





Six Essential Strategies for Creating Effective State Career Pathway Systems

Introduction

While hundreds of billions of dollars have been spent on education reform, relatively few resources have been devoted to career development — the process that helps individuals discover their interests and abilities, decide the career for which they are best suited and find the best pathway to that career.¹ The costs of this neglect are staggering. Some 750,000 high school students fail to graduate with their class every year, and a perceived lack of relevance is a leading reason they dropout.² This neglect contributes to enormous inefficiencies in postsecondary education. Many students now require six years to earn a bachelor's degree and three years to earn an associate degree — contributing to the skyrocketing burden of student debt, which now exceeds \$1.3 trillion.³ Inadequate career development also exacerbates growing skill shortages in many key industries, which over 90 percent of CEOs feel is a serious problem.⁴

Prioritizing career development provides an important foundation for creating a more effective and efficient system that can prepare far more young adults for career success. Career development and planning helps secondary school students take a more intentional approach to high school, and graduate with a clearer vision for what they will do afterward. It helps postsecondary students select programs that will efficiently prepare them for their chosen careers, which could reduce time to graduation and student debt. It also can encourage more students to pursue promising careers in fields facing shortages, thus contributing to economic growth. Finally, quality career development has the potential to increase economic opportunity and mobility by ensuring low-income and at-risk youth are exposed to the full range of economic opportunities in America.

Overview

To meet the challenge of creating effective state career pathway systems, the Global Pathways Institute and Education Commission of the States partnered to convene a Thinkers Meeting comprising national experts in April 2018. WIN Learning provided the financial support to make this meeting possible. Invited participants represented a diverse set of career pathway perspectives from institutional, state and national levels. Mary Fulton, Neal Holly and Matt Jordan from Education Commission of the States and William Symonds from GPI facilitated the meeting. They framed the discussion around six core elements:

- Prioritizing career development.
- Strengthening career pathway programs.
- Scaling up work-based learning and business engagement.
- Creating more equitable programs and policies.
- Building an effective state career pathway system.
- Creating a more effective paradigm.

Through a vibrant discussion that ranged from state-level policy development to on-the-ground practicality of program implementation, participants contributed the full measure of their expertise to these six areas. This paper briefly summarizes key points raised in the pathway conversation, as well as suggestions for state action where there was broad consensus among participants.







Prioritizing Career Development

The Challenge

Career development is often an afterthought in middle and high schools. Despite a culture that actively promotes college-going, in-school career counseling and other support services in high school are often inadequate. The result is that many students transition to a technical college or university without a clear career goal.⁵ Moreover, a shortage of robust pathway programs can have a significant impact on students' abilities to align their skills and interests with promising career goals, and to then find the right institution and program to reach their goals. Bringing career development to the forefront is the essential foundation for creating a more effective and efficient system for preparing far more young adults for career success.

- Prioritize career development by requiring students to develop a high school plan before they enter ninth grade that aligns tentative career interests with an intended program of study. Similarly, require students to complete a career plan before high school graduation that outlines their pathways to postsecondary education, employment or the military.
- To ensure compliance, provide adequate time in the school schedule for career development and adequate funding to meet this mandate. Also, include career development measures within state longitudinal data systems and accountability systems.
- Put professionals in charge. Increase the number of school counselors and support efforts to establish career development advisers, who have the expertise to help students better understand their interests and abilities and the full range of career options open to them and to pursue opportunities for work-based learning and efficient pathways toward their chosen careers.
- Provide all students, parents, teachers and counselors with access to the best available data and technology to expand awareness of the many career and corresponding education pathways that will enable them to achieve economic independence. Consider investing in career information systems that provide accurate labor market information by region so students can identify the best opportunities close to home.
- In all postsecondary settings, make career development a priority for new students. Encourage all students to explore opportunities for employment in their chosen field, and to modify and expand plans when viable opportunities are limited.
- As career development is a community wide responsibility, engage business and industry, recruit more adult career mentors, and involve parents and guardians beginning when their children are in middle school.







Strengthening Career Pathway Programs

The Challenge

Many Americans still cling to the notion that everyone must graduate from a four-year college, and many employers require a four-year degree even when the demands of the job don't always warrant one. This creates a perception problem for promising career technical education (CTE) programs and community and technical colleges that provide training for and pathways to in-demand careers. Indeed, these careers still account for the majority of all jobs.⁶ From a policy perspective, this bias may help explain why such programs and colleges struggle with inadequate funding, obsolete equipment and a severe shortage of high-quality instructors.⁷

CTE and community and technical colleges are central to developing the workforce needed for a host of middle-class and higher-wage careers.⁸ To better meet workforce needs, while expanding opportunities for economic mobility, states can champion these multiple pathways to self-sustaining work by giving more attention — and funding — to CTE and community and technical colleges. This would enhance their visibility while increasing the quality and effectiveness of the programs they offer.

- Improve the quality of high school CTE offerings by aligning programs with regional and state workforce needs. Conduct statewide audits of existing programs to identify programs that do not meet quality standards or provide pathways to viable careers. Target funding to programs that address critical workforce needs.
- Remove language that tends to reinforce cultural bias toward CTE, including such terms as "middle-skill jobs." Instead, promote these careers as professions and CTE as providing progressive and sequential pathways to these professions.
- Engage the business community to define the standards, skills and competencies they need, and design career pathway programs to provide these competencies. Where applicable, consider requiring students to earn high-quality, industry-recognized credentials. Major employers can also lead discussions with education providers to develop pathway solutions that are connected rather than siloed.
- To address the severe shortage of high-quality instructors, especially in some high schools, consider moving programs from the classroom into field settings, where students have access to up-to-date equipment, current practices and real-world challenges. Doing so may necessitate redefining school structure. To facilitate innovation, schools can finance demonstration projects aimed at developing new models that can be taken to scale.
- Improve the alignment between high school CTE and postsecondary education by expanding equitably available opportunities for dual-credit courses, and ensuring that high school programs provide seamless transitions and equip students with the skills and credentials needed to gain employment and pursue a rewarding career.
- Recognizing that community and technical colleges serve a significant number of postsecondary students, focus on the potential return on investment of their programs as a strategy to increase support.
- To improve student agency, retention and success, increase the frequency and quality of counseling in high school for guided pathway programs leading to in-demand jobs.







Scaling Up Work-Based Learning and Business Engagement

The Challenge

Work-based learning is the gold standard for career exploration, defining a career choice and acquiring the skills, competencies and experience needed to obtain employment. It takes many forms, ranging from exploratory activities (such as job-shadowing and career days for young students) to internships, co-ops and apprenticeships for high school and college students — all that provide intentional connections between learning and real-world work experience. When done well, work-based learning can produce an extraordinary return on investment for both students and firms — which often come to see this as the best way to identify and recruit promising talent. However, most students do not have access to work-based learning experiences in any form, and the quality of the programs that do exist varies enormously. 10

Addressing these challenges requires an increased alignment and articulation of outcomes between business and education providers, including providing opportunities for internships, apprenticeships and other forms of work-based learning. Third parties, such as industry associations or nonprofit groups serving as an intermediary, can play a vital role by helping to centralize the process, work with education institutions on learning objectives and facilitate connections for students. In addition, employers, educators and states can take a two-pronged approach to work-based learning: Rather than solely focusing on the programs that serve as recruitment tools and on-ramps into jobs — which by their nature are offered to relatively few students — incorporate a corollary approach that reaches all students and engages them in applied learning as part of their education. Businesses can view this engagement as a strategic investment designed to ensure their competitiveness and future success. Although the return on investment for work-based learning programs is much clearer for those that result in job offers to students, employers will benefit from expanding their reach and recognizing that students receive enormous value when they obtain alternative work experience during their education. This paradigm shift is necessary for providing students with exposure to authentic work experiences as part of their education.

- Set bold goals for increasing access to work-based learning by making participation a high school graduation option. Similarly, postsecondary institutions can focus on expanding opportunities for work-based learning and eventually offer it to all graduates. This will require a system for defining what constitutes a work-based learning experience, how it is delivered, who oversees it and which quality metrics are used.
- Business, government and education are encouraged to work together to develop metrics for defining high-quality, work-based learning. Set standards to ensure that students are getting a quality experience and that programs lead to an industry-recognized credential. States should approve and oversee these standards. These credentials will prove essential in creating a currency and value proposition for students who are not afforded the opportunity to directly engage with an employer as part of their educational experiences.
- To ensure equity in work-based learning including internships and apprenticeships consider requiring that students be paid. The majority of low-income students have jobs while attending college. These students have difficulty accepting unpaid internships, which can effectively block them from lucrative career opportunities.







To this end, businesses are encouraged to expand earn-and-learn pathways, and connect working students to relevant, work-based learning opportunities.

- Incorporate work-based learning into state accountability systems, so that high schools and colleges understand they must offer these opportunities to be considered excellent.
- Establish funding and incentives to expand opportunities for work-based learning, especially in rural and other hard-to-serve areas. Improve on-campus work experiences and expand alternatives to in-person opportunities, such as virtual internships and case examples.
- Encourage more research on the return on investment of high-quality, work-based learning programs. Share these findings with educators, business leaders and parents to build momentum for expanding these programs.

Creating More Equitable Programs and Policies

The Challenge

Despite the economic recovery, millions of young adults confront enormous challenges to achieving the American dream. Many live in poverty or low-income households. Just over half of public school children qualify for free and reduced-price lunches, which are available to children living in families earning up to 185 percent of the federal poverty level. Many school districts serving largely low-income youth receive less funding than more affluent districts. The majority of public school students are now students of color, yet gaps in achievement and economic opportunity continue to separate black, Hispanic and Native students from their white counterparts. And while about a third of white students have earned a bachelor's degree, attainment falls to 23 percent among black students and 16 percent among Hispanic students. These trends will pose a major challenge going forward to an economy that increasingly requires workers to have some postsecondary education or training. They also help explain why economic mobility has fallen sharply in the U.S., and is now far behind where it stood at the end of World War II.¹⁴

One manifestation of this problem is opportunity youth — the term used to describe young adults ages 16 to 24 who are neither in school or the labor force. While the number of opportunity youth has fallen during the economic recovery, there are still 4.6 million — or about 1 in 8 of all young adults. And their prospects are discouraging: Only 1 percent of youth who have been disconnected from school and work will eventually earn an associate degree or higher.¹⁵

- Given the unfavorable prospects for opportunity youth, make prevention a priority. This will require increasing equity in K-12 funding, ensuring that low-income schools and districts receive comparatively more resources to educate students who often face greater challenges.
- Better define and analyze this problem by conducting a comprehensive audit of the state's population and education and workforce development programs, and disaggregating the data by race, gender, income and other relevant factors. Clearly identify the populations who are not being served, and set goals to eliminate the gaps.
- Embrace strategies that show impact. This could include providing more flexible funding for state-level, K-12 reengagement programs and centers designed to bring disconnected youth back into the K-12 system, in addition to reducing barriers so that disadvantaged individuals have access to education and workforce opportunities.







- Offer promise scholarships to low-income students, starting in middle school. The promise is that if they graduate from high school, they will receive free tuition for at least the first two years of postsecondary education ideally focused on viable career pathways leading to jobs paying a living wage.
- Invest in programs designed to provide jobs or work-based learning opportunities for low-income and opportunity youth. Employment can provide a promising pathway to lasting success, especially when coupled with education and career development services.
- Insist that the policies discussed above career development, multiple pathways and work-based learning are designed to give special attention to the needs of students with disabilities, as well as low-income, minority and opportunity youth.

Building an Effective State Career Pathway System

The Challenge

For states, the ultimate challenge is how to bring together these critical building blocks — along with the key players in education, business and government — to create an effective state pathway system. Despite its difficulty, this effort has the potential to create a more effective, equitable and efficient education system that will ultimately reduce waste — while producing a far greater return on the state's investment in education. By better aligning education and workforce needs, this system can also alleviate the skills gap, thus equipping key state industries to better compete and prosper. And by specifically addressing the inequities in education, it may increase economic mobility and labor force participation. In short, states that embrace these policies should be better equipped to compete in national and global economies.

- Gubernatorial leadership is critical. A governor has the authority needed to bring together the key leaders in business, education and government to create a more effective career pathway system. Without gubernatorial leadership, progress is likely to be spottier and less systemic. At the same time, to be sustainable, this cannot be billed as the effort of the current governor, but rather as an ongoing responsibility of the governor's office.
- The state has a critical role in creating a framework for development and management of a career pathway system. A unified approach is easier to achieve if one entity such as a state's workforce development council is given responsibility for coordinating this effort. At the same time, involve the state's business and education leaders. Creating a pathway system is not the government's job, but rather a cross-sector effort that requires collaboration from all key players.
- In most cases, a regional approach is essential to address the often very different economies across the state. Establish sector partnerships, led by business, to create strategies for meeting workforce needs for the key industries in these regions.
- Because this kind of systemic change does not happen overnight, reporting and accountability are important. Annual reports on the talent pipeline will showcase progress, as well as challenges that still need to be better addressed.
- Use resources and create incentives strategically to help drive this process. Showcase successes and the impact of early efforts to bring others on board. Realistically, these efforts will begin with only some industries and







pathway programs. Their positive reports will help recruit others and create a more comprehensive system.

- Leverage new state funding to create incentives for collaboration and resources for regional center development, data-gathering and matching support for work-based learning expansion.
- Explore the opportunity to leverage the provision of federal laws, such as the Workforce Innovation and Opportunity Act, and recent financial aid developments to support career pathway programs. The federal government can be an ally in these efforts.

Creating a More Effective Paradigm

During the Thinkers Meeting, participants discussed several initiatives that were broader than any one of these categories — and instead, applied to the entire effort to create an effective state career pathway system. These ideas help capture the breadth of what is necessary to create far more effective and efficient systems of education and workforce development that are better designed for the rapidly evolving labor market states will face in the decades ahead.

- Reinvent education: The current system fails huge numbers of students by leaving them ill-equipped to prosper in the current economy. The vast majority of CEOs say they are concerned that the current system fails to produce the employees they need. And the economic costs of this inefficient system total many billions of dollars a year. The key components discussed in this paper provide a broad outline of what a new system might look like. The discussion of work-based learning illustrates the point. If all students are required to have exposure to work-based learning, then education will increasingly have to take place beyond the walls of a classroom. Students will spend far more time in industry or other organizations, and their instructors will increasingly be professionals in these fields. Similarly, long-established high school schedules will need to be revamped to provide adequate time for career development, along with more engaging CTE programs.
- **Emphasize equity:** In a public education system where more than half of students come from families of color or low-income households, addressing equity is no longer a peripheral issue, but rather a major priority. Without a more equitable system, states will lack the workforce needed to power the economy of the future, and social divisions will only increase. All solutions must be addressed through the lens of equity.
- Obtain high-quality data: Existing data on education often ignore many of the topics highlighted in this brief, including career development and work-based learning. Better data are needed on the enormous equity issues that undermine current approaches. In addition, data need to be easily accessible by students, families, school personnel and other education/workforce stakeholders.
- Revise accountability systems: It is important to hold schools and postsecondary institutions accountable for their efforts to address equity and provide career development, work-based learning and multiple pathways. Accountability systems based largely on academic test results must be revamped and expanded to include these new priorities.
- Focus on academic skills: Literacy, numeracy and science are foundational for career success and remain a priority. But we can no longer afford an approach that gives short shrift to the other vital components of career success.
- Collaborate with other states: There are numerous opportunities for states to collaborate on critical issues as they work to create more effective pathway systems. For example, states might work together to identify high-quality, industry-recognized credentials that have value to employers in all states. This could improve the







effort to identify such credentials, while easing the burden on small states. Similarly, states have much to learn from other efforts to improve career development and work-based learning. Forums, like the Western Pathways Conference, provide an ideal venue for sharing best practices. It is time to explore and create opportunities for expanding such collaboration.

Next Steps

The hope is that this brief will contribute to the growing momentum behind efforts in many states to build more effective career pathway systems. GPI and its national and state partners will work to further develop these recommendations at the annual Western Pathways Conference and other venues. GPI and its partners also plan to build on the momentum of this meeting to encourage states to reimagine their career development infrastructure to meet present and future demands.

This brief underscores the need for better monitoring of what states are doing to implement and improve key elements of career pathway systems. Improved reporting would help states learn from each other's work and accelerate overall progress. We will explore whether Education Commission of the States might add such monitoring to its longstanding efforts to track state education policies and programs.

Collaboration is also critical as we work to build more effective and efficient education and workforce development systems. We hope the collaborative spirit that made this conversation possible will inspire new, bolder efforts to work together on these challenges. We welcome suggestions for such collaboration.

Participants

- **Sheila Arredondo**, Senior Program Associate, WestEd
- Caitlin Codella, Senior Director of Policy and Programs, Center for Education and Workforce, U.S. Chamber of Commerce Foundation
- Anna Gatlin, Vice President of National Engagement, Strada Education Network
- **Rufus Glasper,** CEO, League for Innovation in the Community College
- Debbie Hughes, Vice President of Higher Education and Workforce, Business-Higher Education Forum
- Cheryl Oldham, Vice President, Center for Education and Workforce, U.S. Chamber of Commerce Foundation
- **Scott Solberg,** Professor in the School of Education, Boston University
- **Quentin Suffren,** Managing Director of Innovation Policy, Foundation for Excellence in Education
- **Ken Thompson,** Senior Fellow at the Forum for Community Solutions, Aspen Institute
- Johan Uvin, President, Institute for Educational Leadership
- **Stephanie Veck,** Director, Colorado Workforce Development Council
- Jeff Wasden, President, Colorado Business Roundtable







ENDNOTES

- ¹Leo Reddy et al., Transforming Career Counseling: Bridging School to Career in the Workforce of the Future (Southfield, MI: Society of Manufacturing Engineers and Manufacturing Skill Standards Council, April 2015), https://www.sme.org/ uploadedFiles/About_SME/Industry_Focus_Areas/WFD/Career_Counseling_White_Paper.pdf.
- ² Jiashan Cui and Joel McFarland, Trends in High School Dropout and Completion Rates in the United States (Washington, DC: National Center for Education Statistics, March 2018), https://nces.ed.gov/pubs2018/2018117.pdf; and John Bridgeland, John Dilulio Jr. and Karen Burke Morison, The Silent Epidemic: Perspectives of High School Dropouts (Washington, DC: Civic Enterprises, March 2006), https://docs.gatesfoundation.org/documents/thesilentepidemic3-06final.pdf.
- ³ Doug Shapiro et al., Time to Degree: A National View of the Time Enrolled and Elapsed for Associate and Bachelor's Degree Earners (Herndon, VA: National Student Clearinghouse Research Center, September 2016), https://nscresearchcenter. org/wp-content/uploads/SignatureReport11.pdf; and Anthony Cilluffo, "5 Facts About Student Loans," Fact Tank: News in the Numbers (blog), Pew Research Center, August 24, 2017, http://www.pewresearch.org/fact-tank/2017/08/24/5facts-about-student-loans/.
- ⁴ Business Roundtable and Change the Equation, "Business Roundtable / Change the Equation Survey on U.S. Workforce Skills: Summary of Findings" (PowerPoint presentation, December 3, 2014), https://www.ecs.org/wp-content/ uploads/2014-BRT-CTEq-Skills-Survey-Slides_0.pdf.
- ⁵ Fermin Leal, "Survey: Most High School Students Feel Unprepared for College, Careers," EdSource, July 30, 2015, https:// edsource.org/2015/survey-most-high-school-students-feel-unprepared-for-college-careers/83752.
- ⁶ Ibid.
- ⁷ Quentin Suffren, "Putting Career and Technical Education to Work for Student Success," The EdFly Blog, Foundation for Excellence in Education, December 12, 2017, https://www.excelined.org/edfly-blog/just-released-putting-careertechnical-education-work-student-success/.
- 8 Anthony Carnevale et al., Good Jobs That Pay Without a BA (Washington, DC: Georgetown University Center on Education and the Workforce, 2017), https://goodjobsdata.org/wp-content/uploads/Good-Jobs-wo-BA.pdf
- 9 Charlotte Cahill, Making Work-Based Learning Work (Boston, MA: Jobs for the Future, June 2016), https://www.jff.org/ resources/making-work-based-learning-work/.
- 10 Ibid.
- 1 Steve Suitts, A New Majority: Low Income Students Now a Majority In the Nation's Public Schools (Atlanta, GA: Southern Education Foundation, January 2015), http://www.southerneducation.org/getattachment/4ac62e27-5260-47a5-9d02-14896ec3a531/A-New-Majority-2015-Update-Low-Income-Students-Now.aspx.
- ¹² Ivy Morgan and Ary Amerikaner, Funding Gaps 2018: An Analysis of School Funding Equity Across the U.S. and Within Each State (Washington, DC: The Education Trust, February 27, 2018), https://edtrust.org/resource/funding-gaps-2018/.
- ¹³ Camille Ryan and Kurt Bauman, Educational Attainment in the United States: 2015 (Washington, DC: U.S. Census Bureau, March 2016), https://www.census.gov/content/dam/Census/library/publications/2016/demo/p20-578.pdf.
- ¹⁴ Raj Chetty et al., "The Fading American Dream: Trends in Absolute Income Mobility Since 1940," Science 356, no. 6336 (April 28, 2017): 398-406, http://science.sciencemag.org/content/356/6336/398.
- ¹⁵ The Aspen Institute, Forum for Community Solutions, Opportunity Youth Forum, 2018.
- ¹⁶ What America Needs to Know About Higher Education Redesign (Indianapolis, IN: Lumina Foundation and Gallup, February 2014), https://www.luminafoundation.org/files/resources/2013-gallup-lumina-foundation-report.pdf.



