Coalition for Career Development Center

2023 Report

CONDITION OF CAREER READINESS IN THE UNITED STATES

The 2023 Report on the Condition of Career Readiness in the United States was produced for the Coalition for Career Development (CCD) Center under the leadership of Dr. V. Scott Solberg by the Boston University Wheelock College Center for Future Readiness. This report and related materials are possible because of the generous funding from American Student Assistance® (ASA).

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PREFACE

BUILDING A CAREER READINESS INFRASTRUCTURE THAT PREPARES YOUNG PEOPLE FOR THEIR FUTURES

At American Student Assistance® (ASA), we are changing the way young people learn about careers and navigate a path to education and career success. If we are to improve career readiness outcomes for young people, this work must be well informed by research and data that tells us what is working best for learners and where systems must change to ensure the greatest positive impact. To this end, we are honored to support the Coalition for Career Development (CCD) Center's 2023 Report on the Condition of Career Readiness in the United States, which provides actionable insights into what is working effectively to support all students in their school to workforce journeys and highlights opportunities for policy and system improvements nationwide.

We look forward to leveraging key learnings from the CCD Center's report to guide and elevate critical conversations and build bridges between the education and business communities to provide solutions we know young people need to achieve their education and workforce goals.

We applaud the CCD Center's work on this report, and are proud to partner with them on this journey to career readiness for all.

Jean Eddy

Jean Eddy
President and CEO, American Student Assistance (ASA)

A LETTER FROM THE CEO

Having dedicated my career to education, in roles ranging from teacher to school co-founder to policymaker, I am acutely aware of the challenges that shape our educational landscape today. I am also acutely aware of the opportunities to improve student outcomes and, as CEO of the CCD Center, I am committed to seizing them. Our work is far from complete, however. We must now work to ensure all youth and adults are supported to achieve academic, professional, economic, and social success. They key is making career readiness the ***first priority*** of American education and workforce development, which is our mission at the CCD Center.

This pivotal report demonstrates our unwavering commitment to positive change on this front. Through the lens of today's complex education and workforce policy landscape, the 2023 Report on the Condition of Career Readiness in the United States highlights the stark reality that, despite our best efforts, we are still a long way from our goal. The challenges we face are multifaceted and span the education and employment lifecycle, from insufficient school counselors to inconsistent postsecondary outcomes to ineffective services and supports to engage disconnected youth, not to mention ever-increasing student loan debt.

Yet, amidst these challenges is tremendous opportunity for transformative change. Drawing on best practices from across the nation, state leaders from education, industry, government, non-profits, and communities are poised to design and implement curricula infused with career planning activities; identify venues where learners can explore high-growth, high-demand careers of interest with guidance from trusted mentors; partner to offer internships and other work-based learning opportunities; leverage digital platforms and online programs to engage learners in career exploration; and, very importantly, hold all of us accountable.

I am proud to be a part of the CCD Center—a steadfast force dedicated to elevating the economic and social mobility of students, workers, and communities across the nation. Together, we can pave the way for a brighter, more inclusive future, for all Americans. This report is not just a roadmap for building that future, but also a testament to our unwavering belief that every person should have the opportunity to determine their career path and access the services and supports they may need to achieve them. That's how we fulfill the promise of the American dream.

We are grateful to so many of our colleagues for their support and contributions to this report and are honored to recognize each of you below in the "In Gratitude" section.

Eva Mitchell
Chief Executive Officer, Coalition for Career Development Center

A LETTER FROM THE BOARD CHAIR

I am pleased to announce the release of the second annual Report on the Condition of Career Readiness in the United States. The findings in the report align with my deeply held belief that America's future hinges on cultivating pathways from cradle to career, with opportunities to learn new skills, to reskill, and to upskill along the way. From my early days as a student learning about advanced manufacturing and working in that sector, to my tenure as a college professor and now college president, I have seen firsthand the transformative power of education, skill, and career development.

During the Obama Administration, I had the honor of serving on the Advanced Manufacturing Partnership 2.0 Task Force, co-chairing the Workforce Development sub-committee, through which we highlighted the looming worker shortage and its potential to create a crisis in critical industries. It was clear then, as it is now, that our nation's future truly is at stake. We must ensure that every person has access to ample opportunities to cultivate talents and skills.

Now more than ever, the nation needs to accelerate efforts to ensure all workers are prepared for future demands, responsibilities, and opportunities. Our economy and our national security depend on a strong and ready workforce. I am encouraged by recent policies and initiatives that will strengthen America's position as a global leader and provide more routes to success for students and incumbent workers. The CHIPS Act, the Bipartisan Infrastructure Act, Apprenticeship Building America grants, the Good Jobs Initiative, and other efforts at federal, state, and local levels underscore the importance of workforce development and the need for collaboration across sectors to secure America's future.

As Chair of the CCD Center, I am proud of the strides we have made in championing career readiness for all. I want to extend my gratitude to our CEO Eva Mitchell and Vice President of Research Dr. Scott Solberg for their leadership in this area. On behalf of our passionate board members, we are fully committed to supporting this important work and the CCD Center as it moves forward.

Thank you all for your dedication to making career readiness the first priority of American education and workforce development.

Dr. Annette Parker
Board Chair
President, South Central College

IN GRATITUDE

This report would not be possible without American Student Assistance (ASA) and their generous funding—or without ASA President and CEO Jean Eddy for her leadership and transformative vision for K-12 education. We thank ASA's board and staff for tirelessly amplifying the need to ensure career readiness starts by middle school. You have inspired and encouraged leaders across the nation to invest in career readiness efforts, impacting policymakers, innovators, schools, youth-serving organizations, students, and others—especially as they explore education pathways, nondegree credentials, and new kinds of partnerships with employers. You have seeded the expansion of multiple career readiness initiatives that open doors for all learners, regardless of income, region, or background.

We are honored that so many of our colleagues offered their advice and feedback on these efforts, including Executive Committee board members:

- Dr. Annette Parker, South Central College
- Boyd Worsham, National Center for Construction Education & Research
- Jean Eddy, American Student Assistance
- Sam Bottum, Snap-on Inc.
- Amanda Winters, National Governors Association
- Chi Kim, Pure Edge, Inc.

We also wish to call out the Pillar Chairs who were instrumental in leading the committees to develop the industry recommendations in this report:

- Board Member Dr. Sharon Givens, National Career Development Association
- Board Member Paul Perkins, Amatrol, Inc.
- Advisory Co-Chair David Goldberg, SeeMore Impact Labs
- Advisory Member Julie Lammers, ASA
- Advisory Member Matt McQuillen, Xello
- Advisory Member Casey Welch, Pearson Virtual Schools

All of our other board members deserve thanks, as they also significantly contribute to the work and vision of the CCD Center:

- Chair Emeritus Dr. Bryan Albrecht, Gateway Technical College
- Earl Buford, CAEL
- Charles Debow, III, National Black Chamber of Commerce
- Penny Enroth, The Palmer Foundation
- Bernadine Hawes, NIST-Manufacturing Extension Partnership
- Kate Kreamer, Advance CTE
- Jeannine Kunz, Tooling U-SME
- Carolyn Lee, The Manufacturing Institute
- Roger Tadajewski, National Coalition of Certification Centers

Thank you also to our Advisory Committee Co-Chairs:

- Policy Co-Chair Dr. Chad d'Entremont, Rennie Center for Education Research & Policy
- Workforce Development Co-Chair David Goldberg, SeeMore Impact Labs
- Industry Co-Chair David Wilcox, Global Skills X-Change

Thank you to our dedicated staff and partners, Concepts Communications' Katia Albanese and Allison Wohl, Dr. Scott Solberg and his research team, and Dr. Anthony Carnevale and Artem Gulish for giving so much of their time and expertise.

Without our funders, we could not do this work. We thank Snap-on Inc.; the Liberty Mutual Foundation; the Enroth Family Foundation; the Greater Milwaukee Foundation; Pure Edge, Inc.; Amatrol, Inc.; the National Coalition of Certification Centers; and, of course, ASA.

We also are immensely grateful to our Founder and Chair Emeritus Leo Reddy. His leadership and guidance have been instrumental in shaping the vision and direction of the CCD Center, inspiring us all to strive for excellence and equity as we build our nation's career readiness infrastructure.

EXECUTIVE SUMMARY

Key to America's future economic success is a strong career readiness infrastructure, one that prepares *today's* youth to find future success. Building such an infrastructure requires collaboration among education, industry, government, and the non-profit sector. It also requires states to continually assess their career readiness policies and practices to ensure they are both meeting local and regional workforce needs and advancing economic and social mobility for all workers.

To do this, states can examine key data points at four stages in the education and employment lifecycle, starting with K-12 education. Indicators that map to efforts to *launch future-ready youth* include student-to-school counselor ratios and several postsecondary engagement metrics, among them Advanced Placement® (AP) test scores, Free Application for Federal Student Aid (FAFSA®) completion rates, high school graduation rates, and rates of entry into two- or four-year degree programs.

Data also show a strong correlation between postsecondary education retention and completion rates and employment and earning prospects in adulthood. So, states must also help students navigate the *transition to adulthood*, and the first step is collecting and analyzing strong metrics on postsecondary outcomes immediately after high school in order to identify where gaps exist. Using such data, states can then design and implement effective strategies for improvement, and many are already using innovative approaches to do so.

Postsecondary outcomes are not the whole story, however. Many young adults ages 19-27 encounter significant barriers preparing for and obtaining "good jobs," indicating the need for more strategic career planning, including guidance about both degree and non-degree pathways to employment in high-demand, high-wage occupations. Central to this is working to decrease rates of disconnected young adults, meaning those who are not working or participating in any form of education or training, and understanding young adults' economic outlook, as indicated by median hourly and living wages.

Whatever path they take, young adults must be able to *sustain pathways to success*, with a focus on economic and social mobility. While many adults today make significant gains by their mid- to late-30s compared to previous generations, those without a four-year degree are still disadvantaged, despite many high-demand jobs not requiring one. Moreover, significant gaps persist for women and adults from historically underrepresented backgrounds and/or who have disabilities. Thus, individuals must have ongoing access to career advising. Key indicators to assist in determining where continued engagement is needed include adult median hourly and living wages and college loan default rates.

There are a number of action steps states can take to improve the career readiness infrastructure. States can look to and leverage landmark pieces of federal legislation, specifically, the Every Student Succeeds Act (ESSA), Strengthening Career and Technical Education for the 21st Century Act (Perkins V), Higher Education Opportunity Act (HEOA), and Workforce Innovation and Opportunity Act (WIOA), as well as the pending Youth Workforce Readiness Act (YWRA), as all incorporate funding for required and allowable career and workforce development activities.

Going forward, we must ensure all youth, young adults, and adult workers can effectively prepare for, obtain, and retain jobs that allow them to grow, thrive, and contribute to America's future economic success. The key is making career readiness the number one goal of American education and workforce development—at all stages and all ages—and positive, sustained change starts at the state level.

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INTRODUCTION

Nearly all states either mandate or encourage schools to use individualized career plans, or Personalized Career and Academic Plans (PCAPs) (Solberg et al., 2022). However, improving our nation's career readiness infrastructure requires more than this. Going forward, states must examine their related policies and practices and assess whether individualized career plans are being implemented with quality and fidelity.

To assist, the purpose of this report is to present and analyze state-level career readiness indicators at four critical stages in the education and employment lifecycle (see Appendix A for methodology, data sources, and calculations).

LAUNCHING FUTURE-READY YOUTH:
College and Career Readiness Outcomes for K-12 Students
Student-to-School Counselor Ratios
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NAVIGATING THE TRANSITION TO ADULTHOOD:
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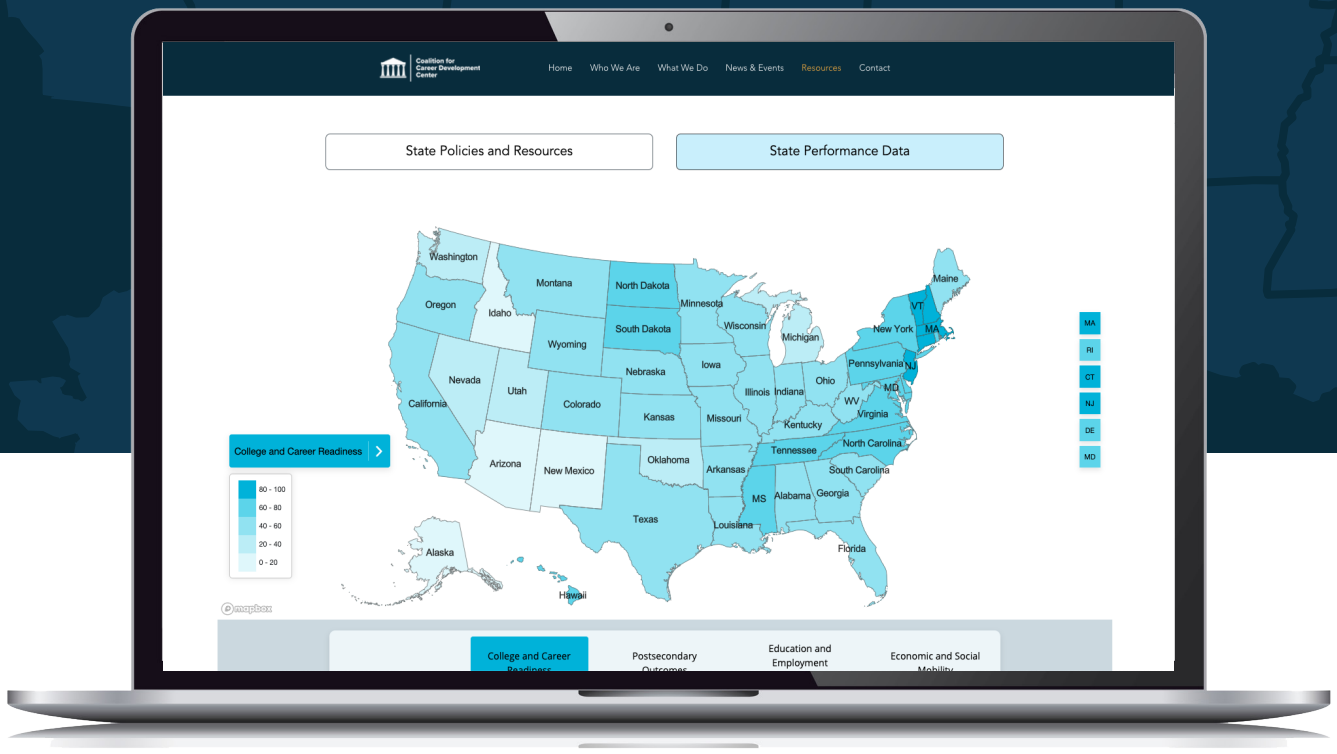
NAVIGATING THE TRANSITION TO ADULTHOOD:
Workforce Engagement and Earnings Outcomes for Young Adults
Wage Earnings for Young Adults
The Status of Disconnected Youth

SUSTAINING PATHWAYS TO SUCCESS:
Economic and Social Mobility Outcomes for Adults
Wage Earnings for Adults
The Status of Student Loan Debt

This report also shares promising practices in use by individual states and organizations related to each stage's career readiness indicators. It does not, however, provide individual state rankings for these indicators. Rather, the aim is to affirm that America's future economic competitiveness requires stronger investment in our career readiness infrastructure and strengthen understanding and capacity, at both the state and federal levels, to meet the challenge, now and into the future.

A TOOL *for* STATES

The CCD Center's (2023b) **State Map on Career Readiness Policies, Resources, and Performance** provides the state-level career readiness outcomes described in this report as well as shares the individualized career plan policies and resources for each state. The presentation of state performance data is designed to generate a cross-sector consensus regarding career readiness outcomes and ideas to improve state rankings. States are encouraged to convene a team of elected officials, state and local government agencies, community organizations, workforce development boards, and leaders in industry who can contribute to building our national career readiness infrastructure, leverage their state policies and data, and employ required and available funding avenues outlined in key pieces of federal legislation. In doing so, the CCD Center believes that the promise of a robust, equitable career readiness infrastructure is attainable.



Disclaimer: Every effort was made to ensure the accuracy of state information provided within the report. States may contact us directly for corrections and/or to highlight their ongoing promising career development activities.

LAUNCHING FUTURE-READY YOUTH:

College and Career Readiness Outcomes for K-12 Students

BACKGROUND

College and career readiness programs and services are an organized scope and sequence of individualized career planning activities facilitated by educators, community-based organizations, youth leaders, and employer mentors/coaches (Solberg et al., 2020).

While the nature and shape of such activities naturally change with age, they can—and should—start early in a child's life and schooling. Evidence from multiple longitudinal studies indicates that middle and high school students who participate in such activities with support from school counselors record higher wage earnings in early adulthood, and that the positive effects are double for youth from historically underrepresented backgrounds and/or with disabilities (Covacevich et al., 2021).

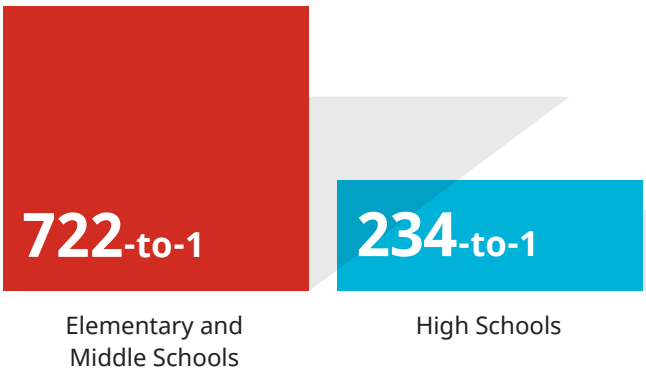
State-level career readiness indicators that impact outcomes for K-12 students include student-to-school counselor ratios at all levels as well as several postsecondary engagement metrics, among them Advanced Placement (AP) test scores, Free Application for Federal Student Aid (FAFSA) completion rates, high school graduation rates, and rates of entry into two- or four-year degree programs.[1] These data indicate to what degree students engage with postsecondary education; it can be logically assumed that engagement increases students' interest in, exploration of, readiness for, and, ultimately, enrollment in postsecondary education.

STUDENT-TO-SCHOOL COUNSELOR RATIOS

Since 1965, the American School Counselors Association (ASCA) has recommended a student-to-school counselor ratio of 250-to-1 based on strong evidence that kindergarten through 12th grade students at schools that meet this benchmark record stronger academic outcomes and are more likely to attend postsecondary education (ASCA, n.d.).

Data analysis reveals that, nationally, the average student-to-school counselor ratio was 722-to-1 in elementary and middle schools and 234-to-1 in high schools during the 2020-21 school year (Figure 1.1).

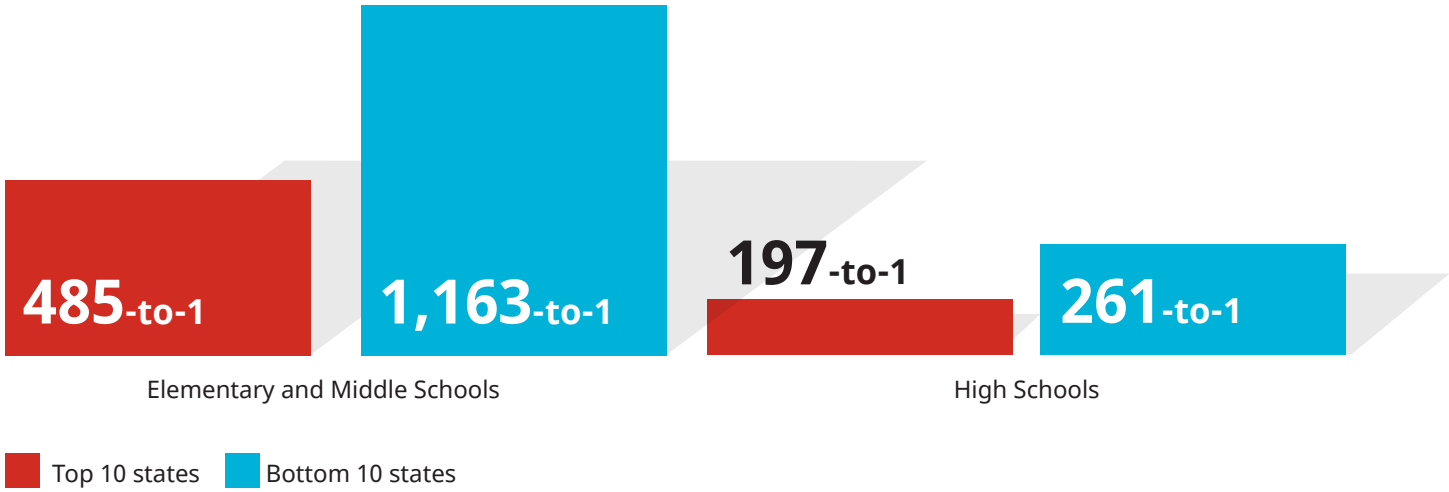
Figure 1.1: The average student-to-school counselor ratio among elementary and middle schools and high schools across the nation.



1 Note that our national systems are limited with respect to the range of post-high school outcomes being recorded and are, therefore, unable to provide state-level data for youth who select into non-postsecondary education pathways such as military, direct entry into the world of work, or short-term certificate training programs.

The student-to-school counselor ratios among top 10 and bottom 10 vary considerably. The average student-to-school counselor ratio in elementary and middle schools was 485-to-1 among the top 10 states and 1,163-to-1 among the bottom 10 states. At the high school level, the ratio was 197-to-1 among the top 10 states and 261-to-1 among the bottom 10 states (Figure 1.2).

Figure 1.2: The variation between the top 10 and bottom 10 states' average student-to-school counselor ratio among elementary and middle schools and high schools.



Recommendations and Promising Practices

To address gaps created by insufficient student-to-school counselor ratios, states can:

1. ***Implement*** policies and practices that ensure all individualized career planning programs and services are accessible to individuals from historically underrepresented backgrounds, including by allocating sufficient funding to offer services, programs, and support for high-need groups.

   Building an Army of Career Coaches in Arkansas and Alabama
   After a five-year pilot study, Arkansas found that placing career coaches in elementary, middle, and high schools contributed to increased American College Testing (ACT) scores and postsecondary participation and decreased students' need for remediation courses in college (Arkansas Department of Education, 2022). The career coaches collaborate with school counselors, teachers, and administrators to ensure high-need students explore postsecondary pathways leading to improved social mobility (Arkansas Department of Education, 2022). Similarly, Alabama adopted a career coaching program starting in the 2023-24 academic year using the Alabama Career Development Model to serve as an intermediary between schools and industry (Alabama State Department of Education, 2023).

2. ***Expand*** the Perkins V definitions of career readiness and academic counseling to ensure related services are conducted within the context of individualized learning plan activities that develop learners' self-exploration, occupation and career exploration, and planning skills.

Expanding Access to School Counselors in Colorado
Colorado found that adding school counselors to coordinate individualized career plan design and align related services with whole-school implementation in high-need schools reduced gaps in FAFSA® form completion and increased participation in postsecondary education, as well as early college programs (Engelman et al., 2022).

3 ***Collaborate*** with professional organizations to create and advocate for a range of professional career advising certifications.

Investing in Professional Development in Massachusetts
The Boston Public Schools Superintendent collaborated with the CEO and President of local philanthropic organization EdVestors on the design and implementation of Massachusetts' individualized career plan, referred to as My Career and Academic Plan (MyCAP). MyCAP includes a comprehensive scope and sequence of self and career exploration activities that begin in middle school and continue through high school (Skipper & Rousmaniere, 2023; Boston Public Schools, 2023). The commonwealth recognizes the value of expanding college and career readiness efforts and, starting in the 2023-24 school year, allocated additional funding to schools for professional development needed to design and implement MyCAP, including a three-day workshop series focused on how to develop a MyCAP scope and sequence of activities and advanced workshops and technical assistance (MA DESE, 2022).

4 ***Promote*** strategies that target employer participation in career readiness, including forming partnerships with schools, including K-12, community colleges, universities, and credentialing programs.

Investing in Efforts to Align K-12, Higher Education, and Workforce Development
JPMorgan Chase's New Skills Ready Network builds cross-sector collaborations in six communities (Boston, Columbus, Denver, Dallas, Indianapolis, and Nashville) (JPMorgan Chase, 2020). Facilitated by Education Strategy Group and Advance CTE, this initiative started with each community identifying their high-demand, high-wage labor market opportunities and creating connected learning pathways that combine career and technical education and expand access to work-based learning and early college opportunities. The CCD Center supported this effort by evaluating efforts to implement quality career advising and individualized career plan efforts in middle and high schools. The aim of these career readiness efforts is to enable youth and their families to examine the relevance and economic outlook for local connected learning pathways. Specifically, Boston is incorporating MyCAP into its New Skills Ready Network efforts to encourage adoption of early college and innovation career pathways that lead to social mobility (MA DESE, 2023).

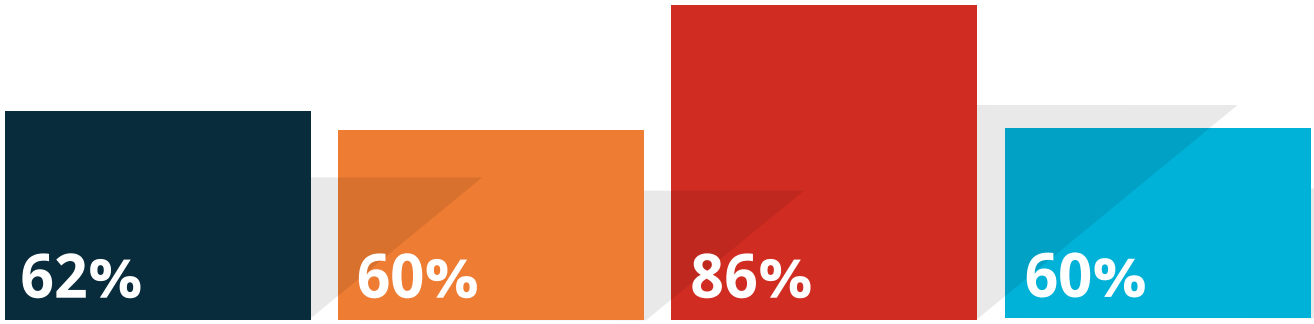
POSTSECONDARY ENGAGEMENT RATES

Assuming equitable access to AP courses and tests and awareness of FAFSA forms and postsecondary degree programs, among other factors—a discussion that goes beyond the scope of this report—ideally nearly 100% of students could achieve a score of three or higher on an AP Test, complete the FAFSA form, graduate high school, and enter either a two-year or four-year postsecondary degree program. Though

AP test scores offer one indicator of early college engagement, an increase in the number of high school students who are participating in a range of early college programs (e.g., connected learning, course recovery, and dual credit) suggests that more indicators will become available as a means to evaluate equity in access to these key programs.

The figure below illustrates that 40% of high school graduates are not entering a postsecondary education pathway, which may be, in part, because 40% of graduates do not complete the FAFSA form and therefore do not apply for financial aid (Figure 1.3).

Figure 1.3: The average postsecondary engagement rates among high school students across the nation.



of high school youth who completed an AP course receive a score of 3 or higher.

of youth complete a FAFSA form.

of youth graduate from high school.

of high school graduates enter either a two- or four-year college in the fall.

On average, 69% of the youth in the top 10 states achieved a score of three or higher on an AP test in 2020, while only 60% in the bottom 10 states did so. For FAFSA completion rates, the gap was wider; the average for the top 10 states was 68% while that of the bottom 10 was 47%. Average high school completion rates for the top 10 and bottom 10 states were 88% and 82% of students, respectively. The average college entrance rates were 64% and 54%, respectively (Figure 1.4).

Figure 1.4: The variation between the top 10 and bottom 10 states' postsecondary engagement rates among high school students.

more high school students who completed an AP course received a score of 3 or higher.

more youth completed their FAFSA form.

more youth completed high school.

more youth entered either a two- or four-year college.

Starting in middle school, youth, and their families, need to begin exploring career and technical education pathways and expand awareness of the many non-degree and degree options leading to high-demand, high-wage occupations (Eddy, 2023). For youth from historically underrepresented backgrounds and/or disabilities, quality career readiness programs that expand learners' exploration of postsecondary pathways to employment supports the development of their "capacity to aspire" to higher-wage occupations (Mann et al., 2020, p. 10). Quality, in this case, refers to programs that enable young adults to establish personalized occupational and future goals that align with their emerging skills and create opportunities for meaningful career conversations with educators and employers (Mann et al., 2020). In a follow-up analysis for this report, we found that states record lower percentages of disconnected young adults when they offered more access to high school counselors and early college opportunities (i.e., AP courses). States also achieved higher high school graduation rates.[2] More information on disconnected young adults is found later in this report.

Students engaged in annual individualized career planning activities throughout high school are more likely to complete a more rigorous academic schedule, complete the FAFSA form, and apply and enter postsecondary education as compared to their peers who do not (Torre Gibney & Rauner, 2021).

Recommendations and Promising Practices

To improve postsecondary engagement rates, states can:

1. ***Conduct*** and disseminate career readiness-focused accountability research and evaluations, including on outcomes and return on investment.

   Using Metrics to Identify Opportunities for Improvement in Indiana
   Indiana Commission for Higher Education (CHE) created a dashboard that tracks a range of postsecondary engagement metrics among students with different socioeconomic statuses, races and ethnicities, as well as gender (Indiana CHE, n.d.). The dashboard features a student performance section that shows a range of outcomes in relation to students' first year in college. These outcomes include type of diploma as well as participation in AP courses and early college/dual credit courses (Indiana CHE, n.d.). Indiana reports that in 2018, more than 60% of students completed early college (e.g., either or both AP courses or dual credit courses) and that more than 90% of graduates who completed both AP and dual credit entered a postsecondary institution (Indiana CHE, 2021). However, the state also reports that, despite significant increases in the percentage of students from historically underrepresented backgrounds receiving dual credit, significant gaps remain.

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2 Results based on a stepwise regression analysis with the percentage of disconnected young adults serving as the outcome (criterion) variable and elementary/middle school counselor ratios, high school counselor ratios, percentage scoring 3+ on AP Tests (early college), percentage completing a FAFSA form, and percentage completing high school serving as predictors. Results indicated that percentage of students completing 3 or higher on AP Tests (β = -.78, p. < .001), high school completion rate (β = -25, p. < .003), and high school counselor to student ratios (β = .170) accounted for over 70% of the variance in whether students become disconnected as young adults (R^2 = .71, F [1, 46] = 39.18, p < .001).

2 ***Strengthen*** relevant federal legislation to ensure equitable access to technology and internet connection, including in rural areas.

Leveraging Innovations in Career Technology

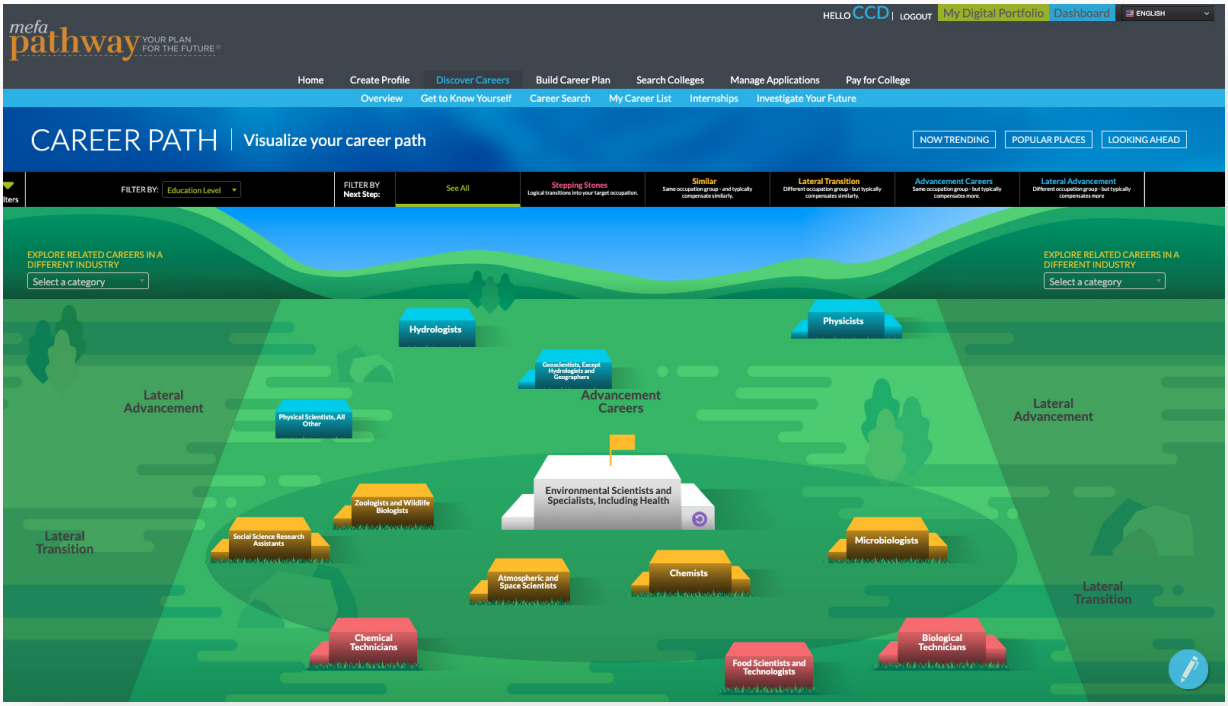
An estimated 12 states offer schools free access to a career technology platform (Solberg et al., 2022). Access to such platforms is necessary for implementing quality career advising and individualized career plan programs, though they are not the only way students can engage in these activities. A range of related career technology innovations recently launched, including Artificial Intelligence (AI) to identify career pathways aligned with students' skills (SkyHive, n.d.), virtual reality applications that simulate working in various occupations (Transfr, n.d.), chatbots that provide career coaching (DMH Associates, n.d.), work-based learning platforms, and online gaming focused on career readiness

Using Career Technology to Connect with Industry

To be fully prepared to take advantage of early college opportunities, individualized career plan programs should consider activities that help youth and their families identify opportunities that enable entry into occupations with clear advancement into higher wage opportunities as well as develop a range of transferable skills that enable access to alternative pathways. Interactive career technologies illustrate pathways from entry-level to advanced opportunities within the same or similar industry, as well as the associated increased wage earnings that result in social mobility and economic self-sufficiency.

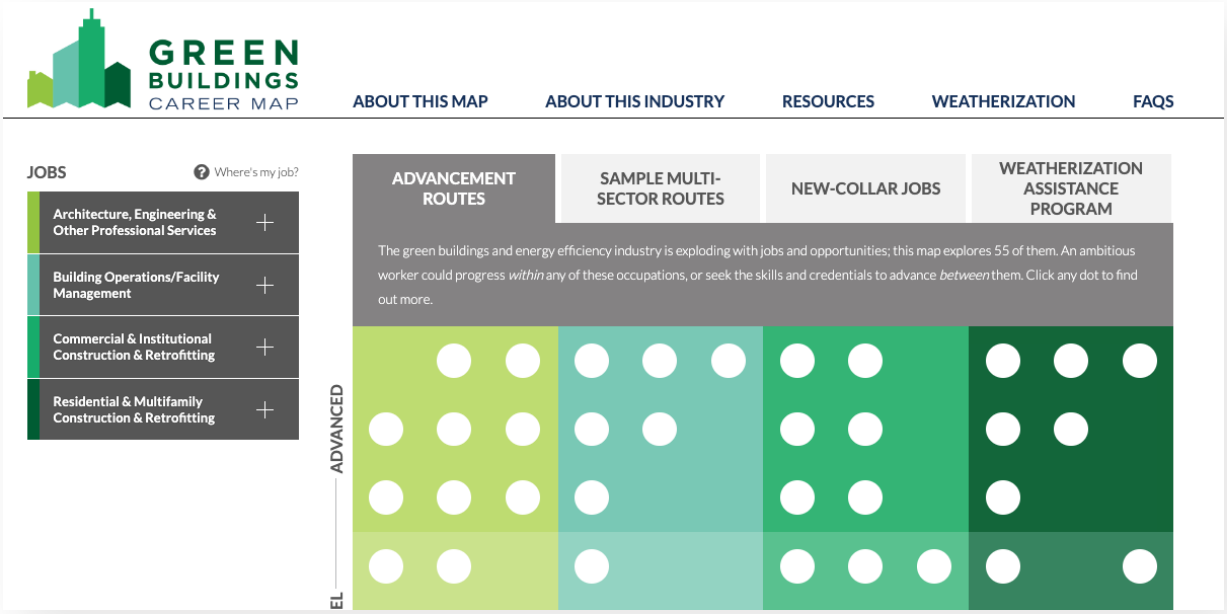
- American Student Assistance® launched EvolveMe™, a free-access platform focused on middle school-age students and their families (ASA, n.d.). The dynamic platform helps users learn about themselves and their interests; experiment with different jobs through online games, mini-lessons, and quests; and participate in mock interviews. EvolveMe offers interactive activities and videos on topics such as disability disclosure, mental health and self-awareness, workplace culture, and industry-specific skills. ASA's partnerships with more than 30 innovative industry-focused organizations engages users, including those from underserved communities and those with disabilities, in virtual, experiential work-based learning opportunities and career coaching.
- Riipen, an experiential, work-based learning career technology platform, engages both students and employers in project-based activities that support industry needs, which, by design, enable faculty to collaborate with local employers to create work-based activities that align with classroom instruction.
- As part of the Rework America Alliance, the Markle Foundation commissioned the creation of the"Job Progression Tool." The tool helps individuals chart a developmental pathway into higher-paying occupations, demonstrating the expanded employment opportunities available to those who obtain additional training, education, and/or certifications (McKinsey and Company, n.d).
- Similarly, CompTIA's (2023) IT Certification Roadmap offers a pathway perspective on a progressive array of IT certifications that lead to higher wage occupations. The Massachusetts Educational Financial Authority (MEFA) Pathway (n.d.) offers a free college and career planning portal. This three-dimensional perspective helps students successfully identify postsecondary options and meet academic and career goals (Figure 1.5).

Figure 1.5: MEFA Pathway's (n.d.) Career Path tool.



- The Interstate Renewable Energy Council (IREC) (n.d.) offers interactive Career Maps that allow stakeholders to explore entry-level positions within renewable energy fields and their various routes for advancement, as well as how skills transfer across related occupations.

Figure 1.6: IREC's Green Buildings Career Map (IREC, n.d.).



3 ***Encourage*** the design of employer-sponsored, paid internship and mentorship opportunities.

Recruiting Business Leaders to Champion Career Readiness

The U.S. Chamber of Commerce Foundation's (USCCF) Business Leads Fellowship Program works to build the capacity of local chambers of commerce to serve as champions for education and workforce development in their communities, connecting local schools to industry (USCCF, n.d.). To date, the initiative has worked with more than 150 fellows. Another Foundation program, the Pipeline Talent Management initiative (Tyszko et al., 2015), also supports collaboration among employers, education, and workforce development with a focus on identifying and preparing today's youth to fill tomorrow's anticipated skills gaps.

Combining Summer Internships with Year-Round Engagement

Boston-based Flare Education (2023) offers a unique program for 10th to12th grade students that combines six elements: school year training, professional mentorship, community events, skill development workshops, a summer "boot camp," and a 4–8-week project-based internship or apprenticeship with employer partners. The comprehensive program helps students gain both real-world experience and the social, financial, and other durable—or "soft" skills—needed to successfully transition from school to college or career, with a focus on breaking the cycle of generational poverty.

Increasing Access to Work-Based Learning Opportunities

American Student Assistance® (ASA) is a leading voice in identifying strategies for increasing access to work-based learning opportunities for students in the middle grades (ASA, n.d., 2023). It identifies promising state-led work-based learning efforts designed to increase access among students from historically underrepresented backgrounds and promote replicable, sustainable strategies states can use to overcome barriers to offering work-based learning opportunities.

4 ***Identify*** strategies for blending and braiding cross-agency federal and state funds to remove barriers to quality career readiness and workforce development opportunities and increase their impact.

Helping Students Jump Start College in Indiana and Texas

Like many states, Indiana offers a range of options through which students can engage with postsecondary opportunities, including a Cambridge International diploma, credit for prior learning, early college high school, college courses, AP courses, and dual credit options. Notably, its Early College High School program enables students to earn an associate degree or generate 30 credits of postsecondary college credits while still in high school (Indiana CHE, 2021). Indiana statute mandates that each high school must offer a minimum of two dual credit and two AP courses to ensure students have access to college-level experiences, subsidizing or waiving the cost of AP exams and certain courses that transfer or count toward certificates and degrees for eligible students (Indiana CHE, 2021). Similarly, Texas offers a range of grant-funded school redesign initiatives that include graduating with both a high school diploma and two-year college degree, among them Early College High Schools, Pathways in Technology Early College High Schools (P-TECH), and Texas Science, Technology, Engineering and Mathematics (T-STEM) Academies (Texas Education Agency, n.d., 2020, 2021).

NAVIGATING THE TRANSITION TO ADULTHOOD:

Postsecondary Completion Outcomes Following High School Graduation

BACKGROUND

In the previous section, our data revealed that an average of 60% of high school graduates enter either a two- or four-year postsecondary degree program. The research is clear that completing such a program significantly expands employment and earning prospects (Carnevale et al., 2023). Thus, state-level metrics on postsecondary outcomes, primarily retention and completion rates among young adults aged 19-27, are essential to identifying where gaps exist and improvements can be made.

How states go about collecting and assessing these outcomes varies widely (All4Ed, 2023), but overall, low completion rates for two- and four-year postsecondary degree programs indicate a major challenge to America's future economic competitiveness. Moreover, our disaggregated analyses indicate significant disparities in completion rates for youth from historically underrepresented backgrounds and/or with disabilities. On the positive side, a number of states are using new and innovative strategies to address these inequities and increase completion rates for students from all backgrounds.

POSTSECONDARY RETENTION AND COMPLETION RATES

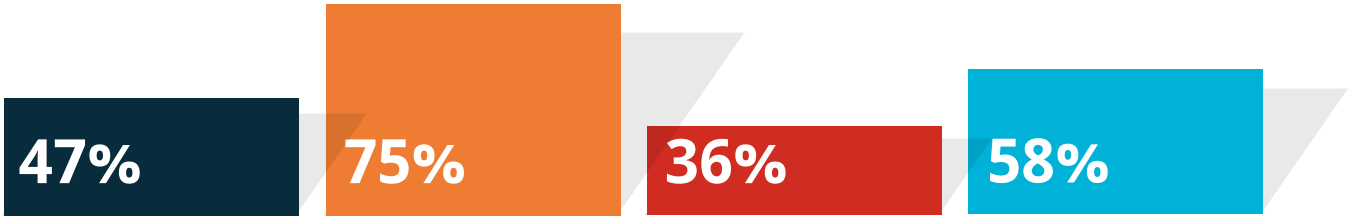
Ideally, one-year retention rates for part-time and full-time student as well as two-year and four-year completion rates would each hover at 100% as these metrics correlate with increased options for career pathways and sustained personal and societal economic growth and competitiveness (Carnevale et al., 2023); however, our findings illustrate that this is not the case.

Increasing Postsecondary Completion Rates Through Career Coaching

Data from non-profit InsideTrack reveal that career coaching may increase two-year college completion by as much as 77% as well as significantly improve four-year college retention and completion (InsideTrack, 2021). Similarly, BottomLine, a program that offers career coaching to cohorts of high school students from historically underrepresented backgrounds and continues that support through college, also offers strong evidence of the positive impact career advising has on four-year college completion rates (Barr & Castleman, 2021). Results especially indicate that supporting students in developing goals, identifying learning opportunities mapped to those goals, and strengthening academic, time management, and advocacy skills increases retention and completion, especially among students from historically underrepresented backgrounds (Bettinger & Baker, 2014).

Results indicate that retention rates are higher for full-time students as part-time students face significant challenges that impede their ability to continue into their second year. We also note the disparity between completion rates for two- as opposed to four-year degree programs (Figure 2.1).

Figure 2.1: The average postsecondary retention and completion rates among part-time and full-time students and those attending a two- and four-year degree program.



of students attending college part-time continue into their second year.

of students attending college full-time continue into their second year.

of students complete a two-year degree program.

of students complete a four-year degree program.

Outcomes for the top 10 states indicate some improvement in two-year completion rates but only negligible increases for four-year college completion rates (Figure 2.2).

Figure 2.2: The variation between the top 10 and bottom 10 states; average postsecondary retention and completion rates among part-time and full-time students and those attending a two- and four-year degree program.

more part-time students continued into their second year.

more full-time students continued into their second year.

more students completed a two-year degree program.

more students completed a four-year degree program.

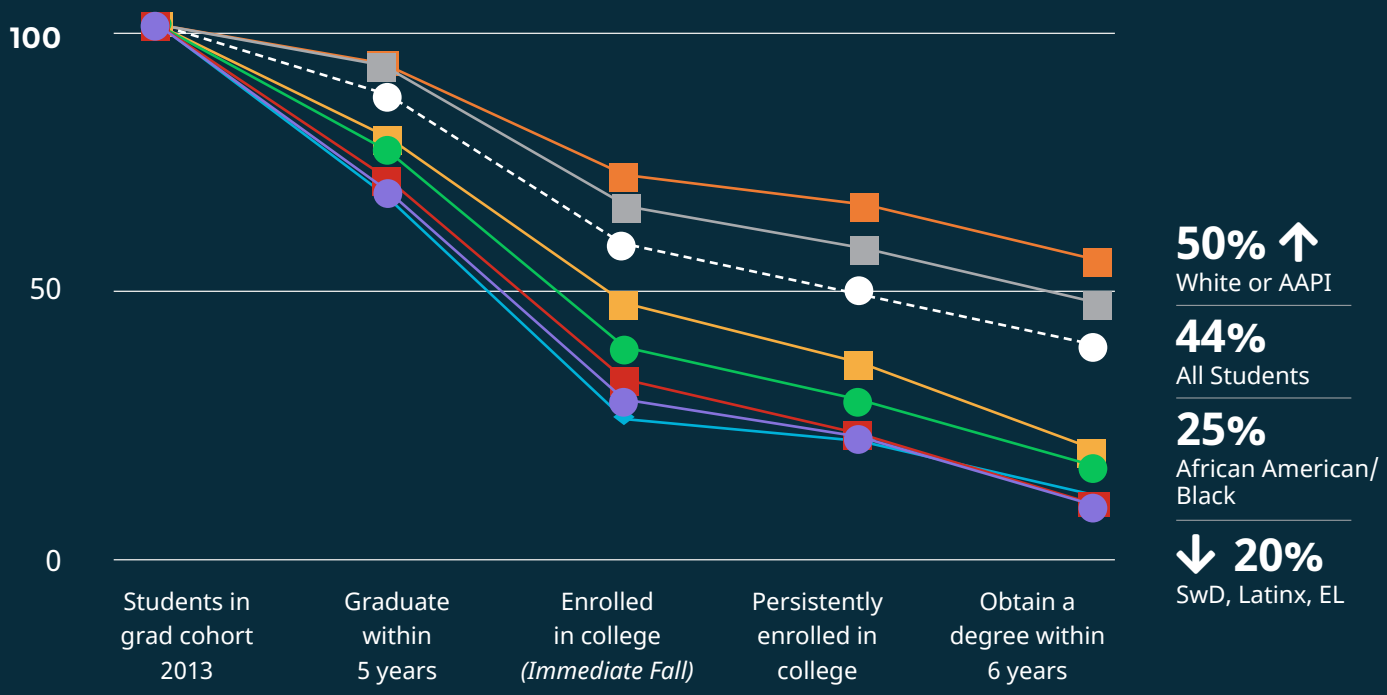
CASE STUDY

ANALYZING POSTSECONDARY OUTCOMES IN MASSACHUSETTS

Through its District Analysis Review Tool (DART), the Commonwealth of Massachusetts offers each high school an analysis of entering 9th-grade students' transition into and through either a two-year or four-year postsecondary institution. Combining state and national data, DART offers a disaggregated portrait of the five-year high school graduation rate, three years beyond high school graduation to monitor two-year college completion rates, and six years beyond high school graduation to monitor four-year college completion rates (MA DESE, n.d.).

Figure 2.3 indicates that 44% of 9th graders who began high school in 2013 eventually completed a two- or four-year degree. Broken down demographically, postsecondary completion rates were lower for students who are African American/Black, Latinx, have disabilities and/or are lower income. Figure 2.4 illustrates the gaps in postsecondary completion rates among student demographic groups.

Figure 2.3: High school graduation and college entrance, retention, and completion rates among 9th grade students who entered a Massachusetts high school in 2013 (MA DESE, n.d.)



Results indicate that for **every 100** students who entered 9th grade in 2013:

completed a postsecondary degree.

who identified as AAPI completed a postsecondary degree.

who identified as White completed a postsecondary degree.

who identified as Black completed a postsecondary degree.

are living in lower-income households.

<20 who identified as Latinx , English Learner, or as a Person with a Disability completed a postsecondary degree.

Recommendations and Promising Practices

To improve postsecondary retention and completion rates, states can:

1. ***Require*** high school students to complete PCAPs before graduation and track whether students are pursuing those plans after graduation.

   Using Individualized Career Plans to Identify Early College Pathways and Beyond
   Initial evaluations of early college efforts indicate a significant increase in postsecondary education outcomes among high school graduates living in lower-income households and/or from historically underrepresented backgrounds (Forman & Ngongi-Lukula, 2023a). But, students must be able to access such opportunities, and early career advising is key. As part of its efforts to advocate for early college access, MassINC showcases the value of integrating individualized career plan efforts at an earlier age than typical (Forman & Ngongi-Lukula, 2023a, 2023b). While most students begin early college activities in the 11th grade, MassINC recommends career exploration and planning activities begin earlier, in middle school, and incorporate family engagement (Figure 2.5).

Figure 2.5: A suggested year-by-year breakdown of a career readiness infrastructure to support early college engagement (Forman & Ngongi-Lukula, 2023a).

<table>
<tr><th>7th and 8th grades</th><th>9th grade</th><th>10th grade</th><th>11th grade</th><th>12th grade</th></tr>
<tr><td colspan="3">College and Career Exploration</td><td colspan="2">Career Development</td></tr>
<tr><td rowspan="2">Outreach and Family Engagement</td><td colspan="4">Comprehensive system of supports for college and career planning and to develop academic skills and behavior needed for success</td></tr>
<tr><td>Rigorous high school coursework</td><td>Introduction to college-level coursework</td><td colspan="2">Students take up to 60 credits aligned to a college major</td></tr>
</table>

2 ***Advocate*** for state and federal data sharing on student outcomes and future wage earnings by expanding the career and technical education outcome data infrastructure for all students. In doing so, states are expanding K-12 outcomes beyond postsecondary entry to include providing schools credit for graduates who directly enter work or join the military.

Redefining Postsecondary Outcomes to Include All Pathways

While it is important to recognize that pathways to higher-salary occupations are more limited without a four-year college degree (Carnevale et al., 2022), many states, including Massachusetts, Kansas, Indiana, and Texas, are expanding their conception of postsecondary pathways to include direct entry into employment or the military, entering a short-term training or workforce development program, certification, and/or pursuing and completing a two- or four-year postsecondary program or degree.

NAVIGATING THE TRANSITION TO ADULTHOOD:

Workforce Engagement and Earnings Outcomes for Young Adults

BACKGROUND

As a nation, we cannot underestimate the future economic uncertainty facing young adults today (Pew Research Center, 2019). Many encounter significant barriers navigating into good jobs (Carnevale et al., 2023), and these challenges are especially acute for individuals from historically underserved populations, who have disabilities, and/or are growing up in lower-income households (Carnevale et al., 2022).

To address these challenges, we must ensure young adults—those ages 19-27—remain engaged in education and/or the workforce and understand the importance of building long-term career pathways through a combination of work experience, postsecondary education, and advanced certifications—all of which support adults in working full-time and earning at least $25 per hour, the "living wage" benchmark drawn from MIT's Living Wage calculator (Glasmeier, 2023). We adopt this estimate and adjust our data for cost-of-living differences among states.

While there is growing consensus that entering a four-year college is just one of many viable post-high school pathways, there is also compelling evidence that without a degree, fewer pathways into occupations leading to social mobility exist. Thus, more strategic career planning is needed (Carnevale et al., 2021). Registered apprenticeship programs in particular allow young adults to simultaneously learn and earn, with clear paths to high-demand, high-wage employment. A range of career technologies also offer the opportunity to engage young adults in charting a course for the future.

State-level indicators that impact workforce engagement and earnings outcomes for young adults include young adults' economic outlook, as indicated by median hourly and living wages and rates of young adults who are "disconnected." "Disconnected" in this context means young adults who are not working or participating in education or training (also referred to internationally as NEET: Not in Education, Employment, or Training).

Wage Earnings for Young Adults

Our scan of data across states concluded that the national median hourly wage among full-time working young adults ages 19-27 is $12.69, about 50% less than the living wage estimate. We also found that only 33% of this population earn more than a living wage (Figure 3.1).

Figure 3.1: The average hourly wage and percentage of those working full-time who earn more than a living wage.

$12.69
median hourly wage among full-time working young adults ages 19-27.

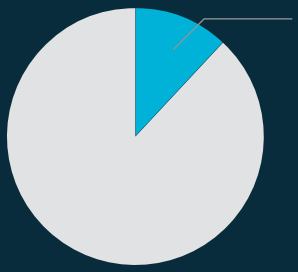
33%
of young adults earn more than a living wage.

The Status of Disconnected Youth

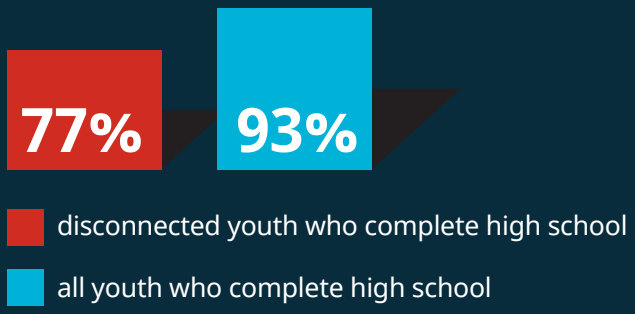
Consistent with reports from Measure of America (Lewis, 2021), disconnected youth face challenges when engaging, or reengaging, with the workforce, leading to direct and indirect economic impacts that only further this cycle (Belfield et al., 2012).

Among a sample of young adults aged 19-27 in the United States (n=335,794), 11.89% are considered disconnected from education, training, or work and data reveal that disconnected young adults are less likely to have completed high school. (Figure 3.2).

Figure 3.2: The average high school completion rates among a sample of disconnected youth and all youth across the nation.

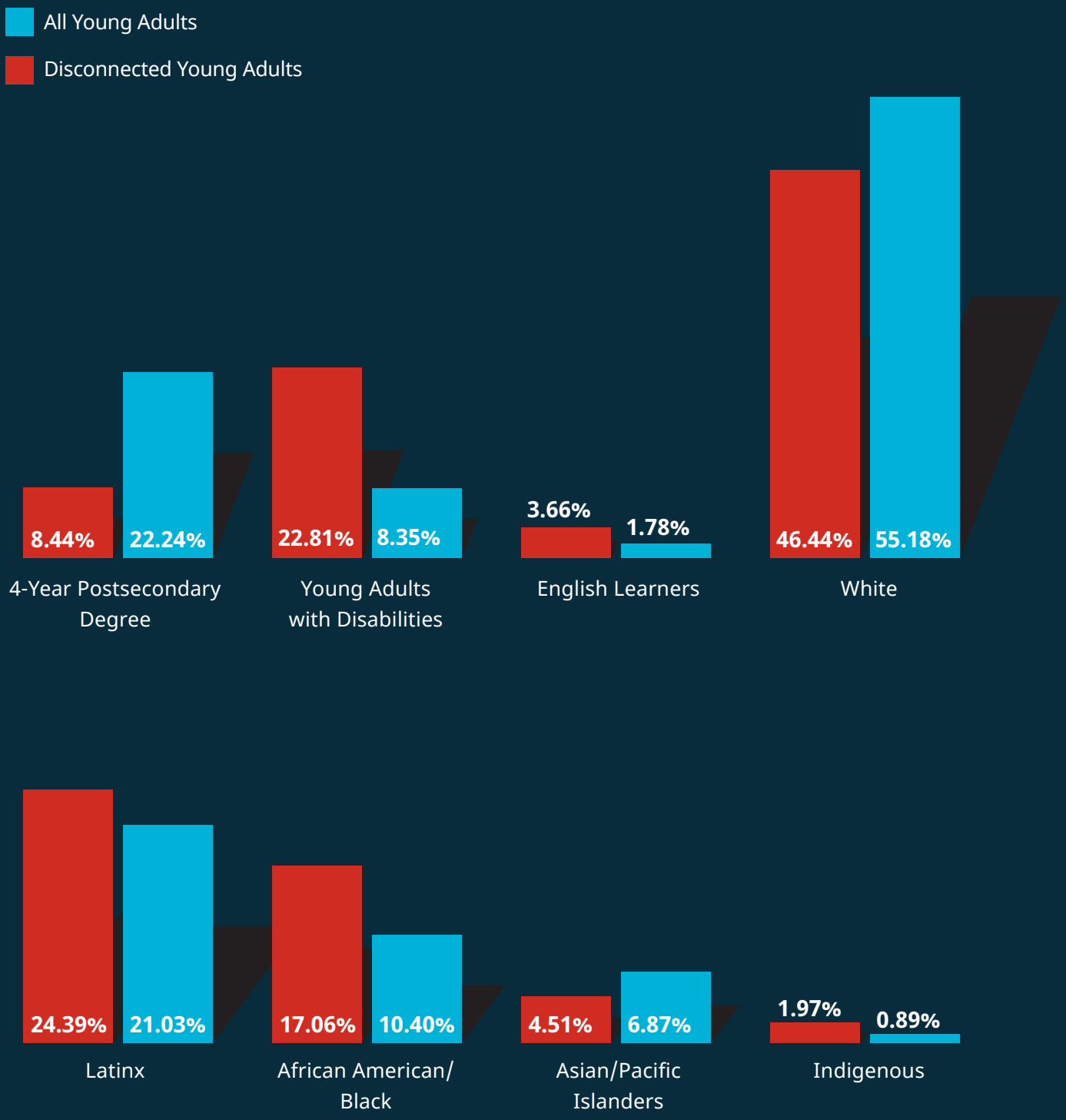


11.89%
of young adults in the United States are considered disconnected from education, training, and work.



The demographic group most disproportionately overrepresented among disconnected young adults are people with disabilities. While representing 8% of the total young adult population, a staggering 23% of young adults with disabilities are disconnected from work and education. Also, there is an overrepresentation of Black young adults who represent 10.4% of the young adult population, yet 17% are disconnected (Figure 3.3).

Figure 3.3. The percentage of disconnected young adults as compared to all young adults by demographic group.



Other characteristics of disconnected youth and young adults identified by Measure of America include higher rates of living in poverty and women with children (Lewis, 2021).

In comparing the top 10 states and bottom 10 states for each of the three career readiness indicators for young adults—median hourly wage, median living wage, and rates of disconnection—findings show that while 8% of young adults in the top 10 states are considered disconnected, in the bottom 10 states the average rate of disconnected young adults is 15%. Median hourly wage earnings for full-time working young adults in the top 10 states averaged $14.32, while working young adults in the bottom 10 states averaged $10.92. In the top 10 states, 40% of working young adults earn more than the state's living wage compared to 27% of working young adults from the bottom 10 states (Figure 3.4).

Figure 3.4: The variation between the top 10 and bottom 10 states' average percentage of disconnected young adults, hourly wage earnings, and percentage of those working full-time who earn more than a living wage ($25/hour) among young adults ages 19-27.

↓ 7%
fewer disconnected young adults.

↑ $3.40
more in median hourly wage earnings for full-time working young adults.

↑ 13%
more full-time working young adults earning more than their state's living wage.

Recommendations and Promising Practices

To improve young adults' workforce engagement and economic outlook, states can:

1. ***Justify*** how industry and business engagement in career readiness and workforce development promotes youth engagement and career decision-making.

   Investing in Apprenticeships
   Since 2010, Jobs for the Future (JFF) has reported significant increases in the number of young adults participating in Registered Apprenticeships (Sullivan et al., 2023). With respect to participation, JFF reports that female and Black young adults are significantly underrepresented while Latinx young adults are overrepresented. With respect to earnings, female apprentices earn far less per hour on average than males, at $17 and $30, respectively. Latinx young adults average the highest hourly earnings ($32) compared to white ($29) and Black participants ($23). To increase access to apprenticeships for females, historically underrepresented young adults, and people with disabilities, JFF offers a range of recommendations for employers to consider (Bennett et al., n.d.).

SUSTAINING PATHWAYS TO SUCCESS:

Economic and Social Mobility Outcomes for Adults

BACKGROUND

Compared to past generations, many adults today make significant economic gains by the time they reach their mid- to late-30s. The strongest gains are experienced among adults with four-year college degrees and predominantly white and Asian males (Carnevale et al., 2021; Carnevale et al., 2023). Yet, many high-paying jobs do not require a four-year college degree (Rolen, 2023; Bureau of Labor Statistics, 2023b). Moreover, significant income gaps persist for women and adults from historically underrepresented backgrounds and/or who have disabilities.

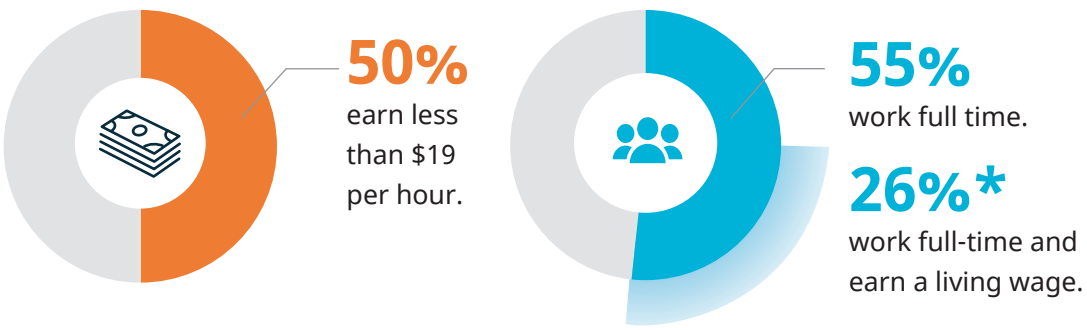
While efforts to facilitate navigation into high-wage, high-demand occupational pathways should begin in middle and high school, they must not end there. They should follow individuals through whatever post-high school path they take, whether a two- or four-year degree program, registered apprenticeship, or traditional employment. But a recent report from the National Career Development Association (NCDA) found that 90% of working adults who responded to a survey had never met with a career specialist, and 58% wished they had sought such services (Niles, 2021; The Harris Poll, 2021).

This report uses adult economic and social mobility outcomes in a person's mid-thirties (aged 34–36) as a benchmark to gauge our nation's success in establishing the conditions needed for adults to achieve the American dream of home ownership, travel, health coverage, and food security. Specifically, state-level indicators that impact these outcomes for adults include adult median hourly and living wages, noting that college loan default rates are also a factor.

WAGE EARNINGS FOR ADULTS

Our data indicate that 55% of adults aged 34-36 are working full-time, with 26% earning more than MIT's Living Wage estimate of $25 per hour (Glasmeier, 2023)[1]. The current median hourly wage for full-time working adults aged 34-36 is $19.03 (Figure 4.1).

Figure 4.1: The average hourly wage, percentage of those working full-time, and percentage of those working full-time who earn more than a living wage ($25/hour) among adults ages 34-36 across the nation.



1 The 26% is based on 47% of the 55% of full-time working adults who are meeting the living wage threshold of $25 per hour.

Figure 4.2: The variation between the top 10 and bottom 10 states' average hourly wage and percentage of those working full-time and percentage of those who earn more than a living wage ($25/hour) among young adults ages 19-27.

Offer
$8 more
an hour.

Employ
7% more
full-time adults.

Provide
17% more
adults with a living wage.

Recommendations and Promising Practices

To improve adults' economic outlook, states can:

1. ***Promote*** relevant courses, activities, and credentials that align with industry needs and high-demand career pathways.

   Collaborating With Business to Encourage Advancement
   The Business Roundtable (2019) updated its position on the role of corporations, emphasizing the need to invest in diversity and inclusion and provide employees with access to training and education that enables them to take advantage of emerging opportunities. To support this new corporate role, occupational pathways within the human resource profession includes talent development specialists (e.g., Organizational Development Managers) who provide individualized career planning services that help employees advance within their organizations or find alternate pathways that align with their increased skills and interests (Corporate Wellness Magazine, n.d.; Veldsman & van der Merwe, n.d.).

The Status of Student Loan Debt
We must position ourselves to enable young adults to transition into employment relatively debt-free and with the skills needed to begin earning a living and set higher aspirations for their future goals.

Estimates from the Pew Research Center (2019) indicate our nation's collective student loan debt is moving past $1.75 trillion (about $5,400 per person), with an average default rate of 11%. Student loan default rates are much higher for those with mental health challenges (60%), from historically underrepresented populations (Black Americans [49%], Native American Indian/Indigenous Americans [41%], Latinx Americans [35%]) and people with disabilities [28%]).

To mitigate the burden of college loan debt, more than 30 states offer free access to community colleges (The College Post, 2023), and all 50 states provide access to early college efforts with the potential of earning a two-year degree while completing high school (College in High School Alliance, 2023).

2 ***Identify*** and communicate promising examples of evidence-based individualized career plan programs and services.

Incorporating Financial Literacy into Individualized Career Plan Efforts in Colorado

Access to structured financial literacy curricula in high school impacts future life, education, and career-related decision-making (Park et al., 2021). Many states, such as Colorado, have incorporated financial literacy as a core element of their individualized career plan policies and practices. Colorado's Individualized Career and Academic Plan implementation policies (Colorado Department of Education, 2014) identify the following financial literacy learning objectives:

- Recognize personal financial literacy, financial aid topics, and vocabulary and know what options are available to pay for postsecondary education.
- Understand and articulate personal financial literacy concepts and the cost of postsecondary options and apply this awareness to postsecondary career and academic planning.

In addition to these important learning objectives, individualized career plan activities can incorporate examinations of college majors to determine which offer the highest economic return relative to the cost of attendance and anticipated financial debt.

- The U.S. Census Bureau is experimenting with a Postsecondary Employment Outcomes database that provides the relative average income gains one can expect for each of the 22 major concentrations (Foote et al., 2022; U.S. Census Bureau, 2023a). To date, sharing agreements have been created with 27 states. The College Scorecard (U.S. Department of Education, 2023) also offers comparative data on college costs and levels of debt incurred. While these databases are important tools for helping students and families explore cost-efficient pathways to future employment, in their current form, they are difficult to navigate and student and family awareness of these tools is very low. Hopefully, online career information systems can find ways to incorporate the important information from these sites to make it easier for youth and families to make informed financial decisions about their postsecondary opportunities.

CALL TO ACTION: WHERE STATES CAN START

States are encouraged to form a cross-sector team of elected officials, state and local government agencies, community organizations, workforce development boards, and leaders in industry who can contribute to advancing the states' career readiness indicators. Using the CCD Center's (2023b) State Map on Career Readiness Policies, Resources, and Performance as a starting point, state teams can examine their existing career readiness policies and resources, enabling them to assess the degree to which current implementation policies align with required and allowable career advising and individualized career plan activities found in federal legislation. This alignment can ensure that quality career readiness programs and services are deployed when federal and/or state funds are allocated to build a strong, sustainable national career readiness infrastructure.

An analysis of key pieces of federal legislation, the Every Student Succeeds Act (ESSA), Strengthening Career and Technical Education for the 21st Century Act (Perkins V), Higher Education Opportunity Act (HEOA), Workforce Innovation and Opportunity Act (WIOA) as well as the pending Youth Workforce Readiness Act (YWRA), resulted in a summary of required and allowable career readiness activities and funding avenues states can consider (See Appendix B). These career readiness activities align closely with the CCD Center's Pillar Recommendations, developed by members from the CCD Center Board and Advisory Council, as well as other subject matter experts (CCD Center, 2023a) (see Appendix C).

1. ***Implement*** individualized career planning activities such as facilitated self-exploration, career exploration, and career goal setting, and develop customized plans outlining credentials, coursework, experiences, and skill-building needed to meet career goals. Plans should be reviewed and updated regularly.
2. ***Invest*** in career advising, coaching, and mentoring to facilitate learners' career exploration, self-exploration, selection of career pathways and programs of study, and ongoing career plan management.
3. ***Use*** assessments of skills, interests, and values, including validated and narrative assessments, to increase learners' self-awareness and inform future plan development.
4. ***Tailor*** skill-building to each learners' career goals, including the development of academic, professional, and technical skills outlined in individualized career plans.
5. ***Connect*** learners to personalized learning opportunities such as internships, mentoring, work-based learning, career-focused course sequences, certifications, and dual enrollment that align with their career goals and plans.

6. ***Monitor*** progress to track learners' completion of career readiness activities and pursuit of goals outlined in individualized plans; use this data to target related supports and ensure that individualized career plan activities are implemented with quality and fidelity.
7. ***Offer*** professional development to build advisor capacity for providing individualized planning, advising, and coaching centered on student/participant self-exploration.
8. ***Include*** participation rates for career readiness activities for all subgroups in performance metrics.
9. ***Share*** data to track progress on individualized plan goals across education, workforce, and higher education agencies.
10. ***Establish*** a cross-agency advisory committee to evaluate implementation, effectiveness, and equity of career readiness activities.

CONCLUSION

This report indicates that the majority of adults struggle to navigate into occupations that offer the wages needed to access the American Dream. As a nation, we must consider federal and state strategies to establish a career readiness infrastructure that provides lifespan access to individualized career plan activities and services provided by certified career specialists and facilitated by a range of career coaches and mentors (e.g., employers, educators, adult family members). In order to achieve a strong economy, we must ensure that all children, youth, young adults, and adults have access to the learning opportunities and occupational pathways that enable them to achieve social and economic advancement. Quality career and workforce development programs and services should be provided throughout the lifespan for all citizens. There is strong evidence that to improve states' economic competitiveness, establishing a national career readiness infrastructure would have the strongest impact on increasing future wage earnings among individuals living in lower-income households, from historically underrepresented racial and ethnic backgrounds, and/or with disabilities (Mann et al., 2020).

Investing in our nation's career readiness infrastructure aligns with the CCD Center's commitment to making career readiness the number one education and workforce development priority in the U.S. This 2023 Report on the Condition of Career Readiness in the United States supports this effort by calling attention to how well we are ensuring youth, young adults, and adults navigate what the Georgetown University Center on Education and the Workforce refers to as "good jobs"—those that allow people to grow and thrive throughout their working years and, in so doing, contribute to America's future economic success.

REFERENCES

Alabama State Department of Education (2023, August 2). *Memorandum: Fiscal year (FY) 2024 allocations for career coaches*. https://www.alabamaachieves.org/wp-content/uploads/2023/08/StateSuperIn_Memos_202383_FY23-2066-Fiscal-Year-FY-2024-Allocations-for-Career-Coaches_V1.0.pdf

All4Ed. (2023). *Undermeasuring: College and career readiness indicators may not reflect college and career outcomes* [Executive Summary]. https://all4ed.org/wp-content/uploads/2023/02/Executive_Summary_FINAL.pdf

American School Counselor Association. (n.d.). *Student-to-School-Counselor Ratios.* https://www.schoolcounselor.org/About-School-Counseling/School-Counselor-Roles-Ratios

American Student Assistance. (n.d.). *Platforms & partners: Creating the future, today*. https://www.asa.org/platforms-partners/

American Student Assistance. (2023). *High school work-based learning: Best practices designed to improve career readiness outcomes for today's youth*. https://asa.org/wp-content/uploads/2023/01/ASA_WBLPlaybook_Final.pdf

Arkansas Department of Education. (2022). *Arkansas college and career coach program operational guide 2022-2023*. Arkansas Department of Education Division of Career and Technical Education. https://dcte.ade.arkansas.gov/docs/Resources/Career%20Coach%20Operational%20Guide%20AY%202022-2023%5b2%5d.pdf

Barr, A. C., & Castleman, B. L. (2021). *The bottom line on college advising: Large increases in degree attainment* (EdWorkingPaper: 21-481). Annenberg Brown University. https://www.edworkingpapers.com/sites/default/files/ai21-481.pdf

Belfield, C. R., Levin, H. M., & Rosen, R. (2012). *The economic value of opportunity youth*. The Aspen Institute Forum for Community Solutions. https://www.aspencommunitysolutions.org/report/the-economic-value-of-opportunity-youth/

Bennett, V., Cabiya, M., Sullivan, M., & Kobes, D. (n.d.). *JFF's program design framework for diversity, equity, inclusion, and accessibility in Registered Apprenticeship*. https://info.jff.org/apprenticeshipdeia-framework

Bettinger, E. P., & Baker, R. B. (2014). The effects of student coaching: An evaluation of a randomized experiment in student advising. *Educational Evaluation and Policy Analysis, 36*(1), 3-19. https://doi.org/10.3102/0162373713500523

Boston Public Schools. (2023, September 11). *MyCAP: My career & academic plan*. https://sites.google.com/bostonpublicschools.org/mycap/home

Business Roundtable. (2019, August 19). *Business Roundtable redefines the purpose of a corporation to promote 'an economy that serves all Americans.'* https://www.businessroundtable.org/business-roundtable-redefines-the-purpose-of-a-corporation-to-promote-an-economy-that-serves-all-americans

Carnevale, A. P., Campbell, K. P., Cheah, B., Gulish, A., Quinn, M. C., & Strohl, J. (2022). *The uncertain pathway from youth to a good job: How limits to educational affordability, work-based learning, and career counseling impede progress toward good jobs.* Washington, DC: Georgetown University Center on Education and the Workforce. https://cewgeorgetown.wpenginepowered.com/wp-content/uploads/chase-uncertain_pathway_1-fr.pdf

Carnevale, A. P., Campbell, K. P., Gulish, A., Cheah, B., & Strohl, J. (2022). *The uncertain pathway from youth to a good job: How racial and gender bias impede progress toward good jobs.* Washington, DC: Georgetown University Center on Education and the Workforce. https://cew.georgetown.edu/wp-content/uploads/chase-uncertain_pathway_2-fr.pdf

Carnevale, A. P., Gulish, A., & Campbell, K. P. (2021). *Youth policy: How can we smooth the rocky pathway to adulthood?* Washington, DC: Georgetown University Center on Education and the Workforce. https://cewgeorgetown.wpenginepowered.com/wp-content/uploads/cew-youth_policy-fr-2021.pdf

Carnevale, A. P., Smith, N., Van Der Werf, M., & Quinn, M. C. (2023). *After everything: Projections of jobs, education, and training requirements through 2031*. Washington, DC: Georgetown University Center on Education and the Workforce. https://cew.georgetown.edu/wp-content/uploads/Projections2031-National-Report.pdf

Coalition for Career Development Center. (2023a). *Career readiness for all: A roadmap for industry engagement & action across sectors*. https://www.ccd-center.org/_files/ugd/262ffc_316212682db44bf7a56b12d3552a8fb8.pdf

Coalition for Career Development Center. (2023b). *State map on career readiness policies, resources, and performances*. https://www.ccd-center.org/state-resources

College in High School Alliance. (2023). *The next phase of dual enrollment policy: A vision for the field*. https://collegeinhighschool.org/resources/next-phase-of-dual-enrollment-policy/

Colorado Department of Education. (2014). *ICAP toolkit: Process for individual career and academic planning*. https://www.cde.state.co.us/postsecondary/icaptoolkit

CompTIA. (2023). *IT certification roadmap*. https://partners.comptia.org/docs/default-source/resources/08314-it-certification-road-map-nov2020-update-8-5x11-online

Corporate Wellness Magazine. (n.d.). *Certified corporate wellness specialist training and the new paradigm of wellness*. https://www.corporatewellnessmagazine.com/article/certified-corporate-wellness-specialist-training-and-the-new-paradigm-of-wellness

Covacevich, C., Mann, A., Santos, C., & Champaud, J. (2021). *Indicators of teenage career readiness: An analysis of longitudinal data from eight countries* (OECD Education Working Papers, No. 258). OECD Publishing. https://doi.org/10.1787/cec854f8-en

DMH Associates. (n.d.). *Career chat*. https://dmhassociates.org/careerchat

Eddy, J. (2023). *Crisis-proofing today's learners: Reimagining career education to prepare kids for tomorrow's world*. Lanham, Maryland: Rowman & Littlefield Publishers.

Engelman, A., Solberg, V. S., & Tucker, A. (2022). *Colorado school counseling investments payoff for students!: A CCD Center case study*. BU Center for Future Readiness. https://hdl.handle.net/2144/46114

Flare Education. (2023) *Our 6-step program model*. https://www.flare-education.org/our-program

Foote, A. (2022, June 30). *Knowing your job and earnings prospects by college and degree: Post-Secondary employment outcomes tool shows what you might earn depending on the college you attend.* U.S. Census Bureau. https://www.census.gov/library/stories/2022/06/job-and-earnings-prospects-by-college-and-degree.html

Forman, B., & Ngongi-Lukula, S. (2023a). *New data shows early college is delivering as promised for Massachusetts*. MassINC. https://massinc.org/research/early-college-impact-brief/

Forman, B., & Ngongi-Lukula, S. (2023b). *Early college as a scalable solution to the looming workforce crisis*. MassINC. https://massinc.org/research/early-college-as-a-scalable-solution-to-the-looming-workforce-crisis/

Georgetown University Center on Education and Workforce. (n.d.-a). *What is a good job?* https://cew.georgetown.edu/cew-reports/pathway/

Georgetown University Center on Education and the Workforce. (n.d.-b). T*he United States needs a comprehensive approach to youth policy*. https://cew.georgetown.edu/cew-reports/youthpolicy/

Glasmeier, A. K. (2023). *Living wage calculator.* https://livingwage.mit.edu/

Indiana Commission for Higher Education. (n.d.). *College readiness dashboard*. https://www.in.gov/che/college-readiness-reports/college-readiness-dashboard/

Indiana Commission for Higher Education. (2021). *Indiana early college credit report 2021*. https://www.in.gov/che/files/2021_Early_College_Credit_Report_01_28_2021.pdf

InsideTrack. (2021). *The power of coaching: Impact report: Celebrating 20 years of student success*. https://assets-global.website-files.com/649b43e91986800721de4a15/64ee60c9e05341b78ded3e19_InsideTrack-Impact-Report-2021.pdf

Interstate Renewable Energy Council. (n.d.). *Career Maps: Clean Energy Career Maps*. https://irecusa.org/career-maps/

JPMorgan Chase. (2020, October 20). *JPMorgan Chase committing $35 million in five U.S. cities to prepare young people for future of work* [Press Release]. JPMorgan Chase & Co. https://www.jpmorganchase.com/news-stories/jpmc-committing-35-mm-in-five-us-cities-to-prepare-young-people-for-future-of-work

Lewis, K. (2021). *A decade undone: 2021 update*. New York, NY: Measure of America, Social Science Research Council. https://ssrc-static.s3.amazonaws.com/moa/ADecadeUndone2021Update.pdf

Mann, A., Denis, V., & Percy, C. (2020). *Career ready? How schools can better prepare young people for working life in the era of COVID-19* (OECD Education Working Papers No. 241). OECD Publishing. https://doi.org/10.1787/e1503534-en

Massachusetts Department of Elementary and Secondary Education. (2022, October 20). *FY2023: MyCAP development & implementation*. https://www.doe.mass.edu/grants/2023/598/

Massachusetts Department of Elementary and Secondary Education. (n.d.). *District Analysis Review Tools (DARTs)*. https://www.doe.mass.edu/dart/

McKinsey & Company. (n.d.). *Job progression tool: Bringing job insights to the front line*. https://www.mckinsey.com/featured-insights/sustainable-inclusive-growth/future-of-america/job-progression-tool

MEFA Pathway. (n.d.). *Welcome to MEFA Pathway*. https://www.mefapathway.org/how-it-works-2/

Niles, S. G. (2021). *Career development during a pandemic: Using Harris Poll data to identify challenges and possibilities*. National Career Development Association. https://ncda.org/aws/NCDA/asset_manager/get_file/631259?ver=2

Park, C. M., Kraus, A. D., Dai, Y., Fantry, C., Block, T., Kelder, B., Howard, K. A. S., & Solberg, V. S. H. (2021). Empowering women in finance through developing girls' financial literacy skills in the United States. *Behavioral Sciences, 11*(12), 176. https://doi.org/10.3390/bs11120176

Pew Research Center. (2019, February 14). *Millennial life: How young adulthood today compares with prior generations*. https://www.pewresearch.org/social-trends/2019/02/14/millennial-life-how-young-adulthood-today-compares-with-prior-generations-2/

Rolen, E. (2023, December). *Fast growth, good pay—without a bachelor's degree*. Career Outlook, U.S. Bureau of Labor Statistics. https://www.bls.gov/careeroutlook/2023/data-on-display/fast-growth-good-pay-without-a-bachelors-degree.htm

Skipper, M., & Rousmaniere, M. (2023, June 22). *Opinion: Boston Public Schools are exposing students to career options as early as middle school, and it's paying off*. The Hechinger Report. https://hechingerreport.org/opinion-boston-public-schools-are-exposing-students-to-career-options-as-early-as-middle-school-and-its-paying-off/

SkyHive. (n.d.). *SkyHive skill passport*™. https://www.skyhive.ai/products/skill-passport

Solberg, V. S. H., Donnelly, H. K., Kroyer-Kubicek, R., Basha, R., Curtis, G., Jaques, E., & Schreiber, K. (2022). *Condition of career readiness in the United States*. Coalition for Career Development Center; the BU Center for Future Readiness. https://irp.cdn-website.com/81ac0dbc/files/uploaded/CCDC-Report-nopics-V2.pdf

Solberg, V. S. H., Park, C. M., & Marsay, G. (2020). Designing quality programs that promote hope, purpose and future readiness among high need, high-risk youth: Recommendations for shifting perspective and practice. *Journal of Career Assessment, 29*(2), 183–204. https://doi.org/10.1177/1069072720938646

Sullivan, M., Joy, L., Adhikari, D., & Ritterband, V. (2023). *The current state of diversity and equity in U.S. apprenticeships for young people: What the data tell us about representation, equity gaps, and opportunity along gender and race/ethnicity lines*. Jobs For the Future, Center for Apprenticeship & Work-Based Learning. https://info.jff.org/apprenticeshipdeia-youth-apprenticeship-rapids

Texas Education Agency. (n.d.) *P-Tech*. https://www.texasccrsm.org/models/p-tech

Texas Education Agency. (2020, June 30). *Texas science, technology, engineering and mathematics initiative (T-STEM)*. https://tea.texas.gov/academics/college-career-and-military-prep/texas-science-technology-engineering-and-mathematics-initiative-t-stem/

Texas Education Agency. (2021, August 26). *Early college high school (ECHS)*. https://tea.texas.gov/academics/college-career-and-military-prep/early-college-high-school-echs/

The College Post. (2023, September 28). *31 states with free community college to save you money*. https://thecollegepost.com/free-community-college-states/

The Harris Poll. (2021, August). *Perceptions of career development in working America*. National Career Development Association. https://ncda.org/aws/NCDA/asset_manager/get_file/628297?ver=0

Torre Gibney, T., & Rauner, M. (2021). *Education and career planning in high school: A national study of school and student characteristics and college-going behaviors* (REL 2022–127). National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences. https://ies.ed.gov/ncee/edlabs/regions/west/pdf/REL_2022127.pdf

Transfr. (n.d.). *Career exploration 2.0*. https://transfrinc.com/products/careerexploration/

Tyszko, J. A., Sheets, R. G., & the members of the U.S. Chamber of Commerce Foundation Team. (2015). *Building the talent pipeline: An implementation guide*. U.S. Chamber of Commerce Foundation, Center for Education and Workforce. https://www.uschamberfoundation.org/workforce/building-the-talent-pipeline-an-implementation-guide

U.S. Bureau of Labor Statistics. (2023a). *2022 American Community Survey detailed field of degree and median annual earnings table package*. https://www.census.gov/data/tables/2022/demo/educational-attainment/acs-detailed-tables.html

U.S. Bureau of Labor Statistics. (2023b). *Data on display: Fast growth, good pay—without a bachelor's degree*. https://www.bls.gov/careeroutlook/2023/data-on-display/fast-growth-good-pay-without-a-bachelors-degree.htm

U.S. Chamber of Commerce Foundation. (n.d.). *Business leads fellowship program*. https://businessleads.uschamberfoundation.org/

U.S. Department of Education. (n.d.). *College scorecard*. https://collegescorecard.ed.gov/

Veldsman, D., & van der Merwe, M. (n.d.). *8 innovative talent management initiatives for the modern workplace*. Academy to Innovate HR. https://www.aihr.com/blog/talent-management-initiatives/

APPENDICES

APPENDIX A: METHODOLOGY, DATA, AND CALCULATIONS

Methodology

A total of 13 indicators were used to create four categories of career readiness scores: Launching Future-Ready Youth, Navigating The Transition into Adulthood (postsecondary completion), Navigating the Transition into Adulthood (workforce engagement), and Sustaining Pathways to Success. These categories are based on the different phases of career readiness (i.e., prior to postsecondary education, during postsecondary education, after postsecondary education). All data were collected from different institutions (i.e., U.S. Department of Education, Integrated Public Use Microdata Series [IPUMS USA]) and are publicly available. The data were merged, standardized, and summed to create the career readiness score. More details about each indicator, their definitions, and sources are provided in the following section.

Data, Definitions, and Sources

Section	Data	Definition	Source
LAUNCHING FUTURE-READY YOUTH: College and Career Readiness Outcomes for K-12 Students	Elementary and Middle School Student-to-School Counselor Ratio 2020-21	Number of students per school counselor in grades 1 to 8	U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD) "State Nonfiscal Public Elementary/Secondary Education Survey" (https://nces.ed.gov/CCD/ELSI/)
	High School Student-to-School Counselor Ratio 2020-21	Number of students per school counselor in grades 9 to 12	U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD) "State Nonfiscal Public Elementary/Secondary Education Survey" (https://nces.ed.gov/CCD/ELSI/)
	AP Test Score Performance of 3 or Higher (%) 2020-21	Percentage of exam takers earning a 3 or higher (on a 5-point scale) on any AP exam	AP Data Archive (https://reports.collegeboard.org/ap-program-results/data-archive)

Section	Data	Definition	Source
LAUNCHING FUTURE-READY YOUTH: College and Career Readiness Outcomes for K-12 Students	FAFSA Completion Rate (%) 2021-22	Percentage of high school seniors completing the Free Application for Federal Student Aid	Federal Student Aid (https://studentaid.gov/data-center/student/application-volume/fafsa-completionhigh-school)
	(Cohort based) High School Completion Rate (%) 2018-19	Percentage of public high school freshmen who graduate with a regular diploma within 4 years of starting 9th grade	Digest of Education Statistics Table 219.46. (https://nces.ed.gov/programs/digest/d21/tables/dt21_219.46.asp?current=yes)
	(Cohort based) Post High School Placement: College (%) 2018-19	Percentage of all first-time postsecondary students who graduated from high school in the previous 12 months and were enrolled at reporting institutions	Rates of later years were based on the three data resources: Digest of Education Statistics Table 205.80, 219.20, 309.20. (https://nces.ed.gov/programs/digest/)
NAVIGATING THE TRANSITION TO ADULTHOOD: Postsecondary Completion Outcomes Following High School Graduation	Postsecondary Retention Rate: Part-Time (%) 2019-20	Percentage of college part-time students who are again enrolled in the current fall among part-time students who enrolled in the last fall	U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS) (https://nces.ed.gov/ipeds/)
	Postsecondary Retention Rate: Full-Time (%) 2019-20	Percentage of college full-time students who are again enrolled in the current fall among full-time students who enrolled in the last fall	U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS) (https://nces.ed.gov/ipeds/)

Section	Data	Definition	Source
NAVIGATING THE TRANSITION TO ADULTHOOD: Postsecondary Completion Outcomes Following High School Graduation	Postsecondary Completion Rate: Two-Year Program (%) 2019-20	Percentage of students who completed a two-year college within 3 years	U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS) (https://nces.ed.gov/ipeds/)
	Postsecondary Completion Rate: Four-Year Program (%) 2019-20	Percentage of students who completed a four-year college within 6 years	U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS) (https://nces.ed.gov/ipeds/)
NAVIGATING THE TRANSITION TO ADULTHOOD: Workforce Engagement and Earnings Outcomes for Young Adults	Median Hourly Wage: Full-Time Young Adults ($) 2021	Median hourly wage among young adults who work full-time and report an annual income equal to or greater than zero	IPUMS USA (https://usa.ipums.org/usa/)
	Disconnected Young Adults (%) 2021	Percentage of young adults who are not working or participating in education or training	IPUMS USA (https://usa.ipums.org/usa/)
SUSTAINING PATHWAYS TO SUCCESS: Economic and Social Mobility Outcomes for Adults	Full-Time Adults Earning More Than a Living Wage (%) 2021	Percentage of adults working full-time who earn above a living wage in their state	IPUMS USA (https://usa.ipums.org/usa/); MIT living wage calculator (https://livingwage.mit.edu/)

Calculations

1. All indicators, except for 'Post HS Placement: College (%) 2018-19' and 'Full-Time Adults Earning More than a Living Wage (%) 2021,' are reported as exported original data from the sources.
2. The 'Post HS Placement: College (%) 2018-19' indicator was calculated using the following equation.

$$\text{Post HS placement: College} = \frac{}{((\text{Number of public high school graduate}) + (\text{Number of private high school graduate}))} \times 100$$

3. The 'Full-Time Adults Earning More than a Living Wage (%) 2021' indicator was calculated using the equation provided below.

$$\text{Full-time Adults Earning More than a Living Wage} = \frac{}{((\text{number of full-time adults in the state}))} \times 100$$

4. Two indicators—Student-to-School Counselor Ratio and Disconnected Young Adults—were reverse coded to ensure that a higher score represents higher career readiness.
5. To synthesize scales across different indicators, all indicators were standardized resulting in a mean of 0 and a standardized deviation of 1.
6. The Career Readiness scores of Launching Future Ready Youth, Navigating into Adulthood, and Adult Pathways to Social Mobility were calculated by taking the average of the standardized scores across the different indicators.
7. The states were ranked in descending order based on their Career Readiness scores. The higher-ranked states demonstrate higher levels of career readiness.

APPENDIX B: DETAILED THEMATIC ANALYSIS OF CAREER READINESS WITHIN FEDERAL LEGISLATION

Purpose

In an effort to develop a career readiness infrastructure, we examined career readiness activities outlined in federal legislation. The two aims of this legislative review were to a) examine its alignment with our career readiness vision reflected in the five CCD Career Readiness pillars, and b) identify ways to elevate critical career readiness activities. The five federal legislation pieces included in our legislative analysis are ESEA, Perkins V, HEOA, WIOA, and YWRA corresponding to the three themes of this report, with ESEA and Perkins V being categorized into the first phase of Launching Future Ready Youth, HEOA into the second phase of Navigating the Transition into Adulthood, and WIOA into the third phase of Sustaining Pathways to Success.

Methods

Thematic analysis was conducted using the following steps: a) reading through the five sets of legislative texts line-by-line, b) transferring each legislation into a spreadsheet, c) identifying language that describes career readiness-related activities and services, and d) classifying the language that address one or more of the five Career Readiness Pillars (see Appendix C).

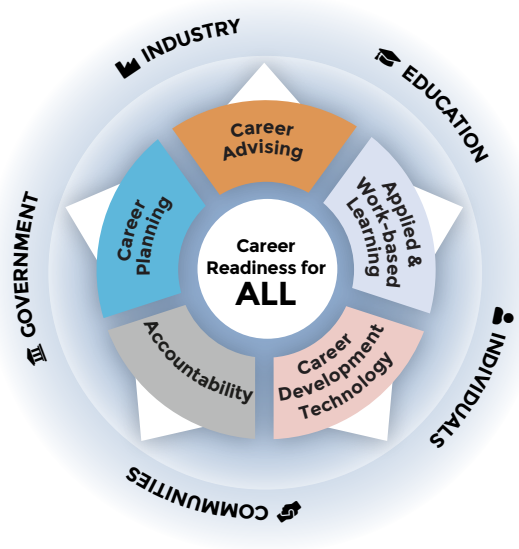
The federal legislation analysis identified 614 references related to required and allowable career readiness activities and services across the five pieces of legislation. Of these 614 references, 258 were relevant to Career Planning (42%), 39 to Career Advising (6%), 47 to Work-Based Learning (WBL) (8%), 51 to Career Technology (8%), and 219 to Accountability (36%). General patterns across the five legislative pieces indicate that a majority of the language address activities and services relevant to Career Planning and Accountability. While activities and services relevant to Career Advising, WBL, and Career Technology are mentioned, the language tends to be broad and vague as to who is involved, delivers such services and activities, and is responsible/accountable.

CAREER READINESS FOR ALL

A ROADMAP FOR INDUSTRY ENGAGEMENT & ACTION ACROSS SECTORS

UNDERSTANDING THE *CHALLENGES*

America faces a very real and growing skills gap, and the key to closing it is making career readiness the ***first priority*** of American education. The Coalition for Career Development (CCD) Center is an industry-led effort committed to making that happen through effective collaboration with education, individuals, communities, government, and industry. Given these challenges, we strive here to clarify what is industry's most effective role in education and talent development, and under what conditions will industry support make the greatest impact. We firmly believe that we can all target this work from our respective perspectives and simultaneously work together to create real, sustainable change.



Our work maps to five core pillars that support ALL learners' ability to succeed and thrive in today's employment landscape. These pillars address the entire career development lifecycle, empowering all stakeholders to promote positive change in our nation's education and workforce development systems.

IDENTIFYING THE *OPPORTUNITIES*

In May 2023, the CCD Center convened its Executive Board, Advisory Council, and State Leaders of Career Development Network to gain their insight into ways to reform our nation's career readiness infrastructure by leveraging the promise of four landmark pieces of federal legislation:

1. Workforce Innovation and Opportunity Act (WIOA)
2. Every Student Succeeds Act (ESSA)
3. Higher Education Opportunity Act (HEOA)
4. Strengthening Career and Technical Education for the 21st Century Act (Perkins V)

At the convening, participants were grouped into five Pillar Committees, each focused on a different pillar and charged with identifying challenges and opportunities within its context. The following is a summary of action steps the CCD Center and its partners across sectors can take to create a national career readiness infrastructure.

The following action steps reflect the viewpoints and suggestions put forth by the respective committees and are not intended to solicit funding. Participants offered their recommendations purely in an advisory capacity, aimed at fostering collaboration, innovation, and progress.

PRIORITIZING CAREER PLANNING

Career planning is facilitated by adult mentors and consists of services and activities designed to support youth and adults in defining their life goals. Informed by individual strengths and employment interests, mentors guide youth and young adults to develop goals that will help them attain the education, certification, and workforce development opportunities needed to enter and thrive in high-demand, high-wage occupational pathways.

The following are steps the CCD Center and its partners can take to respond to identified needs related to Career Planning:

- ***Identify*** ways to use required and allowable federal and state funding to design and implement evidence-based individualized career planning programs and services.
- ***Advocate*** for state and local governments to implement policies and practices that ensure all individualized career planning programs and services are accessible to individuals from historically underrepresented backgrounds, including by allocating sufficient funding to offer services, programs, and support for high-need groups.
- ***Identify*** strategies for blending and braiding cross-agency federal and state funds to remove access barriers to quality career readiness and workforce development opportunities and increase the collective impact of these efforts.
- ***Develop*** a shared definition of career readiness that can be used consistently across federal and state legislation, agencies, and other organizations. This definition should reference individualized learning plans, address equity, encompass durable skills outcomes (i.e., social, emotional, and other "soft" skills), and include all career pathways and learners of all ages.
- ***Establish*** the specification requirements for a national career readiness infrastructure—one that provides access to quality individualized career plans from preschool to postsecondary education and focuses on talent and skill development, not just academics.
- ***Identify*** and communicate promising examples of evidence-based individualized career plan programs and services.
- ***Align*** individualized career program design to "Portrait of a Graduate" exercises to ensure its impact is relevant to targeted communities or regions.
- ***Identify*** and communicate model Perkins V Programs of Study that effectively use funding to support career exploration in middle schools.
- ***Conduct*** a landscape scan of states' individualized learning plan implementation policies to identify and disseminate promising practices and positive outcomes.

PROVIDING PROFESSIONAL CAREER ADVISING

Career advising encompasses services provided by a diverse range of certified professionals—whose roles and responsibilities vary—to develop youth and adults' self-exploration capabilities, advance career exploration opportunities, and enhance planning skills. For example, career specialists support the design and evaluation of career readiness programs and services, while mentors, coaches, and counselors facilitate individualized and sequenced activities, including individualized learning plan activities, in group settings or one-on-one.

The following are steps the CCD Center and its partners can take to respond to identified needs related to Career Advising:

- ***Define*** the varied roles and responsibilities of, competencies of, and certifications for career mentors, coaches, counselors, facilitators, and specialists.
- ***Expand*** the Perkins V definition of career readiness and academic counseling to ensure related services are conducted within the context of the individualized learning plan activities that develop learners' self-exploration, occupation and career exploration, and planning skills.
- ***Encourage*** the adoption of a universal definition of career advising that can be used consistently throughout federal and state legislation and across agencies and organizations. This definition should focus on helping youth navigate pathways to high-demand, high-wage opportunities, address equity, reflect a multi-tiered system of support, and be flexible to span all age groups.
- ***Assess*** and advocate for federal and state legislation guidance related to the professionalization of career advising. Cross-check other legislation in addition to the four studied to analyze differences across states.
- ***Support*** collaborative efforts with professional organizations to update Career Advisor certifications and training to reflect the rapidly changing nature of work.
- ***Collaborate*** with professional organizations to create and advocate for a range of professional career advising certifications.
- ***Create*** a career advising professionals community of practice through which career advisors can build their capacity to advocate for legislation that recognizes their profession and its importance to America's workplaces and economy.

EMPHASIZING APPLIED AND WORK-BASED LEARNING

Applied and work-based learning (WBL) refers to a continuum of lifelong experiences—from youth to adulthood—that increase people's awareness of occupational pathways and the requisite skills and credentials needed to pursue and achieve them. In addition to practical application, these experiences build social capital by connecting youth and adults with mentors who can deepen their awareness and understanding of the workforce.

The following are steps the CCD Center and its partners can take to respond to identified needs related to Applied and WBL:

- ***Justify*** how industry and business engagement in career readiness and workforce development promotes youth engagement and career decision-making.
- ***Conduct*** a landscape analysis of existing federal, state, and local policies and legislative language, including tax incentives, child labor laws, and liability insurance. Develop recommendations that enhance and streamline the ways in which employers can provide WBL experiences.
- ***Design*** employer-sponsored, paid internship and mentorship opportunities.

- ***Elevate*** WBL activities identified in existing federal and state legislation to promote simulated work experiences, mentoring opportunities, and skills-based internships for both youth and adult students, including those with disabilities.
- ***Convene*** relevant experts from both the private and public sectors to identify potential changes to existing federal and state WBL policies and incentives that could strengthen employer engagement.
- ***Develop*** a shared definition of WBL that can be used consistently across federal and state legislation, agencies, and other organizations. This definition should emphasize the importance of durable skills, technical skills, and career planning.
- ***Convene*** relevant organizations to explore the vast range of credential definitions, including industry-recognized credentials. Then, develop shared language to be used across federal and state policies.
- ***Convene*** relevant organizations, career technology companies, policymakers, and employers to create the design specifications for a "Portable Skills Passport" that individuals update through individualized career plan activities.

PROVIDING HIGH-QUALITY CAREER DEVELOPMENT TECHNOLOGY

Career development technology includes a range of innovative technology tools and practices that enhance learners' career development planning and exploration, access to applied and WBL opportunities, and, ultimately, career outcomes.

The following are steps the CCD Center and its partners can take to respond to identified needs related to Career Development Technology:

- ***Strengthen*** relevant federal legislation to ensure equitable access to technology and internet access for all, including in rural areas.
- ***Ensure*** that federal policy includes provisions to protect user safety and maintain data security.
- ***Clarify*** the types of technology and their multiple purposes mentioned in federal legislation that pertains to different populations to identify opportunities to increase access and efficiency.
- ***Create*** a matrix of career development technology products features and functionalities to support strategies for consumers to assess how the products align to their needs.

ENSURING ACCOUNTABILITY

Accountability means establishing clear and consistent standards, input measures, and outcome indicators for career development and career readiness at the state and national levels and requires schools, districts, states, and other stakeholders to measure progress toward goals.

The following are steps the CCD Center and its partners can take to respond to identified needs related to Accountability:

- ***Clearly*** define and differentiate federal- and state-level accountability practices around career readiness.
- ***Promote*** a shared and integrated approach that positions accountability for career readiness as a "team sport" across stakeholder groups, including family and industry, and identify best practices that leverage stakeholder collaboration and partnerships.

- ***Strengthen*** legislative language and provisions that focus on ensuring equitable access to career readiness programs and services.
- ***Create*** an accountability framework for career readiness that allows stakeholders to leverage existing services and resources and maximize available funding.
- ***Require*** high school students to complete Personalized Career and Academic Plans (PCAPs) before graduation and track whether students are pursuing those plans after graduation.
- ***Examine*** required and allowable activities in legislative language to identify how they align with career readiness programs and services.
- ***Advocate*** for state and federal data sharing on student outcomes and future wage earnings by expanding the career and technical education outcome data infrastructure for all students. In doing so, states can receive credit for graduates who enter work, postsecondary education, and military pathways.
- ***Conduct*** and disseminate career readiness-focused accountability research and evaluations, including on outcomes and return on investment.
- ***Promote*** strategies that target employer accountability in career readiness, including:
  - » Reconsidering degree requirements for positions that may only require specialized training or experience.
  - » Providing upskilling and reskilling to grow and reward existing talent (e.g., covering the costs of degrees and certificates).
  - » Providing clear opportunities and pathways for employees to grow within their organizations.
  - » Taking steps to eliminate bias in hiring and promotions.
  - » Making accommodations for a variety of staff needs.
  - » Considering positions for justice-involved job seekers.
  - » Forming partnerships with schools, including K-12, community colleges, universities, and credentialing programs.

Coalition for Career Development Center

ABOUT THE COALITION FOR CAREER DEVELOPMENT (CCD) CENTER

The Coalition for Career Development (CCD) Center is an industry-led non-partisan coalition committed to making career readiness the first priority of American education and transforming career development through assessment and analysis, technical assistance, resource development, and program implementation. Through collaborations with leaders from education, business, government, and non-profit organizations, we believe in providing ALL learners with high-quality career development services and technologies that will lead to productive employment in their chosen careers as efficiently and cost effectively as possible.

The CCD Center strives to:

- **Inform** national, state, and local stakeholders by producing research and case studies that shape the design and implementation of quality career readiness policies and practices.
- **Connect** leaders and organizations by building strong networks and communities of practice and conducting policy forums.
- **Empower** leaders and organizations by offering professional development and technical assistance designed to build their capacity to adopt and effectively implement career readiness policies and practices.

To learn more about the Coalition for Career Development Center, visit **ccd-center.org.**

BOSTON UNIVERSITY

ABOUT THE BOSTON UNIVERSITY (BU) WHEELOCK COLLEGE CENTER FOR FUTURE READINESS

The BU Wheelock College Center for Future Readiness focuses on generating and translating career and workforce development research into policy and practice. The Center collaborates with education systems and youth-serving organizations interested in designing and implementing developmentally appropriate and culturally responsive career and workforce readiness programs and services. To learn more about the BU Center for Future Readiness, visit **sites.bu.edu/CareerDevelopmentLab**.

American Student Assistance®

ABOUT AMERICAN STUDENT ASSISTANCE® (ASA)

American Student Assistance® (ASA) is a national nonprofit changing the way kids learn about careers and prepare for their futures through equitable access to career readiness information and experiences. ASA helps middle and high school students to know themselves—their strengths and their interests—and understand their education and career options so that they can make informed decisions. ASA fulfills its mission – in schools and beyond the classroom—by providing free digital experiences, including Futurescape®, Next Voice™, and EvolveMe®, directly to millions of students, and through advocacy, impact investing, thought leadership, and philanthropic support for educators, intermediaries, and others. ASA fosters a generation of confident, crisis-proof young people who are ready for whatever path comes next after high school. To learn more about ASA, visit **asa.org/about-asa**.