and improve Resilience/adaptability Cultural competence Self-directed Able to take initiative Advocate for themselves Integrity Lifelong learner Growth mindset

Effective Partnerships

Throughout the listening sessions, working with partners from various stakeholder groups was identified as a critical component to preparing young people for life after high school. Partnerships with committed business and industry partners was identified as key to helping students and teachers understand what is happening in the business world and providing them with learning opportunities. Clearly articulating expectations for all partners involved was a key recommendation from all listening sessions.

While listening session respondents recognized the value of partnerships to expand opportunities for students, some challenges were identified. Educators shared that employers seem reluctant to hire someone under age 18, and employers shared concerns about the liability and legal requirements that affect this. Employers identified additional barriers in their survey

responses (Table 8). Other barriers identified in the survey included lack of knowledge about global presence of local businesses among school staff, counselors, and parents; lack of student commitment and availability to work; and no budget for student workers due to lack of buy-in from the company's senior leadership.

Table 8.

Employer Identified Barriers to Partnering in K12 Career-based, Work-readiness Experiences for Students (n=80)

Ranking	Lack of appropriate work behavior of students hired	Inappropriate social media or mobile device usage by student employees	Difficulty finding students with skills needed	Safety/liability concerns	Lack of staff resources to coordinate with school	Not sure who to work with at the school to develop a student learning experience in our company	Insufficient staff time to supervise student workers
#1 concern	*14* *(17.5%)*	3 (3.8%)	**26** **(32.5%)**	6 (7.5%)	8 (10.0%)	4 (5.0%)	11 (13.8%)
#2 concern	10 (12.5%)	10 (12.5%)	**17** **(21.3%)**	7 (8.8%)	8 (10.0%)	10 (12.5%)	*14* *(17.5%)*
#3 concern	12 (15.0%)	7 (8.8%)	8 (10.0%)	**16** **(20.0%)**	5 (6.3%)	6 (7.5%)	*13* *(16.3%)*

Note: Bold items received the highest response for the ranking; italicized items received the next highest response for the ranking.

Supports to strengthen the relationship with employers were identified to increase opportunities for partnership. In order to provide access to career-based, work-readiness experiences for students, employers indicated that they would like support and training to prepare them to work with student workers. An industry mentor or job coach from the school was listed as a beneficial support. Employers requested resources to accommodate ESL students such as translators, and addressed the need for resources and individualized training to work with students with disabilities. Some employers responded that they would like a school staff member to come with the student so there is not demand for an extra employee to accommodate the student worker. Funding from the state was mentioned as an option to help provide these supports.

Community involvement in CTE programs was mentioned throughout the listening sessions and surveys. Community members in particular indicated through survey responses that

partnerships need to extend beyond businesses and schools to engage the whole community. They suggested that when the community understands the impact CTE makes in students' lives and on the community, they become influential advocates for quality programs.

Joint programming with two-year or 4-year programs was also identified as an important partnership component. Articulation agreements or academies are examples of this opportunity, offering high school students college credit while taking high school courses. Dual credit in particular was identified by listening session participants as an opportunity that could continue to be expanded. Students were very aware of dual credit options, with 80.5% of students surveyed aware it was available in their school and 45.0% participating in it (Appendix C, Table C6).

Student Access and Participation in CTE

Questions regarding student access to and participation in CTE courses and career and technical student organizations (CTSOs) were asked of community members, educators, and students in listening sessions and surveys. The initial response in most listening sessions was reflected in this statement: "On paper, every student has access to CTE courses and programs." Student survey responses also indicated that CTE is available to them. However, participation is more limited, especially in CTSOs (Tables 9 and 10). In a separate question asking students if they have taken any CTE course, 110 (75.8%) indicated they have taken a CTE course, 18 (12.1%) have not taken a CTE course, and 20 (13.4%) were unsure what a CTE course was.

Table 9.

Student Responses About CTE Courses Available and in Which They Participated (More than one choice could be selected)

	Agriculture	Business	Family and Consumer Sciences	Health Occupations	Marketing	Technology and Engineering
This is available in my school. (n=149)	97 (65.1%)	128 (85.9%)	103 (69.1%)	79 (53.0%)	97 (65.1%)	116 (77.9%)
Available in my school and participated.	41 (42.3%)	61 (47.7%)	32 (31.1%)	9 (11.4%)	34 (35.1%)	41 (35.3%)
Available in my school but did not participate.	56 (57.7%)	67 (52.3%)	71 (68.9%)	70 (88.6%)	63 (64.9%)	75 (64.7%)

Table 10.

Student Responses About Career and Technical Student Organizations (CTSOs) Available and in Which They Participated (More than one choice could be selected)

	DECA	FBLA	FCCLA	FFA	HOSA	Skills USA
Available in my school (n=149)	52 (34.9%)	56 (37.6%)	60 (40.3%)	102 (68.5%)	25 (16.8%)	37 (24.8%)
Available in my school and participated.	18 (34.6%)	12 (21.4%)	7 (11.7%)	30 (29.4%)	0 (0%)	3 (8.1%)
Available in my school but did not participate.	34 (65.4%)	44 (78.6%)	53 (88.3%)	72 (70.6%)	25 (100%)	34 (91.9%)

Following the initial response about access, listening session respondents identified numerous factors that create barriers for some students to access and participate in CTE and many of these barriers were also identified by survey participants. These barriers are combined in Table 11 in no particular rank or order. In surveys, community members identified students' lack of knowledge about CTE opportunities as their top barrier (70.5%) as did the educators (63.6%), followed by not enough WBL opportunities in the community (55.2% and 52.2% respectively). However, the top barrier specified by the few students who had not taken CTE courses was not having space in their schedule (61.1%), courses not matching their career interests (38.9%), and unaware of CTE courses available (33.3%) (Appendix C, Table C3).

Table 11.

Barriers for Student Access to CTE Identified by All Stakeholder Groups

Barriers to CTE Course/Program Access	Examples of Barriers to Access
Graduation Requirements+	Required core courses leave little time in student schedules for CTE courses.
Post-secondary admission requirements	Student requirement for college prep classes take up a full course load leaving no time for electives such as CTE.
School culture+	General knowledge of CTE and promotion of programs within the school/district. Students unaware of CTE courses and programs.* Student participation was influenced by peer participation.
Scheduling conflicts, particularly with AP courses, band, choir *	The schedule of the school can present barriers to the participation in CTE courses and programs. Other courses scheduled at the same time may prevent some student's access to CTE courses.
Gender role perceptions	All students have access, however not all feel comfortable based on the perception of the class. An example provided was female students not participating in shop classes.
Member of a minority group.	Minorities refer to ethnic groups which are minorities in their school district.
Parent perceptions and recommendations.+	Parental familiarity with CTE courses and available opportunities. Are parents aware of CTE, and are they recommending the courses for their learner?
Finances for students and school+	Lack of funding for materials and equipment. Cost for uniforms, project materials.
Lack of teaching staff to offer courses/programs.	There were several reasons listed for lacking enough staff to offer CTE courses and programs. Participants stated that when teachers left, programs closed resulting in reduced offerings and opportunities.
School counselors directing students away from CTE.+	Not as many "high fliers" enrolled in CTE courses, students who are not college-bound are directed to CTE. Often advising/guidance will push "reluctant learners" into the "shop" classes. A technology education teacher shared that he had three females signed up for a construction course, however, only one showed up for class when it started. The teacher discovered that after talking with the counselor, the two females decided to drop the class.

*Indicates barrier identified in student survey. See Appendix C, Table C7.

+Indicates barrier identified in community survey.

Opportunities to attract students to CTE courses and programs were discussed throughout the listening sessions. One strategy mentioned was employing teachers in non-traditional roles, such as a female agriculture teacher. Other opportunities included dual enrollment, Fab Labs to attract high achieving students to Technology Education, and advanced CTE courses with rigor and weight equivalent to Advanced Placement (AP) courses. Additionally, sharing information with students about CTE courses and including that information in ACP/individualized planning were included in the conversation on recruiting students to participate. Students also indicated in survey responses that awareness of CTE courses and programs should be increased, with one student's statement representing an overarching theme: "These programs need to be better promoted in schools and pushed on students as much as core classes like math and English."

Listening session participants who were involved with Career and Technical Student Organizations (CTSOs) eagerly shared the value of CTSOs for students. Barriers for students to access CTSOs were also shared (Table 12). When listening session participants were asked specifically whether CTSO participation reflected students enrolled in CTE courses, responses were mixed. Some participants thought CTSO participants mirrored those in the courses, others thought that CTSO participation was limited to students who could afford it.

Table 12.

Barriers to Student Access and Opportunities Provided by CTSOs as Identified by all

Stakeholder Groups

Barriers to CTSO Access	Examples of Barriers to Access
Teacher/adviser dependent	Requires time after school; no connection for students to CTSO when courses are taught by the technical college; experience-based licensed teachers unfamiliar with CTSO adviser responsibilities
Funding	Student costs. "Some people can't afford the dues and fees"* School support. Dues, travel; advisor pay. "When districts stop paying for a CTSO, the organizations dissolve."
Competes with sports and other clubs	Sports coach will not allow students to miss practice for CTSO participation. CTSO success is celebrated differently than sports
Scheduling	Lack of time in students' schedules
Awareness of CTSO*	Students and parents unaware of CTSO opportunities
Availability of CTSO*	Limited CTSO opportunities available, especially in small school districts
Equity	Low income. Students must work after school to supplement family income, not time to participate in a CTSO. Gender perceptions. It was stated that CTSO equity can depend on advisor. The teacher is the one that drives participation- male club leaders/teachers need to include females in traditional male fields, etc.

*Indicates barrier identified in student survey. See Appendix C, Table C8.

Through the listening sessions and surveys, CTSO participation was celebrated for offering positive student outcomes. Leadership, confidence and skill-building were mentioned as benefits of participation. Another identified value of CTSOs is that they hold students to high standards and offer community connection and engagement. CTSO participation offers extra-curricular engagement for students who are not in sports, and also provides students a chance to learn about the workplace.

Listening session participants identified opportunities for increasing CTSO participation. Creating awareness of the available CTSO opportunities for students was identified as a critical component in promoting programs. Of students surveyed who have not participated in a CTSO,

the largest percentage (48.8%) reported that they were not aware of any opportunities at their school (Appendix C, Table C5). The degree to which the advisor/instructor promotes the program directly impacts enrollment, and this theme was captured well by a listening session participant who stated that the CTSO advisor drives participation and can promote the program beyond traditional gender roles.

Understanding ACP and its Implementation

An observation made from facilitating all the listening sessions and specific comments from some participants was a lack of awareness about all the components of Academic and Career Planning. The term Individualized Learning Plans (ILP) was used in listening sessions as a way to tap into the diverse experiences of the stakeholder group and connect them to the personal student plans which are part of the ACP process. Some saw individual learning plans as something new, replacing a 4-year graduation plan. Most listening session participants had no personal experience with an individualized learning plan. For example, one participant commented that an "individualized learning plan should be funneled into a larger program such as ACP." This suggests that the student learning plans were seen as separate from ACP.

When ILPs were explained as student's individual or academic and career plans, participants expressed value in these plans for students. They described them as a "blueprint" for students' future career path that allows them to understand connections of skills and interests to work, to learn about careers and what is needed to move into a career. A key benefit to students that emerged was that academic and career planning provides rationale for learning and empowers students to set goals and even advocate for courses they need. The benefit to all students was captured well by one participant: it "allows all students to be included in life after high school."

When discussing benefits of academic and career planning, teachers and parents were also mentioned. Participants indicated that teachers must value ACP for students to value it, and it must be integrated across all discipline areas, in all classes where it fits. Educators suggested that greater schoolwide understanding of CTE programs, which are integral to the ACP process, could improve ACP outcomes. Listening session participants shared that teachers who embrace ACP build relationships with students and have deeper discussions about interests and careers. Parent involvement was noted as important, and an administrator indicated that when ACP is part of parent-teacher conferences, parent participation in conferences increased.

Several concerns about academic and career planning were also mentioned. A key concern was that ACP "pigeon-holed" students too young, that it pushed them into one path, even creating stress for students, and did not allow them to explore career opportunities. Listening session participants suggested early career exploration was important in helping students know that it was okay to change their career path. The interest inventories students use to determine career pathways were mentioned as a concern, providing results that do not adequately reflect students' interests and may even be biased in presenting mainly 4-year college options. A number of stakeholders had concerns that "4-year college for all" was still a persistent belief among parents, educators, school administrators, and school counselors, influencing students' choices.

Implementation of ACP and differences across school districts was discussed in every listening session. The statement that "there is no defined scope and sequence" captures well the thoughts that were shared. Participants wondered whether ACP was simply a checklist of activities and assignments or whether students engaged in critical thinking, understanding why the planning was needed. Planning focused on careers and training after high school rather than a 4-year high school plan was viewed as important to effective implementation of ACP.

The level of implementation and effectiveness of ACP was also asked of educators in a survey. Effective implementation was considered actively involving students, staff, families and community in the ACP process for students in grades 6-12; ineffective programs have a plan in place but offer limited activities. Effective implementation was considered to have a positive impact on student growth and development. Results showed both implementation and effectiveness in the mid-level range on a scale of 1-10 (Table 13).

Table 13.

Educators' Perception of Level of Implementation and Effectiveness of Academic and Career Planning (n=969)

	Rating (1=low implementation, 10=high implementation)			
	1-4	5-7	8-10	No response
ACP Level of Implementation	184 (19.0%)	431 (44.5%)	341 (35.2%)	46 (1.3%)
ACP Effectiveness	235 (24.3%)	482 (49.7%)	227 (23.4%)	25 (2.6%)

Educational Systems and Structural Components

A number of challenges articulated during listening sessions were district-level or state-level items that impact career and technical education programs. In all listening sessions, participants identified the need for an overall structure change in schools with the focus on application of learning. In order to focus on how learning applies to careers, participants also noted that school structure must change in order for students to change courses once registered. For example, if over the summer a young person has a positive experience that changes their career direction and it means taking different courses than planned, then making necessary changes may be difficult.

Course-taking requirements and scheduling. The two specific structural changes most commonly cited were scheduling and high school graduation requirements. Scheduling was identified as a challenge for course-taking, with required courses for graduation, AP courses, band, and choir often cited as competing with CTE courses. Courses required for graduation particularly limit elective options, which in turn limits students' opportunities to gain work-readiness skills through CTE courses and student organizations. To address this, several participants suggested a CTE requirement for graduation or inclusion on the school report card. Scheduling was also identified as an issue related to work-based learning opportunities, with course schedules limiting participation in work experiences. Allowing more flexibility in schedules, for students and teachers, even offering early morning or evening options, were identified as opportunities to improve access to all opportunities related to CTE programs.

A related challenge mentioned throughout the listening sessions was alignment between K-12 schools, technical colleges, and universities. Questions were raised about whether high school requirements really aligned with college requirements, and whether all the high school graduation requirements were needed. Post-secondary admission requirements that support core academic courses, not CTE courses, were also seen as a challenge.

Curriculum. Curriculum development was described as involving K-16 partners, thus inclusion of this topic under the systems theme. It is important to note that during the listening sessions, it was clear that those most informed about curriculum and the process of developing curriculum were the educators, and community members who were part of advisory committees had some knowledge. Survey responses of educators indicated 78.4% were familiar with the process for developing CTE curriculum, and community member survey responses indicated somewhat limited involvement in curriculum processes (Table 14).

Table 14.

Community Member Involvement in Curriculum (n=104)

Response Choice	Frequency (%)
Provided input to teachers or administrators as a concerned community member	33 31.7%
Have not been involved in developing CTE curriculum and prefer to allow others to develop the curriculum	31 29.8%
Have been involved in curriculum in other ways	23 22.1%
Have not been involved in CTE curriculum development but would like to be	18 17.3%
Have provided input as a member of a CTE program advisory committee	14 13.5%

Resources are needed to develop and implement curriculum within a program of study that integrates secondary and post-secondary components. Post-secondary institutions, particularly technical colleges, were clearly identified as an important resource when developing curriculum for dual enrollment courses. However, articulating courses between educational institutions was specifically identified as a challenge. Other curriculum development resources included the CTE Coordinator, industry advisory board members, other teachers in the content

area (local, state, and national), and standards for the content area as well as industry standards and certifications. In the educator survey, respondents ranked the importance of resources in developing curriculum, and alignment with content standards was seen as most important, followed by alignment with technical colleges for dual credit (Table 15). Alignment to industry credentials was the third choice for educators and the survey of community members echoed this as well: 61.9% responded that they were important for quality CTE programs, and of those respondents, 60.0% ranked them as 8 or higher with 10 being very important.

Table 15.

Educators' Ranking of Importance of Resources Used to Develop Curriculum (n=902)

Ranking	Input from a program advisory committee. (Community stakeholders)	Alignment with content standards	Alignment to technical college for dual credit	Alignment to industry credentials	Other
1st choice	142 (15.7%)	**522** **(57.9%)**	*145* *(16.1%)*	68 (7.5%)	25 (2.8%)
2nd choice	*192* *(21.3%)*	154 (17.1%)	**397** **(44.0%)**	156 (17.3%)	3 (0.3%)
3rd choice	225 (24.9%)	119 (13.2%)	*228* *(25.3%)*	**325** **(36.0%)**	5 (0.6%)
4th choice	*327* *(36.3%)*	103 (11.4%)	127 (14.1%)	**336** **(37.3%)**	9 (1.0%)
5th choice	16 (1.8%)	4 (0.4%)	5 (0.6%)	17 (1.9%)	**860** **(95.3%)**

Note: Bold items received the highest response for the ranking; italicized items received the next highest response for the ranking.

Listening session participants articulated the unique nature of the curriculum process for CTE programs, particularly the need for continuous updates in order to address technology changes and keep programs innovative. The need for consistency in curriculum processes and a common set of standards was presented as something to be considered at the state level.

Accountability and assessment. Throughout the listening sessions, accountability and assessing student work-ready skills surfaced. It was suggested that college and career readiness be assessed in different ways and include measures for employability skills as well as academic

and technical skills. Participants felt that if we are going to emphasize these skills for all students, there should be an appropriate tool in place to measure and report outcomes. WorkKeys was mentioned in several listening sessions, and was identified by some as an indicator of how students do in CTE. However, WorkKeys results are not being used and students are not being recognized for high scores. An example was a student earning a Platinum level who received no recognition of any kind. Participants stated that if the WorkKeys results are not being used, then the tests should no longer be given. (Note: Since the listening sessions were held, Wisconsin DPI notified school districts that beginning in the 2019-2020 school year WorkKeys will no longer be a mandatory assessment.)

During the listening sessions, it became clear that individuals compare programs across school districts and noted differences in CTE programs, not only in youth apprenticeship programs as mentioned previously, but in CTE programs in general. The discussions suggested that participants were seeking some standardization and guidelines to ensure that all students had comparable opportunities within CTE. Collaborating across school districts to provide programs was mentioned by a few people exploring these options, however, further details were not discussed.

Attracting quality educators (teacher pipeline). The top factor identified in the educator survey as necessary to attract teachers, and echoed by a number of business survey respondents, was compensation. Respondents recognized that CTE teachers have the skills businesses are looking for, and the higher salaries in business/industry draw people away from teaching. In addition to financial support, educators also indicated that respect for teachers and support from administrators for CTE would help retain teachers. Professional development was also something that educators identified as beneficial to ensuring quality educators in the classroom, and suggested time to work with peers in their own school, opportunities to work with peers in other schools, and state conferences for all CTE areas combined. This type of investment in teachers shows support and respect that educators responding to the survey indicated would help with the teacher pipeline. The word "collaboration" appeared repeatedly in educator open ended survey responses and suggests they would value professional development with their peers.

To attract individuals to teaching, educators who responded to the survey suggested "grow your own" programs, providing career development related to the teaching profession to high school students and building activities into CTSOs to encourage teaching. There were

many different perspectives about the pathway into teaching, from "going back to the old [licensure] system" to requiring a four-year degree with industry experience built into it, hiring intern teachers with incentive funding, or hiring industry professionals and providing them with professional development to become effective teachers. It was also very clear from the myriad of survey responses that teachers with combined knowledge of pedagogy—how to teach kids—and industry experience were valued. When asked what qualities, background or training a CTE teacher should possess, one educator echoed the responses of many other educators surveyed: "real-life work experience in the field, the ability to communicate effectively and understand student populations, teacher preparation courses, and experience in the classroom." Obtaining firsthand knowledge and experience in business and industry was described in many different ways, including a work requirement in college teacher education programs, summer work experience, and externships while teaching. Ongoing opportunities for industry experience while teaching was also a common response.

Financial support. Financial support for various aspects of career and technical education was recommended by stakeholders in listening sessions as well as in the surveys. Educators in particular highlighted the need for support in areas that make CTE programs unique – the ever-changing curriculum to keep up with industry standards, student organizations, and work-based learning. From a systems perspective, funding to support teachers and program development were frequently mentioned. This included financial support for teacher professional development, including opportunities for teachers to work with business and industry; for time a CTE teacher spends advising a CTSO and coordinating and supervising work-based learning; for time spent to develop and update curriculum; and for equipment necessary to keep programs up-to-date. Listening session participants noted that without this financial support, programs and their related student organizations would not exist.

Conclusions

Throughout the listening sessions and in responses to open-ended survey questions, the stakeholders articulated a vision for a school culture that values all areas of education and types of career pathways, a culture that begins with career exploration in the early grades and continues through high school. Academic and career planning (ACP) integrated with quality CTE programs of study, and educating the adults as well as students about the many career options and pathways, has the potential to create such a culture. Some suggested areas where funds could be invested to address this include: professional development for adults related to

career opportunities and pathways (e.g., training for adults to be career champions or coaches, teacher externships, professional organization conferences); evaluation of current work-based learning programs and updated guidelines, including mentor training; and integration of academic and technical education within career pathways. The Perkins legislation theme of building on current success (Hyslop, 2018) suggests that our state look at good practices already in place that may help in this work. One example is the Cooperative Education Skill Standards Certificate Program Guidelines that exist for work-based learning. With some updating, this would be a valuable resource for all school districts.

It became clear that there is more work to do with ACP implementation, and with continued funding this initiative can become more effective. It is important that the ACP process includes repetition and continuous experiences that are developmentally appropriate and contextualized so students can make a connection between learning and the workplace. Stakeholders recognized that tools are an important resource, but the process and people involved are more important than the tools.

In order to do the work suggested by stakeholders, partnerships are essential. Business, industry, and community organizations are important partners, and both business representatives and community members who participated in the listening sessions or surveys indicated they want to be involved partners in varying capacities. Engaging business partners in meaningful collaboration can help students connect their education to the workplace. A caution would be to maintain a focus on educating students about and through business rather than a training mindset focused on specific skills for a specific workplace. Fostering relationships between educators and business and industry to expose students to the world of work was important to stakeholder participants and should be pursued.

In addition to partnerships with businesses and the community, educators indicated that collaboration across school districts for professional development would be valued. Collaboration across districts could be explored even further to develop innovative, shared programs. Given limited resources, incentivizing districts to look at ways to develop programs in collaboration with neighboring school districts and to share resources could be a solution to providing more equitable opportunities for students.

In both the listening sessions and surveys, participants expressed a desire for leadership and guidance in implementing programs. It was clear that stakeholders want programs that are implemented with quality and fidelity so that students have the best experience possible. Clear

criteria and guidelines for evaluation emerged as something participants valued, and they saw this as something DPI could do. Participants seemed to want more guidance, yet with flexibility to incorporate local elements for success. CTE Coordinators were also identified as helpful in their local school districts for supporting CTE, and they could also assist DPI with implementation and evaluation of programs. At the local level, CTE Coordinators understand the unique characteristics of CTE and CTE teachers, which connect content, both academic and technical, to the workplace. When educators were asked in the survey what knowledge non-CTE educators needed in order to provide quality CTE programs, a common response was understanding of CTE and its value. The philosophy, practice, and design of CTE has evolved over time and adapted to changes in society as well as the workplace. CTE today provides the basic framework for curriculum that helps students apply knowledge from core courses and connects students to the workplace. CTE Coordinators are leaders who understand the unique qualities of CTE, can navigate the nuances of both teaching content and partnering with the local community, and can serve as the liaison who connects CTE with core teachers as well as the community.

Five of the six themes that arose from the Wisconsin stakeholder listening sessions and surveys align well with the themes around which the Strengthening Career and Technical Education for the 21st Century Act was written (Table 16). Stakeholders who participated in the listening sessions and surveys provided thoughtful insights intended to help DPI advance CTE. This report captured those ideas for DPI to use in crafting the next state Perkins plan that will lead CTE in Wisconsin forward.

Table 16.

Comparison of Wisconsin Stakeholder Themes to Perkins Legislation Themes

Wisconsin Theme	Perkins Theme*
• Career awareness • Academic and career planning implementation	• Building on current success (includes programs of study) • Encouraging innovation
• Learning relevant to the real world • Effective partnerships	• Increasing stakeholder involvement
• Student access and participation in CTE	• Enhancing efforts to serve special populations • Encouraging innovation

*Source: Hyslop, 2018.

References

Hyslop, A. (2018). *Perkins V: The official guide to the Strengthening Career and Technical Education for the 21st Century Act* (pp. 8-10). Washington, DC: Association for Career and Technical Education.

Appendix A: Perkins V Identified Stakeholder Groups who Participated in

Listening Sessions and Surveys

Table A1.

Participants by Perkins category

Perkins Identified Group	Number of Participants (Self-identified, duplicated count)
i) Representatives of secondary and postsecondary career and technical education programs, including counselors (see Table A2 for further breakdown)	1,035
ii) Community representatives (parents, students, community organizations) (see Table A2 for further breakdown)	250
iii) Representatives of State workforce development board established under WIOA	7*
iv) Representatives of special populations	33+
v) Representatives of business/industry	107
vi) Representatives of agencies serving out-of-school, at-risk, homeless youth	40**
vii) Representatives of Indian Tribes and Tribal organizations	0
viii) Individuals with disabilities	6^

*Individuals identified themselves as representing workforce development or economic development.

**Includes school social workers, many of whom also identified as the homeless liaison.

^Self-reported only by students surveyed.

Table A2.

Details of Perkins categories i and ii

Perkins Category	Specific Group within Category	Number of participants in listening sessions and surveys (duplicated count)
i) Representatives of secondary and postsecondary career and technical education programs, including counselors	K12 School Counselor	90
	K12 Faculty	650
	K12 Principals/Superintendents	122
	K12 Directors/Coordinators	130
	Other K12 staff	9
	Higher Education Faculty/Staff	34
ii) Community representatives (parents, students, community organizations)	K12 students	149
	College student/recent grad	2
	Parent	50
	School board member	4
	Community non-profit	31
	Community board or committee member	14

Appendix B: Stakeholder Group Demographics

Table B1.

Business participants: Industry and size of business (n=80)

	Number of Employees			
Industry area	1-50	51-100	101-150	Over 150
Agriculture/Natural Resources	9	0	0	1
Business Management/Finance	0	3	0	5
Computer Information Systems	1	0	0	0
Construction	3	2	1	2
Education and Health Services	5	0	1	8
Human Services	1	0	0	0
Leisure & Hospitality	1	1	0	1
Manufacturing	4	3	1	7
Marketing	4	0	0	0
Transportation & Utilities	4	0	0	2
Other	8	1	0	1
Total	40	10	3	27

Table B2.

Counties most represented by stakeholder participants in listening sessions and surveys

(n=1,303)

County	Frequency	%
Dane	117	8.98%
Waukesha	65	4.99%
Walworth	63	4.83%
Milwaukee	58	4.45%
Brown	57	4.37%
Columbia	54	4.14%
Outagamie	50	3.84%
Wood	48	3.68%
Eau Claire	45	3.45%

Note: There are 72 counties in Wisconsin and this list represents 12.5% of the counties.

Table B3.

Business and community member survey participants: Familiarity with CTE

Response Choice	Community Member (n=104)	Business (n=79)
Familiar with CTE as described	95 91.3%	71 89.9%
Description of CTE is different from what I understand it to be	2 1.9%	3 3.8%
Unfamiliar with CTE – it is new to me	7 6.7%	5 6.3%

Note: Among community member respondents, 84 (80%) indicated they currently or in the past had a child participate in public K-12 education; 19 (18.1%) did not, and 2 (1.9%) did not respond. This may have contributed to their familiarity with CTE.

Table B4.

Community member survey participants: Experience in CTE classes (n=103; multiple responses could be selected)

Response Choice	Frequency (%)
I enjoyed participating in CTE courses as part of my education	51 (49.5%)
I did not participate in CTE courses	40 (38.8%)
CTE courses prepared me for college and/or career	34 (33.0%)
Other	11 (10.7%)
I was able to participate in dual-credit CTE opportunities	7 (6.8%)

Appendix C: Student Survey Responses

Table C1.

Current and recent graduates

		Year of Graduation				
Response Choice	n	2019	2020	2021	2022	2023
Current student	147	60	32	22	23	1
Left school or graduated in the past three years	2	--	--	--	--	--
Left school or graduated more than three years ago	6	--	--	--	--	--

Table C2.

Students' ability to take middle and high school classes they needed/wanted to pursue their education and/or career pathway (n=148)

Response Choice	Frequency (%)
Very much	25 (16.7%)
Yes	56 (37.8%)
Somewhat	58 (39.2%)
No	9 (6.1%)

Table C3.

From students who have not taken a CTE course, reasons for not taking a course (Multiple responses could be selected; n=18)

Response Choice	Frequency (%)
Unsure/Other	16 (88.9%)
I did not have space in my schedule.	11 (61.1%)
The courses did not match my career interests.	7 (38.9%)
I was unaware of CTE courses available.	6 (33.3%)
I would have felt uncomfortable.	1 (5.5%)

Table C4.

Student rating for how well CTE classes and programs have met their needs (n=149)

Rating	Frequency (%)
8 to 10	56 (37.6%)
5 to 7	40 (26.8%)
0 to 4	19(12.8%)
Did not respond	34 (22.8%)

Note: On the rating scale, 10 indicated best met their needs.

Table C5.

Reasons indicated by students for not participating in a CTSO (n=84) (Multiple responses could be selected)

Response Choice	Frequency (%)
I am not aware of CTSO opportunities at my school	41 (48.8%)
I am not interested in the content	31 (36.9%)
I do not have time in my schedule	21 (25.0%)
Other – comments included: • "I have no idea what that is" • "Not sure what they do/how to participate"	6 (7.1%)

Table C6.

Availability and participation in other CTE experiences (n=149)

Response Choice	Available	Not sure	Participated
High school classes that count as college credit (dual credit)	120 80.5%	12 8.1%	67 45.0%
Obtaining industry credentials	33 22.1%	84 56.4%	7 4.7%
Other	0	9	0

Table C7.

Barriers in ability of students to participate in CTE courses, programs, or activities. (Multiple responses could be selected.) (n=120)

Response Choice	Frequency (%)
Not all students know about CTE opportunities	63 (52.5%)
Students are not aware of work-based learning opportunities	45 (37.5%)
There are not enough CTE opportunities available to students	20 (16.7%)
There are not enough work-based learning opportunities available to students	20 (16.7%)
Other – comments included: • "Students do not understand the benefits" • "Unmotivated and lack of knowledge" • "Doesn't correlate well in everyone's schedules"	6 (5.0%)

Table C8.

Barriers in the ability of students to participate in CTSO programs or activities. (Multiple responses could be selected.) (n=129)

Response Choice	Frequency (%)
Not all students know about CTSO opportunities	71 (55.0%)
I have not noticed any barriers	45 (34.9%)
There are not enough CTSO opportunities available to students	21 (16.3%)
Other – comments included: • "Some people can't afford the dues and fees" • "Other CTE teachers aside from one and the administration don't see the value in CTSOs" • "Some students get told they are not smart enough for the class"	8 (6.2%)