



If Not Now, Then When?

Partnering to Increase Access to Apprenticeship and CTE Programs for Students and Young Adults with Disabilities

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Thank you for your efforts to increase inclusion of students and young adults with disabilities in Arizona's apprenticeship and CTE programs.

Enrollment in apprenticeship and Career and Technical Education (CTE) programs is steadily increasing in Arizona. Yet, students and young adults with disabilities are underrepresented and comprise a very small percentage of enrollment. Regrettably, they are excluded from participation and often discouraged by teachers, administrators, and families from considering and participating in apprenticeship and CTE programs. Leaders have a critical responsibility to ensure that each student and young adult have opportunities to achieve education and career success and are supported in identifying and realizing their goals.¹

This is the first-time representatives from the Arizona Apprenticeship Office, Arizona Department of Education, Vocational Rehabilitation (VR), and the Arizona Developmental Disabilities Planning Council gathered to discuss the current state of training programs and brainstorm ideas to help increase participation by students with disabilities. The group acknowledges these are initial discussions and by no means a comprehensive review and analysis of Arizona's apprenticeship and CTE programs. The purpose was to initiate conversation that would lead to the development of an ongoing collaboration to partner and explore how Arizona agencies and programs responsible for apprenticeship and CTE can increase inclusion in viable underutilized training programs.

To help understand why participation numbers are abysmal, and what can be done to help turn those numbers around, representatives from the agencies held a series of virtual meetings to discuss issues that contribute to low enrollment and participation and identify gaps in service, common barriers, and current challenges. The representatives reviewed best practices and brainstormed innovative ideas with the goal of recommending systems and practices to support students and young adults to access, participate in, and successfully complete an apprenticeship or high-quality CTE program of study. While apprenticeship and CTE are established separate programs, they share commonalities, and each provide an alternative career path for students and young adults with disabilities.

Apprenticeship – Earn while you learn

As of August 2021, there are 4,178 registered apprentices participating in 250+ programs. The goal of Arizona's programs is to have 7% of participants with a disability; currently 1.2% or 53 participants have voluntarily disclosed they have a disability.

Arizona utilizes a Registered Apprenticeship system that follows a nationally recognized education and training program that combines the two most common forms of career and occupational learning: classroom instruction with on-the-job-training. Apprentices not only learn occupational skills in the classroom, but their learning is also expanded to include hands-on, paid, on-the-job training. Participants learn and practice all phases of the trade/occupation in real-work applications. Apprenticeships may take from 1-6 years to complete, depending on the occupation. Most programs are 3-4 years in length. The length of training is determined by standards adopted by the industry. Apprentices must attend Related Technical Instruction which is combined with on-the-job learning experience. Most programs require approximately 144 hours of Related Technical Instruction per year. Each industry established its own minimum age requirement, although the typical minimum age is 18. There are no upper age limits on apprentices.

To receive pay, apprentices must be full-time employees of the employer who is sponsoring the training program. However, in the event of a School-to-Registered Apprenticeship program, apprentices may be employed part-time. Typically, the wage starts at 40-50% of a skilled worker's wage. Wages increase progressively with satisfactory completion of work assignments and Related Technical Instruction. No experience is required of a new apprentice. Most Registered Apprenticeship programs require applicants to have a high school diploma or GED certificate.

CTE – Preparing students for continuous learning and workforce success

For high school students interested in finding employment opportunities, CTE is a beginning step to a professional pathway to train for certain careers. These programs are available across the state in school districts for enrolled students 10th grade and higher. Students who enroll in the program divide their time between high school classes and training programs. Those who complete two years of the program then take a test to obtain certification in their chosen field. With these certifications, students are more qualified to obtain jobs than their peers in their graduating class. There are additional benefits of completing CTE programs, as 98% of CTE students graduate high school. And 83% met performance goals for technical skills.

CTE is open for students who have an IEP. In addition, CTE programs continue to find adaptive pathways for these students to participate, including specialized training and providing accommodations and assistance as needed. An example, of this is in automotive technology. Instead of its CTE program, which encompasses electrical system, steering and suspension, engine repair, and heating and air conditioning, the alternative automotive pathway could be detailing. Additionally, there are accommodations available for the CTE certification testing. Any universal accommodation for testing in school is also available for CTE testing. For instance, the test can be paused, or time extended to accommodate student needs. CTE teachers are trained about accommodations and can facilitate accommodations as needed. For additional training and education, teachers are encouraged to participate in Arizona's IDEA Conference which combines what historically has been the Arizona Department of Education/Exceptional Student Services (ADE/ESS) Director's Institute and the Transition Conference.

CTE training is also available through community colleges across a variety of certifications. CTE in community colleges can result in an associate degree in a related field or certification of completion, depending on the program pursued. Certificate programs require fewer hours to achieve a certificate. Students may enroll in a CTE program through a community college that has a program. Students can sign up through the registration office. <https://azed.gov/cte/>

In 2017-18, nearly 11.8 million students in the United States participated in CTE – 8.8 million in secondary and 2.9 million in postsecondary.² Of those students, 877,938 were postsecondary learners with disabilities.³

When students with disabilities have access to and the supports needed to thrive in high-quality CTE programs, the outcomes are promising. In general, participation in CTE courses has been tied to a “positive impact on wages, with an increase of 2 percent for every high-level class” in which a student participates.⁴ This effect is reinforced for students with disabilities. Recent research links “concentrated CTE participation to improved graduation and employment for students with physical and learning disabilities.⁵ CTE offers a wide range of programs which provide students the tools needed to succeed in today’s global economy. Students are offered opportunities to develop specialized skills while in high school and apply their academic knowledge in real world settings. CTE provides students with cutting edge training and opportunities in their chosen program of study. CTE aligns its programmatic offerings to current, emerging, and projected labor market needs and is delivered through comprehensive programs of study.

Research indicates that students with learning disabilities “who took applied (science, technology, engineering, and mathematics (STEM)) courses significantly increased their educational outcomes. They had lowered rates of dropout, improved math scores, and increased enrollment in postsecondary education. While the general student population benefitted by taking applied STEM courses, the advantages were greater for students with learning disabilities.⁶

There is an increase in the need for job candidates to have the skills they gain through CTE coursework. Occupations in skilled trades such as business and financial operations, computers and mathematics, architecture, engineering, welding, electrical work, driving, logistics, construction, and health care are some of the hardest to fill in the United States.^{7,8} Students with disabilities bring significant talent to the workforce and can play a critical role in supporting our nation’s economic recovery.

Arizona apprenticeship and CTE programs attempting to equitably serve students with disabilities have service gaps that hinder enrollment and inclusion. Service gaps tend to fall into the following categories:

Awareness of Training Programs

- There is a lack of awareness of apprenticeship and CTE programs by most students with disabilities and their families, including students who are home-schooled and receive Empowerment Scholarship Account (ESA) funding.
- Access to career counseling to help make informed choices.

- Schools need to realize the importance of career exploration.
- Brochures and printed materials do not adequately describe benefits of apprenticeship and CTE programs or encourage student to enroll.

Recruitment

- Businesses are interested in extending participation to females and people with disabilities but do not know how to conduct outreach to recruit individuals with disabilities.

Disclosure

- Students and young adults are not comfortable with disclosing their disability. This is especially true when completing an apprenticeship application.

Programming

- Career and Technical Education Districts (CTEDs) number only 14 to 16 statewide. There is a need for more school districts to participate.
- Some charter high schools offer a “CTE Program” but are not following the federally recognized model that is required by the Perkins Act.
- Charter and private school students receive minimal VR outreach.
- Specific teachers in schools are at times the only champions of CTE programs in their schools. If they leave, sometimes the program struggles to survive.
- Some CTE courses never have enough teachers – Nursing, CNA, and Medical Assistant programs are highly sought after but there is not sufficient capacity. For example, the Nursing program is capped at 20 students due to adherence to a required minimum faculty to student ratio.

Data and Research

- There is a lack of data and research on students and young adults with disabilities and their participation in apprenticeship and CTE programs, their outcomes in those programs, and trends relating to the type or quality of programs in which they are enrolled.

Attitudes and Bias

- Teacher’s attitudes – *“that student can’t be in an apprenticeship or CTE program.”*
- Teachers see the student has an IEP or 504 plan and assumes he/she cannot do the required work, complete the program, etc.
- Administrators may override a placement decision and remove a student from a CTE program.
- Parents are fearful their child may not be able to complete an apprenticeship or CTE program.

Preparedness of Teachers and Instructors

- In SPED, often there is no emphasis on transition planning which can help with encouraging students to participate in apprenticeship and CTE programs.
- Current teacher preparation programs are lacking, need more special education courses and training.
- Instructors do not have experience or required training working with students with disabilities, may be more prevalent in apprenticeship programs.
- More Arizona teachers are using alternative pathways to certification where they are not required to have formal education or instruction in special education.
- There is an overall need for professional development for teachers and instructors.

Accommodations

- Teachers and programs may be inflexible, too rigid, and stringent.
- Programs are not geared to accommodate to a student's learning.
- Administrators, teachers, and instructors are afraid to ask for help.
- There is an overall lack of knowledge regarding reasonable accommodations in the workforce.
- Teachers and instructors need to become familiar with and access Job Accommodations Network (JAN) resources.

Infrastructure

- Transportation is difficult to arrange, especially in rural and tribal communities.

Recommendations

The following represent actions and steps apprenticeship, CTE and VR leaders can take to increase access and inclusion to utilizing current programs and resources.

CTE

- Increase awareness and information about apprenticeship and CTE programs especially for post high-school students.
 - Disseminate information through brochures, school counseling sessions, videos, social media, presentation, on-site visits, apprenticeship and CTE fairs.
 - Develop audience specific information for families, students, educators.
 - Promote and participate in the Arizona School for Counselors Conference held annually in February. Find out more information at <https://azscaconference.org/>
- Obtain leadership support. The agency/administration must prioritize and support inclusion efforts and set goals to increase participation. Goals should be monitored and evaluated.
- Invest in professional development. Create a series of information pieces. Short videos may be helpful to increase awareness and share information.

- Conduct follow up with students and families and ask if they are aware of training programs. Utilize Post School Outcomes (PSO) to conduct follow up on activities and share information on apprenticeship opportunities.
- Develop a user friendly, information specific website and resources. Organize resources so that people looking for information can find them.
- Encourage school staff to build relationship with students and engage in conversation to collect data from students on their goals for post-secondary education and training.
- Share best practices and encourage schools to replicate successes.

Vocational Rehabilitation (VR)

- Work with VR to improve and increase services (external) to students.
- Encourage VR to improve internal communication about apprenticeship and CTE opportunities.

Apprenticeship Office

- Promote monthly Apprenticeship calls to teachers, counselors, students, and families.
- Partner with businesses to conduct Apprenticeship Fairs.
- Develop a training program for employers on hiring individuals with disabilities.
- Partner with employers to develop action plan to recruit individuals with disabilities. Share information through Arizona Apprenticeship Network.
- Set a target to reach the goal to have 7% of participants with a disability.
- Develop educational campaign on why it's important to disclose a disability and that it does not impact or impede participation or completion of an apprenticeship.
- Conduct education and training on providing accommodations.
- Produce materials and resources that promote inclusive apprenticeship for businesses, students, families, and schools.

All Stakeholders

- Conduct data and research on students and young adults with disabilities and their participation in apprenticeship and CTE programs. How many received VR services?
- Track outcomes and identify trends related to the type of programs students are enrolled in.
- Meet annually to see if progress is being made. Continue to collaborate and partner.
- Recruit apprenticeship and CTE champions including students, teachers, counselors, businesses, and families.
- Be aware that some students with disabilities may not be ready to participate in apprenticeship and CTE programs, it takes longer.
- Initiate career exploration in middle school. Don't wait for high school.
- Incorporate Universal Design for Learning – include best practices and guidance.

- Target overall societal bias regarding apprenticeship and CTE programs.

Resources

ACTEAZ Premier Series website

<https://www.acteaz.org/cte-leads-2/premier-series/>

AZCTE Leads website

<https://www.acteaz.org/cte-leads-2/>

ADE CTE Placement Survey information

<https://www.azed.gov/cte/cte-placement>

Arizona Industry Credential Incentive Program

<https://www.azed.gov/cte/cte-industry-credentials>

ADE Events Page for PD opportunities

<https://www.azed.gov/events>

Conclusion

It will take more than meetings and a report to increase participation in apprenticeship and CTE programs by students and young adults with disabilities. Parents, teachers, counselors, transition specialists, and everyone involved with students should consider and support training programs as an alternative to post-secondary education. Most importantly, students with disabilities should have access to a full range of apprenticeship and CTE activities including career awareness, exploration, and preparation. This report is just a starting point to get there.

References

¹Improving Equity and Access to Quality CTE Programs for Students with Disabilities, *Making Good on the Promise* series, The National Center for Learning Disabilities (NCLD), and Advance CTE: State Leaders Connecting Learning to Work.

²Perkins Collaborative Resource Network. (n.d.). Perkins data explorer.

<https://cte.ed.gov>.

³ibid.

⁴Kreisman, D., & Strange, K. (2019). Depth over breadth: The value of vocational education in U.S. high schools. *Education Next*, 19(4), 76-84.

⁵Theobald, R.J., Goldhaber, D.D., Gratz, T.M., & Holden, K.L. (2019). Career and technical education, inclusion, and postsecondary outcomes for students with learning disabilities. *Journal of Learning Disabilities*, 52(2), 109-119.

⁶Plasman, J.S., & Gottfried, M.A. (2018). Applied STEM coursework, high school dropout rates, and students with learning disabilities. *Educational Policy*, 32(5), 664-696.

⁷ManpowerGroup. (2020). The talent shortage 2020: U.S. data edition.

<https://web.manpowergroup.us/talent-shortage>

⁸U.S. Chamber of Commerce Foundation & Burning Glass Technologies. (2018). Different skills, different gaps: Measuring and closing the skill gaps.