



Texas Public Policy Foundation
**LEGISLATOR'S GUIDE
TO THE ISSUES
2021-2022**

Expanding Paid Apprenticeships Within Career and Technical Education

The Issue

Work-based learning is an essential element in effective career and technical education. Connecting instruction to real-world contexts provides an opportunity for students to develop soft skills, to build their resume, and to gain confidence born of earned success. Ensuring that students participating in work-based learning are paid as part of their career and technical education is a matter both of equity and of efficacy.

The more access students have to a particular program of study, the better their outcomes:

- “From 2012 to 2016, [graduation rates were higher](#) for students taking two or more CTE classes compared to all Texas high school students. In 2016, the graduation rate for students with two or more CTE classes was 95.6 percent compared to 89.1 percent for all Texas high school students.”
- “[CTE concentrators enrolled in postsecondary education within eight years of their expected high school graduation at slightly higher rates than non-concentrators.](#)”
- “[CTE concentrators were employed full-time \[72%\] at higher rates](#) eight years after their expected high school graduation compared to non-concentrators [67%].”

The Texas economy also benefits from having more and better prepared workers and entrepreneurs. The National Skills Coalition forecasts that in 2024, 50% of jobs in Texas will require some postsecondary training but not a college degree—so called middle skills jobs. As of 2017, [middle skills jobs](#) accounted for 56% of labor market in Texas, but only 42% of Texans had the necessary skills for these jobs.

To address this skills gap, the Texas Education Agency is in year 2 of a 5-year implementation cycle for statewide career and technical education [Programs of Study](#), which have the following elements:

- Have coordinated, non-duplicative sequence of academic and technical content.
- Address academic and technical knowledge, as well as employability skills.
- Align to the needs of the state, region, tribal community, or local area.
- Offer courses that progress in content specificity.
- Have multiple “entry and exit points” that allow for credentialing.
- Culminate in the attainment of a recognized postsecondary credential.

The Foundation’s research has pointed to a [striking mismatch](#) between the demand for occupations that are high wage and high demand in local labor markets and the number of CTE concentrators in those career fields, or clusters. The mismatch is likely a contributing factor to persistently high levels of unemployment and poverty despite growing job markets, such as the Gulf Coast region.

Secondary career and technical education in Texas falls under [13 “career clusters,”](#) with STEM (Science, Technology, Engineering, and Math) considered as being integrated or embedded across all of them. In addition, a “Practicum in Entrepreneurship” course is allowed to meet endorsements across multiple career clusters.

According to the Association of Career and Technical Education, [the career clusters that suffered](#) from the largest shortages in CTE instructors were **manufacturing, information technology, health sciences, and STEM**. In light of the shortage of CTE teachers relative, especially, to higher wage occupational clusters, students need to have the opportunity to complete their programs of study through work-based learning outside of schools. Community-based organizations can help screen and train professionals to become work-based instructors in their occupational fields. Since 2015, [Districts of Innovation](#) have had the ability to [waive certification requirements](#) for CTE teachers (TEC §21.051). Nevertheless, schools continue to cite funding as a key obstacle to drawing industry experts into teaching roles.

There are varying levels of engagement in CTE courses by Texas students. In 2019, [1,337,230, or 85%](#), of public high school students in Texas took at least one CTE course (CTE “participants”). The Texas Education Agency (TEA), in comportment with Perkins V, currently defines a **concentrator** as a student who completes two or more courses within a program of study. TEA’s data-reporting system is being overhauled, making recent information difficult to obtain. However, during the 2016-2017 school year, there were more than 700,000 CTE concentrators in Texas. TEA is proposing that a [completer](#) be defined as a student who completes three or more courses in a program of study, with at least one being a level three or four course. Level three and four courses typically take the form of a practicum, work-based learning opportunity, or internship.

Paid internships and apprenticeships offer students who are from economically challenged families equal opportunity to participate in these valuable experiences. Paid work-based learning also has the potential to raise student awareness of and interest in high-wage, high-demand occupations by providing a pathway to paid work during high school. In addition, having an employer “count on” a student to show up on time, work reliably, and engage well with customers and co-workers is a key element in developing another key [“skills” gap](#)—the soft or “employability” skills needed for future economic advancement.

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Historically, employers who took on apprentices were paid either by a family or from an apprentice's future wages to train a young person in a given trade. This is because the economics of providing a robust but short-term apprenticeship (which could be accommodated within the scope of a secondary program) meant that [most employers were not able to recoup the cost](#) of providing the training to the student once he or she was able to fully contribute to the business. Note that the economics of short-term apprenticeships do not necessarily apply to longer-term or postsecondary apprenticeships, where [the employer can more than recoup the cost](#) of training.

Across the state, community-based, industry-led organizations such as San Antonio Works have emerged to help the business community engage with schools. They provide employers with a sense of confidence with respect to compliance issues, they give school districts transparency into student learning and outcomes, and they can give students opportunities to engage in work-based learning opportunities to further their career goals.

The demand for such arrangements from students and families may increase as high schools respond to COVID-19 with scheduling that includes part-time and virtual options. Schools should be able to leverage local businesses while improving work-based learning to improve their CTE offerings

The Facts

- Secondary CTE in Texas is funded primarily through a weighted full-time student equivalent (FTE) allocation of 1.35 over the basic per pupil allocation. The FTE allocation is based on the number of contact minutes that a district staffer spends with a student.
- Texas spends \$2.2 billion on secondary CTE annually and receives \$110,000,000 in federal Perkins funding. This is a significant commitment to the success of future generations on the part of the Legislature and the taxpayers.

Recommendations

- Allow secondary CTE allocations to be used by school districts and open-enrollment charters to partner with nonprofit organizations to create paid internships and apprenticeships that serve as practica within a TEA-approved program of study. Community-based organizations can and should play an important role in facilitating these partnerships, assisting businesses with compliance, and providing students coaching in professional readiness.
- Increase the amount of the allotment that school districts are required to spend on CTE programs, under [Texas Education Code §48.106\(c\)](#).

Resources

[Mismatch? Aligning Secondary Career and Technical Education with Regional Workforce Demand](#) by Erin Davis Valdez and Sam Johnson, Texas Public Policy Foundation (May 2020).

[Improving Outcomes for Texas Career and Technical Education Students](#) by Erin Davis Valdez, Texas Public Policy Foundation (Dec. 2019).

[Skills Mismatch: Lack of Access to Skills Training Hurts Texas' Workers and Businesses](#), National Skills Coalition (March 2020).

[Middle Skills Fact Sheet: Texas' Forgotten Middle](#), National Skills Coalition (2017).