

State Leaders Connecting Learning to Work

2017 TWO-MINUTE ROUNDUP

SPRING MEETING 2018

Advance CTE: State Leaders Connecting Learning to Work | www.careertech.org

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SUMMARY

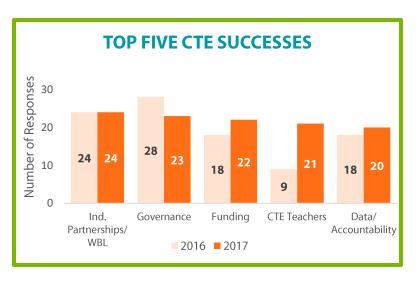
2017 was a big year for Career Technical Education (CTE). According to Advance CTE and the Association for Career and Technical Education's annual report *State Policies Impacting CTE*: 2017 Year in Review, 49 states and the District of Columbia took a total of 241 policy actions related to CTE or career readiness over the course of the year. This is a substantial increase from prior years, and indicates growing enthusiasm and interest from both state and federal policymakers.

Implementation of the Every Student Succeeds Act (ESSA), which was authorized in 2015, was a catalyst for state work around career readiness last year. All in all, 35 states described new measures of career readiness in their ESSA plans, holding high schools and local education agencies accountable for graduating career-ready students. This is why Data, Reporting and Accountability showed up as both an area of success and one of challenge for states in the 2017 two-minute roundup survey. Similarly, with ESSA and Workforce Innovation and Opportunity Act (WIOA) implementation underway, questions of Governance, Interagency Collaboration and Staffing emerged as themes in the survey results.

This Advance CTE Two-Minute Roundup Survey is a tradition for the organization and its members, providing an annual benchmark for the successes and challenges each state faces. The survey was issued in December 2017 and generated responses from 41 states, the District of Columbia, Guam and Palau. This summary provides a brief snapshot of common successes and challenges from across the nation. Specific responses from states are available below.

SUCCESSES

Industry Partnerships/ Work-based Learning: Overall, 2017 was a successful year for industry partnerships and work-based learning, with several states celebrating new relationships with employer networks or successful collaboration around the development of work-based learning guidelines. Through a partnership with the Workforce Development Council, the department of Higher Education and the Department of Education, state leaders in **Colorado** co-developed a statewide work-based learning framework to be used in all programs. Similarly, **Kansas** established a



work-based learning network to connect real-world learning opportunities with individual plans of study, and **Nebraska** launched the Nebraska Workplace Experience program, a partnership between the Nebraska Department of Education and the Departments of Labor and Economic Development that is designed to connect students with business and industry.

Governance/Interagency Collaboration/ Staffing: Many State CTE Directors were involved as key partners in their state's ESSA plan development process, laying the foundation for cross-agency alignment and collaboration. In **Hawai'i**, a cross-agency work group approved a career pathways system that aligns state plans for ESSA, WIOA and the Carl D. Perkins Career and Technical Education Act of 2006 (Perkins). And in **Illinois**, state agencies are now meeting regularly to talk about work related to college and career readiness.

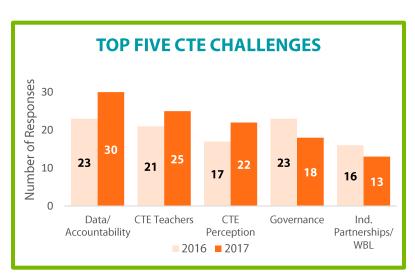
¹ https://careertech.org/resource/2017-state-policies-impacting-cte

Some states also underwent shifts in staffing or the organization of their agencies. In **South Dakota**, the newly-authorized State Board of Technical Education was established on July 1, separating governance of the technical college system from K-12 education.

Funding: Often elevated as a state challenge, funding was the third highest success in states for 2017. In many states, growing enthusiasm for CTE has manifested through increases in funding, new one-time grant programs or realignment of funding formulas. In **Tennessee**, Governor Bill Haslam approved a one-time \$15 million investment for secondary CTE equipment purchases in high-demand areas. And in **Indiana**, a new CTE funding formula was approved, directing more funding to programs in high-wage, high-demand industries.

CHALLLENGES

Data, Reporting and/or Accountability: Interestingly, Data, Reporting and/or Accountability showed up as both a common success and a common challenge; often in the same state. While states made considerable progress in 2017 identifying and adopting new measures of career readiness in their high school accountability system, there is much work left to ensure mechanisms are in place to collect meaningful data, ensure measures are aligned with success criteria, and spread awareness to — and gain buy in from — key stakeholder groups. This will be a priority for many state leaders in 2018.



CTE Teacher Certification/ Development: Additionally, many states reported challenges with recruiting qualified CTE teachers, a perennial challenge for State Directors. Aside from recruiting CTE teachers, states also reported challenges in 2017 related to meeting accreditation requirements and providing high-quality professional development.

CTE Perception: While evidence shows that public attitudes toward CTE are slowly shifting, states reported that improving the perception of CTE was a top challenge in 2017. One outdated belief that has dogged the CTE community is the idea that CTE is a lesser alternative to pursuing a four-year degree.

ALABAMA

What were your state's top accomplishments in CTE?

- Alabama has a New Administrator's Academy that consists of five meetings/conferences designed to prepare the new CTE administrator for the significant job they have taken. We have received many positive responses to this program.
- Alabama has focused on career counseling and guidance and has a multi-tiered approach to this policy area.² The Career Coach Initiative, now in the Counseling and Guidance Section, is a particularly popular initiative.
- > The Academy of Craft Training, a partnership between the State Department of Education, AIDT,³ the Associated Builders and Contractors and 14 Local Education Agencies in the Birmingham area.⁴

Please share your CTE-related challenges.

- Alabama has had significant changes in leadership at the State Department, and this has created a leadership and personnel void that is an ongoing problem.
- > Our sister agency, the Alabama Community College System, has also had significant changes in leadership and we are still working through issues.
- As we change we are re-focusing our CTE activities. This is a good challenge!

ALASKA

What were your state's top accomplishments in CTE?

- > The Bristol Bay Regional CTE Collaborative was formed when four rural southwest Alaska school districts joined together to provide greater depth and breadth of course offerings to remote students.
- > The Alaska State Board of Education adopted regulations to extend Perkins funding into seventh and eighth grade.
- The integration of other federal grant programs (Math/Science Partnership and Title II-A Higher Education) to a CTE/STEM related focus.

- > Equitable access for ALL Alaskans (remote/rural/urban).
- > Strategic vision across all districts. Barriers include district/school capacity, teacher turnover and facilities.
- Strategic vision across state policy.

² http://www.alsde.edu/sec/cg/Pages/home.aspx?navtext=Counseling and Guidance

³ https://www.aidt.edu/about-us/history/

⁴ http://academyofcrafttraining.org/

ARIZONA

What were your state's top accomplishments in CTE?

- We moved our program technical skills assessment to our statewide CTE data portal. This has allowed us to streamline the student registration process and made the assessment system easier to use. We also have been able to allow more modifications to students with individualized education plans (IEP) such as retakes and chunking time on the test.
- We created an application for industry certifications/credentials to be added to our approved list. Program specialists assembled industry groups to review the certifications/credentials and forwarded the recommendations on to our State Board of Education for approval.
- CTE is now a part of a high school's A-F ranking as part of the College and Career Ready index. Students in CTE can earn up to two points for their school by completing their CTE program and passing the technical assessment. They can also receive points for industry certifications and bonus points for postsecondary placement and military.

Please share your CTE-related challenges.

- > We are required by statute to rate our joint technical districts (JTED). Working with the 14 JTEDs to define the criteria and weighting has been a challenge. We are also facing some issues with pulling the data needed to meet the criteria.
- > Statute has required us to monitor every JTED program in the central and satellite campuses for compliance. At this point we have monitored close to 700 programs. We have about 1,000 more to monitor before December 2018. Our program specialists have been traveling the state completing this compliance monitoring.
- > The new high school rating has a College and Career Ready Index (CCRI). One section gives students points for industry certifications. We have been working with industry groups to determine the appropriate certifications/credentials to be eligible for points on the CCRI. The main challenge has been educating the State Board of Education on the validity of many credentials. They have preconceived ideas that the time it takes to prepare for the credential is in direct relationship with the importance of it. We have been focusing on the credentials essential for employment.

ARKANSAS

- Collaboration between the Arkansas Department of Career Education and the Arkansas Department of Education has resulted in many CTE courses being accepted for high school credit as part of the state's Computer Science Initiative. This collaboration has sparked further discussion and review of other CTE courses to count as possible flex math and science credit.
- > The development of an electronic application submission system for Perkins activity funds and state program startup funds has led to tightened internal controls for accountability. This electronic system allows for reporting of details concerning each Perkins indicator, program-specific expenditures, and other required accountability information.
- As participants in the Advancing Career Pathways Intensive Technical Assistance and CTE Leaders Academy initiatives, Arkansas conducted an in-depth self-analysis to determine the

state's needs regarding a CTE career pathways system. This has led to a collaborative effort between the Arkansas Department of Career Education and the Arkansas Department of Higher Education resulting in a combined vision regarding a true career pathways system in Arkansas. Both agencies are committed to dedicating staff to coordinate the development of this system.

Please share your CTE-related challenges.

- Although the new electronic submission system has tightened internal control, Arkansas continues to have concerns in communicating accountability expectations and emphasizing the importance of compliance with all state and federal regulations and policies to subrecipients and program coordinators.
- Arkansas continues to focus on developing a statewide data system accessible to all educational and workforce training organizations. Reporting of agency data is often a daunting task, as sources of data are not combined, making locating and accessing reliable data very difficult.
- > Funding and access to CTE programs for local districts continue to be issues Arkansas faces in providing high quality and high demand programs to all students.

CALIFORNIA

What were your state's top accomplishments in CTE?

- > The California Department of Education (CDE) and the California Community College Chancellors Office (CCCCO) entered into a data sharing MOU that will allow both organizations to collect data on CTE pathway completion, dual enrollment course completion as well as employment data. In anticipation of this agreement, the CDE completed a major overhaul of the CTE course codes listed in the California Longitudinal Pupil Achievement Data System (CaLPADS) and conducted both in-person trainings and online webinars all over the state to train local education agency (LEA) staff in the new codes and their definitions.
- > The CDE and CCCCO convened the CA Workforce Pathways Joint Advisory Committee to begin the work of developing a new state CTE plan pending authorization of Perkins. The committee is composed of three members from the state Board of Education and the Community College Chancellors Board of Governors. The committee has been meeting every two months since March 2017 with the purpose of examining elements of high quality CTE and College and Career Pathways.
- In 2017, CTE became part of the College/Career Indicator for the state accountability system. The state Board of Education approved a three-year plan for the further development of the Career Readiness Indicator. By 2020 both industry credentials and work-based learning will be part of the indicators included in CaLPADS for collection by LEAs. Work continues to identify additional indicators including the possible inclusion of ROTC courses as well as standalone CTE courses like medical assisting and emergency medical technician.

Please share your CTE-related challenges.

> Data sharing continues to be an issue given the restrictions under the Family Educational Rights and Privacy Act (FERPA) and the lack of dedicated data staff within the community college system.

- Determining how things like work-based learning experiences will be collected within the state pupil data system continues to remain a challenge. How quality is defined versus simply collecting the number of experiences a student has is proving a challenge within CaLPADS.
- The Career and College Transition Division at the CDE lost 10 staff members to budget cuts in 2017. This occurred at a time when the CDE is embarking on a philosophical shift of support and continuous improvement versus simply compliance. With the reduction of staff we have had to re-align priorities and put some work on the backburner in order to support our LEAs. As CTE becomes more prominent in the College/Career Indicator, this will continue to be an issue.

COLORADO

What were your state's top accomplishments in CTE?

- Colorado CTE (housed at the Colorado Community College System) partnered with the Colorado Workforce Development Council, the Colorado Department of Higher Education, and the Colorado Department of Education to create a statewide multi-agency Work Based Learning Framework to be used in all programs. This tool was the focus of our Colorado CTE Regional Meetings around the state as we reviewed the framework and had programs share best practices as well as indicate what tools they need to be successful in work-based learning going forward. Our plan is to deploy resources based on the feedback at our summer 2018 State CTE Conference. We are also doing cross-agency work to promote each other's tools and resources as well as co-branding and co-hosting events.
- The business education program director in the Colorado CTE Office is working with NC3T to create a "business core" for all levels of business education in our state from middle school to high school to community college to our four-year institutions with assistance from business and industry experts to identify competencies at each level. As a local control state, it is difficult to always get everyone on the same page. To our surprise, this project is being received with open arms from all levels of education. Business Education is our largest program area across the state and this project will serve thousands of students to ensure they do not duplicate across their pathways, including into the fourth year. Thank you to all of the State Directors who completed our survey to assist us with this project!
- Colorado CTE introduced a free professional development series for CTE educators who are seeking their CTE credential (required to have access to state and federal dollars as well as required to hold a program approval in our state) to "count" as the professional development (formerly college credits) needed to move their credential from an initial to a renewable credential. In previous years, CTE educators had to enroll and pay tuition for this coursework. The online experience has been offered twice (a fall cohort and winter cohort) and there was one face-to-face this summer at our conference. To date, there have been 245 CTE educators who have participated in the experience. The modules cover 1) CTE in Colorado including CTE basics as well as funding structures, 2) Career Technical Student Organizations (CTSOs), 3) Building advisory committees and employer engagement, 4) CTE pedagogy and lab safety, and 5) Integration of academic and technical skills in program design. There will be two additional online offerings this fiscal year and the summer face-to-face in July.

Please share your CTE-related challenges.

> Teacher retention and recruitment.

- > Perception of CTE.
- > Capacity of rural schools to offer multiple pathways (with limited broadband).

CONNECTICUT

What were your state's top accomplishments in CTE?

- Worked with Connecticut State Department of Labor to provide apprenticeship hours for technology education programs in the state.
- > Created a new online accountability system so grantees now submit all data electronically.
- Able to offer seven competitive grants for up to \$100,000 each to improve CTE programming at both the secondary and postsecondary level.

Please share your CTE-related challenges.

- Reduction of staff due to retirements and no rehires from seven full-time consultants and a secretary to just two full-time consultants and no secretary.
- > Shortage of certified CTE teachers in Business and Technology Education.
- State budget issues caused lost funding to local school districts resulting in a loss of CTE teachers and programs.

DELAWARE

What were your state's top accomplishments in CTE?

- > Submission of the ESSA state plan, with defined college and career readiness (CCR) indicators as part of state accountability system, and alignment to WIOA state plan.
- Establishment of statewide workforce intermediary at Delaware Technical Community College focusing on the expansion of work-based learning across K-12 school districts and employer engagement.
- Award of \$2.0 million to support Delaware Pathways from JPMorgan Chase and the Council of Chief State School Officers via the New Skills for Youth (NSFY) initiative and award of \$3.5 million to support credential programs in information technology and manufacturing from U.S. Department of Labor via America's Promise initiative.

- > Programmatic alignment between WIOA and ESSA, including data routines, common definitions and establishing goals.
- > Building employer capacity to scale work-based learning.
- > Measuring employer and parent engagement across similar forums (e.g. the state chamber, local chambers, etc. for employers and PTAs, parent groups, etc. for parents).

DISTRICT OF COLUMBIA

What were your state's top accomplishments in CTE?

- > Completion of program maps for all LEAs.
- > Completion of state-adopted programs of study in law and public safety and early childhood.
- > Completion of common language surrounding data tags for Consolidated Annual Report (CAR) and EDFacts reporting submissions.

Please share your CTE-related challenges.

- > Validated competencies by business and industry.
- > Increasing the concentrator/completer rates for students.
- > Revising business operations regarding the implementation and monitoring of Perkins.

FLORIDA

What were your state's top accomplishments in CTE?

- > During 2017, the Florida Department of Education reported that 102,044 industry certifications were earned by middle and high school students.
- > On the heels of the 2016 State Board of Education computer science standards, Florida adopted a new secondary CTE program, Computer Science Principles, in 2017. The content of the four credit program includes, but is not limited to, practical experiences in computer programming, algorithms, program design structure, logical thinking, development methodologies, essential programming techniques and implementation issues. Specialized programming skills involving advanced mathematical calculations and physics are also integrated into the program.⁵
- During the 2016-2017 academic year, 6,269 CTE students earned fundable industry certifications in occupational areas identified in the 2016 General Appropriations Act. School districts received a pro-rated amount of \$717.82 for each eligible industry certification earned.

- > CTE courses that fulfill core subject areas for high school graduation requirements may not satisfy public and private university admissions requirements as well as NCAA.
- > During the 2017 legislative session, bonus funding for industry certification programs was repealed.
- Challenges with marketing of CTE and misconceptions about CTE continue to persist.

⁵ http://fldoe.org/academics/career-adult-edu/career-tech-edu/curriculum-frameworks/2017-18-frameworks/info-technology.stml

GUAM

What were your state's top accomplishments in CTE?

- Guam Community College (GCC) implemented Chalani-365, a year-round registration process to support timely graduation.⁶
- > Eligible high school graduates from Guam Department of Education, four private schools, Guam's Department of Defense Education Activity (DoDEA) high school and Marianas High School (Commonwealth of Northern Marianas) may participate in the Classroom Learning Yields Math and English Readiness (CLYMER) program which allows graduates to go directly into GCC's college-level math and/or English without taking a placement exam.⁷
- Through a locally funded program, GCC's Reach for College program began to provide middle school students with information on various CTE programs that lead to a certificate and/or an Associate of Science or Associate of Arts degree.8

Please share your CTE-related challenges.

- > Providing professional development to faculty and counselors.
- > Developing strategies to increase persistence, retention and graduation rates.
- Developing strategies to increase the number of students placed into postsecondary, workforce, training or into non-traditional programs.

Hawai'ı

What were your state's top accomplishments in CTE?

- > In July, a statewide, cross-agency work group approved a Career Pathway System that aligns WIOA, ESSA, and Perkins plans. The work included a level of collaboration we had not experienced prior to this. Not an easy feat... All elements of the plan are currently being implemented. Also not an easy feat.
- The state developed a system for creating and using sector partnerships that has yielded a significant increase in employer engagement from across Career Clusters[®]. It has resulted in new CTE programs being developed in response to employer input. Also important, the Chamber of Commerce has assumed responsibility for convening and maintaining the partnerships, freeing CTE funds for other initiatives.
- The state met or exceeded all Perkins indicators, but we're especially happy to see an increase in the number of secondary concentrators from 4,302 in 2016 to 4,631 in 2017. This was an area of focus for our high schools.

Please share your CTE-related challenges.

With all the changes to the Career Pathway System—now that it aligns with WIOA, ESSA, and Perkins—regular communication with all the stakeholders continues to be a significant challenge, as is providing professional development to frontline staff.

⁶ http://guamcc.edu/Runtime/chalani365.aspx

⁷ http://guamcc.edu/Runtime/clymer.aspx

⁸ http://quamcc.edu/Runtime/CACGP.aspx

- We have only scratched the surface when dealing with the CTE teacher shortage. We have an accredited alternative CTE licensure program that has made great strides, but it is not enough. We have re-instituted teacher externships for incumbent teachers, but that only touches a few. The University of Hawai'i is discussing whether it will pilot new models of teacher training for CTE fields, but so far we've made little headway.
- With an unemployment rate of two percent, we are seeing a significant decline in postsecondary participants and concentrators.

IDAHO

What were your state's top accomplishments in CTE?

- Continued strong legislative funding and support of CTE programs and initiative Highlights from the 2017 Legislature included:
 - An additional \$1.9 million to increase capacity of targeted postsecondary programs where all of the graduates are placed in high-wage jobs and there are waiting lists to get into these programs;
 - \$300,000 in new funding to start a Program Quality Incentive Program for secondary CTE programs; and
 - \$250,000 in additional funding for adult education.
- Launched a new "InSpire" training program for newly occupationally certified CTE teachers This program provides a cohort model for new, limited, occupationally certified CTE teachers coming from the private sector without any out-of-pocket expense for the teacher. New CTE teachers attend a week-long intensive academy in August before the start of school, participate in training one Saturday a month in their local area during the school year, have a trainer observe in their classroom twice during the year, and have a designated mentor in their school to assist them. This same process is repeated during their second year as well. Following their second year, teachers receive their standard occupational teaching license. The program kicked off in August of 2017 with over 80 teachers participating in the new cohort.
- > Increased outreach to CTE stakeholders The division conducted six different regional training sessions during the year covering the following topics: Perkins funding, performance measures, program alignment, CTEMs (Idaho's new CTE data reporting system), career technical high school administrators retreat, and the Program Quality Initiative. Almost 1,000 individuals attended these training sessions, including school superintendents, business managers, CTE administrators, and teachers. This effort represented a significant improvement in our engagement with stakeholders to help them understanding CTE and improve their programs.

- > CTE teacher shortage.
- > Go-on rate of CTE secondary students into post-secondary CTE programs.
- > Establishing and communicating program performance metrics so we can promote and reward excellence.

ILLINOIS

What were your state's top accomplishments in CTE?

- > Illinois passed a law called Postsecondary Workforce Readiness Act.9
- > The Postsecondary and Career Expectations (PaCE) statewide framework was approved by the Illinois State Board of Education, Illinois Community College Board and Illinois Board of Higher Ed.¹⁰
- > Illinois is now regularly meeting with the state agencies to talk about working together on college and career readiness.

Please share your CTE-related challenges.

- > Illinois is working to align all of our state agencies' work around college and career readiness.
- > Illinois is working to align CTE programs with ESSA and the new Postsecondary Workforce Readiness Act.
- Illinois knows that it is important to have student voice. As a state agency, we are working to find ways to connect with the students statewide. We are creating a webpage for the students and it is a challenge to find the resources they are interested in to get them to come to our new student website once it is released.

INDIANA

What were your state's top accomplishments in CTE?

- > The State Board of Education recently made the decision to make CTE concentration an option/pathway to high school graduation for Indiana high school students. This will bump up the importance of CTE in our state, increase CTE enrollment and awareness, and hopefully allow for increases in funding to follow.
- We are in the process of completing a review and revision of half of our college and career pathways (phase 1). We have completed initial meetings with secondary and postsecondary educators and administrators along with representatives from business/industry. Phase 1 will be completed and released early in 2018 and phase 2 will begin around that time. Phase 3 will follow and include pathways for all students.
- We have continued to increase enrollments in CTE and recently received a new funding formula for state CTE dollars. Early returns for this new formula (starting in 2018-19) appear to show that it will provide a small increase in the amount of state funding going to schools for CTE.

Please share your CTE-related challenges.

> There is still the stigma around CTE, especially in rural areas. Many people in these areas still see CTE as being for "non-college bound students". We need to raise awareness of what CTE is

⁹ http://www.ilga.gov/legislation/publicacts/99/PDF/099-0674.pdf

¹⁰ https://www.isbe.net/Documents/PaCE Revisions.pdf

- and how it can impact students and young people. We battle this every day, but feel we are making some progress on this front.
- Nontraditional performance continues to be a major challenge. We are faced with this each year during the CAR submission. Indiana continues to fail at reaching its agreed upon levels in these areas despite doing a lot of work to improve. This may be in part due to the lack of acceptance in rural areas especially for males in traditionally female occupations. Work continues to be done, but this is an uphill battle that is not nearing an end.
- In Indiana, we are having a difficult time finding and keeping qualified CTE instructors. It is difficult to find them and, often times, they end up leaving for higher paying positions in industry.

lowA

- Academic year 2016-17 was the first full year of implementation for the 2016 CTE Redesign legislation (known as House File 2392). A key accomplishment of the implementation was the formation of 15 secondary CTE regional partnerships, whose overarching mission was to provide high quality CTE within their respective regions. The legislation represents the first comprehensive update to CTE in lowa since the 1980s, setting the stage for raising the quality of CTE programs, better preparing students for success beyond high school, and helping lowa meet the needs of employers. HF2392 itself was based on the 2015 recommendations of the legislatively mandated Secondary CTE Task Force, the final report of which focused on high quality CTE programming, work-based learning, career guidance, teacher credentialing and preparation and the regionalization of secondary CTE. The department has developed templates for the various requirements for implementing the secondary CTE redesign portion of HF2392, including a multi-year plan, setting out a program approval process, and producing a budget and expenditure plan.¹¹
- Division I of HF 2392 required lowa school districts to implement holistic career planning in grades eight through 12 to improve the career information and planning efforts of schools to ensure that all students in Iowa graduate college and career ready. Iowa school districts fully implemented the four components in academic year 2016-2017 and reported outcomes of the four primary requirements. Of the 333 Iowa school districts reporting:
 - 320 districts (96.1 percent) reported the creation of a district team;
 - 311 districts (93.4 percent) reported the selection and implementation of a career information system from the list of platforms meeting state standards;
 - o 314 districts (94.3 percent) reported writing and implementing the district plan; and
 - 93.4 percent reported Individual Career and Academic Plan activity in one or more grade levels for students in grades eight through 12.¹²
- CTE in lowa continued to play a central role in helping meet the Future Ready Alliance Goal of having at least 70 percent of all lowans achieve some postsecondary credential of economic value by the year 2025. The Future Ready Alliance¹³ was put forward in October 2017. The Division has positioned itself well with regard to efficient cross-sector and cross-agency

¹¹ https://www.educateiowa.gov/search/CTE%20Redesign

¹² https://www.educateiowa.gov/pk-12/learner-supports/career-and-academic-planning

¹³ https://www.futurereadyiowa.gov/future-ready-iowa-alliance

collaboration related to developing, refining, and sustaining education, workforce and economic development services, and the Division of Community Colleges and Workforce Preparation is playing a leading role. A case in point is the completion of a work-based learning guide that targeted mainly school districts interested in expanding work-based learning opportunities.¹⁴

Please share your CTE-related challenges.

- > For the first time, all CTE programs are to be approved as part of HF2392 based on language set within the law. With very little precedence for many school districts, completing the steps within the entire program approval process would require significant organization of resources, time and budget. While the CTE Bureau is making every effort to guide school districts through the process, whether the program approval process will be implemented efficaciously is still an open question. More broadly, making sure that the legislative requirements of HF2392 are undertaken with fidelity will be a significant challenge particularly when there have been no additional resources allocated to the effort.
- > HF2392 has created a new service area called information solutions, combined marketing and business into one service area, and expanded family and consumer sciences into a new service area called human services.¹⁵ For school districts, the reconfiguration of service areas has been challenging, specifically when it comes to meeting the state requirement of having them offer and teach three sequential credits in four of six services. Working through this challenge has been the CTE Bureau's utmost priority.
- As indicated, lowa has embarked on a significant state implementation of redesigning secondary CTE through HF 2392. Realigning the Perkins state plan to HF 2392 implementation remains a challenge for two reasons. One, the uncertainty behind the reauthorization of the Perkins legislation; and two, having CTE Bureau staff manage the two efforts separately because of the district-level perceptions around Perkins and HF2392. While the CTE Bureau has reorganized itself to meet the challenge, it still remains formidable.

KANSAS

- > Creation of over 50 bridges to accelerate progress toward a degree for military service members and veterans. 16
- Created a Work-based Learning Network connected to the ongoing statewide Individual Plan of Study implementation. The goal is that this network will provide best practices and feedback as we work to integrate work-based learning opportunities into the plan of study for each student.
- > Hosted first annual Innovations in Adult and Career Technical Education conference. This conference had over 150 attendees from adult education programs and career technical education professionals from over 25 colleges.

¹⁴ https://www.educateiowa.gov/documents/iowa-work-based-learning/2017/10/iowa-work-based-learning-guide

¹⁵ https://www.educateiowa.gov/adult-career-and-community-college/career-and-technical-education/cte-redesign/division-ii-cte

¹⁶ www.kansasregents.org/military

- > Faculty qualification requirements by regional accreditors.
- > Data collection and reporting from the two- and four-year sectors.
- > Fulfilling requirements of WIOA legislation.

KENTUCKY

What were your state's top accomplishments in CTE?

- > Changes were made in certification process for industry-based instructors. Requirements were barriers for recruiting high-quality experts. There were also changes in certification rankings which created a financial incentive for existing and entering teachers.¹⁷
- Legislative change that now allows high school students to utilize Kentucky Excellence in Education (KEES) funds for Registered Apprenticeships in high school. Also, the passage of a dual credit bill which funds up to two college level courses for high school students.
- > Implementation of NSFY Regional Cohorts. Three cohorts are in the process of creating and planning regional career academies that will open August of 2018.

Please share your CTE-related challenges.

- Working with postsecondary institutions to create seamless programs of study. There seems to be numerous barriers when working with the state's community and technical college system related to dual credit cost and teacher credentialing.
- Enhancing employer engagement in regards to work-based learning and apprenticeship models. The state is working tirelessly to remove barriers mentioned by employers that will allow more work-based learning experiences. How can the state create business champions that will advocate and create a culture of students in the workplace?
- > How can the state better encourage districts to collaborate with one another to improve access to CTE programs throughout the state? Many rural districts cannot fund high-quality programs, so we are promoting a collaborative spirit, but this is hard in some areas.

LOUISIANA

- Expanded Professional Development Opportunities, including:
 - (Postsecondary) <u>Master Teacher Seminar</u>: Allows participants to actively share and reflect on their professional teaching experiences. The purpose is to increase openness and self-awareness, willingness and ability to solve problems, commitment to students and respect for and trust in their colleagues.
 - (Postsecondary) <u>Louisiana Leadership Academy</u>: A progressive training opportunity for employees. It was established to develop the skills and talents of mid-level managers and to help groom them for advancement within the system.
 - (Postsecondary) <u>The LCTCS Annual Conference</u>: A premier professional development event for Louisiana's Community and Technical Colleges, annually attracting over

¹⁷ http://www.lrc.ky.gov/kar/016/002/020.htm

- 1,200 faculty, staff, and administrative leaders. The conference serves the scholars, teachers, and practitioners of our system and supports their professional development and interests in teaching, learning, and technology.
- (Postsecondary) <u>The Certified Workforce Developer (CWD) program</u>: A year-long certification program to help participants better understand their role in economic and workforce development efforts.
- (Postsecondary) <u>New Instructor Workshops</u>: Include four days of training at various regional locations around the state.
- O (Secondary): Louisiana Department of Education (LDE) hosted 425 CTE instructors in July 2017. This opportunity provided skills/certification training to culminate in the attainment of an industry-based certification aligned to Louisiana's high-wage, highdemand workforce opportunities. LDE hosted quarterly statewide webinars with LEA administrators and school system instructors regarding NCCER program development, implementation and sustainability. LDE Network leaders hosted High School Counselor Collaboratives (i.e., PLCs). LDE provided statewide professional development to Counselors regarding implementing Jump Start, supporting parents and students with college and career planning, and creating or revising Individual Graduation Plans (IGPs). LDE staff hosted several webinars with LEAs focusing on the High School Student Planning Guidebook and CTE/Jump Start.
- > Continued increase in Industry-Based Credentials available for secondary and postsecondary students. 18
- Jump Start regional teams in the Capital Region and Northwest Louisiana collaborated to develop a suite of New Generation Career Readiness course materials. The Capital Region's New Generation Career Readiness resources provide students in middle school and high school with multiple opportunities to develop workplace behaviors and communication skills—as well as a variety of other life skills—that lead to college and career success. Courses include Middle School Career Awareness for High School Credit course, Career Awareness I: High School Success and Career Awareness II: College and Career Success.

- Acceptance by the general public that education and training is much more than university opportunities.
- > Availability of CTE instructors in high wage, high demand sectors.
- > Alignment of secondary and postsecondary career pathways.

MAINE

- Opportunities for collaboration, including:
 - Students: CTSO and Student of the Year celebration.
 - o Staff: Tech updates and October statewide conference.
 - o Maine Administrators of Career and Technical Education (MACTE) meetings.
 - o Relationship with Maine Department of Education and the CTE team.

¹⁸ http://www.laworks.net/PublicRelations/WIC IndustryBasedCertification.asp

- Middle school in CTE.¹⁹
- > Academic integration and skill attainment work:
 - o Intersection work.
 - National standards and assessment selection per program.
 - o Articulation agreements and dual enrollment programs.²⁰

- > Perception/stigma of CTE.
- > New potential funding model:
 - Legislative challenge.
 - Constructing program costs.
 - o Equipment needs.
- > 100 percent increase in CTE goal:
 - o Middle school model development.
 - o Capacity.
 - o Funding.

MARYLAND

- > Career readiness indicators are included in the ESSA Consolidated State Plan. CTE can be used to meet the School Quality/Student Success indicator of the plan which is described in several ways. Two measures of the indicator are Opportunities/Access to a Well-rounded Curriculum and Readiness for Postsecondary Success. The well-rounded curriculum measure applies to students who are participating in a youth or other apprenticeship program or who are enrolled in MSDE-approved CTE programs of study at the concentrator level or higher. The postsecondary success measure applies to students who complete: 1) an MSDE-approved CTE program of study, 2) a youth or other apprenticeship program, or 3) an industry certification aligned with an MSDE-approved CTE program and achieved concentrator level status or higher. Having career readiness indicators in the ESSA State plan acknowledges CTE as an important contributor to students' education.
- Maryland's system of CTE is expanding to include more early college and apprenticeship opportunities. Two recent initiatives—Pathway to Technology Early College High School (P-TECH) and Apprenticeship Maryland—are currently underway. P-TECH allows students to earn a free associate's degree and their high school diploma simultaneously in up to six years. The model includes a CTE program pathway, mentoring by industry professionals, and opportunities for first consideration for employment once students have completed the program. Apprenticeship Maryland is being piloted in two school systems with the goal that it will become a statewide initiative. The program is for students ages 16 and up and is designed to lead to sustainable employment and further education in STEM occupations and manufacturing. Apprenticeship Maryland students start the program in the summer or fall of

¹⁹ https://mainedoenews.net/?s=middle+school

²⁰ http://www.maine.gov/doe/cte/standards/mcis.html

- their junior or senior year, complete at least 450 hours of work-based training under the supervision of an eligible employer, and complete at least one year of related instruction.
- Maryland is expanding its visibility through marketing and social media. CTE staff has engaged in a number of initiatives to explain the benefits of CTE in Maryland, including the CTE Library Campaign, the CTE Counselors' Conference and most recently the CTE Social Media Campaign. A large part of this work is focused on featuring current and former CTE students and showcasing their successes. This work was expedited by a grant from Advance CTE and the Siemens Foundation supporting innovative recruitment strategies into high quality CTE programs at the state, district and/or local level and targeted at students and their parents.

- During the 2017 Maryland legislative session, the "More Jobs for Marylanders" Act passed. This act requires the Maryland State Department Education to establish goals that by 2025, 45 percent of high school graduates complete a CTE program of study, earn an industry-recognized credential or complete an apprenticeship program. In the 2016 school year, 23 percent of graduates met this goal. Thus, CTE completion will need to more than double to meet the 45 percent target.
- Identifying and retaining qualified teachers continues to be a perennial problem. Although much has been done to expand regulations to facilitate the process of getting potential candidates certified or licensed to teach in CTE, the pool of qualified candidates is small, particularly for the CTE-STEM related programs of study, primarily due to competition with business and industry where salaries are typically higher.
- In Maryland, the number of students earning industry-recognized credentials and/or college credit is used to measure Technical Skill Attainment (TSA). However, many third-party vendors will not share even the aggregate test results of the students, making it difficult to confirm the data submitted by LEAs.

MASSACHUSETTS

What were your state's top accomplishments in CTE?

The Commonwealth of Massachusetts has embarked on a new chapter in college and career readiness to support all students for success after high school by launching a "High Quality College and Career Pathways" (HQCCP) initiative. Under the leadership of the Workforce Skills Cabinet (WSC), the HQCCP initiative is the outgrowth of a number of recent complementary bodies of work that began several years ago in Massachusetts to ensure that individuals can develop and continuously improve their skills and knowledge to meet the varying needs of employers in the Commonwealth. One of the major priorities of the WSC is the development of career pathways for all students in the Commonwealth, an effort significantly supported by: 1) the early college work based in part on a report by Parthenon-EY that led to the creation of Early College Joint Committee in 2016; and 2) a 2014 task force report by the Council of Chief State School Officers (CCSSO) called Opportunities and Options: Making Career Preparation Work for Students. Both are designed to support the development of new and effective strategies to scale high-quality career pathways and significantly expand student access to, participation in and successful completion of pathways that culminate in meaningful postsecondary and workforce credentials. Its intent is to ensure that many more young people are well prepared to prosper in the competitive global economy, a goal perfectly aligned with the goals of the

Commonwealth. As a result of CCSSO's task force report and a grant opportunity through JPMorgan Chase & Co. to support that work, the Department of Elementary and Secondary Education secured NSFY planning and implementation grants from CCSSO. In addition to Chapter 74 (Career Vocational Technical Education) pathways, there are two new pathways which are intended to make students career and college ready. While more specific sets of characteristics define each pathway, both are guided by a common vision and demonstrate fidelity to the five guiding principles defined in the Massachusetts Early College Designation. Preliminary outline of key elements include: equitable access, guided academic pathways, enhanced student support, connection to career and effective partnerships.

- On December 14 at Southeastern Regional Vocational Technical High School, Governor Charlie Baker announced a new program for Massachusetts residents interested in careers in advanced manufacturing to take classes at local vocational high schools and be eligible for state and federal financial aid to pay for their training. Adults who complete the manufacturing training at one of ten participating vocational high schools will then be eligible for college credit when enrolling at partnering colleges and universities. The certificate they earn during evening classes at the high schools will be worth a specific number of college credits that can be applied toward an associate degree. The Baker-Polito Administration developed the Advanced Manufacturing Certificate Program as a way to give adults who want to learn new skills in advanced manufacturing an opportunity to enroll in a program with a flexible timetable that would be eligible for financial aid. Adult students will be eligible for federal Pell grants, state MassGrants, and other scholarships. A planning team, made up of vocational school, public and private higher education officials, and workforce and industry partners, will work on curriculum, align credential agreements, and develop internships and hiring opportunities.
- The Commonwealth has continued to refine its Chapter 74 application process to: 1) increase student access to high quality vocational/technical education; 2) ensure that duplicative programs in close proximity to each other are minimized; and 3) encourage a regional labor market approach to planning Chapter 74 programs. The emphasis has been on increasing quality, developing a standard around contact time, and ensuring that all programs show equivalent effort in delivery of service to students. The process of program selection is driven by close scrutiny of labor market demand, student demand, and a process which ensures that regional school districts and other providers of Chapter 74 programs engage in common planning to develop the best services possible for students. Also, the office is working on developing a streamlined new program development system that will make it less time-consuming to develop a new program of study without losing sight of the quality necessary for all programs to be worthwhile endeavors for students.

Please share your CTE-related challenges.

> The Office for College, Career and Technical Education has been attempting to ensure all students across the Commonwealth have access to high quality career technical education. Given high levels of student demand and less capacity than needed, some districts, especially in Gateway communities, have had difficulty in assuring all interested students' access to Chapter 74 (Career Vocational Technical Education) programming. The department is currently engaged in research to determine the true extent of this issue, and has been encouraging innovation at the local level to determine how to serve the interested universe of students, which also significantly affects the Commonwealth's need for more skilled workers.

- The Commonwealth has been working on a new methodology to conduct program monitoring. The initiative, still in development, targets schools for careful scrutiny using a needs assessment tool. Although still imperfect, it is helping to identify schools or districts that may be doing quite well along with those that have a cluster of problems. In addition, the former review practices did not tease out every critical factor which would identify program quality. The transition from compliance monitoring to quality monitoring will be a priority over the next few months.
- Data analysis of Career/Vocational Technical Education that can identify program quality has been uneven through the years. Also, some sources of data cannot reliably assess program quality because reporting may not be accurate. In addition, the Office for College, Career and Technical Education is attempting to develop a set of industry certifications that students can claim as the result of program participation. Although the office had worked towards trying to develop a universal system of this kind in the past, dissolution of teams and elimination of funding kept this system from fully developing. We are working in this direction with renewed vigor, but it will be a great deal of effort to develop a meaningful competency attainment/certification system.

MICHIGAN

What were your state's top accomplishments in CTE?

- Convened a Career Readiness Initiative Cross-Sector Team (through CCSSO) and with the Michigan Career Pathways Alliance (a partnership between the Michigan Department of Education and the Department of Talent and Economic Development), developed recommendations including the 'Going Pro' marketing campaign to increase interest in skilled trades to address the current talent gap.²¹
- New and continued state funding for CTE and support from the Governor's office and legislature to expand CTE offerings statewide. With increased interest, we have developed new resource books for starting CTE programs, a career development guide and a new CTE teachers' resource manual.²²
- Continued expansion of early/middle colleges in Michigan, in particular, those focusing on CTE.

- > Lack of appropriately certified CTE teachers and decreased enrollment in teacher preparation institutions.
- Tracking student outcomes by linking secondary CTE student records to postsecondary wage record/employment data.
- How to address the growing popularity of virtual learning and the intersection with CTE and early/middle college populations.

²¹ http://www.michigan.gov/ted/0,5863,7-336-82011---,00.html

²² http://www.michigan.gov/mde/0,4615,7-140-2629---,00.html (See the bottom of the page)

MISSISSIPPI

What were your state's top accomplishments in CTE?

- All automotive technology programs are now required to be NATEF certified to receive any funding from our office.
- All construction trades, manufacturing and welding programs are now required to be NCCER certified to receive any funding from our office. We are in the process of creating a mechatronics program in conjunction with Nissan, Toyota and Ingalls shipbuilding to get students prepared for advanced manufacturing jobs.
- We are participating in the Mississippi Department of Education Computer Science for Mississippi (CS4MS) project, which will set up a K-12 set of computer science standards and programs for all students in the state of Mississippi.

Please share your CTE-related challenges.

- > Staying current with technology.
- > Attracting and retaining effective instructors.
- > Connecting economic developers, business and industry, and CTE directors to create long lasting and effective relationships in each local area.

MISSOURI

What were your state's top accomplishments in CTE?

- > The Office of College and Career Readiness developed a vision, mission and purpose that brings CTE and academics together and operationalizes the department's vision, mission, goal and priorities. OCCR's vision, mission and purpose is as follows:
 - o Vision: Successful Students, Better World.
 - o <u>Mission</u>: Guide and support Missouri schools in preparing success-ready students.
 - Purpose: To build the capacity of location agencies to create success-ready students who have the knowledge, skills, behaviors and experiences to achieve personal goals and contribute in all facets of life.
- The CTE Advisory Council recommended and the State Board of Education approved requirements for the CTE certificate. Beginning July 1, 2017, students entering high school in school year 2017-18 and thereafter shall be eligible to earn a CTE certificate.²³
- Missouri Career Pathways outreach was expanded by adding part-time staff in four Regional Professional Development Centers. The overall goal of Missouri Career Pathways is to increase the number of Missouri youth who attain a postsecondary credential with value in the market and are poised for success in high-demand occupations with a living wage.

Please share your CTE-related challenges.

> Change in department leadership.

²³ https://dese.mo.gov/sites/default/files/cte-certificate-criteria.pdf

- > The CTE Advisory Council will begin development of a short- and long-range plan for CTE and a subsequent marketing plan beginning in January 2018.
- > Rollout of our new CTE funding plan.

NEBRASKA

What were your state's top accomplishments in CTE?

- Nebraska launched an expanded work-based learning program called Nebraska Workplace Experiences. This new PK-12 initiative expands the connections of students with Nebraska business and industry. It is a partnership between the Nebraska Department of Education and the Departments of Labor and Economic Development and is supported by the Nebraska Chamber of Commerce and Nebraska's Industry Councils.²⁴
- Development of Nebraska's Systemic Career Development System. This new initiative defines a systemic approach to career development implemented throughout the PK-12 experience. The system includes a career readiness learning progression that begins in PK/K and continues with lesson plans and purposeful instruction each year, culminating in the Nebraska Career Readiness Standards at the 12th grade level. The system also includes career development strategies to prepare learners for transition to postsecondary education or work. The Career Development System will be unveiled at our 2018 Nebraska Career Education Conference.
- Revision of state standards for CTE courses resulting in adjusted programs of study. Nebraska is completing the revision of our state standards for our CTE courses. The process begins with industry groups in each Career Cluster identifying what students need to know and be able to do. This information is used to backward map starting with the capstone course and proceeding down to the introductory course of a program of study. The standards are approved by the State Board of Education.²⁵

- Lack of teachers in the Skilled and Technical Sciences (STS) area. This is resulting in a loss of STS programs. Our Career Education Teaching Permit allows industry professionals to teach in this area but, with an unemployment rate below three percent, it is difficult to secure active industry professionals in teaching.
- Continuing to break down the "four-year college only" mentality with parents and some schools and that education has to be linear, graduating from high school and immediately entering postsecondary education. Work is being done to return to a system of honoring all career choices and the idea that there are multiple pathways to success.
- Preparing Career Education Permit teachers for success in the classroom and laboratory.

 Nebraska has initiated a special training program and provides technical assistance to these individuals but their needs are greater than what we are able to provide with limited staff and finances.

²⁴ <u>www.nebraskaworkplaceexperiences.com/</u>

²⁵ https://cestandards.education.ne.gov/

NEVADA

What were your state's top accomplishments in CTE?

- > CTE Quality Program Standards implementation.²⁶
- AB 7 and the new College and Career Ready Diploma (includes career-readiness and CTE).²⁷
- > Development of high-priority, in-demand career pathways (CTE is aligned; foundation of career pathway).²⁸

Please share your CTE-related challenges.

- Data: Further developing district-level data systems so that CTE and other college- and careerready data points can be accurately tracked (e.g., work-based learning; AP; dual-enrollment; industry-recognized credentials).
- > Public awareness: Ensuring that the public (e.g., counselors, parents, kids) are fully aware of what's out there in CTE in their districts and that districts are aware and take advantage of the resources available to fund high-quality CTE programs.
- Alignment: Ensuring that secondary CTE programs are fully aligned with postsecondary degree and credential/certificate programs to facilitate a true high-priority career pathway for kids.

NEW HAMPSHIRE

- New Hampshire held its first ever CTE Summer Conference, a two-day event full of keynotes and workshops for CTE teachers and directors. Over 130 of our 400 teachers and directors attended, dispelling the myth that educators won't invest a couple days in mid-August to develop their networks and hone their craft. The goal for next year's conference is to incorporate a forum for public exhibition of CTE student work.²⁹
- Until this year, only 11th and 12th graders in New Hampshire were eligible to enroll in CTE programs. The State's Advisory Council on CTE (a statutory council) recommended to the legislature, which ultimately passed the bill, to extend CTE eligibility to 10th graders. The result is increased flexibility for students and the potential for a very different senior year that might include deep engagement in work-based learning.³⁰
- > The New Hampshire Career and Technical Administrators (NHCTA, the association for center directors) hired their first Executive Director. NHCTA operated for years with an Executive Board and membership. The addition of an Executive Director provides an additional voice dedicated to supporting CTE in the state.³¹

 $^{^{26} \}underline{\text{http://www.doe.nv.gov/uploadedFiles/ndedoenvgov/content/CTE/Documents/QPS-Guidance-Handbook-ADA.pdf}$

²⁷ https://www.leq.state.nv.us/Register/2017Register/R076-17RP1.pdf

²⁸ http://www.diversifynevada.com/programs-resources/leap

²⁹ https://www.education.nh.gov/career/career/conference.htm

³⁰ http://www.gencourt.state.nh.us/bill_status/billText.aspx?sy=2017&id=233&txtFormat=html

³¹ Contact information is available at http://nh-cte.org/contact-us/

- > NH's overall student enrollment is declining by about 1.25 percent per year. Despite all the local recruiting efforts, our CTE enrollment is declining by about 1.5 percent per year.
- Sometime during the first three years in the classroom, new teachers must pass PRAXIS I as part of NH's credentialing requirements. A growing number of CTE teachers are struggling to clear that hurdle and are returning to their respective industries. Our 2.5 percent unemployment rate also puts pressure on attracting and retaining high quality CTE teachers.
- > CTE is a primary bridge between education and workforce. Not enough students participate in intentional, purposeful work-based learning experiences. The perceived challenge is insufficient quantity of business-education partnerships to generate enough work-based learning sites.

NEW JERSEY

- The state announced a credential attainment goal, "65 by 25: Many Paths, One Future" to increase the percentage of NJ residents who have obtained an industry-valued credential or degree by the year 2025. Several of the cornerstones of this initiative are directly related to efforts to expand career readiness at the secondary and postsecondary levels. One cornerstone is to provide career awareness for all students, which has sparked discussions and actions beginning in middle grades to promote career awareness. Expanding work-based learning opportunities is also a cornerstone of this initiative. The Many Paths, One Future Internship grant was launched to incentivize business partnerships to offer more paid internships to high school and college students.
 - The Many Paths, One Future Internship Grant program will reimburse employers 50 percent of wages paid to new interns, up to \$1,500 per student.
 - o Awards are available for up to 1,000 students.
 - Internships must be in one of New Jersey's key industries: advanced manufacturing; construction & utilities; financial services; health care; life sciences; retail, hospitality & tourism; technology; or transportation, logistics & distribution.³³
- NJ received a three-year \$876,081 federal CTE Teacher Pathway Initiative grant, to attract as many as 150 new CTE teachers to classrooms in 29 school districts. The three-year CTE Teacher Pathway Initiative grant will be used to attract industry experts and existing teachers in traditional classroom settings to CTE classrooms.³⁴
- NJ has made great strides in increasing communication efforts around the value of CTE to students and parents as a result of involvement with Advance CTE and the national research conducted through Siemens. Efforts to reach middle school students and their parents through a variety of strategies has resulting in scaling efforts through support of the NJ Chamber of Commerce Foundation.

³² https://www.manypathsonefuture.org/

³³ http://careerconnections.nj.gov/careerconnections/hire/hiring/paths/many_paths_one_future.shtml

³⁴ http://www.nj.gov/education/news/2017/1031cte.htm

- Enrollment in secondary CTE programs declined in the 2016-17 year after showing an increase in the prior year. Access to quality CTE programs appears to be more of an issue. Comprehensive high schools report that they do not have the capacity and resources to develop quality CTE programs and find the approval and re-approval process lengthy. Some districts also opt out of receiving Perkins funds because they report the process is too cumbersome. At the same time, NJ's county vocational-technical school districts are at capacity, reportedly receiving more than two applications for every available seat in their schools.
- > While there has certainly been progress with identifying industry-valued credentials, there is still a need for greater clarity about which credentials may be most appropriate and attainable by high school students. Moreover, cost for credentials is also a barrier.
- NJ continues to make strides in integrating academic and technical content areas and has an option in our regulations for flexibility related to competency for graduation requirement (Option 2) rather than seat time. However, school districts have been reluctant to fully embrace this option which often presents challenges for students to complete a CTE program of study in high school.

NEW MEXICO

- Distribution of guidebooks: In the last roundup, we were excited to report that we had developed a guidebook for student use. We printed and distributed 17,000 copies, which were well received. We completed a second run of 25,000 copies and almost all of those have also been distributed.³⁵
- Launch of new initiatives: New Mexico launched a pilot project in partnership with Buck Institute. The goal is to support districts in a top-to-bottom effort to integrate project-based learning into the curriculum. Pilot districts attended a visioning workshop and their teachers will attend design workshops and receive in-house support from Buck coaches. In partnership with UNM Project ECHO, we launched ECHO for Education. The focus of this initiative is to use video conferencing to develop a community of practice in support of CTE in rural communities. The participating educators will meet weekly to receive short mini-lessons and work through real-life cases of student needs, in relation to CTE. The initiative is built off the highly successful Project ECHO model, which is used to extend health education to rural health providers.³⁶
- > Team organization: To combat siloing within the College and Career Readiness Bureau, staff duties were shuffled. Each staff member now has responsibilities for both CTE and other high school initiatives. Previously, one person handled dual credit, for example, but did not work with Perkins sites or CTE programs. Now each staff member handles both Perkins CTE and other non-Perkins duties. This has improved cross-program awareness and promotion. We simultaneously introduced a plan to measure a variety of outcomes related to the various

³⁵ http://www.ped.state.nm.us/ped/CCRdocuments/perkins/CareerClustersBook 2016 NM FINAL print.pdf

³⁶ https://echo.unm.edu/

initiatives. Staff are learning to use data to support programmatic decisions and are developing the ability to coach LEAs in their efforts with regards to data.

Please share your CTE-related challenges.

- > Data systems: We continue to struggle with fractured data systems, although we are making some progress on this front. The approval of programs of study, for example, is not tied into our year-end data reporting. So the APR outcomes are not based on the students who are enrolled in the specific funded programs.
- > Teacher pipeline: Several CTE teacher prep programs have shuttered in the past several years, and the state is reduced to two programs. Most CTE teachers are coming in through alternative licensure programs, and many leave in their first year. We are hopeful that a proposed alternative licensure prep program will get these teachers the needed pedagogical skills through a boot-camp model so they can gain the classroom management skills they need to make their first year in the classroom a success.
- > Certifications: What is an industry-recognized credential? Many providers are quick to assert that their credentials fit the bill, but our conversations with state industry associations suggest that most New Mexico businesses do not recognize them.

NORTH CAROLINA

What were your state's top accomplishments in CTE?

- Positive NC legislation pertaining to CTE through the CTE Program Expansion Grant Program, Coding and Mobile Application Grant Program, and requirement of work-based learning opportunities in all school districts.
- > The number of industry related credentials obtained by CTE students continued to increase with over 40 percent of eligible students earning a credential.
- > The New Teacher Induction Program was transitioned to an online professional development platform with blended learning opportunities.

- > The recruitment of highly qualified teachers in various program areas such as health science and technology.
- CTE not being valued by all stakeholders as an integral part of the education process due to misconceptions of the program.
- Expanding employer engagement to support additional work-based learning opportunities such as internships and apprenticeships for CTE students.

NORTH DAKOTA

What were your state's top accomplishments in CTE?

- Approved alternative teacher licensure in CTE, allowing an individual with a related bachelor's degree who has completed the Transition to Teaching and mentoring program to become a licensed CTE teacher.³⁷
- > Stabilized funding for our statewide career planning and development system, RUReadyND.³⁸
- > Increased basic CTE enrollment and the number of CTE concentrators statewide.³⁹

Please share your CTE-related challenges.

- > Teacher shortages with CTE disciplines.
- > Monitoring and assisting in the growth of quality distance-delivered CTE programming.
- > Expanding, and in some cases maintaining, a wide variety of CTE programming in rural districts that align with student career plans.

OKLAHOMA

What were your state's top accomplishments in CTE?

- > Industry credentials/certificates earned exceeded the goal set for 2018 by 1,346 for a total of 15,152 certificates and/or industry-recognized credentials earned.
- > Implementation of Connect to Business within okcareerguide.org to facilitate bringing business and education together. Continued growth with the utilization of okcareerguide.org, which is a viable tool for schools to meet the Individualized Career Academic Plan legislation.
- > Expansion of CareerTech Skills Centers programs within correctional facilities, allowing for an increase of training to approximately 200 individuals transitioning out of correctional facilities.

Please share your CTE-related challenges.

- Making certain to stay on the forefront in educating our stakeholders, legislators, and general public about the extensive workforce development opportunities through CTE.⁴⁰
- > Budget uncertainty as our state continues to work to find long-term budgetary stability.
- > Longitudinal data availability to better reflect the positive impact CTE has on student outcomes.

PALAU

What were your state's top accomplishments in CTE?

> Career Awareness Week: In the third week of March 2017, career awareness activities were organized at Palau Community College for high school and elementary school students to

³⁷ http://www.nd.gov/cte/teacher-cert/docs/SecondaryLicensingReq.pdf

³⁸ https://www.ruready.nd.gov/

³⁹ http://www.nd.gov/cte/about/docs/CTE Concentrators.pdf

⁴⁰ www.okcareertech.org

tour the college and learn more about the CTE programs on offer. The students and their teachers interacted with college instructors and students and viewed the CTE facilities and instructional equipment and resources.

- Teacher Collaboration: In August 2017, Palau High School initiated teacher collaboration time on every Monday after school from 3:30pm-4:30pm. The intent of teacher collaboration time is to provide an opportunity for all teachers at different grade levels including CTE teachers to collaborate with one another on a weekly basis to discuss student issues, share good practice and to provide support to one another.
- Dual Enrollment Program: Palau High School, Palau Community College and the local WIOA Office are jointly working together to enroll interested 11th and 12th grade high school students in the dual enrollment program at Palau Community College for the Spring 2018 semester.

Please share your CTE-related challenges.

- > There is an ongoing challenge in scheduling CTE course alignment activities between Palau High School teachers and Palau Community College instructors due to conflicting class schedules.
- > There is an ongoing need for continually updating CTE teachers' instructional skills.
- > Technology integration in all courses at Palau High School requires more work.

PENNSYLVANIA

- > The goal is to have a secondary- and postsecondary- aligned assessment for each program of study. Currently, there are 42 completed programs of study. Pennsylvania developed statewide committees to examine the current NOCTI assessment that is aligned to the secondary portion of the program of study. The assessment alignment effort identified national NOCTI assessments that are not aligned to the program of study. Pennsylvania worked with NOCTI to customize assessments that align. There were 20 customized tests being utilized in 2016-17. Four customized tests were developed in 2016-17 to be used in 2017-18. A Career Education and Work test was being used statewide.
- For 2016-17, the Bureau of Career and Technical Education approved competitive equipment grants totaling \$1.4 million in state funds. The funds expanded the use of technology in CTE programs. The focus of the grant was on increasing academic proficiency, technical skill attainment, and increased alignment of CTE programs to industry certifications. Secondary and postsecondary Perkins recipients also used their local Perkins allocation to purchase state-of-the-art equipment to support student learning in CTE programs. Each recipient addresses academic integration with technical course content and alignment to high priority occupations as well as a description of how the instructors will receive training on the equipment. In addition to the competitive state equipment grants, the 2016-17 Pennsylvania state budget provided school districts and career and technical centers the opportunity to purchase equipment to better prepare students for what they will encounter in the workplace. The funds provided to school districts and career and technical centers are based on a formula and they support programs that are aligned to the state's high priority occupations. The

- Bureau of Career and Technical Education approved state supplemental equipment grants totaling \$3 million.
- Plans and services of the Technical Assistance Program (TAP) were offered and delivered for the ninth year to the high schools and career and technical centers (CTC) that offer approved career and technical education programs. The TAP was established to assist career and technical education instructors and administrators at career and technical centers to improve student academic and technical achievement. Participation has been voluntary. The program was initiated with 20 volunteers in the 2012-2013 school year; participation continues to increase. School districts are participating in the Perkins technical assistance program, which provides the same resources as provided to the CTCs. Southern Regional Education Board/High Schools That Work works with the Bureau of Career and Technical Education to increase student access to challenging CTE programs with a major emphasis on Enhanced Career Technical Projects Training (ECTP). Professional development and technical assistance is coordinated with various groups and topics include: a) implementing project-based learning; b) developing and implementing career pathways; c) increasing quality of instruction; d) providing Pennsylvania Inspired Leadership programs for administrators (personnel decisions leading to high quality instruction, CTE budgeting to support student achievement, CTE and STEM, business engagement); e) providing coaching for administrators; f) operationalizing math T-charts; g) counseling for careers; h) building dynamic curriculum and assignments; i) using literacy instructional strategies in the CTE classroom; and j) providing NOCTI pre-assessments and study guides and professional development on how to use the data and guides. All activities are currently being coordinated on a regional basis and also provided at individual schools including on-site coaching. Additional regional workshops focused on data submissions and technical skill assessment. The workshops are one day and occurred during the month of November. The agenda included aligning approved programs to regulation, the re-approval process, PIMS data submission, NOCTI test security, roles and responsibilities of teachers and administrators in testing. The workshops provided information to the teachers, PIMS administrators and teachers to assist them with the re-approval process and increase accuracy of PIMS data reporting. Regional professional development workshops were provided to support local efforts to attract and retain students in their non-traditional programs. This technical assistance was offered to those schools that received sanctions letters related to their nontraditional performance indicators. Workshop content included a brief review of previous year's micro-messaging training and moved on to analysis of empathy and equity as they relate to school/classroom environments. The goal was to provide tools faculty and administrators can use to recruit and sustain to graduation students that are underrepresented in CTE programs in both secondary and postsecondary institutions.

- > Communicating the value of CTE.
- > Strengthening the alignment of academic courses to each career pathway to ensure students enrolling in CTE programs are at grade level and ready to pursue their career(s).

RHODE ISLAND

What were your state's top accomplishments in CTE?

> Industry Specific Standards: Aligned with the Governor's Workforce Board priority sectors, the CTE Board of Trustees approved industry-specific standards for all CTE programs seeking to

obtain or maintain RIDE approval in the following areas: automotive technology; business management, administration, finance and marketing; construction technology; education, training and human services; environmental and life sciences; graphic communications technology; health careers and medical pathways; hospitality; information technology; law, public safety and government; manufacturing; marine technology; and pre-engineering technology. Each area identifies the skills/knowledge needed for entry level work, curriculum, expected industry credentials/certificates, prerequisites, benefits in the job market, regional job outlook and pay, comparable jobs and instructor required certification(s). RIDE-approved CTE programs are eligible for additional program supports, i.e. categorical funds for advancement, improvement and/or growth.

- > Prepare RI: Supported by the NSFY grant awarded by JPMorgan Chase & Co., the Council of Chief State School Officers and Advance CTE, Prepare RI is a statewide initiative to prepare all RI youth with skills they will need for jobs that pay. Prepare RI represents a partnership between the RI government, private-sector leaders, the public education system, postsecondary institutions and non-profits from across the state. Prepare RI aims to redesign the pipeline from kindergarten to career with the following 2020 goals:⁴¹
 - All students will have career awareness and exploration opportunities and individualized learning plans based on their strengths and interests.
 - All high school students will graduate with an industry-recognized credential or college credit.
 - o All high school students will have access to work-based learning experiences.
 - o All career pathway programs will be aligned to RI's high demand career fields.
- Prepare RI Summit: In October 2017, RIDE hosted a well-attended and well-received Prepare RI Summit to connect leaders and practitioners from schools, government and private industry. The goal of this and future summits is to advance and institutionalize the goals of RI's Prepare RI initiative.⁴²

Please share your CTE-related challenges.

> Going to scale with standards-driven work-based learning experiences.

SOUTH CAROLINA

- South Carolina continually strives to play an active part at the forefront of 21st century industry while ensuring that its citizens—rural and urban—have equitable access to opportunity. CTE plays a critical role in this upward climb for each and every South Carolinian. The statewide priorities as developed in the 2015 Profile of the South Carolina Graduate (the Profile) are focused on preparing all South Carolina students for success in college, careers, and citizenship.
- South Carolina developed and submitted a Consolidated State Plan for ESSA, which was implemented starting with the 2017-18 school year. Stakeholders and the public played an active role in the development of the ESSA state plan prior to its submission to the U.S. Department of Education (USDE) on October 13, 2017. It is a vital part in the design of the

⁴¹ http://www.prepare-ri.org/

⁴² https/www.prepare-ri.leg/summit-resources

- state's integrated accountability system to align state and federal indicators for the diploma pathways processes.
- South Carolina recognizes the importance of supporting CTE. Two appropriations bills, 1A.67 and 1A.68, provided funding for industry certifications and credentials, and for CTE equipment and work-based learning flexibility. Furthermore, to improve the equity of the funding distribution, the legislature put a base amount of \$10,000 for each district of the \$3 million industry certification funding before any enrollment calculations were applied. In addition, \$125,000 dollars of the funds appropriated were specifically earmarked for STEM initiatives.

- > Developing statewide articulation agreements between the 16 community colleges and the local school districts to enable students to enroll in career pathways programs that prepare them to pass a high school equivalency exam and earn a postsecondary credential, certification or license offered by the comprehensive community college can be challenge.
- > Employer engagement continues to be a challenge for many of the rural districts in South Carolina.
- > Data collection, particularly follow up data after a student graduates from the secondary education program, continues to be a challenge. The new accountability system being developed by the multiagency work group is striving to overcome some of these challenges.

SOUTH DAKOTA

What were your state's top accomplishments in CTE?

- South Dakota stood up its Board of Technical Education on July 1, separating governance from the K-12 state board of education. The board, along with its newly-hired executive director, will play an integral part in shaping post-secondary CTE policy and promotion. This move helps further place CTE on an equal footing with other postsecondary opportunities.
- > SD saw innovation in its Workforce Education Grants awards, intended to spur innovation in CTE programs throughout the state. These competitive grants, in their second year, allowed school districts and one non-profit entity to partner with postsecondary institutions to provide concurrent credit opportunities for high school students, expand a diesel tech program in an underserved part of the state to meet local demand and create the state's first secondary heavy equipment operator program.
- Governor Dennis Daugaard has been a vital voice for work-based learning and workforce development. As part of a multi-pronged initiative, he has challenged schools to provide opportunities to middle and high school students to engage in more deliberate career exploration activities and to expand access to internships and apprenticeships. As part of this initiative, the Department of Education and the Department of Labor and Regulation are partnering to expand career advising and internship opportunities by placing full time staff in pilot school districts to jumpstart local efforts.

Please share your CTE-related challenges.

 With a new State Director, a new Board of Technical Education, a new Secretary of Education, and in a gubernatorial election year, South Dakota has tremendous opportunities and

- challenges to refine its vision for high quality CTE programs for all and how we realize that vision.
- > In line with the state's focus on expanded work-based learning opportunities for K-12 students, it will be a challenge to expand the pilot project, referenced above, into a statewide model that shifts the landscape meaningfully to meet the state's workforce challenges.
- > South Dakota continues to face a perception problem with CTE and the value of a technical education, yet these skills are in high demand to meet the state's workforce needs. Ironically, this issue is exacerbated by the unexpected explosion of the state-sponsored dual credit program. Students now use time in their junior and senior year schedules to get a jump on postsecondary credits whereas before they may have taken higher-level CTE coursework. How to juggle both priorities, both of which are housed in the Division of Career and Technical Education, will continue to be a messaging challenge.

TENNESSEE

What were your state's top accomplishments in CTE?

- > The governor allocated a one-time \$15 million investment in the 2017-18 state budget specifically to fund secondary CTE equipment purchases in the high-demand areas of advanced manufacturing, healthcare, and information technology.
- > Tennessee's ESSA state plan was approved and included a revised accountability system which holds districts and schools accountable for advancing students to and through industry certifications as the culmination of CTE programs of study. The "Ready Graduate" indicator acknowledges the importance of CTE by including industry certification in the state's accountability system.
- For the first time ever, the state compiled information from our longitudinal data system to share information with districts about the postsecondary enrollment rates of their CTE concentrators, by Career Cluster area. The reports also provided alignment data for every school district to show where their selected programs of study were (or were not) aligned to regional labor market demand through a crosswalk of programs of study to labor and postsecondary opportunity codes (SIP/SOC).

- With the addition of industry certification in our state's accountability system, accurate data collection of these exam results are imperative. We have worked diligently to implement data sharing agreements with certifying agencies and organizations and collect the data needed to verify student achievement of our recognized certifications. Finalizing these agreements with agencies has been a challenge, as well as obtaining and cleaning/matching agency data with our own student information system data.
- We have made great strides in the elevation of CTE in our state, but we still have perception issues when it comes to defining success for our students. Lower expectations and accurate communications about expectations for our students is still a challenge we are struggling to address with local stakeholders. Improvement of messaging and capacity building at the local level is necessary.

Staff expertise and capacity, particularly when it comes to instructional quality and improvement. We are struggling to build capacity for CTE instructional leadership at the district level because of a lack of dedicated CTE instructional leaders in each district. This lack of dedicated leadership means a challenge in rolling out systemic changes.

TEXAS

What were your state's top accomplishments in CTE?

- > The Texas Education Agency (TEA) CTE team launched the Texas CTE Resource Center.⁴³ The CTE Resource Center is the central repository for CTE instructional and supplemental materials and professional development content.
- > The TEA developed 19 professional development online modules to support the revised Texas Essential Knowledge and Skills (TEKS) that were implemented beginning with the 2017-2018 school year. In addition to an overview module, a career development module, and a module for counselor and administrators, there are 16 additional modules, one specifically for each Career Cluster. These modules explain the TEKS design and structure, the rationale for course revisions, avenues for student endorsements and information for implementation. The new TEKS training modules are housed in the Texas Gateway Courses site.⁴⁴
- Beginning a two-year study on career and technical education (CTE) programs. The primary purpose of this evaluation is to assess the quality of high school CTE programs in Texas public school districts and charter schools. Second, the evaluation will study identified high-quality CTE programs currently being implemented to understand and share effective practices more broadly.

Please share your CTE-related challenges.

- > CTE teacher shortage is still a challenge for the state.
- > Participation of males in courses considered nontraditional for their gender.
- > The perception of CTE as being for those students who are not going to college, although the data shows otherwise.

UTAH

What were your state's top accomplishments in CTE?

Utah's governor recently announced 2018 as the Year of Technical Education. Under Governor Herbert's Talent Ready Utah initiative, leaders from the Governor's Office, Utah's State Board of Education, System of Higher Education and System of Technical Colleges have joined with economic development and workforce principals to explore meaningful pathways and curriculum development. This unprecedented partnership has expanded the dialogue among those who play a direct role in supporting Utah's economic engine. The Year of Technical Education is going to focus on key initiatives to make CTE programs more accessible to students, strengthen partnerships with industry and across education agencies, and improve the stackability/transferability of training.

⁴³ www.txcte.org

⁴⁴ https://www.texascourses.org/

- Utah published our first annual CTE At-A-Glance document which highlights important data around CTE for secondary students in the state. This document is also broken down by CTE planning region as well as for each individual LEA to show their collective and individual data points. The data highlights what we are doing well and potential areas for improvement.⁴⁵
- > Utah continues the move to organize our career pathways by Career Cluster. Each pathway is being reviewed to ensure that it culminates in a credential of value. More than 50 pathways within 15 Career Clusters are available to students. Alignment work between secondary and postsecondary education is also underway.

- Perception and branding of CTE continues to be a problem. Policymakers, parents, employers, stakeholders and even students need a clear understanding of what CTE is and how it can benefit them. Support is growing and we are optimistic about the future, but we still have a lot of work to do!
- > The continuing uncertainty around Perkins reauthorization. Utah has new initiatives we are interested in undertaking but want to build in collaboration with a new Perkins state plan and requirements.
- > Connecting employers and education. How do we partner with employers in a value-added way for them so that we can ensure we are training students for the jobs they will need?

VERMONT

What were your state's top accomplishments in CTE?

- Newly-elected Governor Phil Scott, a former CTE student, made workforce development and CTE one of his priorities. His first budget included funding for a career pathways coordinator position for the Agency of Education's CTE team. The career pathways coordinator will be responsible for creating career pathway programs of study at a state level in priority sectors of the economy. Vermont was able to recruit Dr. Oscar Aliaga, formerly of the National Research Center for CTE, to fill the role of the career pathways coordinator.⁴⁶
- As a result of Vermont's involvement in Phase I of the NSFY program, our team learned of the US Chamber of Commerce Foundation's Talent Pipeline Management approach to workforce development. The team returned to Vermont and a private/public partnership has emerged to assist employers and education/training providers ensure that gaps in preparation and training are closed for the jobs that employers find hard to fill.⁴⁷
- Closer coordination and collaboration between the Agency of Education's CTE team, the Vermont Department of Labor's Workforce Development Division, and the Vermont Department of Economic Development, while ongoing, is a huge accomplishment for 2017.

Please share your CTE-related challenges.

> In the general education environment, Vermont is moving toward personalization and proficiency based education. High schools are struggling to see that CTE is a perfect way for a

⁴⁵ https://schools.utah.gov/cte

 $^{^{46} \}underline{\text{http://governor.vermont.gov/press-release/vermont-agency-education-hires-new-career-pathways-coordinator}$

⁴⁷ http://vtroundtable.org/project/vermont-talent-pipeline-management-vtpm/

student to demonstrate proficiency and application of the theories learned in the classroom. The struggle is helping a small, shared-time regional system navigate the changing landscape in general education.

- > Changing the narrative. There is a duality in the narrative around the state of "parents and sending high school staff don't support or understand CTE" with the facts of our small state. Over the last decade, grade nine through 12 enrollment has declined significantly, while at the same time, the share of students who participate in CTE has remained steady if not increased slightly, especially in introductory programs in grades nine and 10. We also see students spending less time in CTE programs.
- There is a growing interest in understanding how CTE is funded and in alternative methods for organizing and paying for it.

Wisconsin

What were your state's top accomplishments in CTE?

- At the postsecondary level the Wisconsin Technical College System Presidents signed an MOU to award prior learning assessments and transfer of credit for prior learning in a universal manner. Work is now underway to identify and develop a repository of assessments to be used in both general education and occupational courses.
- > Impacting both secondary and postsecondary, the beginning of a statutory requirement for Academic Career Planning to begin in the 6th grade to identify the pathway and transition to career and postsecondary training for all students.⁴⁸
- > Secondary to postsecondary legislation to clarify and strengthen dual enrollment.

Please share your CTE-related challenges.

- > The challenge of meeting the credentialing policies with accreditation.
- > Continued stigma, which prolongs issues with transfer and portability of credits.
- > Shortage of CTE educators.

WYOMING

- The Wyoming Department of Education CTE Section rolled out a new program called WyoSIMPL (Service Implementation Matrix Process and Log). This program helps LEAs to identify and prioritize their challenges and opportunities using their local data. LEAs then generate a theory of action to determine needed key services from the Wyoming Department of Education utilizing Perkins leadership funds.
- Project ECHO on Career Guidance and Online Facilitating Career Development course: The Wyoming Department of Education CTE Section used the Project ECHO model to build a weekly online interactive discussion for state stakeholders in the area of career guidance. The ECHO (Extension for Community Healthcare Outcomes) project is a collaborative model of

⁴⁸ https://dpi.wi.gov/sites/default/files/imce/acp/DPI%20Guide%202016%20FINAL%20web.pdf

- medical education and care management that empowers clinicians everywhere to provide better care to more people, right where they live.
- The State of Wyoming continued to fund CTE Demonstration Project Grants at \$500,000 for the biennium. These grants are awarded to LEAs who partner with a Wyoming community college and a business/industry partner to create innovative postsecondary options for Wyoming high school students. A geometry and construction integration project to build tiny homes is an example of these grants.

- The state of Wyoming local education agencies are experiencing difficulties finding qualified CTE teachers for their CTE programs. This problem will grow given that the University of Wyoming has decided to discontinue its CTE teacher preparation program.
- > The state of Wyoming being a very large state in area but small in population creates issues providing equity and access to its CTE programs.
- > The state of Wyoming is struggling to diversify its economy away from the energy sector.