

## Ensuring equity in evolving high school Career and Technical Education policies

### TAKEAWAYS

Ensuring equitable access to career and technical education (CTE) programs is an important goal as programs evolve to embrace high-demand occupations that require postsecondary preparation and risk leaving more disadvantaged students behind.

Responding to changes in the labor market is a particular challenge in rural areas that have a strong history of CTE programs rooted in industries that are now on the decline.

CTE programs must invest in data collection, evidence building, and dissemination of findings if they are to understand the extent to which they are meeting their equity and effectiveness goals.



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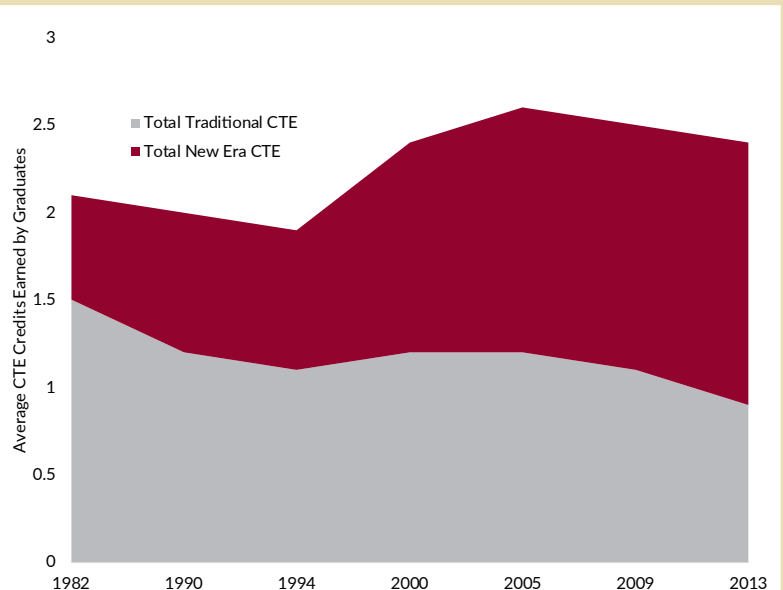
The structure and goals of high school Career and Technical Education (CTE) are evolving in response to changing labor market conditions, but do all students have equal access to these innovative initiatives? This was one of the primary themes discussed at a research workshop hosted by the Institute for Research on Poverty (IRP) at the University of Wisconsin–Madison that brought together researchers, practitioners, and policymakers to discuss a range of issues facing CTE programs.<sup>1</sup>

### Contemporary CTE emphasizes postsecondary and lifelong learning, a change in scope that requires changes in implementation.

CTE programs, which focus on learning and building skills directly related to work and labor market demands, are having a resurgence with policymakers across the political spectrum. Yet CTE today is quite different from what was implemented in previous decades. Many programs are shifting away from a vocational model (e.g., “shop” class) that “tracked” lower-performing and less-advantaged students into a set of nonacademic classes as an alternative to preparation for college. The next wave of CTE programming focuses on preparing students with the skills and competencies necessary for lifelong learning, adaptation, and success.<sup>2</sup> This involves preparing students to obtain some type of postsecondary education or training resulting in industry-recognized credential(s). Often programs bring postsecondary opportunities into high school and allow students to immediately begin earning credit and credentials. This new approach is rooted in the growing body of research showing the substantial earnings increases associated with completing career-focused postsecondary certificates and associate degrees.<sup>3</sup>

Through this process, CTE programs are phasing out programs with low employer demand and poor student outcomes and phasing in CTE programs tied to job pathways that offer higher wages or a high volume of opportunities. Figure 1 illustrates how coursework in traditional CTE fields such as manufacturing has held steady or even declined in recent years while coursework in “new era” fields such as health care or computer science has rapidly increased. These developments, illustrated in Figure 2, require programs to respond to and even anticipate changes in the economy, getting buy-in and engagement from local employers and shifting curriculum and teaching capacity in ways that may strain limited local resources.<sup>4</sup>

Figure 1. Enrollment in “new era” fields of CTE coursework has increased while falling in many traditional subjects.



Traditional CTE: Manufacturing, public service, construction, agriculture, human services, transportation

New Era CTE: Computer science, communications, health care, hospitality, engineering

Source: N. Malkus, “The Evolution of Career and Technical Education: 1982-2013,” Table 2, American Enterprise Institute, 2019.

## Equity concerns are a major focus for many CTE stakeholders.

CTE programs have long been challenged by equity concerns. Historically, CTE stakeholders debated whether vocational education reduced social inequities by providing economic opportunities to disadvantaged populations, or reinforced disparities by disproportionately tracking these groups out of traditional academic pathways that might provide students with the broadest range of future opportunities. However, equity concerns about current CTE programs differ from those about vocational models. In particular, during the workshop, participants discussed concerns that some CTE programs may not be serving the full range of students because of inequities in access across socioeconomic status (family income and education), race/ethnicity, disability, and geographic location.

While stakeholders saw the potential for CTE programs to be part of a successful antipoverty strategy by preparing young people from impoverished families for high-demand industries, they hypothesized that CTE programs may be falling short on this goal. Part of this concern is driven by the potential tension between the increasing focus on postsecondary achievement, demonstrating student success, and being accessible to all students. For example, high expectations for program outcomes could incentivize programs to avoid enrolling students from disadvantaged backgrounds who may be perceived as less likely to succeed. And while students with reported disabilities are more likely to concentrate in CTE,<sup>5</sup> relatively little seems to be known about these students' outcomes. To address these concerns, policy may need to specifically account for equity concerns, such as conducting targeted outreach to students from disadvantaged backgrounds or including equity metrics in program quality assessments.

Rural communities may also face challenges in access to CTE programming. Compared to more resource-rich urban areas, rural school districts may have fewer nearby employers, and find it harder to recruit and retain quality instructors, provide smaller class sizes, keep up with the technology requirements of high-demand occupations, and address transportation barriers. Potential solutions include simulated labs, school-based enterprises, and email or other forms of remote mentoring.

According to one state administrator in attendance, community perceptions may also play a role. While CTE has a rich history in many communities, CTE programs in urban areas often see low rates of student engagement, particularly with students of color whose parents had a negative experience with CTE in the past. Participants discussed the importance of developing localized outreach strategies to overcome negative perceptions.

## Data and evidence are increasingly at the forefront of CTE efforts.

Stakeholders are increasingly focused on understanding, defining, measuring, and evaluating program quality, in part because the 2018 Strengthening Career and Technical Education for the 21st Century Act places increased emphasis on program outcomes and continuous improvement.<sup>6</sup> As programs develop more robust data systems and are evaluated for program effectiveness, workshop participants discussed the need to include in these efforts metrics that assess equitable access. While policymakers, researchers, and practitioners desire better data and evidence for their decision-making, CTE stakeholders are also interested in getting this information to students and their families to improve their abilities to make informed choices about participation in CTE, particularly as school districts create and sustain positive community perceptions of CTE efforts.

Figure 2. The “shop class” model of vocational education is being replaced by Career and Technical Education programming that prepares students to obtain an industry-recognized credential.



For sources and more information, go to <https://www.irp.wisc.edu/resource/ensuring-equity-in-evolving-high-school-career-and-technical-education-policies/>

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### ENDNOTES

<sup>1</sup>Special thanks to [Carolyn Heinrich](#) (IRP Affiliate) and Shaun Dougherty, both of Vanderbilt University, for organizing the workshop convened by the Institute for Research on Poverty, in collaboration with the U.S. Collaborative of Poverty Centers. The event was held on May 3, 2019, in Nashville, Tennessee. The presentations from the event can be found on IRP's website (<https://www.irp.wisc.edu/2019-career-technical-education-promise-and-practice-agenda/>). Another brief, prepared by the [Poverty and the Transition to Adulthood Research Network](#) published before the workshop summarizes the available research and information on CTE. See, [What Do We Know About Career And Technical Education?](#) (Fast Focus No. 38-2019), Institute for Research on Poverty, April 2019. This project was supported by Cooperative Agreement number AEO00103 from the U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, to the Institute for Research on Poverty at the University of Wisconsin–Madison. The opinions and conclusions expressed herein are solely those of the author(s) and should not be construed as representing the opinions or policy of any agency of the federal government.

<sup>2</sup>Advance CTE, *Putting Learner Success First: A Shared Vision for the Future of CTE*, 2016.

<sup>3</sup>A. H. Stevens, M. Kurlaender, and M. Grosz, “Career Technical Education and Labor Market Outcomes: Evidence from California Community Colleges,” *Journal of Human Resources*, Forthcoming; S. R. Cellini and N. Turner, “Gainfully Employed? Assessing the Employment and Earnings of For-Profit College Students Using Administrative Data,” *Journal of Human Resources*, Forthcoming; C. Belfield and T. Bailey, “The Labor Market Returns to Sub-Baccalaureate College: A Review (Working Paper),” Center for Analysis of Postsecondary Education and Employment, March 2017; D. Xu and M. Trimble, “What About Certificates? Evidence on the Labor Market Returns to Nondegree Community College Awards in Two States,” *Educational Evaluation and Policy Analysis* 38, No. 2 (2016): 272–292; J. B. Grossman, L. Kato, T. Mallon, S. Maguire, and M. Conway, “The Value of Credentials for Disadvantaged Workers: Findings from the Sector Employment Impact Study,” Aspen Institute, January 2015; C. Jepsen, K. Troske, and P. Coomes, “The Labor-Market Returns to Community College Degrees, Diploma.”

<sup>4</sup>Another major barrier is that evidence on the benefits of secondary and postsecondary CTE institutions, programs, and credentials is often not specific, timely, or accessible enough for students, their families, and practitioners trying to make individual decisions about which options to pursue.

<sup>5</sup>Levesque, K., Laird, J., Hensley, E., Choy, S. P., Cataldi, E. F., Hudson, L., “Career and Technical Education in the United States: 1990 to 2005” (NCES 2008-035), Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education, 2008.

<sup>6</sup>Perkins Collaborative Resource Network, “About Legislation,” available at <https://cte.ed.gov/legislation/about-legislation>; Advance CTE, “Federal Policy,” available at <https://www.careertech.org/federal-policy-agenda>.