

Career & Technical Education in Missouri



Executive Summary

Career and technical education (CTE) programs during high school can provide students with **academic knowledge** (e.g., career-oriented courses, dual enrollment), **technical skills & certifications** (e.g., industry-recognized credentials), as well as **real-world work experience** (e.g., career academies, internships, youth apprenticeships). Participation in high school CTE programs is associated with higher graduation rates and better employment outcomes (e.g., lower unemployment, higher earnings).

[Senate Bill 265](#) and [House Bill 101](#) would require the Missouri Department of Higher Education and Workforce Development (DHEWD) to provide the “means and capability” for high school students who are participating in CTE programs to learn about and apply for federal aid available under the [Workforce Innovation and Opportunity Act](#) (WIOA). They also modify an existing CTE-related requirement relating to the [visiting scholars program](#). Under both bills, teachers certified as visiting scholars would no longer need to be employed as part of a specific business-education partnership between the district and employer.

Highlights

- The Missouri Department of Elementary & Secondary Education offers CTE programs in high schools, regional career centers and postsecondary institutions, covering a range of career pathways including agriculture, business and STEM.
- In the 2019-20 school year, 64% of Missouri high school students enrolled in at least one career education program. 5,366 students received industry-recognized credentials.
- Missouri’s visiting scholars program allows individuals with specific degrees and/or employment experience to hold temporary, renewable teaching certifications in order to support students’ in-class teaching and career development needs.
- Students who participate in CTE programs may be eligible for one or several current funding opportunities (e.g., YouthBuild, Workforce Pathways for Youth) available under WIOA.

Limitations

- Much of the information about the relationship between CTE and high school graduation rates comes from studies in schools where all students participate in CTE. Additional research is needed to understand the extent to which specific statewide CTE programs impact graduation rates and other career outcomes.

This science note was prepared by MOST Policy Initiative, Inc. a nonprofit organization aimed to improve the health, sustainability, and economic growth of Missouri communities by providing objective, non-partisan information to Missouri’s decisionmakers. For more information, contact Dr. Brittany Whitley, Education & Workforce Development Fellow – brittany@mostpolicyinitiative.org. This was prepared on 3/29/21.

Research Background

High school CTE participation is associated with higher graduation rates and better employment outcomes.

Career and technical education programs during high school allow both college- and workforce-bound students to develop technical and transferable (e.g., teamwork, leadership, critical thinking) workplace skills. Students who participate in CTE programs are more likely to graduate from high school, especially when the courses are taken later in high school and/or as part of a series/concentration.¹⁻⁵ Compared to students who did not participate in CTE, graduates with CTE credits are less likely to be unemployed and more likely to work in a higher paying job that provides benefits.^{4,6} While students often participate in CTE programs based on their academic and career interests, many benefits of CTE extend to students who do not enter the career pathway that they explore during high school. The real-world learning experience and transferable skills obtained during CTE participation may therefore explain many of the positive impacts associated with CTE.

While CTE quality has improved over time, some student populations (e.g., rural, students with disabilities, girls, students of color) have limited access to these opportunities.⁷

Historically, CTE/vocational education has been associated with educational inequities via “tracking,” or directing minoritized students into lower wage jobs based on grades, race and/or socioeconomic status. Current CTE programs, on the other hand, emphasize training students for high-demand, high-wage jobs. Although changes to CTE programs over the last fifteen years have improved overall access and quality, several student populations (e.g., rural, students with disabilities, girls, students of color) are underrepresented in CTE programs, primarily due to barriers in geographic and socioeconomic barriers to access.⁸

State and regional CTE resources in Missouri are provided through area career centers, high schools, postsecondary institutions and nonprofits.

DESE offers career education programs for Missouri high school students in high schools, regional career centers and/or postsecondary institutions; programs cover a range of career pathways including agriculture, business and STEM. In the 2019-20 school year, 64% of Missouri high school students enrolled in at least one career education program. 5,366 students received industry-recognized credentials.⁹ Almost all (94%) of high school CTE graduates went on to be employed, continue their education or enter the armed forces; 66% of graduates are working in the area related to their CTE experience(s).⁹ In addition to state-level initiatives, education nonprofits in Kansas City, led by [PREP-KC](#) and the [Kauffman Foundation](#), have identified four “market value assets” (MVAs) that are particularly valued by higher education and employers: (1) college credit earned in high school, (2) industry-recognized credentials, (3) career experiences (e.g., robust job shadowing and internships), and (4) entrepreneurial experiences with real-world

projects. Students who graduate from high school with at least one “market value asset” are more likely to start college and/or be employed after graduation.¹⁰

Missouri’s visiting scholars program provides flexibility in teacher certification for individuals with advanced degrees and/or professional experience.

In 2018, [House Bill 1665](#) established the visiting scholar certificate which allows individuals with relevant educational/occupational backgrounds to temporarily teach in Missouri public schools without undergoing the traditional certification process. In years following the passage of HB 1665 passed, a majority of Missouri teachers (77%) continued to be certified through the traditional route, and one visiting scholar certificate was issued.¹¹

Under current law, visiting scholars must be hired as part of a high school business-education partnership (e.g., Center for Advanced Professional Studies or [CAPS](#), programs). SB 265 and HB 101 would expand the visiting scholar program to include any otherwise qualified person who is not currently participating in a business-education partnership. This change would increase the pool of eligible individuals and has been proposed as a mechanism to address both CTE improvement and [critical teaching shortages](#) in Missouri high schools.

Based on provisions established in WIOA, many students are eligible to apply for additional funding opportunities through the United States Department of Labor.

SB 265 and HB 101 would also require DHEWD to establish procedures for CTE certificate students (Mo. Rev. Stat. [170.029](#)) to apply for federal aid under WIOA. The Employment and Training Administration (ETA) of the United States Department of Labor offers [several funding opportunities](#) to support career readiness in young adults. One of the primary responsibilities of the [ETA Division of Youth Services](#) is to provide funding for “comprehensive youth development services so youth, particularly those most disadvantaged, have the academic, technical, and work-readiness skills they need to successfully transition to adulthood, career pathways and post-secondary education and training.” Because funding opportunities vary from year to year, additional information is needed to estimate the total impact of WIOA-related grants on student and workforce outcomes. We expect that, as with FAFSA completion, obtaining financial aid makes it more likely that students will be successful in their future school/career endeavors.

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