

# Career Readiness and Workforce Development

## Why Are These Issues Important?

A well-prepared workforce is critical for states to thrive economically. To that end, all students should graduate from high school prepared to attend college and pursue meaningful, family-sustaining careers. In today's economy, this will require some form of post-secondary credential or degree. Currently, that promise is far from fulfilled: millions of jobs nationwide are unfilled, while a similar number of jobseekers remain unable to find sufficient employment.<sup>i</sup> This, coupled with high rates of student debt that many are unable to repay with the jobs available to them after college graduation,<sup>ii</sup> has significant negative implications for both individual and collective economic health. As rapid technological change requires flexible ways for workers to learn new skills quickly, the ability of states to prepare young people for the 'jobs of the future'<sup>iii</sup> and the disconnect between education and the job market may come at an increasing cost to both workers and the economy. State policymakers have an opportunity to improve workforce readiness through Pre-K-12 education, which can help strengthen existing efforts in both sectors.

## Guiding Questions for State Leaders

To help inform strategy, state leaders can consider:

### Policy Leadership

- What is our state's plan for improving career readiness broadly? What are the respective roles of different state entities (governor, state legislature, department of labor, department of education, state board of education, state workforce board, etc.)? How do they collaborate with one another and with the workforce and industry community? How can coordination be strengthened?
- Does our state have statewide postsecondary and adult workforce goals, and are they connected to the state's K-12 improvement goals?

- Has our state adopted a definition of career readiness for K-12 students in collaboration with relevant constituents, including industry leaders? If so, has the state developed a plan for how students will reach this definition and how they will know if they are on track to meet these goals?
- Do our state's graduation requirements reflect our vision for student career readiness?
- Does our state have the data systems necessary to inform the growth of high-quality career-readiness programs?<sup>iv</sup> What would it take to build or improve these systems?
- Is our state using labor market data to determine and drive career readiness offerings?
- How will our state ensure that all career readiness programs and pathways for high schoolers are relevant and high-quality, offering a clear pathway to family-sustaining wages and jobs in in-demand fields? Are the state and school districts still offering legacy programs that are linked to low-wage occupations?
- How does our state's ESSA accountability system encourage or discourage the development of high-quality career readiness options for students?

### Engagement

- What role, if any, does our state play in facilitating communication and collaboration between K-12, postsecondary institutions, and workforce and industry partners?
- How will our state encourage communication and alignment between the state education agency and the state workforce agency in order to best support career readiness programs?
- How will our state ensure students and families have appropriate support to use career readiness data to make informed decisions?
- What role will our state play in communicating the value of career readiness initiatives to students and families?

## Resources and Oversight

- How many students are already served by existing career readiness programs in our state? Where are there gaps in services or programs?
- How will our state ensure equal access to high-quality career readiness opportunities for all students, and ensure that all students have access to traditional college pathways, regardless of their background?
- What is our state already investing in career readiness programs and what level of financial investment is the state prepared to make to expand and improve options? What financial investment does our state expect from industry?
- Does our state regularly review financial investments in career readiness (federal, state, local, private) to ensure that funding is targeted to support the state's most urgent priorities?
- How is our state leveraging potential resources provided by the federal Workforce Innovation and Opportunity Act (WIOA) and the Carl D. Perkins Career and Technical Education Act?

**State leaders planning to take action on career readiness and workforce issues should begin by engaging stakeholders** – including students, families, educators, industry and workforce leaders, district superintendents, community groups, and others. To support these conversations with stakeholders, it is helpful to understand background and research on career readiness and workforce development issues, promising practices from states, and contested issues that may emerge during discussions.

## Background

There are several career readiness models that begin in K-12 and help students access clearer (and sometimes shorter) pathways through school to careers. The vast majority of career readiness programs with explicit instruction and work-based components begin in high school, though some pipeline programs begin as early as middle school, and career-integrated curriculums can span PreK-12 into postsecondary education (see Glossary for more details on approaches). Though specific definitions and measures of quality for career readiness programs vary, contemporary

approaches tend to emphasize that quality programs should offer students a clear path to a family-sustaining wage job in an in-demand field.

## Research

While CTE is one of the most common career readiness program models across the country, research on its benefits — both to individuals and the economy — is somewhat limited.<sup>v</sup> This same dearth of research is shared by other common career readiness programs.<sup>vi</sup>

- While participation in CTE has not been reliably shown to increase academic achievement (measured by factors like grades, test scores, overall GPA, etc.), it may provide students with a modest earnings boost after graduation.<sup>vii</sup> Evidence from two recent state studies suggests that CTE may increase students' likelihood of graduating from high school, particularly when students 'concentrate' (take a full sequence of coursework) in CTE.<sup>viii</sup>
- Similarly, career academies, another longstanding career readiness model, have been shown to increase post-graduation wages.<sup>ix</sup>

## Promising Practices

Although every state leader must weigh their local context when making policy decisions, some promising practices from other states may help to inform their approach.

### Combine College and Career:

Increasingly, states are providing access to early opportunities for students to get a head start on both college and career through CTE dual enrollment programs and CTE early college high schools, where students can earn postsecondary credit in career-focused coursework. Though little is yet known about the impact of these programs specifically, the research base on dual enrollment and early college high school models generally suggests that they have significant positive impacts on students' academic achievement, likelihood of graduating from high school, enrolling in and graduating from college.<sup>x</sup> **Texas**, for instance, passed a law in 2013 creating 44 new CTE Early College High Schools across the state.

## Glossary of Career Readiness Programs

**Apprenticeships** (*often referred to as youth apprenticeship or pre-apprenticeship when designed for high-school aged youth*): Students complete paid on-the-job training under the supervision of a workplace mentor, alongside related technical instruction (RTI). The number of hours in the workplace and RTI are predetermined and often lead to an industry-recognized credential and/or postsecondary credit.

**Career Academies:** Academies, typically within a comprehensive high school, that provide a sequence of career-technical courses around a certain career or industry to a cohort of students.

**Career-Integrated Curriculum:** Designed to integrate broad career-focused knowledge and skills, along with career awareness, into general academic courses.

**Career Pathways; College-and-Career Pathways:** A sequence of career-technical learning experiences designed to lead to a job in a specific industry. Increasingly, career pathways must lead to some form of postsecondary education.

**Career-and-Technical Education (CTE):** Refers to multiple forms of career-focused coursework designed to help students develop industry-specific technical skills. CTE courses can be

delivered in multiple settings, including high schools, regional training centers, or postsecondary institutions.

**CTE Dual Enrollment:** Allows students to take career and technical-focused courses for postsecondary credit, either at their high school, a regional technical center, or postsecondary institution. Sometimes, dual enrollment takes place at an Early College High School, where college-level coursework is integrated into all students' course progressions.

**Industry-Recognized Credentials:** Credentials (such as certifications, certificates, licenses, micro-credentials or degrees) that are sought-after by employers. Often, these credentials carry an endorsement by an industry organization or trade association.

**Internships:** These experiences provide opportunities for students to gain work experience (paid or unpaid, sometimes for credit) in their career field of interest and may be less structured and have fewer quality assurances than other forms of work-based learning.

**Work-Based Learning:** Any program designed to help students apply career-technical skills and/or practice a set of career-technical competencies in a workplace.

## Glossary of Relevant Legislation

**Carl D. Perkins Career and Technical Education Act (or 'Perkins')**: A federal law providing \$1.2 billion in grant funding, which is split at the discretion of the state between high schools and post-secondary institutions (mostly community colleges and technical schools). The Act was recently reauthorized and returned more oversight and authority to the states.

**Every Student Succeeds Act (ESSA):** ESSA is the most recent reauthorization of the nation's largest K-12 education law, the Elementary and Secondary Education Act (ESEA). ESSA grants

states significant flexibility in designing school improvement and accountability systems, including rewarding schools for expanding access to and improving success in career readiness programs.

**Workforce Innovation and Opportunity Act (WIOA):** A federal law supporting job training and workforce development activities for adult and youth job seekers. Reauthorized in 2016, the Act pushed states to coordinate CTE and other workforce initiatives.<sup>xi</sup>

### Engage Postsecondary and Industry Partners:

Policymakers should engage industry and postsecondary partners in designing, implementing, and sustaining career readiness programs. **Washington**, for instance, brought together leaders from state government, the legislature, business and labor, K-12, and postsecondary to form the Career Connected Washington Task Force, which was tasked with co-creating policy and investment recommendations to ensure students across the state had the opportunity to prepare for careers.<sup>xii</sup> The 2018 reauthorization of the Perkins Act requires engagement of both postsecondary and industry partners in creating each state's federal Perkins plan, an opportunity for states to begin or expand efforts to engage these stakeholders.

### Engage Families and Empower Students:

Access to meaningful data is an important part of family engagement,<sup>xiii</sup> and can help families understand the benefits and tradeoffs to different college and career pathways. The state of **Nevada**, for example, curates the Life Works Nevada website for students and families that utilizes its state longitudinal data system to show wage data, earnings, education pathways and needed skills (both technical and social-emotional) for careers and degree programs.<sup>xiv</sup> In addition to robust data, students and families also need access to 'guides' who will direct them to that information and help inform their career choices. While school counselors and career coaches in schools could help meet this need, schools nationwide consistently understaff counseling roles, limiting student access to this type of support.<sup>xv</sup>

### Incentivize Program and Credential Quality:

In order to ensure that career readiness programs prepare students for family-sustaining, in-demand jobs and do not contribute to underemployment, states can regularly 'audit' their CTE programs and career pathways.<sup>xvi</sup> The **Tennessee** State Department of Education, for instance, conducts a review of its high school career pathways each year, utilizing state and local labor market and postsecondary attainment data to determine whether to continue or begin offering a given career pathway.<sup>xvii</sup> A growing

number of states are also supporting students to earn industry-recognized credentials, and weighing how best to identify which are most valued by employers.<sup>xviii</sup> **Florida**, which has been providing incentives for students to earn industry-recognized credentials for roughly a decade, publicly ranks credentials by tier, with those that lead to post-secondary education ranked in a higher tier.<sup>xix</sup> If state policymakers are to ensure all credentials offered are and remain valuable, they will need processes in place to ensure that identification of quality credentials is a sustained and frequently revisited effort.

### Utilize ESSA:

States hoping to reward schools and districts for helping students achieve career readiness have a tool in the federal Every Student Succeeds Act (ESSA). The law allows states to reward schools for success on career-ready indicators, such as the completion of an industry-recognized credential or CTE program of study.<sup>xx</sup> When submitting plans to the federal government (as required under ESSA), 39 states included a career-readiness-focused indicator in their school accountability plans.<sup>xxi</sup>

## Remaining Issues

In order to lead in this area, state leaders will need to understand where there are differences in opinion to bring people together.

### College-and-Career vs. College-or-Career:

Whether or not all students should be expected to enroll in college after high school is a longstanding debate. A robust body of research suggests nearly all students will need some level of postsecondary education or training (which could include two and four year degrees, certificates or other post-high school training programs) if they aspire to jobs that provide a family-sustaining wage.<sup>xxii</sup> However, some argue that not all students need to complete a four year degree in order to have a fulfilling career and often contend that not all students are prepared or "have what it takes to succeed" in college. Others argue that all students should be prepared for *both* college *and* career in high school to ensure that they have a full range of options and

multiple pathways to pursue — particularly those with the most opportunity for growth and earning. As they work to define a vision for student readiness in their state, policymakers will need to consider how changes to the labor market impact the level of education all students need to thrive and what role they can play to encourage the growth of new programs and pathways.

### Equity:

Career readiness programs are often cited as a strategy for alleviating family or inter-generational poverty and/or ensuring that students deemed unlikely to complete a traditional four-year degree make a smooth transition to the labor market. This push is meant to combat concerning trends in low college completion for students of color, students living in poverty, and students with disabilities.<sup>xxiii</sup> However, critics argue that this approach may lead to tracking along demographic lines. Historically, tracking was a feature of older, often low-quality vocational education models and low-wage fields, and recent research suggests that it remains an issue.<sup>xxiv</sup> Notably, these demographic patterns in career education are not universal, and may even present an opposite concern for some programs;

some newer, STEM-focused CTE programs, perhaps seen as higher-prestige or higher wage, are more likely to serve a disproportionately high number of white male students.<sup>xxv</sup> In general, CTE pathways deemed highest quality are disproportionately unavailable to low-income students and students of color.<sup>xxvi</sup>

### Financial Responsibility:

As new models for partnering with industry have grown, approaches to sharing financial responsibility across the state, employer, K-12, and postsecondary have varied across programs and states, and no consensus exists on how financial responsibility should be shared. In the case of apprenticeship programs—the high school career readiness model where industry investment is arguably highest — the distribution of financial responsibility varies across programs. CareerWise **Colorado**, for instance, provides a set amount of money toward related technical instruction for each apprentice, while in **Wisconsin**, apprenticeship-related instruction is primarily financed through state grants.<sup>xxvii</sup> State leaders can explore how to effectively coordinate and leverage existing funds across agencies to reduce redundancies and accelerate impact.

### Resources

- **AdvanceCTE**, [Unpacking Putting Student Success First: State Self-Assessment](#)
- **CCSSO Task Force on Improving Career Readiness**, [Opportunities and Options: Making Career Preparation Work for Students](#)
- **Education Commission of the States**, [Work-Based Learning: Model Policy Components](#)
- **Education Strategy Group**, [Credential Currency: How States Can Identify and Promote Credentials of Value](#)
- **ExcelinEd**,
  - » [Putting Career and Technical Education to Work for Students](#)
  - » [Building Cross-Sector Partnerships to Support Career Technical Education Pathways](#)
  - » [Auditing a State Career and Technical Education Program For Quality](#)

## Endnotes

- i This gap is particularly pronounced for ‘middle-skill’ jobs, those that pay a family sustaining wage without requiring extensive postsecondary education. For more information see Ashley Gross and Jon Marcus, “High-Paying Trade Jobs Sit Empty, While High School Grads Line Up for University,” *NPREd*, April 25, 2018, available from <https://www.npr.org/sections/ed/2018/04/25/605092520/high-paying-trade-jobs-sit-empty-while-high-school-grads-line-up-for-university>.
- ii Phyllis Korkki, “The Ripple Effects of Rising Student Debt,” *New York Times*, May 24, 2014, available from <https://www.nytimes.com/2014/05/25/business/the-ripple-effects-of-rising-student-debt.html>.
- iii James Manyika, et al., *Jobs Lost: Jobs Gained: What the Future of Work Will Mean for Jobs, Skills, and Wages*, McKinsey Global Institute, November 2017, available from <https://www.mckinsey.com/featured-insights/future-of-organizations-and-work/Jobs-lost-jobs-gained-what-the-future-of-work-will-mean-for-jobs-skills-and-wages>.
- iv Sandra Staklis, et al., *New Skills for Youth 2017 Evaluation Annual Report*, RTI International, November 1, 2017, available from [http://www.ccsso.org/sites/default/files/2017-11/NSFY\\_Annual\\_Report.pdf](http://www.ccsso.org/sites/default/files/2017-11/NSFY_Annual_Report.pdf); *Credential Currency: How States Can Identify and Promote Credentials of Value*, Education Strategy Group, AdvanceCTE, and Council of Chief State School Officers, September 2018, available from <http://edstrategy.org/wp-content/uploads/2018/10/ESG-CredentialCurrency-exec-summary-Sep4-web.pdf>.
- v Corrine Alfeld, “Career Technical Education is Growing; Research Must Follow,” *Inside IES Research Blog*, February 3, 2016, available from <https://ies.ed.gov/blogs/research/post/career-technical-education-is-growing-research-must-follow>; Brian A. Jacob, *What We Know about Career and Technical Education in High School*, The Brookings Institution, October 5, 2017, available from <https://www.brookings.edu/research/what-we-know-about-career-and-technical-education-in-high-school/>.
- vi Al Passarella, *The Necessary Components of an Effective Career and Technical (CTE) Program*, Johns Hopkins School of Education Institute for Policy, February 2018, available from <http://edpolicy.education.jhu.edu/wp-content/uploads/2018/02/cteAP.pdf>.
- vii For a review of the research on CTE’s relationship to academic achievement, see: Shaun M. Dougherty, *Career and Technical Education in High School: Does It Improve Student Outcomes?* Thomas B. Fordham Institute, April 2016, available from <http://edex.s3-us-west-2.amazonaws.com/publication/pdfs/%282016.04.07%29%20Career%20and%20Technical%20Education%20in%20High%20School.pdf>; Brian A. Jacob, *What We Know about Career and Technical Education in High School*, The Brookings Institution, October 5, 2017, available from <https://www.brookings.edu/research/what-we-know-about-career-and-technical-education-in-high-school/>.
- viii Shaun M. Dougherty, *Career and Technical Education in High School: Does It Improve Student Outcomes?* Thomas B. Fordham Institute, April 2016, available from <http://edex.s3-us-west-2.amazonaws.com/publication/pdfs/%282016.04.07%29%20Career%20and%20Technical%20Education%20in%20High%20School.pdf>; Shaun M. Dougherty, “The Effect of Career and Technical Education on Human Capital Accumulation: Evidence from Massachusetts,” *Education Finance and Policy* 13, no. 2 (spring 2018): 119-148.
- ix James J. Kemple, “Career Academies: Long-Term Impacts on Work, Education, and Transitions to Adulthood,” MDRC, June, 2008, available at <https://www.mdrc.org/publication/career-academies-long-term-impacts-work-education-and-transitions-adulthood>.
- x American Institutes of Research, “Early College, Early Success: Early College High School Initiative Impact Study”, 2013, available from [https://www.air.org/sites/default/files/downloads/report/ECHSI\\_Impact\\_Study\\_Report\\_Final1\\_0.pdf](https://www.air.org/sites/default/files/downloads/report/ECHSI_Impact_Study_Report_Final1_0.pdf); What Works Clearinghouse, “WWC Intervention Report: Dual Enrollment Programs,” February 2017, available from [https://ies.ed.gov/ncee/wwc/Docs/InterventionReports/wwc\\_dual\\_enrollment\\_022817.pdf](https://ies.ed.gov/ncee/wwc/Docs/InterventionReports/wwc_dual_enrollment_022817.pdf).
- xi For more resources on leveraging WIOA to support career readiness, see: <https://www.careertech.org/WIOA>.
- xii “Career Connect Washington Task Force,” Workforce Training and Education Coordinating Board, available at [http://www.wtb.wa.gov/Documents/CCT2018\\_8PgFolio\\_Final.pdf](http://www.wtb.wa.gov/Documents/CCT2018_8PgFolio_Final.pdf).
- xiii Marion Baldwin and Sally M. Wade, “Improving Family and Community Engagement Through Sharing Data,” SEDL, November 2012, [http://www.sedl.org/secc/resources/briefs/improve\\_family\\_commun\\_share/](http://www.sedl.org/secc/resources/briefs/improve_family_commun_share/).
- xiv <https://www.lifeworksnv.org/>.
- xv Sarah Gonser, “School Counselors Keep Kids on Track. Why Are They First to Be Cut?” *The Hechinger Report*, May 31, 2018, available from <https://hechingerreport.org/school-counselors-keep-kids-on-track-why-are-they-first-to-be-cut/>.
- xvi For more, see Danielle Mezera and Quentin Suffren, *Auditing a State Career and Technical Education Program for Quality: A Playbook for State Policymakers*, August 2018, available from [https://www.excelined.org/wp-content/uploads/2018/08/ExcelinEd\\_CTEPlaybook3.AuditingCTEPrograms.August2018.pdf](https://www.excelined.org/wp-content/uploads/2018/08/ExcelinEd_CTEPlaybook3.AuditingCTEPrograms.August2018.pdf).
- xvii Heather Justice and Candi Norwood, “Purposeful Planning: Using Data to Drive Programs of Study,” *Techniques* 91, no. 6 (September 2016).
- xviii For more, see Education Strategy Group, “Credential Currency: How States Can Identify and Promote Credentials of Value,” September, 2018, available from <http://edstrategy.org/wp-content/uploads/2018/10/ESG-Credential-Currency-Full-Report.pdf>.
- xix Ibid.

- xx *Destination Known: Valuing College and Career Readiness in State Accountability Systems*, Council of Chief State School Officers and Education Strategy Group, November 2017, available from <https://ccsso.org/sites/default/files/2017-11/DestinationKnown.pdf>.
- xxi Education Strategy Group, Advance CTE, and Achieve Inc., "Making Career Readiness Count: 2018 Update" (forthcoming).
- xxii *From College to Jobs: Making Sense of Labor Market Returns to Higher Education*, The Aspen Institute College Excellence Program, 2015, available from [https://cew.georgetown.edu/wp-content/uploads/LaborMarketReturns\\_0.pdf](https://cew.georgetown.edu/wp-content/uploads/LaborMarketReturns_0.pdf); *Good Jobs that Pay without a BA*, Georgetown University Center on Education and the Workforce, 2017, available from <https://goodjobsdata.org/wp-content/uploads/Good-Jobs-wo-BA-final.pdf>.
- xxiii "Graduation rate from first institution attended for first-time, full-time bachelor's degree-seeking students at 4-year postsecondary institutions, by race/ethnicity, time to completion, sex, control of institution, and acceptance rate: Selected cohort entry years, 1996 through 2010," National Center for Education Statistics, available from [https://nces.ed.gov/programs/digest/d17/tables/dt17\\_326.10.asp](https://nces.ed.gov/programs/digest/d17/tables/dt17_326.10.asp); "Total number of persons 25 to 64 years old, number with disabilities, and percentage with disabilities, by highest level of educational attainment and other selected characteristics: 2010 and 2015," National Center for Education Statistics, available from [https://nces.ed.gov/programs/digest/d16/tables/dt16\\_104.75.asp](https://nces.ed.gov/programs/digest/d16/tables/dt16_104.75.asp); Margaret Cahalan, et al., *Indicators of Higher Education Equity in the United States: 2018 Historical Trend Report*, The Pell Institute for the Study of Opportunity in Higher Education and Alliance for Higher Education and Democracy of the University of Pennsylvania, 2018, available from [http://blogs.edweek.org/edweek/high\\_school\\_and\\_beyond/COE-18-Pell-Indicators-f.pdf](http://blogs.edweek.org/edweek/high_school_and_beyond/COE-18-Pell-Indicators-f.pdf).
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- xxv Ibid.
- xxvi AdvanceCTE, "Making Good on the Promise: Understanding the Equity Challenge in CTE," September, 2018, available at <https://careertech.org/resource/understanding-equity-challenge-cte>.
- xxvii For a comparison of industry contributions to different youth apprenticeship programs, see Appendix A of <https://na-production.s3.amazonaws.com/documents/Youth-Apprenticeship-Today.pdf>.