WICHE
Western Interstate Commission for Higher Education

STATE APPROACHES TO SHORT-TERM POSTSECONDARY CREDENTIALS:
Challenges, Opportunities, and Policy Gaps

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About WICHE

The Western Interstate Commission for Higher Education (WICHE) is a regional interstate higher education compact of 15 Western states and the U.S. Pacific Territories and Freely Associated States. Since 1953, WICHE has focused on its mission of expanding educational access and excellence for all residents of the West. By promoting innovation, cooperation, resource sharing, and sound public policy, WICHE strengthens higher education's contributions to the region's social, economic, and civic life.

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OVERVIEW

The Issue

There is an increasing demand from prospective postsecondary students for flexible, short-term offerings with workforce relevance. However, this rising demand is accompanied by a lack of clarity around the quality of existing options and how they can — and should — fit into state policy approaches to postsecondary education and workforce development more broadly.

The Challenge

The short-term credential market offers an overwhelming array of options, with limited information and guidance to help potential students navigate those choices. At the same time, the delivery, oversight, and funding mechanisms that exist for these short-term credentials at the state level tend to be fragmented and siloed. As lines between traditional higher education, workforce training, and new types of providers blur, it becomes all the more important to understand who is offering what, with what oversight, and to what desired outcomes..

The Goal

This work aims to map out the ways in which state policymakers intersect with these credentials. This paper offers examples of state approaches to investment in, and oversight of, these credentials, while also highlighting knowledge and policy gaps within existing structures where future work might be helpful.

DEFINITION AND SCOPE

States have many policy mechanisms they can use to impact short-term credentials, yet there is great variation in how these levers are used and how they interact. This work provides a high-level overview of how different state policy functions can play a role in shaping short-term credential quality and use.

Definitions are a key element of this discussion. While many thoughtful researchers and policymakers have developed useful typologies of credential types, there is not yet widespread consensus on what terms are used in which instances. This is true both within and across states.[1]

For the purposes of this paper, the focus was narrowed to what the authors call **"short-term credentials"** which they defined as **non-Title IV eligible, postsecondary, nondegree credentials**. This definition is inclusive of credit and noncredit offerings offered by any type of provider (public, private, or non-institutional). Broadly speaking, this means programs less than 10 weeks and 300 clock hours in length.[2]

The definition was selected to sufficiently narrow the scope of the work to focus on those areas most removed from traditional oversight mechanisms (such as Title IV participation and registered apprenticeship requirements) yet remain inclusive enough to consider the full range of providers that have a significant role to play in the short-term credential space.

Despite efforts to limit the scope, the decision to include both credit and noncredit offerings and traditional institutional providers means that the paper does cover a wide swath of offerings. Consequently, the information presented below draws upon a range of resources — some only applicable to specific subsets of this definition (for example, noncredit offerings). The authors have done their best to clarify when these distinctions arise.

STATE AUTHORIZATION

State Policy Function

Every state has the authority to determine how postsecondary entities operate within its borders, and every state can condition its authorization to operate upon factors of its choice. At a baseline level, how states choose to define postsecondary providers — for example, limiting oversight to those providers that grant degrees or to those that have a physical presence within the state — determines the range of the providers that fall under the state's authorization authority. States also have great flexibility in the types of standards they choose to hold providers to, both for initial and ongoing operation.

An important emerging area in this field is the role of unbundled providers, where one entity might operate a marketplace or platform that offers courses, modules, or even assessments and credentials from a range of providers to students within a state. A critical area for continued attention will be how these and other evolving models of postsecondary education and training fit into existing statutory and regulatory frameworks, which were not written with oversight of these new entities in mind.

Range of State Approaches

State authorization approaches differ significantly from state to state, as well as within a state, depending upon provider type and sector. Each state has a unique statutory or regulatory definition of what constitutes a postsecondary education provider for oversight purposes. For example, many states exempt recreational programs (such as yoga instructor training) from oversight, while some have thresholds related to tuition amounts (the state will not regulate providers charging under a certain amount) and/or program length (typically exempting very short-term programs).[3]

For those providers the state does choose to oversee, that regulation generally differs by institutional type. It is very common for states to have different entities that oversee public versus private providers. Within the public sector, oversight may be bifurcated between four- and two-year institutions or occur on a system or institution-by-institution basis. Among private institutions, oversight is sometimes split between agencies depending on whether the provider is degree or nondegree-granting.[4]

The scope of oversight that states exercise for authorization varies greatly as well, with some states conducting extensive analysis of everything from instructor qualifications to curriculum relevance to financial stability, and other states opting for a lighter regulatory

hand. Moreover, there are states that regulate at the institutional level, while others require the approval of every program offered by an institution. However, it is important to note that in many states programmatic approval is limited to for-credit programs, particularly in the case of public institutions.[5]

Beyond statutory and regulatory authority, the structure and capacity of an authorizing entity also plays a critical role. In some states, the authorizer is an independent agency with rulemaking authority and a dedicated budget, while in others the authorizer sits within a larger agency such as a higher education department or system office. Funding structures vary as well, with some self-funded by application fees from providers seeking or maintaining authorization and others funded through state appropriations for agency budgets. As a result, staffing levels range from a percentage of a single employee's time to multiple dedicated staff members. Available resources also impact the technology solutions that can be implemented to support important functions including data collection, workflow management, and the collection of student complaints.[6]

Example

COLORADO DEPARTMENT OF PRIVATE AND OCCUPATIONAL SCHOOLS

Colorado's Private Occupational Education Act of 1981 established the state's Division of Private Occupational Schools (DPOS) within the state's Department of Higher Education to oversee private providers in the state offering credentials below a bachelor's degree. The statute's broad definition of terms including "education" and "private occupational school" give DPOS the authority to regulate across the spectrum of postsecondary training — from associate's degrees to single courses offered by any entity offering educational services.[7]

DPOS is governed by its own board, appointed by the governor and confirmed by the senate, with membership required to include representatives of private occupational schools, representatives from the public, and a member of the financial community. DPOS is entirely self-funded through provider registration fees — currently $5,000 per school with providers required to re-certify every three years — and operates with nine staff members.

The division's mission is to "provide standards for and to foster and improve private occupational schools and their educational services, and to protect the citizens of this state against fraudulent or substandard private occupational schools." It does this in a variety of ways, beginning with an extensive certification process for providers designed to ensure their educational service standards, fiscal responsibility, and ethical business practices. This includes the collection of at least three independent "Evaluator Reports" for any new program or stand-alone course to demonstrate that the proposed program prepares graduates for current industry needs. This requirement helps ensure that despite the wide range of occupational education pathways that DPOS oversees, it has a mechanism to evaluate workforce relevance.[8]

DPOS also has significant enforcement authority to ensure its standards are being met, including the ability to issue subpoenas and perform both announced and unannounced site visits to providers. The division's statute and rules also include specific requirements around provider closures, including train-out procedures, a surety requirement, and records retention policies.[9]

In recent years, Colorado has begun to explore more explicit collaboration between DPOS and its Department of Labor and Employment which oversees the state's Eligible Training Provider List (ETPL) given the significant overlap between providers on the ETPL and providers overseen by DPOS. An important new step has been the launch of a combined provider application portal for providers seeking DPOS approval and a place on the state's ETPL. Looking ahead, the state hopes to further integrate and leverage data from private providers as it builds out its State Longitudinal Data System (SLDS) to develop a more comprehensive picture of the workforce outcomes of different postsecondary educational programs.[10]

Key Considerations

- Authorization can serve as a critical function to establish baseline expectations for providers of nondegree credentials and can offer important consumer protections for students.
- While every state has the authority to regulate, the extent to which states' regulatory philosophies support increased oversight can vary widely. Further, the amount of political will to adjust existing statutory and/or regulatory language to fully capture the rapidly-expanding universe of credential providers and to invest in increased capacity to implement these policies effectively also varies.
- Siloes within this work can be a challenge. Authorizers often differ depending on school type (e.g. public and private, two-year and four-year) and in many cases the work they do and the information they collect is not incorporated into broader state-level data products and/or higher education strategic planning efforts.

Areas of Opportunity

- Better understand whether existing authorization processes are producing desired state policy outcomes and if not, what statutory or regulatory changes would be needed to achieve them.
- Explore integrating authorization data into State Longitudinal Data Systems (SLDS).
- Convene regulators to discuss how "unbundled" delivery models such as Coursera and Udemy fit into existing regulatory structures and what changes might be needed.

Resources

- State Authorization Network (SAN)
- State Higher Education Executive Officers (SHEEO) Association Resources
  - State Authorization for Short-Term Career-Oriented Credentials
  - Capacity to Protect
  - Improving State Authorization
- National Council for State Authorization Reciprocity Association (NC-SARA) State Authorization Guide

CONSUMER PROTECTIONS

State Policy Function

In addition to the higher education-specific consumer protections contained in some states' authorization requirements, all states have a range of consumer protections in statute, typically falling under the umbrella of Unfair, Deceptive and Abusive Practices (UDAP) laws. These laws and accompanying regulations vary by state but include protections for consumers around issues such as false advertising and can be used to hold education and training providers accountable for violations. In several states these also cover predatory lending practices. There is significant variation from state to state around what types of activities are covered, whether the statute grants rulemaking authority to state agencies, enforcement authority, and the remedies available for violations.[11]

An emerging area with relevance for higher education broadly (and nondegree credentials specifically) is the regulation of financial products used to fund postsecondary education. Because short-term credentials fall outside many of higher education's legacy financing structures, including federal Title IV financial aid and many state financial aid programs, alternative financing models are particularly common in this space.[12]

Over the past several years, new financing models such as Income Share Agreements (ISAs) have emerged, wherein students receive financial support for their postsecondary education in return for agreeing to pay a fixed percentage of their income over time after they complete their program. The ISA model does not fit neatly into traditional definitions of loans. For example, because of their dynamic structure, ISAs lack a traditionally calculated Annual Percentage Rate (APR), a disclosure required by the federal Truth in Lending Act and many state statutes and regulations related to loan products.[13]

Another approach, Training Repayment Agreement Provisions (TRAPs), occur when an employer provides employees with a training (this could be in-house or externally provided and may or may not result in a credential) with the stipulation that the employee will repay the value of the training or a prorated amount if they leave the employer before a specified length of time. Cited examples of TRAPs often feature short-term, nondegree credentials (such as commercial driver's license [CDL] training programs) as the training in question. Some consumer protection advocates, as well as state and federal regulators have expressed concern that these arrangements can unfairly constrain employee mobility, functioning similarly to a noncompete clause. Consequently, states like California, Connecticut, and Colorado have prohibited or limited their use.[14]

As these examples illustrate, regulating the use of evolving financial models for nondegree credentials can require attention to a different area of policy than traditional higher education oversight mechanisms — involving different statutes and different oversight agencies. And as with any regulatory approach, states must decide how to balance innovation with robust consumer protections.[15]

Range of State Approaches

In most states, statutes and regulations related to consumer lending do not have a broad enough definition to encompass ISAs and related products within their scope. However, in response to the evolving landscape of financing models in postsecondary education, a small number of states have begun to update their regulatory definitions, thereby applying oversight mechanisms including registration, reporting, and disclosure requirements.

Example

CALIFORNIA DEPARTMENT OF FINANCIAL PROTECTION AND INNOVATION

In 2021, the California Department of Financial Protection and Innovation (DFPI) signed an agreement with an ISA provider signaling DFPI's intent to treat ISAs as loans subject to the California Student Loan Servicing Act (SLSA). Over the following years, DFPI launched a rulemaking process to codify this determination, resulting in a final rule that became effective at the beginning of 2024. Key elements of the new rule include a broad definition of "Income-Based Advances" and a clear determination that they are a loan subject to applicable state laws.

> *Article 4. Loans. § 1461. Advances Under the California Financing Law. (a) Any advance of funds to be repaid in whole or in part by the receipt of a consumer's wages, salary, commissions, or other compensation for services is a sale or assignment of wages and a loan subject to the California Financing Law, regardless of the funding provider's means of collection, whether the provider has legal recourse if the provider is unable to collect the amount it advanced, or whether the consumer has the right to cancel collection of the amount advanced.*

The rule also includes a definition of postsecondary education that "is not limited to programs where a student receives a degree or certificate upon completion of the program" ensuring that the provisions apply to nondegree education and training. Another requirement of the rule is that providers must register with the state and submit annual reports.[16]

Key Considerations

- State oversight can offer an important mechanism to ensure providers are not taking advantage of students with unscrupulous loan products or employment agreements.
- The relatively new nature of some types of financing arrangements means they are not captured by many states' existing regulations.

- The extent to which the state agencies and personnel responding to these concerns interact with traditional higher education oversight structures is unclear. For example, how could (or should) financial product oversight interact with postsecondary state authorization?

Areas of Opportunity

- Better understand existing state regulations over the range of financial products used in higher education and where there are gaps.
- Explore how evolving regulatory approaches are protecting students, including by leveraging newly collected state data elements.
- Learn how students and prospective students are made aware of key considerations related to available financial products.

Resources

- National Consumer Law Center Consumer Protection in the States
- Jobs for the Future Financing the Future
- First Evidence on the Use of Training Repayment Agreements in the U.S. Labor Force
- California Student Loan Servicing Regulations

STATE FINANCIAL AID

State Policy Function

State financial aid programs serve to incentivize students' participation in higher education offerings through grants or scholarships funded by the state. Most states offer multiple programs with wide variation in size (the amount the funding covers), scope (the types of programs and institutions that are eligible for funding), and participant eligibility requirements. State financial aid reduces or eliminates out-of-pocket costs to students for eligible programs and can incentivize providers to offer eligible credentials by spurring demand.

The design of financial aid programs reflects states' policy priorities. Through decisions on the types of credentials, the subject areas, and the participants who are funded, states determine how they will deploy their finite fiscal resources to support the development of a workforce and citizenry with the skills that the state needs. And because, unlike much of higher education, short-term postsecondary credentials have a limited number of federal financing options, state decisions around what types of credentials to subsidize via state financial aid programs may have a particularly substantial impact on student and provider behavior in this space.

The programs described below offer just a small window into the overall financial aid program variety across the nation. While each prioritizes in-demand careers of some kind, the definition of this designation varies. Moreover, decisions on eligibility requirements reflect a range of priorities — from engaging low-income adults in in-demand career pathways to encouraging recent graduates to enroll in a postsecondary workforce training option — as well as a range of strategies, from funding all types of providers to specifically investing in the state's public education system.

Range of State Approaches

There is extensive variety in the way that states opt to offer financial aid for nondegree credential programs. Some states do not cover these credentials at all with their financial aid offerings, while others have designed robust and sustained state aid programs for nondegree credentials. Many states fall in between, offering aid on a limited scale, often targeted to credentials in high-demand industry sectors.

In terms of scope, data from the State Higher Education Executive Officers (SHEEO) Association annual State Higher Education Finance (SHEF) report show that states spent $400 million in 2023 directly on noncredit programs, compared to the $13.4 billion spent on

financial aid programs and $100.7 billion spent on institutional operating support.[17]

A report from HCM Strategists that uses a different methodology suggests that approximately $5.6 billion in state aid is available to be used for short-term credentials. However, not all of these funds are spent on nondegree credentials, as some funding streams included in the analysis cover both degree and nondegree credentials and the breakdown in spending between the two groups is unclear (for example, some of the state programs included fund associate degrees and many fund longer-term, Title IV-eligible certificate programs).[18]

While the exact amount of state aid spent exclusively on non-Title IV eligible short-term credentials is difficult to determine from available data sources, at present state financial aid for nondegree credentials accounts for a very small overall percentage of state funding for higher education, but a significant, and in many states, growing component of state financial aid programs.

Examples

VIRGINIA'S FASTFORWARD

This pay-for-performance model provides funding for the state's community college short-term, noncredit offerings in designated high-demand fields with an associated industry-recognized credential (IRC). Students are responsible for one-third of the cost at enrollment. If they complete the program and the IRC, the state reimburses the institution for the remaining two-thirds of the cost. If the student fails to complete the IRC, the student is responsible for an additional one-third of the program cost. If the student fails to complete the training, the institution is responsible for the remaining one-third of the cost.

Hallmarks of the program include exceptionally strong data collection on student outcomes, high completion rates, and significant wage gains for participants. The state appropriation for the program has more than tripled since its inception in 2017, from $5 million to $18.5 million in fiscal year 2024, and program enrollments continue to increase. Notably, program stakeholders suggest that the model has significantly reshaped the state's community college noncredit offerings, sharpening their focus on meeting employer-aligned needs in local communities to be eligible for program funding.[19]

LOUISIANA'S M.J. FOSTER PROMISE PROGRAM

Launched in 2021, this state aid program provides funding for income-qualifying students pursuing qualified programs of two years or less, including noncredit programs that lead to high-demand, high-wage occupations. The funding can be used at public and approved private institutions offering qualifying programs. Evaluation requirements for the program have supported state efforts to collect data on noncredit offerings, including on workforce outcomes and will provide data on both public and private institutions participating in the program. In

2024, the program was funded at $10.5 million using state general fund dollars, and recent reports suggest that demand is outstripping available funding. Moreover, the program's 2024 annual report allowed for the first analysis of post-completion wage changes for program participants. Completers from the 2022-23 academic year cohort saw an average wage increase of more than $20,000, primarily in the fields of health care, transportation and warehousing.[20]

NEW MEXICO'S GOVERNMENT RESULTS AND OPPORTUNITY (GRO) APPROPRIATION

In 2024, New Mexico's legislature appropriated $60 million over three years from the Government Results and Opportunity (GRO) fund to "pay up to the full cost of student tuition and fees for workforce training courses not eligible for other financial aid and that result in an industry-recognized credential or endorsement" at New Mexico community colleges and regional universities. This unprecedented investment in noncredit workforce training in the public postsecondary system allows the state's Higher Education Department to set performance metrics for funded programs and to collect data on noncredit student outcomes for the first time. However, a recent report from the state's Legislative Finance Committee suggests that it may take some time for the state to build up its public postsecondary capacity for offering these types of programs since they have historically not had a dedicated funding source and tend to be smaller in scale than offerings on the for-credit/degree side. Another critical challenge is recruiting adult students seeking workforce training or retraining as it can be difficult to reach populations not currently engaged with the education system.[21]

IDAHO'S LAUNCH

Created in 2023 and implemented the following year, the Idaho LAUNCH program offers funding to students coming directly out of high school to pursue designated in-demand careers in the state, including noncredit, nondegree offerings. The funds can be used at both public and approved private providers and cover up to 80% of tuition and fees at approved programs up to $8,000. A requirement of receiving the funds is completion of a "Career Pathway Plan" by the applicant. Reports from the initial year indicated that demand far exceeded available funds, suggesting that the program was successful in encouraging young people to pursue a postsecondary credential of some kind — a policy goal for the state, which has historically had low "go-on" rates (students enrolling in college the fall immediately after their high school graduation). In 2024, program awards were funded at approximately $75 million.[22]

Key Considerations

- Developing a scaled financial aid program is a significant investment of state resources and requires widespread, long-term buy-in from policymakers and other stakeholders.
- Financial aid programs are often subject to annual/biannual appropriation cycles or time-limited pilot funding, which can raise sustainability concerns.
- These programs can be a powerful mechanism to enact quality standards for eligible

programs and are likely to shape institutional behavior. The state has full control over the quality elements and can tailor them to meet state priorities. Depending on program design, they may encompass public and private providers.

- These programs offer an opportunity to collect data on student outcomes and where possible, link to wage outcomes. Depending on program design, they may encompass public and private providers.
- Supporting students in navigating these programs, including the benefits they offer, expected outcomes, and how they fit into different career and/or postsecondary pathways remains a challenge for many programs.
- Programs may be developed independent of other aid initiatives and broader statewide strategies, resulting in siloing concerns. Some have also expressed concerns that aid for shorter-term credentials might divert state funding that would otherwise have gone to degree programs.
- Program designs (and data collected) vary greatly state to state, limiting interstate comparability.

Areas of Opportunity

- Better understand how existing initiatives have shaped provider and student behavior and the mechanisms by which they have done so.
- Explore opportunities for scale.
- Support states in integrating data, including wage outcomes, into their data systems, with the aim of evaluating programs' success in meeting their state's policy goals.
- Learn more about how these programs do or could interact with other available funding streams, both in terms of reporting and data collection requirements as well as eligibility for funding.
- Assess the navigation options for these programs and best practices in this space.

Resources

- SHEEO 2023 SHEF Report
- National Skills Coalition State Financial Aid for Nondegree Credentials
- HCM Strategists A 2024 Update of State Investments in Short-term Credential Pathways
- VA FastForward Legislative Report
- 2024 Year Two Report Murphy J. Foster Promise Award Program
- New Mexico Legislative Finance Committee Program Evaluation Postsecondary Certificates
- Next Steps Idaho

INSTITUTIONAL OPERATING SUPPORT

State Policy Function

The bulk of state funding for higher education comes in the form of state appropriations for institutional operating support. This funding forms the basis for public institutions to maintain their operations and offer educational programming, although the percentage of institutional operating budgets covered by appropriations varies by state.

How states allocate this funding varies. For example, research shows that some states have no codified mechanism for allocating these funds, while others use a base-adjusted model (typically a percentage change to the previous year's allocation). Some states use an enrollment- or performance-based funding model, and others use a combination of these approaches. While institutions may invest state operating support into delivering short-term credentials under any of these approaches, it is only in states that use an enrollment- or performance-based funding model that institutions can receive institutional operating support tied to student enrollment or completion of short-term credentials.[23]

However, it should be noted that states across the range of funding models provide institutional operating support to public technical colleges, whose programming generally includes a variety of short-term, nondegree credential offerings aligned to local industry needs.

Range of State Approaches

Among states that use a formula funding approach of some kind, some do not reward the delivery of nondegree credential programs at all, particularly if they are offered as a short-term and/or noncredit option. Several states do include enrollments or completions in for-credit certificate programs in their funding models — in some cases at two-year institutions only and in some cases at both two- and four-year institutions. However, these certificates often must meet a minimum credit threshold to be included.

According to 2024 research from the Association of Community College Trustees Center for Policy and Practice, 27 states include some form of support for noncredit education in their community college funding models. However, this analysis includes areas such as adult basic education and English as a second language, which fall outside the realm of postsecondary education, but are often offered by community colleges. The inclusion of these course areas in the analysis may overstate the number of states that are directly funding the delivery of nondegree, non-Title IV eligible postsecondary education options.[24]

Examples

TEXAS COMMUNITY COLLEGE FINANCE PROGRAM

In 2023, Texas passed House Bill 8, implementing a performance funding system for the state's community colleges that rewards institutions for producing a wide array of nondegree credentials in high-demand fields including multiple types of certificates, Occupational Skills Awards (OSA), Institutional Credentials Leading to Licensure or Certification (ICLC), and even certain third-party credentials meeting defined criteria. The formula specifically rewards Credentials of Value (COV), defined in program rules as "when the majority of students statewide completing the credential, within a program area, are expected to accrue earnings greater than the cumulative median earnings of Texas high school graduates who do not hold additional credentials, plus recouping the net cost of attendance within 10 years after earning the credential."[25]

Additional funding weight is conferred for outcomes of adult students (25 or older) and academically or economically disadvantaged students. There is also additional weight designated for credentials in high demand fields as determined by 10-year occupational projections, with additional flexibility for colleges or the Commissioner of Higher Education to designate "emerging" and "essential" occupations. This model comprises the bulk of the state funding for institutions and is designed to incentivize the production of a variety of economically-valuable credentials at the state's community colleges.[26]

UTAH SYSTEM OF HIGHER EDUCATION

Utah's performance funding model comprises a portion of state funding for institutions and applies to all public institutions in the state including dual-mission institutions and community and technical colleges. Technical colleges are eligible for 20% of available funding while degree granting institutions are eligible for the remaining 80%. The funding formula rewards institutional progress towards achieving three key state goals articulated in statute: access, timely completion, and high-yield awards. The board defines high-yield awards as credentials — including certificates of less than one-year — which "map to high-wage/high-demand jobs as defined by the Department of Workforce Services' biennial four-and-five-star jobs publication." The board maintains a public dashboard of these awards by field and credential type as part of their strategic plan attainment goals.[27]

Key Considerations 💡

- Changing institutional funding mechanisms can be a heavy lift, in most cases requiring legislation.
- Incorporation into a state funding model allows the state to set parameters around the types of credentials they will support and the outcomes they are looking for. As with the design of state aid programs, this can include incentives for credential production in

specific occupational fields and for specific types of students.

- Research suggests state institutional operating support drives institutional behavior, therefore an investment in linking institutional operating support to the production of state-desired short-term credentials may be a particularly effective way to incentivize institutional behavior.[28]
- By nature, incorporation into a state funding model would ensure the collection of data on student outcomes and where data linkages are available, information on associated wage outcomes.

Areas of Opportunity

- Identify and share lessons learned from other states with a focus on how these initiatives have or are intended to shape institutional and student behavior.
- Seek to understand how, if at all, more robust, workforce-relevant offerings at public institutions result in prospective students shifting from private to public options.

Resources

- State-Based Funding Models for Community College Systems by Student Enrollment Group
- Texas Community College Finance Program
- Utah System of Higher Education Performance Funding

ONE-TIME FUNDING OPPORTUNITIES

State Policy Function

States routinely leverage various streams of funding outside of their financial aid and ongoing institutional support investments to support pilot and one-time initiatives designed to advance a specific aim for postsecondary education in their state. This was especially common after the influx of federal stimulus funding to states in the wake of the COVID-19 pandemic.

Range of State Approaches

These approaches run the gamut from targeted models funding the integration of industry-recognized credentials into existing programs to large-scale investments in the state's providers of credentials in areas of economic need.

Examples

WYOMING INNOVATION PARTNERSHIP

Launched in late 2021 by the Wyoming governor's office, the Wyoming Innovation Partnership (WIP) brings together leaders from the state's public colleges and university, Community College Commission, Department of Education, Department of Workforce Services, and the Wyoming Business Council. WIP's aim is to "align education and workforce development and support innovation, entrepreneurship, and research to help drive Wyoming's economy."

WIP has allocated three phases of funding totaling over $60 million made available through federal stimulus funding in the first two phases and funded by state appropriation in the third phase after positive results from the initial investment. This influx of funds to invest in postsecondary efforts that support the broad goals of WIP allowed for an unprecedented level of flexibility in the state. As a result, WIP was able to fund the development of a wide range of programs aligned to the state's workforce needs, including several in the nondegree, noncredit space.

The WIP investments included start-up costs for resource-intensive nondegree credentials in critical areas of state need, ranging from advanced manufacturing to commercial driver's license (CDL) training to powerline technology to trailbuilding. The programs are designed to become self-sustaining, but without the initial WIP investment in start-up costs, many would not have launched. In addition to the funding, the collaborative structure of WIP itself has

played a key role in bringing together traditionally siloed entities across the state to better align the state's postsecondary credentials with its current and future workforce needs.[29]

CONNECTICUT TECH TALENT ACCELERATOR

In 2021 the Connecticut Office of Workforce Strategy (OWS) launched a state-funded grant program to support the state's institutions — including two- and four-year public and private institutions — in rapidly developing short-term (six to eight weeks) curricular offerings to meet the skill needs of local tech industry employers. The grant program required industry partnership and the demonstration of local job demand but was flexible on design. For example, some awardees embedded industry-recognized credentials into longer-term programs while others developed stand-alone short-term training offerings. The program was designed to be a time-limited investment that would foster the development of long-term higher education-industry partnerships that would sustain after the external funding concluded.[30]

FUTURE READY OREGON

A $200 million investment in 2022 from Oregon's state legislature designed to develop and bolster existing "short-term pathways to meaningful employment, higher earning potential, and opportunities for economic mobility" for Priority Populations in the state including "communities of color, women, low-income communities, rural and frontier communities, veterans, persons with disabilities, incarcerated and formerly incarcerated individuals, members of Oregon's tribes, older adults, and individuals who identify as members of the LGBTQ+ community." The program focuses on three priority sectors — health care, manufacturing, and technology — and combines grants and strategic initiatives to accomplish its objectives.

Competitive funding is allocated to workforce service providers, community-based organizations, labor organizations, community colleges, local workforce development boards and others to develop and expand high-quality short-term training offerings serving Priority Populations. Meanwhile, industry consortia are also funded to identify workforce needs and career pathways in the focus areas. A Workforce Benefits Navigator pilot was also launched, funding local workforce development boards to connect job seekers with relevant training programs as well as basic needs supports such as transportation and childcare. The program is particularly notable for using a state investment to focus on local needs and leveraging community-based strategies to meet them.[31]

Key Considerations

- These funding opportunities may have a significant impact on provider behavior in shifting them towards developing programmatic offerings in line with the state's goals.
- In many cases, because these are one-time investments (often funded with the infusion of federal dollars to states during the COVID-19 pandemic), their long-term sustainability is

unclear. Whether the initial investments were enough to sustain long-term change remains an open question — particularly in states where noncredit offerings are not included in state funding formulas or financial aid programs.

Areas of Opportunity

- Follow and share the impact of Oregon's investment in workforce benefits navigators.
- Explore the long-term sustainability of programs where start-up funding is provided but ongoing support is not.

Resources

- Wyoming Innovation Partnership
- Future Ready Oregon
- Connecticut Tech Talent Accelerator

QUALITY STANDARDS

State Policy Function

While states have multiple avenues to embed quality thresholds in policy, including within state authorization requirements and financial aid and institutional funding formula design, these often operate independently from one another. Some states have begun to pursue statewide quality frameworks that can be broadly applied.

Range of State Approaches

Most states do not have an overarching quality framework for short-term postsecondary credentials, particularly not one that spans multiple areas of state policy. However, a handful of states have begun to focus on comprehensive approaches to quality definition. For example, the National Skills Coalition's Non-Degree Credential Quality Imperative work supported 11 states engaged in efforts to develop quality frameworks. Of these, three (Alabama, Louisiana, and Minnesota) are pursuing a codified statewide quality definition.[32]

Organizations, including the National Skills Coalition (NSC) as well as the National Conference of State Legislatures (NCSL) and the Rutgers Education and Employment Research Center have led work to identify important high-level elements of nondegree credential quality assessment for states. In addition, advances in data availability have allowed for independent efforts such as the Education Quality Outcomes Standards (EQOS) Signal of Quality metric and the CredLens national data hub to emerge, which could be tools leveraged by states.[33]

Example

ALABAMA COMPENDIUM OF VALUED CREDENTIALS

Alabama established its Committee on Credential Quality and Transparency (ACCQT) in statute in 2023, building on years of cross-sector work between the governor's office, workforce development council, higher education systems, the K-12 system, and industry partners to develop a process for identifying high-quality, in-demand nondegree credentials. This work included implementing a comprehensive process for defining in-demand occupations and identifying credentials that can qualify learners for them. The state also developed 10 quality criteria which, together with alignment to an in-demand career pathway, qualify credentials for the state's Compendium of Valued Credentials within the overall registry. Moving forward, the ACCQT will formally take on the role of annually evaluating credentials for inclusion in the Compendium.[34]

Key Considerations

- As an emerging policy area, there is not yet much data on the impact of quality standards.
- Many states lack the data infrastructure, data availability, and/or the staff capacity to assess credential providers' adherence to a value framework.

Areas of Opportunity

- Assess how defining value has shifted institutional and/or student behavior in states that are implementing a framework. Depending upon the scope of the state definition, explore how this might have different impacts in the public versus the private higher education sector.
- Explore how linking value criteria to different policy levers impacts adherence to the definition.

Resources

- Alabama Compendium of Valued Credentials
- Alabama Talent Playbook
- Alabama WIOA State Plan
- National Skills Coalition Quality Imperative
- National Conference of State Legislatures Nondegree Credentials State Policy Framework

ELIGIBLE TRAINING PROVIDER LISTS

State Policy Function

The Workforce Innovation and Opportunity Act (WIOA) provides federal funding to states to support workforce development across a range of dimensions. State block grants for workforce development activities are a component of this funding and include Individual Training Accounts (ITA), a voucher for qualifying individuals to spend on education and training. These ITAs may be used at any training provider with programs the state deems eligible, and the state is responsible for establishing, maintaining, and disseminating a statewide Eligible Training Provider List (ETPL).[35] Therefore, it is the state that determines eligibility criteria for ETPL providers, although there are federally mandated reporting requirements for providers including program cost, program completion rates, and post-program employment and earnings.[36]

The overall amount of funding received by states for WIOA-funded education and training is relatively small compared to higher education spending. Researchers from the Harvard Project on Workforce estimate that, in 2019, about 220,000 individuals received workforce training vouchers through WIOA (compared to over 6 million Pell Grant recipients) and these vouchers totaled less than $500 million (compared to the $25 billion spent on Pell Grants). The research also suggests that these lower amounts mean that most training providers are not receiving a large percentage of their overall funding from ITA recipients and concludes that a significant number of providers may not have enough of an incentive to pursue ETPL participation.

However, the breadth of eligible providers (the same Harvard Project on Workforce researchers estimate there are more than 7,000 providers on ETPLs nationally) and the associated data collection requirements do mean that ETPLs offer some measure of accountability and transparency to a much broader range of providers and program types than many traditional higher education oversight structures.[37] For example, in a state where public colleges do not report on noncredit offerings, data from programs on an ETPL might be the only available information on public postsecondary noncredit options. And in a state where postsecondary authorization requirements are limited to degree granting providers, the ETPL and associated data might offer the only centralized information the state has on private providers of postsecondary education below an associate's degree level.

Range of State Approaches

State flexibility in determining provider eligibility means that there are a wide range of approaches. In recent years, a handful of states have begun to utilize their ETPL standards as a quality assurance mechanism for providers. For example, the National Skills Coalition highlights these types of efforts in Alabama, Colorado, and New Jersey in its Nondegree Credential Quality Imperative report. Other states, such as the Washington example highlighted below, have invested in public-facing tools that connect potential users with information on key program components and outcomes. Meanwhile, some states primarily focus on ensuring that providers meet federally mandated data reporting requirements. Of course, the extent to which states choose to impose requirements on providers differs based on political context, with some states prioritizing less regulatory oversight and associated administrative bureaucracy.

There are also differences in state capacity to oversee and evaluate ETPL providers and programs. While WIOA funding includes a set aside for managing the ETPL, state ability to consistently and effectively provide potential students with independently evaluated workforce outcomes varies depending on the state's existing data infrastructure and staff capacity in relevant agencies.[38]

A final consideration is the extent to which the state entity that manages the ETPL coordinates with related state agencies such as those responsible for postsecondary state authorization and postsecondary institution oversight. Each state has its own mechanisms for coordinating and sharing information between stakeholders, ranging from integrating departments to interagency working groups, to limited formal coordination.

Example

WASHINGTON WORKFORCE TRAINING AND EDUCATION COORDINATING BOARD

Washington leverages its robust state data infrastructure to collect, verify, and publicly report on the employment and earnings outcomes of students exiting postsecondary programs on the state's ETPL. Since 2009, the state has invested in the Career Bridge website, a public-facing career and education portal to support the state's students and jobseekers in identifying postsecondary programs that fit their needs. Those programs span the full education spectrum, from registered apprenticeships to short-term, career-focused certificates to associate and bachelor's degrees. The site features a career quiz for users to better understand how their skills and talents link to careers, along with information on job trends, and a searchable database of over 6,500 programs. The program database includes a wealth of information including cost, length, aid eligibility, modality, types of wraparound supports (such as childcare, career counseling, etc.), completion rate, employment rate and industry of employment, along with median hourly and annual earnings.[39]

Over the years the state has undertaken several efforts to update and modernize the site and it now receives over 6 million annual page views. Upcoming improvements for 2025 will include mobile optimization, a digital portfolio feature allowing for saved searches, and more user-friendly design. The Workforce Training and Education Coordinating Board (Workforce Board) regularly consults the site's end users, which include school and career counselors, students, adult workers and jobseekers, as well as training providers, to identify and prioritize where modifications and updated features are most needed.[40]

Looking ahead to the 2025-27 biennium, the Workforce Board is seeking state funding to further upgrade the site, including a pilot project to work with employers and institutions to identify the specific skills, competencies, and coursework included in posted programs and how the credential earned might fit into an ongoing postsecondary and broader career pathway. Ultimately, the goal will be to list these components in an easily accessible format for all postsecondary programs on Career Bridge, another step forward in providing greater clarity for employers, students, and jobseekers about how credentials and the skills they signify align with what employers are looking for when they hire.[41]

Washington's work is aligned with ongoing efforts of the national nonprofit Credential Engine, which is working on a skills-based credential transparency initiative that encourages states from across the U.S. to post their credentials to a national credential registry using a common language.[42]

In addition to the Career Bridge site, Washington's Workforce Board also performs a robust analysis of the net impact of state and federal workforce programs through a return on investment calculation. The analysis is statutorily mandated in RCW 28C.18.060. For example, the state's WIOA adult program results in an additional $4,700 in earnings per participant per year. The Workforce Board provides this information as part of a larger data dashboard and prints an "at a glance" Washington workforce system poster annually.[43]

Key Considerations

- By nature, ETPLs only capture the subset of providers that seek eligibility or are automatically eligible (such as registered apprenticeships). However, they are one of very few state initiatives that have the authority to collect and independently evaluate extensive data from a wide range of institutions and programs, including private providers and noncredit offerings at public institutions.
- The capacity of administering agencies can vary greatly by state, both in terms of staffing and data infrastructure.
- The extent to which workforce agencies collaborate with traditional higher education oversight structures is often limited.

Areas of Opportunity

- Follow and share how innovative state workforce agencies are using data to incentivize higher quality program offerings.
- Coordinate in-state opportunities for workforce and higher education agencies and others to meaningfully collaborate.

Resources

- National Skills Coalition Nondegree Credential Quality Imperative
- Washington's Career Bridge, Net Impact dashboard, and Workforce System poster
- New Jersey ETPL Procedures
- U.S. Department of Labor Training Provider Results
- Jobs for the Future Task Force on Transforming Training and the Eligible Training Provider List
- Harvard Project on Workforce
- Congressional Research Service The Workforce Innovation and Opportunity Act and the One-Stop Delivery System

ADDITIONAL STATE POLICY LEVERS

A range of other programs, both state-led and state-administered federal programs, touch the short-term credential space. These include state decisions on how federal Strengthening Career and Technical Education for the 21st Century Act (Perkins V) funding can flow to postsecondary career and technical offerings and how Temporary Assistance for Needy Families (TANF) recipients can pursue education and training. While they are not explored in-depth within this paper, they remain important avenues for further exploration and should be considered as states examine the full scope of their investment in and oversight over short-term credentials.[44]

State policy can also intersect with short-term credentials through occupational licensing. Each state decides which professions it will license and the associated requirements. Typically, a state will identify in statute the profession to be licensed and then delegate the determination of specific criteria for licensure to a state agency or appointed board. These criteria may include requirements around short-term credentials, such as instructor qualifications and programmatic length. State licensing entities can also be sources of data on short-term credential holders in relevant fields, although these data are generally not incorporated into statewide longitudinal data systems.[45]

Examples

STATE APPROVING AGENCIES FOR VETERANS BENEFITS

State Approving Agencies (SAAs) are agencies designated by their states to approve and oversee education and training programs for participation in federal veterans education benefits offered by the GI Bill. SAAs contract with the U.S. Department of Veterans Affairs (VA) to perform this function and are staffed by state employees. GI Bill benefits can be used at a wider range of programs than federal Title IV financial aid, including nondegree-granting, nonaccredited providers. There are also no length requirements for the benefits, which can be used for a single course. In fiscal year 2021, GI Bill benefits totaled approximately $12 billion across over 700,000 students.[46]

While the overall requirements for program participation are outlined in federal statute, states may determine "such additional criteria as may be deemed necessary by the State approving agency" if approved by the Secretary of Veterans Affairs and if the criteria treat all types of schools (public, private, and proprietary) equitably. States also have a critical role to play in determining the capacity level of the SAA, as the staffing and resources allocated to the agency can impact the speed and quality of the reviews performed.[47]

In 2020, the Isakson and Roe Veterans Health Care and Benefits Improvement Act of 2020 instituted a novel model of risk-based oversight, which went into effect in 2022.[48] While many states are still in the early stages of implementation, six states served as pilot locations that adopted the risk-based accountability models demonstrated that the approach was effective in predicting negative institutional outcomes in a way that strategically prioritized limited oversight resources.[49] As states consider increased oversight of short-term credential providers, this model could offer valuable lessons learned for identifying at-risk providers.

SUPPLEMENTAL NUTRITION ASSISTANCE PROGRAM (SNAP) EMPLOYMENT AND TRAINING (E&T)

The federal Supplemental Nutrition Assistance Program (SNAP) administered by the U.S. Department of Agriculture includes funding for Employment and Training (E&T) that improves the employability of SNAP participants. States have considerable flexibility in determining how these E&T funds will be utilized, and this can include partnerships with short-term credential providers offering workforce-relevant programs. In many states, community and technical colleges serve in this partnership role and offer programs for which SNAP E&T funding can be used to cover tuition and fees. The key criterion for SNAP E&T eligibility is a program's direct link to job readiness, and as such, states can use SNAP E&T eligibility determinations to drive funding towards programs that meet their state's workforce needs.[50]

Key Considerations

- These programs can each provide valuable data on outcomes, often from providers outside the traditional higher education sphere.
- There are often limited mechanisms for connection among the administering agencies. While federal guidance often recommends combined reporting for federal purposes, in practice a lack of alignment among requirements can make this difficult.[51]

Areas of Opportunity

- Support increased in-state coordination of funding and oversight activities across agencies.
- Draw lessons learned from these program's oversight strategies, such as the SAA's move to a risk-based accountability structure.

Resources

- Congressional Research Service Direct Federal Support of Individuals Pursing Training and Education in Non-degree Programs
- EdCounsel Lessons from a Risk-Based Oversight Model Designed to Protect Students and Taxpayers
- New America An Avenue for Alignment: Key Takeaways from WIOA and Perkins Combined State Planning

HOW IT ALL FITS TOGETHER

While states have many mechanisms that can offer oversight of and investment in short-term credentials, they are often governed by different statutes, housed in different agencies, supported by different funding streams, and administered by different sets of people collecting different pieces of information. Therefore, it can be structurally challenging for states to collect a comprehensive picture of the short-term credential offerings within their borders, much less assess these credentials' impact on student outcomes and their role in economic development.

Yet as demonstrated by enrollment and survey data and the popularity of aid programs such as the Idaho LAUNCH and Louisiana's M.J. Foster Promise, prospective students are demanding these shorter-term credentials. And given the current landscape, it is states that are leading the way in terms of determining how these credentials are defined, what standards they are held to, what outcomes they should produce, and how they are funded.[52]

Stakeholders across the field have highlighted the importance of executive leadership in bringing together the disparate state entities that impact short-term credentials. While siloes can naturally arise from separate funding streams and agency structures, governor's offices and other state policy leaders can use their position to convene relevant parties and foster ongoing collaboration. Collaboration can also produce significant benefits in relation to data and ultimately building the evidence base for understanding how short-term credentials are contributing to student success. As states build out their longitudinal data systems, the capacity to include information on short-term programs in both the public and private sectors will be critical in crafting a holistic view of postsecondary education and training and its outcomes.

LOOKING AHEAD

Clearly there is much work to be done across a range of issues, including research, policy, and state capacity development. While each state is in a different place, these topics emerged as broad areas of interest across a range of state contexts.

Suggested Areas for Future Research

IMPACT OVER TIME

Though student and employer interest in short-term credentials is clearly growing, these credentials' impact on workforce outcomes, particularly over longer time horizons is less clear. Understanding how these credentials impact career pathways in the short-term, as well as over longer periods of time, especially in the context of economic downturns and changing demands of different industry sectors will be important. While prior research has shown that college degrees have historically provided some protection against negative economic impacts in recessionary periods, the impact of short-term credentials is more difficult to assess with available data sources. Short-term credentials are often industry-focused, while many degrees, especially in the liberal arts, tend to be broader in nature. The extent to which short-term credentials offer the combination of technical and durable skills (widely applicable skills such as critical thinking and collaboration) desired by employers across different types of economic conditions is an open question.[53]

Understanding which learners are acquiring which types of preparation will be needed to inform state policymakers and institutions about investment strategies. State data systems, particularly those such as Virginia's which can link noncredit students and their workforce outcomes over time, have much to contribute to this body of research. Ongoing efforts like Rutgers Education and Employment Center's State Noncredit Data Project can play a key role in building out this picture.[54]

Further research on "stacking" credentials — both horizontally (with other short-term credentials) and vertically (with higher level credentials such as associates and bachelor's degrees) — that builds on robust initial efforts (like that of RAND's analysis for Ohio and Colorado) could also shed important light on how these credentials function both independently and as part of the broader higher education ecosystem.[55] Other models of credentialing will also be important to better understand, for example, hybrid models which embed industry certifications and work experience within traditional degree programs.

A broad-based resource in this space is the Learn & Work Ecosystem Library, which leverages artificial intelligence tools to curate information from across the field, including innovation initiatives, relevant organizations, and the language used to describe this work (Glossary). This "information aggregator database" includes a wealth of information for states seeking information to guide the planning and implementation of short-term credential efforts.[56]

IMPACT OF ARTIFICIAL INTELLIGENCE ON STUDENT DECISION-MAKING

How prospective students identify and select postsecondary programs — particularly older adults outside the K-12 system — has long been an area that higher education seeks to better understand. Yet even what little is known about how information sources shape decision-making is being upended due to the rise of artificial intelligence (AI). As AI plays a growing role in everything from internet search results to advertising to assisting counselors in navigating available options, there are a range of open questions to explore.

Technology tools such as platforms powered by AI for selecting programs, selecting internships and apprenticeships, matching academic preparation to available jobs, and changing jobs are not typically state-focused except where students have the option to "select a state or locale" in their search. The growing number of technology tools may add confusion for many students and their families, therefore increasing the importance of state-level consumer protections. These may be areas in which states can cooperate to clarify preferred tools for use in their state in the face of competing products.[57]

STUDENT DEFINITIONS OF SUCCESS

While completion and short- and long-term workforce outcomes are an important component of understanding the impact of short-term credentials, students' personal definitions of success are critical as well. Qualitative research around student priorities can help to ensure that state investments in short-term credentials are meeting the needs of their student populations and that programs are designed with the supports students need.[58]

Suggested Areas for Future State Policy Activity and Capacity Building

IN-STATE COORDINATION

As states consider growing investments in the short-term credential space, understanding how the state is already exercising oversight, making policy choices, and subsidizing the production of these credentials across different agencies is a critical first step. To strategically direct state resources, states must have a clear goal in mind, understand what mechanisms they have in place and how they do — or should — interact, and where there are gaps to be addressed.

This is particularly important given the wide range of providers in the short-term credential space. States may want to bolster the capacity of their public systems to offer these credentials, ensure their oversight of private providers is leading to the student outcomes the state would like to see, enhance their data capacity to understand the overall credential picture in their state, or some combination thereof.

DATA COLLECTION AND SYSTEMS

Data collection and analysis, and the systems and staff capacity that allow for it, are critical elements in determining where to invest in high-quality short-term credential options and

where to focus regulation. Yet no state has a fully comprehensive picture of the short-term credentials issued within their borders and the outcomes they produce.

A starting place for many may be the collection of data on short-term credentials produced by public institutions. In most cases, the state already has an overall infrastructure for collecting data on the for-credit side which could be built upon. However, in many cases data collection and reporting practices would need to be adjusted to accommodate expanded data collection — which can be a significant lift and may not be under the purview of a centralized state agency.

In terms of private providers, the picture is much less clear. While state authorization requirements may include the collection of information on short-term credential offerings, this is not the norm. And where information on offerings is collected, it may or may not include outcomes data. Moreover, it is rare for data that are collected as part of an authorization process to be incorporated into larger statewide data analyses (whether as part of a State Longitudinal Data System [SLDS] or into public reporting such as data dashboards).

Workforce-focused initiatives such as ETPLs and targeted state workforce funding initiatives offer unique opportunities to collect data on short-term credentials that operate outside the traditional spheres of higher education. While they do not capture every actor in the space, they can offer important insights into the types of credentials and providers that are making a difference for learners and those who are not. Incorporating these data into broader pictures of statewide postsecondary education performance is an important area to explore. Initiatives such as the National Association of State Workforce Agencies' Multi-State Data Collaborative are leading the way in bringing states together to collaboratively solve shared challenges using administrative data.[59]

For those providers that operate outside the traditional higher education oversight structure of postsecondary state authorization and do not participate in state-administered funding opportunities, data can only come from voluntary reporting and in applicable cases credential earner performance on state licensing board or industry certification exams.[60]

STUDENT NAVIGATION

Providing expert guidance to help learners and trainees navigate education and training programs is expected. One-stop workforce centers can help potential trainees understand how the programs work, what funding opportunities are available, and what results might be expected. In degree program settings, academic advisors can play a similar role. But in this gray space of short-term credentials, there is no one single source of information and there is arguably greater complexity about available resources, potential payoffs and outcomes, and quality programs.

Another complicating factor is the emergence of new career specialties. The list of evolving

professional fields — such as bioinformatics, drone technologies, and lifecare planning — that make use of short-term credentialing grows every day. Those providing navigation support will need to regularly update their understanding of new career pathways and the credentials associated with them.[61]

While those working in this space generally agree that potential students need assistance in navigating the complexities of the short-term credential world, developing appropriate and sustainable approaches to providing that guidance is likely to be a major challenge. Research can point us to some approaches that are unlikely to work. Creating a career navigation portal with all this information on its own is unlikely to succeed based on what the field has learned from previous efforts. The information on earnings and outcomes, for example, is important, but should be shared through intermediaries that can help individuals sort through their varied and multiple options. These career navigation tools must also be continuously updated since development in many emerging career areas will be dynamic.

There is also no obvious place to locate a new student or trainee guidance resource. Instead, a promising high-level approach would be to embed comprehensive information about these options within existing information sources. Cross-training professional development opportunities could be developed for workforce center staff and high school and postsecondary advisors. Providing information to individuals not currently in or investigating a formal education or training program is more complex. Technology is a major part of the solution, as individuals may work backward through online searches and conversations with AI bots to identify short-term credentials to pursue.

Given the existing overwhelming caseloads and limits on the capacity of advisors and workforce centers, making the necessary information easily accessible to potential intermediaries will be essential. Providing ready-made training and information modules will help them help potential students. But this is an area where substantial work remains to be done. States and others will have to identify ways to engage non-attached potential students and test different methodologies for providing them information. Certainly, advances in generative AI offer intriguing possibilities, but until the hard work is done to build a model and test it, that remains more of a promise than reality.

REGULATORY FLEXIBILITY AND EVOLUTION

Within the short-term credential space, the range of provider types is rapidly multiplying, including the rise of digital platforms offering credentials from multiple providers. State regulators and the organizations that serve them may want to consider how these new forms of postsecondary educational provision fit into existing regulatory structures and what may need to be adjusted to ensure that the learners who use them are covered by the state's consumer protections.

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APPENDIX: SUMMARY OF PROVIDERS AND APPLICABLE OVERSIGHT MECHANISMS

	SHORT-TERM CREDENTIAL OFFERINGS	STATE OVERSIGHT ENTITIES	OTHER OVERSIGHT ENTITIES	FINANCING MECHANISMS	DATA	CONSIDERATIONS
Public Higher Education Institutions	Not the primary focus of the institution but offered at increasing rates (embedded into programs and stand-alone options at both the undergraduate and graduate levels).	State, system, or institutional board State licensing boards (where applicable) State approving agencies (where applicable) Workforce board (if provider seeks eligibility for board programs)	U.S. Department of Education if Title IV eligible Accreditor (Institutional) Accreditor (Programmatic — where applicable)	While state general operating support may be used to support overall operations, it is uncommon for institutions to be publicly funded for noncredit offerings outside the technical college space. State workforce funding and GI Bill benefits can be used at approved programs.	With a handful of notable exceptions, few states collect data on public short-term credential offerings below the certificate level. This is particularly uncommon at four-year institutions.	Most oversight occurs at the institutional level. This offers significant protections in areas such as institutional stability. Programmatic oversight in the short-term credential space is much less common.
Private Higher Education Institutions	Not the primary focus of the institution but offered at increasing rates (embedded into programs and stand-alone options at both the undergraduate and graduate levels).	State authorizing agency State licensing boards (where applicable) State approving agencies (where applicable) Workforce board (if provider seeks eligibility for board programs) Attorneys general (general purpose consumer protections)	U.S. Department of Education if Title IV eligible Accreditor (Institutional) Accreditor (Programmatic — where applicable)	Typically operate on a cost recovery basis (tuition covers operational cost). State postsecondary financial aid may be available in limited scenarios. State workforce funding and GI Bill benefits can be used for approved programs.	Private institutions of higher education have very few avenues through which to report data on short-term credential offerings beyond programs eligible for public funding opportunities such as state financial aid programs, GI Bill benefits, and ETPL participation. Some states collect some data elements as part of the state authorization process.	Most oversight occurs at the institutional level. This offers significant protections in areas such as institutional stability. Programmatic oversight in the short-term credential space is much less common.

	SHORT-TERM CREDENTIAL OFFERINGS	STATE OVERSIGHT ENTITIES	OTHER OVERSIGHT ENTITIES	FINANCING MECHANISMS	DATA	CONSIDERATIONS
Nondegree Providers – Workforce Training	Wide range of offerings with some providers offering a range of credentials and others having a singular focus (ex. one type of training leading to a single credential, such as a commercial driver's license, certified nursing assistant, or a specific IT certification)	State authorizing agency (depending on statutory definitions) Workforce board (if provider seeks eligibility for board programs) Attorneys general (general purpose consumer protections) State licensing boards (where applicable) State approving agencies (where applicable)	Optional quality assurance frameworks Optional data reporting initiatives Industry associations (where applicable)	Typically operate on a cost recovery basis. State postsecondary financial aid in certain scenarios. State workforce funding and GI Bill benefits can be used for approved programs.	Private providers are required to report some data on short-term credential offerings eligible for public funding opportunities such as state financial aid programs, GI Bill benefits, and ETPL participation. Some states collect some data elements from these providers as part of the state authorization process (if they fall under the authority of the authorizer). In many states private providers offering a short-term credential have no data reporting requirements.	Oversight of these providers varies widely depending on states' decisions about who to regulate. Primary oversight often comes in the form of participation in state-administered funding opportunities, or where applicable licensing boards.
Nondegree Providers – Public Higher Education Nonprofit Affiliates	An emerging structure whereby a public institution creates an affiliated nonprofit entity with increased flexibility to create and deliver workforce-focused programs. Examples Accelerate Montana CNM Ingenuity	State, system, or institutional board Nonprofit board Attorneys general (general purpose consumer protections) State licensing boards (where applicable) State approving agencies (where applicable)	Industry associations (where applicable)	Typically operate on a cost recovery basis. State workforce funding and GI Bill benefits can be used for approved programs.	Data may be collected and reported for state purposes (for example, legislative reporting on state-funded initiatives).	These providers typically report to their own board but may also come under the oversight of their parent institution in certain instances. They are also subject to oversight for legislatively funded projects, and when they participate in other state funding opportunities such as the ETPL or access GI Bill benefits.

ENDNOTES

1 See, for example: K. Albert, 2019, "What we know about non-degree credentials: A literature scan," Non-Degree Credentials Research Network at the George Washington Institute of Public Policy, https://gwipp.gwu.edu/sites/g/files/zaxdzs6111/files/downloads/06.23.19%20NCRN%20Literature%20Scan.pdf; A.E. Duke-Benfield, B. Wilson, K. Kaleba, and J. Leventoff, 2019, "Expanding opportunities: Defining quality non-degree credentials for states," National Skills Coalition, https://nationalskillscoalition.org/wp-content/uploads/2020/12/9.18-NSC_QNDC-paper_web.pdf; M. Van Noy, 2023, "A primer on noncredit and non-degree credentials and their link to occupations," Education and Employment Research Center, Rutgers School of Management and Labor Relations, https://smlr.rutgers.edu/sites/default/files/Documents/Centers/EERC/A%20Primer%20on%20Noncredit%20and%20Non-degree_EERC_10.2023.pdf.

2 A. Hegji, 2024, "Eligibility for participation in Title IV student financial aid programs," Congressional Research Service, https://crsreports.congress.gov/product/pdf/R/R43159#:~:text=27%20To%20be%20Title%20IV,employment%20in%20a%20recognized%20occupation.

3 Regulation of Postsecondary Educational Institutions, 14 Alaska Stat., § 14.48.030, 2023, https://www.akleg.gov/basis/statutes.asp#14.48.030; California Private Postsecondary Education Act of 2009, 310 Cal. Educ. Code, § 6, Article 4, 2024, https://www.bppe.ca.gov/lawsregs/ppe_act.pdf; Private Postsecondary Education, 30 Ariz. Revised Stat., § 32, Article 2, 2022, https://ppse.az.gov/sites/default/files/documents/files/A.R.S.%20Title%2032%20-%20Chapter%2030%20%282022%29.pdf; In addition, a searchable, annually updated repository of state authorization policies, including exemptions, is available at: National Council for State Authorization Reciprocity Agreements, n.d., "The state authorization guide," https://nc-sara.org/guide/state-authorization-guide.

4 D. Pechota, M. Fulton, S. Broom, 2020, "50-state comparison: State postsecondary governance structures," Education Commission of the States, https://www.ecs.org/50-state-comparison-postsecondary-governance-structures/; See, for example: Washington Student Achievement Council, n.d., "Degree authorization," https://wsac.wa.gov/degree-authorization.

5 State Authorization Network, n.d., "State authorization 101," Western Interstate Commission for Higher Education, https://wcetsan.wiche.edu/state-authorization-101; M. Hall-Martin, 2021, "Capacity to protect: A survey of state authorization agencies and offices," State Higher Education Executive Officers Association, https://sheeo.org/wp-content/uploads/2021/07/SHEEO_CapacityProtect_StateAuthorization.pdf.

6 A. Boatman, and K. Borowiec, 2021, "State authorization for short-term career-oriented credentials: Evidence from five states," State Higher Education Executive Officers Association, https://sheeo.org/wp-content/uploads/2021/08/Boatman_Borowiec.pdf; D. Tandberg, E. Bruecker, and D. Weeden, 2019, "Improving state authorizations: The state role in ensuring quality and consumer protection in higher education," https://sheeomain.wpengine.com/wp-content/uploads/2019/07/SHEEO_StateAuth.pdf; Hall-Martin, 2021.

7 Private Occupational Education Act of 1981, 23 Colo. Rev. Stat., § 23 64-101, 2023, https://cdhe.colorado.gov/sites/highered/files/2023%20CRS.pdf.

8 Colorado Department of Higher Education, n.d., "Division of private occupational schools," https://cdhe.colorado.gov/about-us/division-of-private-occupational-schools.

9 Division of Private Occupational Schools, 2024, "8 CCR 1504-1: Rules and regulations concerning the Private Occupational Education Act of 1981," Colorado Department of Higher Education, https://cdhe.colorado.gov/sites/highered/files/2024%20Rules.pdf.

10 ColoradoETPL, n.d., "Welcome to the ETPL and DPOS application site," Colorado Department of Labor and Employment and Colorado Department of Education, https://cic.intellect.com/Intellect/TopOld.aspx?OldRedirect=True&DetailsPage=.

11 National Consumer Law Center, *Consumer protection in the states: A 50-state evaluation of unfair and deceptive practices laws*, 2018, https://www.nclc.org/wp-content/uploads/2022/09/UDAP_rpt.pdf.

12 M. Soetaert, 2023, "What we know about the income share agreement market," Jobs for the Future, https://www.jff.org/what-we-know-about-the-income-share-agreement-market/.

13 E. Pollack, 2023, "How can innovative finance expand training opportunities and transform the postsecondary education system?" Jobs for the Future, https://www.jff.org/idea/how-can-innovative-finance-transform-postsecondary-education-and-training/; MDRC, n.d., "Income share agreements and related programs to finance college or career training," https://www.mdrc.org/work/projects/income-share-agreements-and-related-programs-finance-college-or-career-training; Consumer Financial Protection Bureau, 2024, "What is the difference between a loan interest rate and the APR?" https://www.consumerfinance.gov/ask-cfpb/what-is-the-difference-between-a-loan-interest-rate-and-the-apr-en-733/.

14 J. Prescott, S. Schwab, and E. Starr, E., 2024, "First evidence on the use of training repayment agreements in the US labor force," ProMarket, Stigler Center at The University of Chicago Booth School of Business, https://www.promarket.org/2024/03/27/first-evidence-on-the-use-of-training-repayment-agreements-in-the-us-labor-force/; Student Borrower Protection Center, *Trapped at work: how big business uses student debt to restrict worker mobility*, 2022, https://protectborrowers.org/wp-content/uploads/2022/07/Trapped-at-Work_Final.pdf.

15 M. Soetaert, E. Pollack, and C. O'Connor, 2023, "Four ways states can lead the way in innovative education finance," Jobs for the Future, https://www.jff.org/four-ways-states-can-lead-the-way-in-innovative-education-finance/.

16 California Department of Financial Protection & Innovation, n.d., "Student loan servicing: Regulations, opinions, and releases," https://dfpi.ca.gov/rules-enforcement/laws-and-regulations/laws-and-regulations-student-loan-servicing.

17 State Higher Education Executive Officers Association, 2024, "State higher education finance: FY 2023," https://shef.sheeo.org/report/?cn-reloaded=1.

18 S. Murphy, 2024, "A 2024 update of state investments in short-term credential pathways," HCM Strategists, https://static1.squarespace.com/static/62bdd1bbd6b48a2f0f75d310/t/6722e108413c094b40833442/1730339082366/HCM_Short-term+Credentials+Update_102024.pdf.

19 State Council of Higher Education for Virginia, 2024, "New economy workforce credential grant annual report 2023," https://www.schev.edu/home/showpublisheddocument/3633/638435830614930000; R. Stamper, Associate Vice Chancellor, Career Education and Workforce Programs, Virginia Community College System, personal communication, 2024; and C. Finnegan, Assistant Vice Chancellor for Research and Reporting, Virginia Community College System, personal communication, 2024.

20 Louisiana Office of Student Financial Assistance, n.d., "Louisiana's M.J. Foster Promise Program," https://mylosfa.la.gov/students-parents/scholarships-grants/mjfoster/; Louisiana Board of Regents, 2024, "2024 year two report Murphy J. Foster Promise Award Program," https://www.laregents.edu/wp-content/uploads/2024/10/2024-MJ-Foster-Report.pdf; N. Hall, Dean of Student Services, Louisiana Delta Community College, personal communication, 2024.

21 General Appropriation Act of 2024, HB 2, 56th Legislature, 2024 Reg. Sess., N.M., 2024, https://www.nmlegis.gov/Legislation/Legislation?chamber=H&legType=B&legNo=2&year=24; New Mexico Legislative Finance Committee, 2024, *Program evaluation no. 24-04 postsecondary certificates*, https://www.nmlegis.gov/Entity/LFC/Documents/Program_Evaluation_Reports/Program%20Evaluation%20Postsecondary%20Certificates.pdf; A. Sisneros-Wichman, Senior Director of Programs, CNM Ingenuity, personal communication, 2024.

22 Next Steps Idaho, n.d., "Idaho LAUNCH," Idaho State Board of Education, https://nextsteps.idaho.gov/launch; Idaho LAUNCH, 2024, "Required career pathway plan list, by school district," Next Steps Idaho, Idaho Workforce Development Council, https://nextsteps.idaho.gov/assets/uploads/2024/11/LAUNCH-CPP-List-11-13-2024_final.pdf; Idaho LAUNCH, 2024, "Idaho LAUNCH approved programs," Next Steps Idaho, Idaho Workforce Development Council, https://nextsteps.idaho.gov/assets/uploads/2024/11/Idaho-LAUNCH-Providers-Nov-2024-R3.pdf; K. Richert, 2024, "Is LAUNCH reaching a new group of graduates? It's possible," Idaho Ed News, https://www.idahoednews.org/kevins-blog/is-launch-reaching-a-new-group-of-graduates-its-possible/; Office of Governor Brad Little, 2024, "LAUNCH applications blow past expectations," https://gov.idaho.gov/pressrelease/launch-applications-blow-past-expectations/; W. Seacrist, 2024, "Idaho LAUNCH report to Joint Finance and Appropriations Committee," Idaho Workforce Development Council, https://gov.idaho.gov/wp-content/uploads/2024/01/launch-report-jfac-2024-01-01.pdf.

23 R. Kelchen, M. Lingo, D. Baker, K. Rosinger, J. Ortagus, and J. Wu, 2023, "A typology and landscape of state funding formulas for public colleges and universities from 2004 to 2020," InformED States, https://static1.squarespace.com/static/5d9f9fae6a122515ee074363/t/65806fa9bb51333f6f90475b/1702916010095/ISPaper_TypologyandLandscapeofStateFundingFormulas_PublicCollegesandUniversities_2004-2020.pdf.

24 A. Dziesinski and E. You, 2024, "Funding models for community colleges: How states fund credit-bearing, dual-enrollment, and non-credit activity," Association of Community College Trustees, https://www.acct.org/sites/default/files/documents/2024-10/ACCT%20Funding%20Models%20for%20Community%20Colleges%20Report_Updated%20Final.pdf.

25 Texas Higher Education Coordinating Board, 2023, "Texas House Bill 8 becomes law, paves way for innovative community college funding," https://www.highered.texas.gov/texas-house-bill-8-becomes-law-paves-way-for-innovative-community-college-funding/; Performance Tier: Fundable Outcomes, 19 Tex. Admin. Code, § 13.556, https://texreg.sos.state.tx.us/public/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=19&pt=1&ch=13&rl=556; Texas Higher Education Coordinating Board, 2024, "High-demand fields," https://www.highered.texas.gov/community-college-finance/high-demand-fields/.

26 Community College Finance Program: High-Demand Fields, 19 Tex. Admin. Code, §13.590-7, 2024, https://texreg.sos.state.tx.us/public/readtac$ext.ViewTAC?tac_view=5&ti=19&pt=1&ch=13&sch=T&rl=Y.

27 Performance Metrics for Institutions -- Determination of Performance, 53B Utah Code, 2024, § 53B-7-706, https://le.utah.gov/xcode/Title53B/Chapter7/53B-7-S706.html?v=C53B-7-S706_2024050120240501; Utah System of Higher Education, 2023, "Memorandum: Fiscal year 2024-2025 USHE operating budget recommendation – Performance funding," https://ushe.edu/wp-content/uploads/pdf/agendas/2023/20231103/FY_2024-25_Performance_Funding_Operating_Budget_Request.pdf; Utah Board of Higher Education, 2024, "Strategic plan attainment goals, high yield graduates, 2024," https://viz.uen.org/t/ushe/views/AttainmentGoalRevisions_16788248241640/HYAwardDetailspage2?%3Aembed=y&%3AisGuestRedirectFromVizportal=y.

28 State Higher Education Executive Officers Association, 2021, "Public Investment in Higher Education: Research, Strategies, and Policy Implications," https://sheeo.org/project/public-investment-in-higher-education-research-strategies-and-policy-implications/.

29 Wyoming Innovation Partnership, n.d., "About," https://wip.wyo.gov/home; Wyoming Innovation Partnership, n.d., "Phase 1: Key metrics," https://wip.wyo.gov/about/phase-i-key-metrics.

30 New England Board of Higher Education, n.d., "The Connecticut tech talent accelerator," https://nebhe.org/connecticut-tta/; K. Singer, Director of Policy & Research and L. Sears, Program Coordinator, Tech Talent Accelerator at the New England Board of Higher Education, personal communication, 2024.

31 Oregon Higher Education Coordinating Commission, n.d., "Future ready Oregon – Program overview," https://www.oregon.gov/highered/about/pages/future-ready-about.aspx.

32 L. Reichlin Cruse, J. Stiddard, R. Taylor, and J. LaPrad, 2023, "The non-degree credential quality imperative," National Skills Coalition, https://nationalskillscoalition.org/wp-content/uploads/2023/07/The-NDCQ-Imperative-report_fnl2-1.pdf.

33 A. Smalley, 2024, "Nondegree credential state policy framework," National Conference of State Legislatures, https://www.ncsl.org/education/nondegree-credential-state-policy-framework; M. Van Noy, H. McKay, and S. Michael, 2019, *Non-degree credential quality: A conceptual framework to guide measurement*, Rutgers Education and Employment Research Center, https://smlr.rutgers.edu/sites/default/files/Documents/Centers/EERC/rutgerseerc_ndcquality_framework_full_paper_final.pdf. S. Spitze, G. Berger, Y. Saleh, and S. Towns, 2024, "EQOS signal of quality: Methodology overview," Education Quality Outcomes Standards, https://cdn.prod.website-files.com/66586838636a7729dbf58d51/669bce8f20964b1d2b64caef_EQOS%20Signal%20of%20Quality%20Methodology.pdf; CredLens, n.d., "About us," https://www.credlens.org/about-us.

34 Alabama Talent Playbook, 2024, "Issue 04: The role of credential data," Alabama Talent Triad, https://www.talentplaybook.org/issue-04-role-credential-data; AlabamaWorks, n.d., "The Alabama Committee on Credentialing and Career Pathways," Alabama Department of Commerce, https://alabamaworks.com/acccp/; WIOA State Plan, n.d., "Alabama PYs 2022-2023 (mod), WIOA state plan common elements," U.S. Department of Education, https://wioaplans.ed.gov/node/339791.

35 B. Collins, 2022, "The Workforce Innovation and Opportunity Act and the One-Stop delivery system," Congressional Research Service, https://crsreports.congress.gov/product/pdf/R/R44252.

36 Employment and Training Administration, n.d., "Training provider results: About this site," U.S. Department of Labor, https://www.trainingproviderresults.gov/#!/about.

37 D. Deming, A. Gable, R. Lipson, and A. Zvaigzne, 2023, "Navigating public job training," Harvard Project on Workforce, https://www.pw.hks.harvard.edu/post/publicjobtraining#:~:text=The%20average%20cost%20per%20training,low%20as%20%241%2C000%20per%20participant.

38 M. Mack, and K. Dunham, 2020, *Performance accountability, eligible training providers, labor market information, and evaluation requirements under WIOA*, U.S. Department of Labor, https://www.mathematica.org/download-media?MediaItemId=%7BC76ACE9F-1F5A-457E-923E-BEF9B46A7401%7D.

39 Workforce Training and Education Coordinating Board, 2024, "Reports," https://wtb.wa.gov/research-resources/reports/; M. Parr, Workforce System Advancement Director, Workforce Training and Education Coordinating Board, personal communication, 2024.

40 Workforce Training and Education Coordinating Board, 2024, "Washington Career Bridge," https://www.careerbridge.wa.gov/default.aspx.

41 Workforce Training and Education Coordinating Board, 2024, "2025-2027 regular budget sessions career bridge modernization," https://wtb.wa.gov/wp-content/uploads/2024/09/CM-Career-Bridge-Modernization.pdf.

42 Credential Engine, 2024, "Credential engine," https://credentialengine.org/; M. Parr, Workforce System Advancement Director, Workforce Training and Education Coordinating Board, personal communication, 2024.

43 Workforce Training and Education Coordinating Board. n.d., "Net impact study," https://wtb.wa.gov/research-resources/net-impact-study/; Board's Duties, 28C Rev. Code of Wash., § 28C.18.060, 2024, https://app.leg.wa.gov/RCW/default.aspx?cite=28C.18.060; Workforce Training and Education Coordinating Board, 2024, "Workforce system at a glance," https://wtb.wa.gov/planning-programs/washington-workforce-system/.

44 Advance CTE, n.d., "Carl D. Perkins Career and Technical Education Act," https://careertech.org/what-we-do/engaging-policymakers/federal-policy-agenda/perkins-act/; The Center for Law and Social Policy, n.d., "TANF education and training resources," https://www.clasp.org/tanf-education-and-training-resources/#:~:text=Career%20pathways%20are%20linked%20education,was%20a%20federal%20resource%20identified.&text=This%20report%20from%20CLASP%20and,to%20states'%20Work%20Verification%20Plans.

45 National Conference of State Legislatures, 2022, "The National Occupational Licensing Database," https://www.ncsl.org/labor-and-employment/the-national-occupational-licensing-database; Utah Division of Professional Licensing, n.d., "About DOPL," Utah Department of Commerce, https://dopl.utah.gov/about/; North Dakota Board of Nursing, 2024, "About," https://www.ndbon.org/; J. Bloom-Weltman, 2019, "Statewide longitudinal data systems (SLDS), survey analysis," U.S. Department of Education, https://nces.ed.gov/pubs2020/2020157.pdf.

46 Veterans Benefits Administration, n.d., "Education and training: School program approval," U.S. Department of Veterans Affairs, https://benefits.va.gov/gibill/School_Program_Approval.asp#:~:text=State%20Approving%20Agencies%20(SAA,%20are,benefits%20should%20contact%20their%20SAA; C. Dortch, A. Hegji, and D. Bradley, 2020, Direct federal support of individuals pursuing training and education in non-degree programs, Congressional Research Service, https://crsreports.congress.gov/product/pdf/R/R46306/1; C. Dortch 2020, "The post-9/11 GI Bill: A primer," Congressional Research Service, https://crsreports.congress.gov/product/pdf/R/R42755/18.

47 Approval of Nonaccredited Courses, 38 U.S. Code § 3676, 2024, https://www.law.cornell.edu/uscode/text/38/3676.

48 Veterans Benefits Administration, n.d., "Education and Training: Isakson and Roe Act summaries," U.S. Department of Veterans Affairs, https://benefits.va.gov/gibill/isaksonroe/summaries.asp.

49 N. Arnold, J. Wescott, B. Stein, and B. Little, 2022, "Lessons from a risk-based oversight model designed to protect students and taxpayers," EducationCounsel, https://educationcounsel.com/storage/IxSWhg1ghLCU3qhHMcV8vFHO7TT4FKxgA68zQoTJ.pdf.

50 Lake Area Technical College, n.d., "Employment & training SNAP program," https://www.lakeareatech.edu/academics/snap-employment-training-program/; Food and Nutrition Service, 2021, "SNAP E&T program toolkit," U.S. Department of Agriculture, https://fns-prod.azureedge.us/sites/default/files/resource-files/SNAPemployment-training-toolkit-june-2021.pdf.

51 L. Downs, L. and M. Polk, 2024, "An avenue for alignment: Key takeaways from WIOA and Perkins combined state planning," New America, https://www.newamerica.org/education-policy/edcentral/an-avenue-for-alignment-key-takeaways-from-wioa-and-perkins-combined-state-planning/.

52 S. Weissman, 2024, "*Degrees earned fall again, certificates rise,*" Inside Higher Ed, https://www.insidehighered.com/news/students/academics/2024/04/11/degrees-earned-fall-again-certificates-rise#; ECMC Group, 2023, "*Question the quo: Gen z teens have changed their priorities for education and work,*" https://www.ecmcfoundation.org/news/foundation/report-gen-z-teens-have-changed-their-priorities-for-education-and-work.

53 A. Carnevale, T. Jayasundera, and A. Gulish, 2016, "America's divided recovery: College haves and have-nots," Georgetown Center on Education and the Workforce, https://cew.georgetown.edu/wp-content/uploads/Americas-Divided-Recovery-web.pdf.

54 M. Van Noy, M. D'Amico, E. Peterson, J. Vinton, T. Hilliard, A. Srivastava, D. Xu, and P. Riley Bahr, 2024, "State noncredit data infrastructure cross-state report," Rutgers School of Management and Labor Relations, https://sites.rutgers.edu/state-noncredit-data/wp-content/uploads/sites/794/2024/11/SNDP_Cross-State-Report_11.2024.pdf.

55 L. Daugherty, P. Riley Bahr, P. Nguyen, P., J. May-Trifiletti, R. Columbus, and J. Kushner, 2023, *Stackable credential pipelines and equity for low-income individuals*, https://www.rand.org/pubs/research_reports/RRA2484-1.html.

56 Learn & Work Ecosystem Library, n.d., "About," https://learnworkecosystemlibrary.com/about/, H. Zanville, Research Professor and Co-Director of the Program on Skills, Credentials & Workforce Policy, personal communication, October 2024.

57 H. Zanville, Research Professor and Co-Director of the Program on Skills, Credentials & Workforce Policy, personal communication, 2024.

58 K. Michaels, 2024, "Policy Action Lab: Expanding holistic supports for students on quality non-degree pathways," National Skills Coalition, https://nationalskillscoalition.org/blog/news/policy-action-lab-expanding-holistic-supports-for-students-on-quality-non-degree-pathways/.

59 National Association of State Workforce Agencies, n.d., "Multi-State Data Collaborative (MSDC)," https://www.naswa.org/partnerships/multi-state-data-collaboratives/about.

60 Council on Integrity in Results Reporting, n.d., "About," https://www.cirr.org/about.

61 H. Zanville, Research Professor and Co-Director of the Program on Skills, Credentials & Workforce, personal communication, 2024.