

OCTOBER 2024



A Public Policy Agenda:

Strengthening the Link Between
Education and Opportunity



EDUCATION
FOUNDATION

Introduction

For too many young people, the end of high school is a time of uncertainty rather than hope. As they move forward, they join countless adults across America who are struggling to figure out the best path to a fulfilling career and life, and aren't sure if investing in more education is the safest bet. Meanwhile employers can't find the talent they need, and good jobs are going unfilled. What's clear is this: Capable learners and eager employers are searching for each other in a system with too many walls and not enough doors.

At Strada, we're focused on one goal: helping clear the path between education and work, especially for those with the most standing in their way. Together with our partners, we're helping states better articulate their workforce needs, and colleges better prepare their learners to meet those needs. We're a foundation that deploys a diverse range of tools to foster collaboration between the institutions that serve learners and the employers who need them.

One of the most powerful tools we have is our ability to support policymakers in their efforts to create more equitable pathways to opportunity for all learners. Policy – federal and state – is an essential catalyst for the change needed to better connect the worlds of learning and work. To accomplish that ambitious goal, Strada developed a policy agenda that focuses on five priority areas – Clear Outcomes, Education-to-Career Coaching, Affordability, Work-Based Learning, and Employer Alignment.

Taken together, these five priorities provide policymakers with a holistic approach to improving policy so all learners have the opportunities and support they need to complete an education pathway and succeed in a meaningful career.

Our hope is that this policy agenda inspires policymakers and other important stakeholders to consider how they can work together to make the costs of postsecondary education more affordable for all learners; support new approaches to career coaching and work-based learning; and strengthen data systems that enable learners to make informed choices about where and what to study as well as more easily see outcome data about programs and career pathways.

To achieve the ambitious objectives laid out in this policy agenda, we are committed to working side-by-side with policymakers and our many partners in the field. We're listening and learning. Investing and experimenting. Measuring and refining. And while we can't yet know exactly what comes next, especially with rapidly emerging technologies such as artificial intelligence, we're sure of one thing: It's possible to create a world where every person – no matter where they start – can see the way ahead and get there. To next-level learning. To a meaningful career. To a life filled with choices and growth. To opportunity.



What We Mean by “Postsecondary Education”

In the U.S., there is no universally embraced word or phrase to describe all the learning opportunities available to individuals after completing high school.

For the purposes of this public policy agenda, we intend the term “postsecondary education” to represent the broad range of formal learning opportunities available to individuals after high school, including degree programs, certificate and diploma

programs, and other non-degree or non-credit credentials, as well as customized training, workforce development programs, and apprenticeships, whether provided by a school, a college or university, a nonprofit or for-profit provider, or an employer, and whether provided in-person and/or online. Our focus is on any such program that is intended at least in part to help prepare individuals for one or more new career opportunities.

Clear Outcomes

VISION

Everyone has access to accurate information about employment outcomes that can help them make informed decisions about postsecondary education.

POLICYMAKERS CAN ADVANCE FOUR OBJECTIVES TO SUPPORT THIS VISION:

- Effectively integrate education-to-employment data systems at the federal, multi-state, and state levels.
- Ensure integrated systems are powered by the collection of robust underlying quality data on learner characteristics from education into employment, particularly occupation.
- Build data collection and analysis systems that encompass all types of education credentials and pathways.
- Deliver usable education-to-employment insights to stakeholders to enhance transparency through multiple complementary methods.

When pursuing postsecondary education, individuals usually do so to prepare for a career, advance in their current field, and/or achieve other personal and professional goals. As the cost of a postsecondary education rises and student debt grows, it is critical that learners know whether they are choosing a pathway that will yield a good return on their investment. In fact, results from [surveys](#) of students enrolled in postsecondary

education show that their prospects for employment and improved earnings are very important to them as they enter college.

Yet, far too little is known about a learner's post-program outcomes, particularly employment information (e.g., wages and occupation). Not only is this information pertinent to help learners choose a pathway before enrolling in a costly program, it's also useful information for education providers and policymakers. Post-program outcomes could be used by education providers to make program improvements and provide tailored career advising. Additionally, policymakers should use this information to help decide how to direct often scarce resources.

Federal and state data systems related to education and employment have enormous potential for strengthening the connection between education and opportunity. Too often, education and employment data systems are not sufficiently integrated to enable the assessment of employment outcomes tied to education programs. Designing, implementing, and maintaining integrated education and employment data systems requires effective interagency governance and modernized and secure technical infrastructure. Additionally, expertise and staff time are needed to train staff, align systems with new definitions and processes, address data privacy concerns, and build capacity to generate useful insights.

Along with addressing data integration, federal and state policymakers must address limitations in the scope of underlying systems and data elements. For example, the [U.S. Department of Education's College Scorecard](#) only includes learners who received federal financial aid while enrolled in college, missing roughly 30 percent of college students. On the employment side, quarterly unemployment insurance wage records, which can be used to understand earnings outcomes of learners, often lack

CLEAR OUTCOMES

information that is critical for assessing career pathways and outcomes, such as occupation or work location. Additionally, although certificates, certifications, licenses, apprenticeships and badges are a growing part of education in the U.S., little is known about these credentials, including who accesses and completes them, the outcomes of these learners, and how they align with other pathways to opportunity, such as degrees. Without these types of data, stakeholders cannot obtain a comprehensive understanding of how well education programs prepare learners for employment.

Integrated data lack value unless they are made available to stakeholders for education-to-employment decision making. This includes learners and families, who need easily understandable resources to inform their decisions on investing time and money in programs, and researchers and policymakers who need information to inform program design and resource allocation decisions. Ensuring the privacy and security of learner data must be a top priority for policymakers. However, overly restrictive prohibitions at the federal and state levels can stymie the ability to obtain data needed for productive decision-making.

To overcome these challenges, policymakers should focus on four objectives:

- **Effectively integrate education-to-employment data systems at the federal, multi-state, and state levels.** Data can and should be used as a tool to help federal and state policymakers support the needs of individuals and their families as they navigate education choices to progress into the workforce. In order to do this, policymakers need timely data that are linked across education-to-employment data systems and broken down by learner characteristics and program of study. Data systems that collect and report on measures such as learners' enrollment and completion rates and post-program outcomes would help guide decision making and improvement.
- **Ensure integrated systems are powered by the collection of robust underlying quality data on student characteristics from education into employment, particularly occupation.** Policymakers should improve postsecondary education and employment data collections to make them more comprehensive, transparent, and accessible. For example, adding various student characteristics, including race and ethnicity, to postsecondary admissions, enrollment, and outcomes data would provide a more expansive view of how these measures vary for different learner populations. Additionally, enhancing existing data collections to include information on individuals' [occupational outcomes](#) would help policymakers, learners, and other stakeholders understand the connection between a credential and post-program earnings. Having robust underlying quality data also would increase policymakers' ability to design and enact data-driven and equitable policies.
- **Build data collection and analysis systems that encompass all types of education credentials and pathways.** Collecting data on how learners, workers, employers, and governments view and use [non-degree credentials](#), how they vary in quality and value, and what their potential is for facilitating reskilling, employment, and re-employment, would help policymakers and field leaders better understand how non-degree credentials can support more equitable pathways to opportunity.
- **Deliver usable education-to-employment insights to stakeholders to enhance transparency through multiple complementary methods.** To ensure all learners have the ability to make fully informed choices about their investments in education pathways, education-to-employment data should be widely accessible and usable. Federal and state data systems should ensure insights are widely accessible through multiple methods, including [interactive public reporting tools](#) and [open data files that cannot be used to identify any individual](#). Data that are open, linkable, and interoperable for analysis and insights that are easily accessible to learners will support transparency and informed [decision-making](#).

Education-to-Career Coaching

VISION

Everyone has access to coaching that helps them reflect on their talents and interests, choose a career goal, map pathways through education, and navigate challenges.

POLICYMAKERS CAN PURSUE THREE OBJECTIVES TO SUPPORT THIS VISION:

- Collect and share participation data on coaching.
- Ensure learners have access to information on pathways and earnings outcomes.
- Scale effective coaching models to ensure universal adoption.

The journey from postsecondary education to employment can be confusing and difficult to navigate. Individuals face a series of high-stakes decisions as they begin to explore education and career pathways, and every choice can shape future possibilities. The stakes are particularly high for individuals with limited access to the resources and support they need to make informed decisions and overcome obstacles. To help maximize the potential to achieve their career goals, learners should begin thinking about their postsecondary education pathways by high school, but that is not common [practice](#).

Quality education-to-career coaching and guidance can help all learners achieve their education goals and position themselves for career success. Learners who receive the kind of coaching that incorporates career exploration, guidance, and support are [more likely to secure college-level jobs](#) and be satisfied with their first jobs and their overall career progress. Education-to-career coaching can

be delivered in many forms and can be adapted to different stages of an individual's journey to employment. Some individuals may find this support within a postsecondary institution that provides advising or career services, while others might receive support through job centers or community organizations. When done well, education-to-career coaching is accessible to all learners and helps individuals develop outcomes-informed education plans that are aligned with their career goals.

To help inform both policy and practice, Strada has worked with an advisory group of education and workforce leaders and practitioners with expertise in coaching and guidance to define principles for quality education-to-career coaching and guidance. The advisory group concluded that quality education-to-career coaching should be:

- **Centered on education-to-career outcomes.** Coaching integrates support for educational success with ongoing career exploration and planning; directs learners to identify education programs aligned with career pathways; and provides learners with timely information about the labor market and career pathways.
- **Driven by learner agency.** Coaching supports learners in exploring and recognizing their interests, values, and purpose; guides learners in building the mindsets and skills that are critical to success; and validates the learner's identity by responding to personal circumstances and goals.
- **Foundational, timely, and universal.** Coaching is embedded throughout the learner experience, with shared responsibility and accountability across the institution or provider; uses resources and technology that enable outreach and support to all learners; and reaches learners who have been traditionally least served by postsecondary education.
- **Rooted in relationships.** Coaching consists of interactions and relationships between learners and faculty and staff; connects students to networks, resources, and services that help build social capital; and engages learners' communities of support.

EDUCATION-TO-CAREER COACHING



- **Informed by data and evidence.** Coaching leverages data to provide personalized and timely support; incorporates recognized, evidence-based practices; and uses research and evaluation for continuous improvement.

Despite a growing national consensus around the need to better connect education-to-employment pathways, federal and state policies have not emphasized quality career coaching and guidance. Nationally, only about [a quarter](#) of graduates from two-year institutions and a fifth of graduates from four-year institutions experience timely and personalized coaching that includes career-related information and support. In workforce programs, coaching services are often built into the program, but not everyone has access to these programs.

If all learners are to benefit from this kind of coaching, there needs to be a comprehensive approach to federal and state policy. For this to happen, policymakers need the field to

produce an evidence base of proven models of education-to-career coaching that support learners by helping them reflect on their interests and individual circumstances, navigate the landscape of available degree and other credential programs, develop mindsets and relationships that support their success, and make choices informed by relevant data about options and outcomes.

Three policy objectives are critical to achieving that vision:

- **Collect and share participation data on coaching.** Field experts and partner groups agree that there are significant data gaps in understanding who is receiving career coaching and guidance. To better understand where these gaps exist, federal and state policymakers, institutions, workforce programs, and researchers should implement more standardized approaches for collecting and sharing data, disaggregated by student characteristics, on the proportion of learners receiving coaching and how it impacts their career pathways and employment outcomes.
- **Ensure learners have access to information on pathways and earnings outcomes.** Most states already link education to employment data, but the information is often not readily usable by the institutions and workforce programs seeking to help individuals plan for and navigate their career trajectory. Policymakers will be better positioned to support individuals, institutions, workforce programs, and employers if they build on existing efforts and provide the public with more detailed insights on career trajectories and related employment outcomes.
- **Scale effective coaching models to ensure universal adoption.** We envision education-to-career coaching as an approach that reaches every learner early, consistently engages faculty and staff across multiple dimensions of the learner experience, and strategically leverages technology for greater access and personalization. State and federal policy should provide appropriate and sufficient incentives for providers to establish and scale evidence-based models.

Affordability

VISION

A quality education is within everyone's reach. The cost of education is not an insurmountable obstacle for students.

POLICYMAKERS CAN PURSUE FIVE OBJECTIVES TO SUPPORT THIS VISION:

- Adopt policies to ensure that price and cost make quality postsecondary education affordable for all learners.
- Minimize reliance on debt for low- and middle-income learners, while improving repayment terms and outcomes.
- Ensure simplicity, transparency, and predictability of the learner's expected expenses from pre-enrollment through attainment.
- Create sustainable and adequate funding for postsecondary education that reflects shared responsibility among federal and state governments and learners and families. Encourage employers to support talent development, including by reducing the cost of education.
- Ensure that learners receive a return on investment from postsecondary education by improving value without creating unintended consequences.

The cost of postsecondary education continues to be a dominant concern – and barrier – for prospective learners and their families. Low- and middle-income learners are especially impacted by the escalating costs associated

with postsecondary education. A [report](#) from the National College Attainment Network (NCAN) found that low- and middle-income learners (i.e., Pell Grant recipients) are increasingly unable to afford public institutions, which typically cost less than private institutions. Additionally, Strada's [State Opportunity Index](#) found that in more than half the states, learners would have to work more than 20 hours per week during the school year and full-time during the summer to cover the net price of college (i.e., sticker price minus grants and scholarships). As a result, a [substantial share](#) of individuals are ruling out colleges based solely on price.

Amid these growing concerns about the affordability of postsecondary education, more Americans are starting to [question](#) the value of a degree. In a labor market that is increasingly focused on high-skill jobs that require education after high school, ensuring the affordability of postsecondary education is not just an education issue – it is an economic development issue.

Making postsecondary education more affordable for all learners – especially those most at risk of not participating – is a shared responsibility involving providers, state and federal government, and learners and families. Policy related to affordability must address challenges facing both learners and providers.

Learners. Learners face a dizzying volume of information about the actual cost of their prospective degree programs, much of it [inconsistent and/or outdated](#). There are multiple causes for this, including the proliferation of tuition discounting and differential pricing across degree programs. This can lead to misinformed decisions about whether a program is affordable, as well as how (or whether) to finance a program through borrowing. While the net price of college has [moderated](#) in recent years, the longer term trend still poses significant access challenges, especially for learners from low- and middle-income backgrounds. Historically, prices for learners fluctuate greatly (and sometimes unpredictably), owing to changes

AFFORDABILITY

in the economic and political environments. The result for many has been stopping out or even dropping out of their degree programs. According to a [2024 poll](#), the vast majority of individuals (87 percent) who stepped away from their postsecondary pathway before earning a degree did so because of cost.

Similarly, taking longer than expected to complete a program adds to the price burden for learners. Currently, more than half of bachelor's degree earners take longer than four years to [complete their degree program](#), which significantly increases the cost of their education. While there are promising options for accelerating student progress, such as improving [credit transfer](#) and expanding [dual enrollment](#) and [stackable](#) credentials, they are not operating at scale and in too many cases do not reach low- and middle-income learners and learners of color.

Moreover, grant aid programs have [failed to keep pace](#) with rising costs of college. While the maximum Pell Grant covered more than 75 percent of the cost of attendance at the average four-year public institution, it now covers only 26 percent of the same cost. It also is the case at the state level, where [need-based aid programs](#) have not kept pace. This has fueled increased student loan debt and [growing struggles](#) to repay that debt.

Providers. The majority of students enrolled in postsecondary degree programs attend [public institutions](#), which rely on state and/or local funding for a significant portion of their operating funds. Unfortunately, state and local funding policies are often opaque; do not fully account for institution type, learner characteristics, or post-program outcomes such as employment; and are subject to economic fluctuations and political forces. This results in [significant variations](#) in funding levels across institutions, with more funding flowing to institutions that serve wealthier students. Moreover, employers are often overlooked as a financial contributor to education.

Advancing affordability for all learners demands attention to five policy objectives:

- **Adopt policies to ensure that price and cost make quality postsecondary education affordable for all learners.** Federal and state policy should ensure that providers increase affordability for learners, especially low- and middle-income learners.
- **Minimize reliance on debt for low- and middle-income learners, while improving repayment terms and outcomes.** This requires emphasis on reducing time-to-credential and prioritizing need-based grant programs such as the Pell Grant and related state grants. Additionally, loan repayment terms should be constructed such that borrowers can understand them, afford their payments, and retire their debt in a reasonable amount of time.
- **Ensure simplicity, transparency, and predictability of the learner's expected expenses from pre-enrollment through attainment.** States and the federal government should coordinate with institutions to provide consistent, transparent information about pricing and aid across education providers.
- **Create sustainable and adequate funding for postsecondary education that reflects shared responsibility among federal and state governments and learners and families. Encourage employers to support talent development, including reducing the cost of education.** Funding policies and formulas should prioritize more equitable distribution of resources by better accounting for learner characteristics across providers.
- **Ensure that learners receive a return on investment from postsecondary education by improving value without creating unintended consequences.** Education providers receiving public funding should be required to show evidence that their completers overall receive a positive return on their investment over a reasonable period of time and that positive return on investment is not being achieved by limiting access and/or program quality.

Work-Based Learning

VISION

All learners have access to work-based learning experiences – including paid internships and apprenticeships – that help connect their education and career aspirations.

POLICYMAKERS CAN ADVANCE THREE OBJECTIVES TO SUPPORT THIS VISION:

- Support the development of comprehensive data collection and analysis on the full range of work-based learning experiences to illuminate the greatest gaps in availability and opportunities toward increasing access.
- Significantly increase participation in proven models of work-based learning that are most clearly linked to better employment and economic outcomes for learners.
- Facilitate, strengthen, and expand partnerships between postsecondary education providers and employers to increase learners' opportunities for work-based learning experiences.

Work-based learning is an educational opportunity that connects real-world work experience with classroom learning. Work-based learning opportunities exist on a continuum, often starting with career exposure in the K-12 setting, building to career exploration in the form of job shadowing or industry site visits, and eventually turning into more structured career experiences that include internships, co-ops, and apprenticeships. Among structured career experiences such as internships and apprenticeships, emerging evidence suggests that some of the highest quality indicators include pay, academic

credit, clear skill acquisition, learner reflection, and strong supervision and mentorship.

Work-based learning experiences give individuals the opportunity to explore career interests, develop valuable skills, and improve the likelihood of positive employment [outcomes](#). College graduates who participated in work-based learning during their degree program also earn more and have a higher level of satisfaction with both their education and careers compared to those who do not have such [experiences](#). For high school students, access to work-based learning significantly increases postsecondary [enrollment](#). There also is longstanding evidence that shows workforce development programs that use on-the-job training and registered apprenticeships produce some of the strongest positive [outcomes](#). For example, multiple studies show the [return on investment](#) to employers for apprenticeships can be as high as 50 percent, and that employers consistently convert over half of their interns to [employees](#).

Despite the evidence, access to quality work-based learning opportunities, particularly paid experiences, is uneven, and too many learners miss out on the potential [benefits](#). Unpaid internships are often out of reach for students who work part-time to pay for their education, perpetuating inequities in access to opportunity and mobility.

Connecting academic learning with hands-on learning in a workplace setting is one of the oldest and most proven methods of education in the world, yet there is still a lack of commitment, incentives, and knowledge within many postsecondary education programs to support work-based experiences for all learners. Part of the reason is that, in today's world, work-based learning requires strong partnerships among education providers, employers, and learners. Because each group has its own priorities and challenges, organizing and sustaining quality work-based learning experiences can be a complicated undertaking.

Research suggests that the presence of strong intermediary organizations whose sole job is to help employers define

WORK-BASED LEARNING

talent needs and source candidates for internships or apprenticeships can be an effective strategy for expanding work-based learning. With a clearer understanding of the many benefits of work-based learning and dedicated intermediaries available to support partnerships, education providers and employers would be more inclined to devote the necessary time and resources.

Expanding access to paid internships also requires education providers to dedicate more staff to cultivating internship opportunities with employers. Expanding Federal Work-Study placements with off-campus employers, for example, may require participating institutions to create procedures to hold them accountable and monitor learners' hours and activities. Under-resourced institutions also are less likely to have internships available for students, which creates equity gaps in opportunity. Students attending community colleges often do not have access to the same types of work-based learning opportunities as their peers in four-year institutions. At four-year [institutions](#), Black and Latino students, women, low-income, and first-generation students are less likely to experience a paid [internship](#).

Although policymakers play an important role in expanding access to work-based learning, it can be difficult for them to gain an accurate understanding of who is and is not participating in work-based learning experiences. Although registered apprenticeships are tracked nationally and by state through the federal Registered Apprenticeship Partners Information Database System (RAPIDS), other forms of work-based learning, such as internships, are not systematically tracked at the national, state, or institution level. Data on internship participation of students enrolled in postsecondary education are particularly weak. Institutions may be able to report on the number of their students who work on campus, but they do not track internships (including micro-internships) in a consistent way that can be compared across institutions or aggregated at the state level. While many employers have internal data on the number of interns they host per year and their conversion-to-hire rates, they often do not share those data externally.

Accordingly, state and federal policy should focus on three objectives:

- **Support the development of comprehensive data collection and analysis on the full range of work-based learning experiences to illuminate the greatest gaps in availability and opportunities toward increasing access.** Building a comprehensive national approach for determining how many learners have had or are experiencing work-based learning opportunities will allow policymakers, employers, intermediaries, and postsecondary education providers to expand access. Additionally, ensuring that these data include post-program outcomes will allow policymakers to promote improved quality.
- **Significantly increase participation in proven models of work-based learning that are most clearly linked to better employment and economic outcomes for learners.** Evidence shows that proven models of work-based learning can set learners up for greater success in their careers. But increasing participation in these models is a resource-intensive undertaking for institutions, employers, and learners. Building on the work of state exemplars and institutional leaders, policymakers should support and scale innovative strategies and partnerships that expand equitable access to quality work-based learning.
- **Facilitate, strengthen, and expand partnerships between postsecondary education providers and employers to increase learners' opportunities for work-based learning experiences.** Increasing the capacity of intermediary organizations to build and manage the relationships needed to support work-based learning could greatly expand access to work-based learning and help sustain a more robust infrastructure that reaches all learners engaged in postsecondary education. Developing a robust evidence base about the best practices of intermediaries would help field leaders and policymakers develop policies and practices to support these organizations.

Employer Alignment

VISION

All students have access to programs that lead to quality jobs and mobility, and employers assess and advance individuals based on skills and experience, not only degrees.

POLICYMAKERS CAN ADVANCE FOUR OBJECTIVES TO SUPPORT THIS VISION

- Build dedicated data capacity and resources to support agile postsecondary education systems that are responsive to the labor market.
- Remove disincentives that deter postsecondary education providers from expanding programs that lead to high-wage, high-demand jobs and careers.
- Enable shared responsibility between postsecondary education providers and employers for producing a skilled workforce.
- Encourage employers to hire, retain, and promote based on skills and experience rather than solely on degrees.

Ensuring access to postsecondary education and programs that lead to in-demand, high-wage jobs will improve outcomes for individuals and employers. For this to happen, education providers, employers, and policymakers must have a shared sense of responsibility for producing a skilled workforce.

With a clear and data-informed understanding of the labor market, postsecondary education providers can better align their programming so learners can acquire the knowledge and skills they need for high-wage, high-demand jobs.

Employers, who often struggle to fill good jobs, would benefit from having greater access to a more robust talent pipeline. And policymakers, who are responsible for maximizing federal and state investments, would be better equipped to evaluate and improve their policies with ready access to timely and targeted data.

In too many places, however, the alignment between jobs and postsecondary education providers is underdeveloped, which can lead to negative consequences for learners and employers alike. For example, many individuals who complete postsecondary education do not experience the economic benefit they expected. Just over half of recent college graduates with bachelor's degrees are underemployed, that is, working in jobs that do not require a [college degree](#). And while meeting talent needs is consistently the top concern of [business executives](#), almost 50 percent of employers say it is more cost effective to hire off the open market than to invest in talent development.

Some employers also use degrees as a proxy for skills and experience they can't effectively measure or define, which results in [less diverse talent pools and higher turnover](#). This practice also may unintentionally devalue degrees if they are being required for jobs that may not need that level of education. While a degree has historically been seen as an indicator of a candidate's knowledge and abilities, employers who default to this approach of identifying and retaining talent can unfairly impact the approximately [70 million candidates](#) in the U.S. with valuable skills gained through alternative pathways.

For policymakers seeking to support labor market needs and aligned economic development goals, the fact that at both the federal and state level, education, workforce, and economic development systems operate independently of one another makes coherent, holistic planning difficult. This can severely limit efforts to strengthen economic vitality, especially for states, metro areas, and rural regions. For example, although states allocate significant funding to postsecondary education, they often lack the staffing expertise and resources needed to support planning and

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improvement related to education-to-employment pathways. Without data-informed insights into all aspects of the education-to-employment pipeline as well as coordinated planning efforts – including education, workforce and economic development – policymakers are limited in their ability to support long-term economic growth.

Federal and state workforce development programs, which often use shorter term non-degree education programs to connect or reconnect individuals to the labor market, also need better data to support their programming. Since non-degree credentials vary tremendously and outcomes data are often not readily available, identifying quality programs is a challenge. In order to evaluate and identify effective workforce development programs and match those programs with employer and individuals' needs, quality and outcome data need to be collected on non-degree credentials.

Programs with strong employment outcomes, such as computer science, data science, engineering, nursing, and skilled trades programs, typically cost substantially more for institutions to deliver than other programs. Reasons for this include higher market salaries for instructors and faculty and higher costs for laboratory-intensive courses. At public four-year institutions, there is a relatively strong correlation between programs with high delivery costs and those with strong [restrictions to access](#) (which occur when institutions limit the number of students accepted into a program because of resource constraints). While this may also be true at community colleges, more research is needed to document these restrictions.

These kinds of restrictions present a problem for policymakers because they often have a disproportionate impact on the learners who would most benefit from these programs. State funding formulas that don't reflect program delivery costs effectively disincentivize institutions from expanding enrollment in higher-cost programs with excellent employment outcomes, even when both labor market and student demand is [high](#).

To overcome these challenges, policymakers should focus on four objectives:

- **Build dedicated data capacity to support agile postsecondary education systems that are responsive to the labor market.** To make data-informed decisions about education and workforce planning and investment, policymakers need dedicated, expert staff to generate useful analysis and insights using robust data systems. These insights should then be provided to education providers, workforce development systems, economic development agencies, and employers.
- **Remove disincentives that deter postsecondary education providers from expanding quality programs that lead to high-wage, high-demand jobs and careers.** Rethinking funding models and metrics for success – such as performance-based funding models and program measures focused on outcomes such as wages, while taking into account learner characteristics – will improve education's responsiveness to the labor market while ensuring quality programming. To ensure greater representation in high-demand programs, state funding formulas should account for program delivery costs, which are typically higher for programs with high-wage outcomes.
- **Enable shared responsibility between postsecondary education providers and employers for producing a skilled workforce.** Policymakers need to align siloed workforce development, postsecondary, and economic development systems. For example, state leaders should encourage the development of integrated higher education, workforce development, and economic development plans to ensure effective use of scarce state resources and optimize outcomes for both learners and employers.
- **Encourage employers to hire, retain, and promote based on skills and experience rather than solely on degrees.** Redefining job requirements so they address specific skills and abilities rather than defaulting to degrees as a required credential will improve outcomes for learners and contribute to a more robust talent pipeline.