USING DATA TO STRENGTHEN WORKFORCE TRAINING

FOUR WAYS STATES CAN TAKE ACTION



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Using Data to Strengthen Workforce TrainingFour Ways States Can Take Action

Executive Summary

One of the main ways all levels of government in the United States support adults with low incomes and displaced workers to secure new jobs is by providing a variety of services for these individuals to undertake workforce training programs. For both training participants and policymakers, a leading goal of completing these programs is for people to secure good quality employment with long-term career and economic mobility potential.

State governments play a key role in the provision of these supports by overseeing Eligible Training Provider Lists (ETPLs), directories of workforce training programs that people who receive training subsidies through the Workforce Innovation and Opportunity Act (WIOA) can enroll in. While only a small share of those enrolling in workforce training receive WIOA-funded training subsidies, these lists of state-approved programs can also be used by the broader public to assess options in the process of choosing a training program.

The programs on these lists vary widely in terms of labor market outcomes and the lists often lack critical information that would help training seekers make an informed decision. At the same time, enrolling in these programs involves a considerable investment of time, energy, and resources on behalf of individuals. Rather than finding a new job that offers family-sustaining wages and benefits, far too many people make significant investments to pursue workforce training programs, but ultimately obtain low-wage jobs with unclear paths to mobility.

To aid states in moving beyond these challenges, this policy brief presents strategies for states to create data systems and online tools that equip training seekers and others with vital information around program outcomes and quality, and to use data systems to improve the quality of training offerings.

In relation to these goals, the focus is on Eligible Training Provider (ETP) programs, which often are not subject to the same accountability systems that apply to many degree-granting programs. This brief is intended to serve as a resource for state leaders, including state labor agencies, state workforce boards, and governors and their staff, though the insights and case studies here can be helpful to a broader community of workforce development and economic mobility stakeholders. By making improvements in these areas, states can make participating in workforce training programs a better investment for the public and program participants.

Across four areas for state advancement, the brief notes critical challenges faced by states, followed by suggested strategies and case studies highlighting notable state efforts:

Area for Advancement	State Strategies	Case Studies
1. Build Robust State Data Systems	 Make answering questions on training program quality a statewide priority Provide clear data definitions for training providers Proactively address limitations of state wage data 	– Colorado – Minnesota
2. Design a Program Quality Framework	 Develop and implement program outcome benchmarks in collaboration with training providers Avoid penalizing programs for serving participants facing pronounced labor market barriers, while still incorporating meaningful outcomes standards for such programs Commit to transparency and stakeholder engagement Explore and utilize state regulatory authority to hold programs accountable for outcomes beyond ETP policy 	– New Jersey – Alabama
3. Maintain a Navigable Resource on Program Quality	 Seek dedicated funding Prioritize user-centric design Highlight and contextualize wage outcomes to help users navigate career paths and training options Disaggregate outcomes across participant demographics when possible Implement a distribution plan 	– Washington state – Indiana
4. Identify and Address Gaps in the Training Landscape	 Compare labor supply and demand Include stakeholder outreach to understand barriers to entry and completion Direct resources to high-quality programs to fill gaps 	– Washington, D.C.

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- Alabama Department of Labor
- Colorado Workforce Development Council
- Federal Reserve Bank of Atlanta
- Indiana Department of Workforce Development
- Minnesota Department of Employment and Economic Development

- Minnesota State Colleges and Universities
- New Jersey Department of Labor and Workforce Development
- Office of Alabama Governor Kay Ivey
- D.C. Workforce Investment Council

In addition, Markle acknowledges the contributions of the Washington State Workforce Training and Education Coordinating Board for their input in the development of the Career Bridge case study, and Angela Perry of the Data Quality Campaign for lending time and insights to the development of this policy brief.

THE MARKLE FOUNDATION'S STATE TRAINING COLLABORATIVE

This report is informed by the **Markle Foundation's State Training Collaborative**, an initiative of the **Rework America State Network** that brought together officials from five states and Washington, D.C., actively working to improve their workforce training data and accountability frameworks. An initiative of the Markle Foundation, the Rework America State Network is a forum for state leaders to share workforce practices that help expand economic security across their states.

In addition, Markle acknowledges the contributions of the Washington State Workforce Training and Education Coordinating Board for their input in the development of the Career Bridge case study, and Angela Perry of the Data Quality Campaign for lending time and insights to the development of this policy brief.

Alabama Colorado Indiana Minnesota New Jersey Washington, D.C.

The state officials convened as a group over four sessions in 2021 and 2022 to discuss the topics outlined in this brief and share solutions.

Background

Many people invest time, energy, and resources to participate in workforce training programs, and some enroll with the support of public funding. However, there is relatively little information available to help people identify a strong program. The main federal law governing workforce development, the Workforce Innovation and Opportunity Act (WIOA), provided about \$427 million in program year 2019 to fund training for approximately 220,000 people.¹ WIOA funding for training is largely provided through Individual Training Accounts (ITAs) that allow eligible training seekers (e.g., those who are unemployed or have low incomes and have already used other sources of support such as Pell Grants) to use funds to attend any program on state Eligible Training Provider Lists (ETPLs).² Unfortunately, when choosing an ETP program, training seekers are faced with a complex array of options spanning different providers, lengths, costs, credentials, and financial aid eligibility: There are more than 75,000 ETP programs across the country, run by more than 7,100 providers in more than 700 occupational fields.³

Labor market outcomes vary widely across training programs, with higher risk that training may not pay off among programs that lead to a certificate and for-profit programs. Importantly, these ETP programs often are not governed by the same accountability systems that apply to many degree-granting programs.⁴ The Harvard Project on Workforce estimates more than 40% of WIOA-funded participants in ETP programs earn less than \$25,000 annually soon after completing training,⁵ suggesting that states have a long way to go to build lists of ETP programs that reliably lead participants into good quality jobs.⁶ The most common credential awarded by an ETP program is a certificate, yet data show that postsecondary institutions that primarily offer certificate programs are less reliable than other institutions in producing relative wage advantages/returns on investment for their graduates.⁷ Concerns about poor labor market outcomes are especially notable among certificate programs run by for-profit providers⁸—where one out of eight ETP programs are housed.⁹ The risk that training programs will not lead to living wages makes transparency particularly relevant for the lowest-income training participants, both WIOA-funded and otherwise, who devote time and resources to these programs.



Access to information on training outcomes, such as completion rates and wages, is critical for training seekers, career coaches, and policymakers to make informed decisions. Given a wide range of career outcomes, having clear information on training outcomes is a necessary component for training seekers to make decisions that will lead to a productive investment of their time and resources. This transparency also provides critical information for career coaches to better serve and empower job seekers to navigate their training options, which may help improve overall outcomes for people that receive services from the public workforce system. Finally, state ETP policy that presents more transparency around outcomes is a chance for policymakers to direct public funds toward effective programs. This would improve opportunity for training seekers to choose workforce programs that are more likely to result in strong labor market outcomes.



Outcome transparency is especially critical for populations that face pronounced barriers in the labor market. Research finds that there are disparities in the payoff for training across demographic groups: Black and Latino people with certificates earn less than white certificate-holders, and women with certificates earn less than men with equivalent credentials. An analysis of wages found Black and Hispanic workers earned less than white workers after utilizing WIOA services, and another found that Black workers had the lowest earnings among racial groups after receiving WIOA services, despite having the highest employment rate. These data—and other studies suggest the public workforce system has often not been able to counteract wage disparities and occupational segregation in the labor market, and may be perpetuating these problems. Providing transparent training program outcomes data is one critical step state workforce system can take toward breaking down and addressing these trends.

States are well-positioned to lead improvements in both transparency and training program quality. In consultation with the state workforce board, governors are responsible for establishing "criteria, information requirements, and procedures regarding the eligibility of" ETP programs. In addition, states are already responsible for making information about these programs available online to the public, including being tasked with providing "appropriate information to assist participants in choosing employment and training activities." Since WIOA vouchers are a central way for governments to fund training, states have a significant opportunity to influence the training landscape by directing public funds to high-performing programs and providing clear, usable information on the outcomes of these programs.¹⁴

Working alongside other stakeholders, states have made progress in recent years to make training outcomes quickly and reliably accessible, but major gaps still exist. In 2020, in an effort to centralize data on training programs, the federal government launched the website TrainingProviderResults.gov, but significant data gaps currently limit the tool's usefulness.¹⁵ Meanwhile, states have taken new and innovative approaches to develop data infrastructure and accountability mechanisms, often in partnership with philanthropy or nonprofit organizations.¹⁶ Aided by several federal grants,¹⁷ 26 states had state data systems that included a workforce agency as a core partner as of 2021.¹⁸ Almost all states (47) currently have some type of online tool for training seekers that provides information on their ETP program offerings, fulfilling an obligation under WIOA to provide the public with information about training programs. However, these tools tend to fall short of basic user-friendliness and data quality benchmarks (see: findings from Markle's scan of online ETP tools in 50 states and Washington, D.C., on page 15).

It is worth noting that because not all programs are part of ETPLs and because WIOA funds a relatively small number of students, ETP policy should not be the only path to improve quality across training programs. Some effective programs choose not to be on ETPLs because they receive few WIOA-funded students. In addition, states' online ETPLs are often designed to be resources specifically for WIOA-funded training seekers, rather than tools for a broader net of training seekers. Regardless, states should consider both ETP-specific policy and other means to influence the training landscape, through both regulation and incentives.

State Improvements

States Should Make Improvements Across Four Interrelated and Critical Areas

- (1) Build Robust State Data Systems
- (2) Design a Program Quality Framework
- (3) Maintain a Navigable Resource on Program Performance
- (4) Identify and Address Gaps in the Training Landscape

These strategies offer critical ways for state leaders to move toward improved transparency and program quality in each of these areas. These leaders include governors and their staff, state workforce boards, and state departments of labor, among other essential stakeholders. Alongside the strategies, this policy brief presents critical challenges faced by states and case studies of notable state efforts across the four areas for advancement.

Area for Advancement 1: Build Robust State Data Systems

A foundational element of transparency for workforce training programs is building strong state longitudinal data systems (SLDSs) that can connect training program information with labor market data. SLDSs bring together data from a combination of early childhood, K-12, career and technical education, postsecondary education, training, and employment. To track training participants into the labor market, states can incorporate data from training providers and Unemployment Insurance (UI) quarterly wage records into their SLDSs.²⁰

Critical Challenges

- Legal and technological barriers limit states' capacity to routinely link data from different sources.

 Linking individual-level data often requires carefully constructed legal contracts, sometimes made only for limited use cases. Usually, this requires the development of tools that allow data to be shared between systems, which can be a time-consuming process that requires ongoing technical support.
- Additional funding and staffing may be needed to build strong data systems. Though virtually all states
 have benefited from federal grants to develop SLDSs, most states will need to set aside some of their
 own funding or seek philanthropic investment to keep these systems running in the absence of robust,
 continued federal funding.²¹ States often lack a dedicated staff person to handle cross-agency data
 management, and staff turnover and shifts in leadership can hinder progress.²²
- Data on training program outcomes are frequently incomplete. For example, data on ETP programs have in some cases been limited to only WIOA-funded participants, skewing the picture of training program performance (though the federal waiver allowing this practice expired in 2021).²³ Another data completeness issue affects UI wage records, which many states use to track wages: States only hold data on those eligible for UI benefits who report income earned in the state.²⁴ This excludes not only those who move to other states to work, but others who are not eligible for state UI benefits, including self-employed individuals, federal employees, and undocumented immigrants. Finally, UI systems also often use North American Industry Classification System (NAICS) codes rather than Standard Occupational Classification (SOC) codes in their data, making it difficult to tell whether individuals actually end up in the jobs they trained for.²⁵
- Without clear data definitions, comparing across programs can be difficult. For example, calculations
 for retention and completion can vary widely depending on how a program defines these metrics.²⁶ Some
 states have made progress in improving the quality of their training data by developing tools for providers
 to clarify data definitions, such as data guides and training videos, or by specifying definitions in data
 sharing agreements with each individual training provider.²⁷

Area for Advancement 1: Build Robust State Data Systems (continued)

Recommended State Strategies

- A. Make answering questions on training program quality a statewide priority. Build an integrated data system or negotiate robust data usage agreements between state agencies, to match training program data continuously to employment outcomes. This will likely require leadership at the governor- or governor's cabinet-level, dedicated staffing, and ongoing funding to the agencies involved plus any entity involved in managing the data infrastructure.
- **B.** Provide clear data definitions for training providers. Issue guidance to training providers to specify data definitions for reporting requirements, potentially as an "onboarding" process for new or continuing eligibility.
- **C. Proactively address limitations of state wage data.** Participate in federal and regional data sharing efforts that provide access to employment records beyond state borders, and incorporate occupation data into UI data. States' income tax records could also be incorporated into SLDSs to fill gaps in wage information.

Case Study

Colorado's Data Trust: Streamlining Data Sharing Through a Data Governance Agreement

In 2019, several state agencies in Colorado developed a "data trust," a single legal agreement that allows linkages to be made on a routine basis between higher education and workforce training programs and UI wage records. The aim was to gather and make available performance outcome insights to individual Colorado residents, program providers, and policymakers. The following state agencies participated in the establishment of the data trust: the Colorado Workforce Development Council (CWDC), which "owns" the data trust; the Colorado Department of Labor and Employment (CDLE), which is the operational arm over the state's WIOA-eligible programs and holds the state's UI wage records; the Colorado Department of Higher Education (CDHE), which holds the agreement with an external vendor to maintain data storage; and the Colorado Community College System.

Establishing the data trust reduced the need for state agencies to rely on one-off data sharing agreements to make linkages between their data systems (e.g., to gather labor market outcomes of participants in the state's community college system). However, unlike state longitudinal data systems (SLDSs) that often include linkages with K-12 and early childhood programs, the Colorado data trust currently is limited to workforce training and higher education programs.

The data trust was created with support from the state Attorney General's office. The Attorney General's role was to protect the legal interests of each agency, particularly around data privacy laws. Representatives from each agency meet every other month to discuss allowable use cases for making linkages and sharing data.

Creating the data trust was also made possible with funding and technical support provided by several philanthropies and as part of the Data for the American Dream Initiative. While the data trust is still funded in part through philanthropy, the CWDC received legislative authority to both govern the data trust and direct funding to other agencies for related uses. The CWDC has also secured dedicated funding for a data integration manager who oversees implementation of projects by the data trust. This position is shared between the CWDC and CDHE and supports efforts with other state agencies focused on talent development efforts.

Case study information provided by the state of Colorado

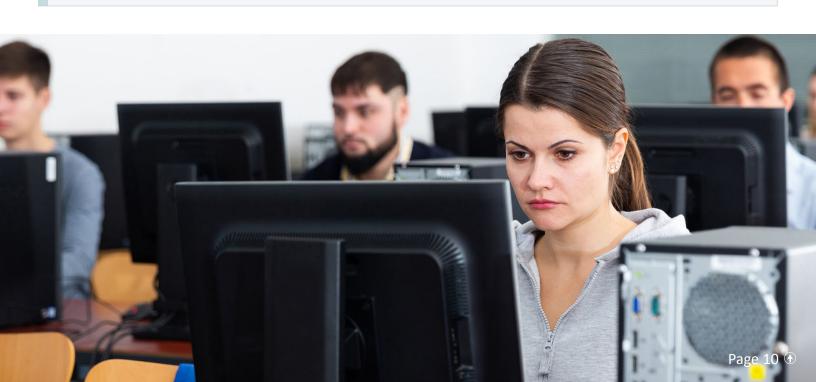
Minnesota Statewide Longitudinal Education Data System: Easing the Data Reporting Burden for Providers

In Minnesota, the Department of Employment and Economic Development (DEED), the Office of Higher Education (OHE), and the Department of Education (MDE) have created the Minnesota Statewide
Longitudinal Education Data System (SLEDS), which matches student data from pre-K through the completion of postsecondary education and into the workforce in a single system. DEED requires ETPL training providers to submit performance data on all courses and programs to the Minnesota SLEDS, with OHE leading data collection and data quality processes.

A primary goal of SLEDS is to identify the most viable pathways for people to achieve successful outcomes in education and work. SLEDS enables the state to ease the burden of reporting on the part of training providers and streamline data matching with labor market outcomes. Rather than reporting the same data separately to DEED, OHE, and MDE, all training providers report their enrollment and completion data just once and it can be used across agencies. Since postsecondary institutions are part of OHE and therefore SLEDS, it made sense to incorporate other workforce training providers in the same system where providers are required to submit enrollment and completion data to OHE for inclusion in SLEDS every six months. This information allows DEED to match via wage records the employment outcomes for all training providers on the ETPL to capture labor market outcomes.

SLEDS uses several tools to maintain linkages between key data sources and promote consistent, usable data. First, OHE establishes data sharing agreements with each training provider on the ETPL. The data sharing agreement sets out the terms of data sharing, details data definitions for key performance indicators, and gives providers access to de-identified student-level SLEDS data to help them evaluate the success of their own programs. Second, when a training provider registers for the ETPL, they sign a "Terms of Use" document with DEED that secures their eligibility as well as their commitment to performance reporting as outlined in state ETPL policy. These agreements help the agencies establish relationships with training providers and serve as an onboarding mechanism to reporting requirements.

Case study information provided by the state of Minnesota



Area for Advancement 2: Design a Program Quality Framework

In consultation with state workforce boards, governors' offices are tasked by WIOA with setting eligibility standards for ETP programs.³² These standards can indicate when a program should receive technical assistance or become ineligible for public funding based on training participants' outcomes. This may include setting baseline thresholds for the share of program participants who complete the program and are employed after the program, as well as participants' post-training wages. Some states may have one minimum threshold per metric, while others may choose to create multiple performance threshold tiers. Despite states' role as managers of ETPLs, it is still uncommon for them to remove programs based on participant outcomes, or to identify top-quality programs using outcome information.³³

Critical Challenges

- Without robust baseline data, selecting quality standards can be difficult. States have a role in setting standards that can realistically be met for programs, while directing training seekers away from ineffective programs. A Mathematica study that involved site visits to 14 states in 2018 and 2019 found that out of those states, only "seven had set minimum performance standards for ETP programs for either initial or continued eligibility," with one of those seven not yet enforcing those standards due to insufficient data. Of the remaining seven states, four were either planning to or considering setting quality standards in the future, but the states cited needing better baseline data to be able to actualize those standards.²⁸
- Insufficient training provider engagement or buy-in can create problems with the rollout of new quality standards. When introducing changes to quality standards, states often face concern from training providers about how the standards will be measured and implemented, requiring clear communication, phased-in introduction of changes, and ongoing engagement.²⁹ In the same Mathematica study, researchers noted that after the implementation of new quality standards in some states, some training providers did not realize they had been dropped from the ETPL, emphasizing the importance of this engagement.³⁰
- Labor market outcome metrics do not capture a holistic picture of program quality, and, if not carefully designed, run the risk of penalizing programs that serve job seekers with the most significant barriers to employment (see Recommended State Strategies B below). Labor market outcomes do not reflect other important measures of program quality. Questions to ask include: Is the training accessible to a wide range of participants (e.g., in terms of affordability, scheduling, location, and transit access)? Are people that leave or complete the program satisfied with the investment they made in the program? In addition, these outcomes do not reflect the wide range of systemic barriers faced by job seekers in the labor market, many of which are outside the control of individual training providers.
- For many providers that enroll a relatively small number of participants with WIOA training subsidies, ITAs may not be a central source of funding, significantly constraining states' ability to influence programs through ETP policy. Though complete data is not available on how many WIOA participants enroll in each ETP program, the Harvard Project on Workforce estimates that nationally, the average ETP program "enrolled just three WIOA-funded learners per year, which would correspond with around \$6,000 total in training revenue for the provider." This suggests states may have limited leverage to incentivize change among some providers when using only ETP eligibility standards.

Area for Advancement 2: Design a Program Quality Framework (continued)

Recommended State Strategies

- A. Develop and implement program outcome benchmarks in collaboration with training providers.

 Benchmarks should clarify which levels of participant outcomes warrant technical assistance, warnings, or removal from the ETPL, and which warrant being flagged to job seekers as a particularly high-quality program. Wage benchmarks should be tied to economic indicators to remain relevant to economic conditions (e.g., the federal poverty level or area median income).
- B. Avoid penalizing programs for serving participants facing pronounced labor market barriers, while still incorporating meaningful outcomes standards for such programs. To aid programs in continuing to serve participants who face more significant and compounding barriers to employment, states can incorporate analysis into their measurement of program quality to control for which populations are served They can also develop categories that allow for more closely aligned comparisons, such as comparing programs serving people exiting incarceration against one another. States could also use an expanded set of qualitative and quantitative metrics that broaden the definition of "quality program," including considering programs' history of successfully serving training seekers who face marginalization in the labor market.
- Commit to transparency and stakeholder engagement. State leaders will need to engage deeply with training providers at all stages of the process. This could take the form of focus groups or a pilot program of deeper engagement with a small group of providers, a phasing-in process to allow providers time to adapt, and technical assistance for struggling programs to give a chance for improvement before removal from the ETPL. States can also make efforts to gather the perspectives of training participants through methods like focus groups and surveys to understand their priorities and experiences.
- **D.** Explore and utilize state regulatory authority to hold programs accountable for outcomes beyond ETP policy. Given that many programs do not receive large shares of their revenue from ITAs, states should explore their state-specific authority to impose standards and offer incentives on programs and institutions beyond ETP eligibility.

Case Study

The New Jersey ETP Quality Assurance Framework: Engaging with Training Providers to Implement New Quality Standards

In 2019, the New Jersey Department of Labor (NJ DOL) set out to develop a quality assurance framework to encourage continuous improvement of low-performing programs on its ETPL and prevent persistently underperforming programs from receiving public funds. To develop this framework, the state participated in the Data for the American Dream Initiative, as well as the National Skills Coalition's Quality Post-Secondary Credentials Policy Academy. From that work, the NJ DOL created a quality assurance framework, identifying nine high-priority metrics grouped into five dimensions to measure training program quality. These metrics were presented to the New Jersey Credentials Review Board at its December 2020 meeting as a work in progress and again in June 2021 for final approval.

NJ DOL shared the new quality assurance framework with training providers and other stakeholders in July 2021, with a significant part of the rollout focused on eliciting feedback from training providers and helping them to collect the newly required data. In July 2022, the quality assurance model, which is outlined below, was officially implemented.

Case Study The New Jersey ETP Quality Assurance Framework (continued)

Dimension	Metrics	Source	
Labor Market Alignment	Program associated with in-demand occupation	Classification of Instructional Programs (CIP) code is aligned with Standard Occupational Code on NJ DOL's labor demand occupation list	
Employment and Wage	Percentage employed in the 2nd and 4th quarter post training	Unemployment Insurance (UI) wage record match.	
Outcomes	Median change in earnings in the 2nd and 4th quarter post training		
	Annual wage as a percent of living wage post training		
Education Outcome	Completion rate	Training provider exit reports	
Financial Outcomes	Return on investment in the first- year earnings gains	UI wage record match	
	Tuition costs compared to median reported earnings for relevant occupation	Tuition from training provider data and Occupational Employment Statistics	
Equity	Equitable outcomes for all of the above for: Male and Female Black, Latinx, White, and Asian People with disabilities	Analysis of education, employment, and wage outcomes by demographic characteristics and provider reports	

The state plans to use these indicators to measure relative performance: Programs in the top 75% will remain eligible, while programs in the 11th to 25th percentile will be given a warning and asked to review the reasons for the indicators on which they are underperforming. Programs in the bottom 10% will be placed on probation, asked to create and implement an improvement plan, and given two years to improve their performance. While NJ DOL has the authority to remove providers from the ETPL for poor performance, the intent of identifying low-performing programs is principally to encourage continuous program improvement and provide technical assistance.

The state is statistically adjusting the model based on programs' enrollment composition as a way of deterring programs from excluding participants who historically face barriers to labor market success unrelated to training quality (e.g., participants with criminal justice histories).

Since implementation began on July 1, 2022, NJ DOL has continued to provide technical assistance to help training providers comply with the new data requirements, and continues to work with a small group of training providers to develop quality assurance tools and resources that will benefit the training provider community.

Case study information provided by the state of New Jersey

Alabama's ETPL Accountability Framework: Setting Clear Expectations for Training Providers

In June 2021, Alabama's Department of Commerce announced an updated accountability framework to ensure the quality of programs on its ETPL. This framework sets concrete thresholds for success metrics that providers must meet in order to remain on the ETPL. The first time programs apply, providers complete an initial eligibility application; one year later, they apply for continued eligibility for the program, which must be reviewed every two years.

In order to be on the ETPL, training programs in Alabama must provide family sustaining wages for all students in the second and fourth quarters after program completion, defined as at least 200% of the federal poverty level for a single-person household, or \$25,760 per year in 2021. They also must meet minimum levels of program completion and student employment. Providers must ensure that 40% of all students—and 50% of WIOA-funded students—complete the program and are employed (see below).

	Initial Eligibility (Lasts One Year)		Continued Eligibility (Every Two Years)	
	Program Completion	Student Employment	Program Completion	Student Employment
All participants	40%	40%	40%	40%
WIOA Title I			50%	50%

Among other requirements, programs must result in a "recognized post-secondary credential and employment," aligned with one of the state's defined in-demand occupations or career pathways as defined by the Alabama Committee on Credentials and Career Pathways. Programs must also be reasonably priced, with a maximum program cost of \$20,000.

If a program falls out of compliance with any of the state's requirements, including the completion, employment, or wage requirements, the state may move the program to probationary status and eventually remove it from the list. Under the 2021 requirements, approximately 1 in 20 programs on the ETPL are at risk of removal. A program that is removed cannot reapply for two years.

An update to the ETPL requirements is planned for 2023.

Case study information provided by the state of Alabama



Area for Advancement 3: Maintain a Navigable Resource on Program Performance

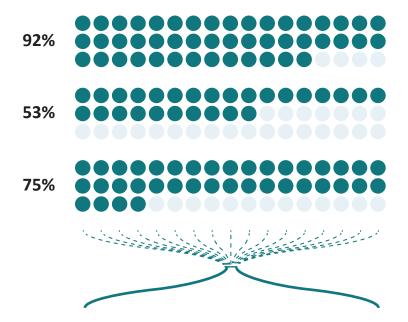
The third critical area for state advancement is building tools that training seekers and career coaches can easily use to identify high-quality programs. States are required to make information on ETP programs available and understandable to the public in digital formats,³⁴ but in many states this has not been realized in a user-friendly way. As explored below, a scan of state ETPL tools in all 50 states and Washington, D.C., found that although nearly all states (92%) had some type of online tool providing information on ETP programs, only about half (53%) had tools with search functionality. Although the majority of states (75%) had designed their tools with fields for program outcomes, outcome data was very often either not populated at all or not in a usable form. Finally, in a major gap, only three states include information about participant demographics in their tools.³⁵

A LOOK AT ETP TOOLS ACROSS 50 STATES AND D.C.

To inform the recommendations in this policy brief, Markle staff collected basic information relating to state-specific ETPL online resources offered by each state and Washington, D.C., in March 2023.

FINDINGS

Across all 50 states and Washington, D.C.



47 states had **online tools** of some kind, while the remainder had **downloadable Excel or PDF files** available.

27 states had tools with some type of search functionality.

38 states had tools that were designed to display outcomes.

Across the 38 states with tools designed to display outcomes

Based on a sample of five selected programs per state:

Number of programs with outcomes data present (out of five sampled)	Number of states
0	14
1-2	16
3-5	8

Number of programs with usable outcomes data present (out of five sampled)	Number of states
0	21
1-2	13
3-5	4

METHODOLOGY

Information collected as part of this scan included the following fields:

- **Online tool** (Yes/No): Were we able to find a navigable state-specific online tool that contains program-level information on ETP programs beyond a downloadable Excel or PDF file?
- Search functionality (Yes/No): In states where an online tool was identified, does the tool give users the
 ability to search for a specific program or filter by program attributes, such as region, type of credential,
 or industry?
- Designed to display outcomes (Yes/No): In states where an online tool was identified, does the tool
 have fields that would display program-level participant outcomes, such as program completion and
 participant wages?
 - For the 38 'Yes' states, five programs were informally sampled from each ETPL to gain insight on a training seeker's experience trying to access information about program outcomes.

For those programs, we collected the following information:

- Outcomes data present (0-5): Out of the five programs we sampled, how many included outcomes data?
- Usable outcomes data present (0-5): Out of the five programs we sampled, how many included outcomes data that seemed to be in a reasonable range and in a form that would be usable for training seekers? Examples of instances where data was not usable include: data presented as hourly wages that was more likely quarterly wages; multiple types of wages in combination (e.g., quarterly and annual wages presented side by side); 100% credential attainment rates for a program with a low reported completion rate; and \$0 wage outcomes.

Critical Challenges

- States often lack capacity to launch and maintain a public-facing tool with high-quality user interface design. Agencies that could house such a tool may have limited relevant expertise on staff and capacity to undertake this work. Keeping a tool accurate and up to date is likely to involve intensive outreach to training providers to help them submit periodic reports that can then be uploaded into the resource. States that have built notable public-facing tools have used funds designated by the state legislature, federal workforce funds, and/or philanthropic dollars. Many have partnered or contracted with external designers and consultants.³⁶
- Building a strong online tool requires robust program data. Online tools are only as strong as their
 underlying data systems. If program-level data is of poor quality, an online tool will be less useful for users
 due to information gaps. (For more on this challenge, see the first area for advancement, <u>Build Robust</u>
 <u>State Data Systems</u>.) Additionally, for programs with small numbers of participants, states must balance
 the need to share data on outcomes with the need to protect participants' privacy by suppressing data.
- Without deliberate efforts to familiarize training seekers with new tools and adjust based on user needs, data may go unused. Research on outcomes transparency for degree-granting programs in select states has suggested that making cost and outcome information more transparent does not guarantee degree-seekers will use the information to guide program choices. To address this, some states have passed laws requiring that data be shared directly with high school career counselors.³⁷ Some states have also conducted user surveys to adjust the design of their tool to help meet users' needs.³⁸

Recommended State Strategies

- **A. Seek dedicated funding.** Possible sources include state-appropriated funding, philanthropic dollars, flexible state funds, and federal funds.
- **B. Prioritize user-centric design.** Tools should be in plain language, searchable, and easy to use on a smartphone, where many job seekers will access information. They should display information most likely to be important to training seekers, such as location and financial aid eligibility, as well as post-training outcomes such as program completion and wages six months post-completion.³⁹ To improve the tools' usefulness, states can engage directly with training seekers to understand what information is important and helpful to them.
- C. Highlight and contextualize wage outcomes to help users navigate career paths and training options. Wage information should be prominently displayed in a form that is intuitive for training seekers, such as hourly or annual wages rather than quarterly. Where possible, tools could include a comparison with outcomes of similar programs. When wage information is suppressed due to small numbers of program participants, states can consider aggregating information across program years. Information on how programs fit in common career paths would also be valuable to users.
- **D. Disaggregate outcomes across participant demographics where possible.** Participant demographic profiles, as well as outcomes that are disaggregated by demographics such as race, ethnicity, and gender, allow users to go beyond averages to better understand the outcomes of a training program. Where disaggregation of outcomes at the program level is not possible due to small numbers of participants, which is likely to affect a large number of existing programs, states should consider building a tool that provides similar disaggregated information across institutions or types of training programs.⁴⁰
- **E.** Implement a distribution plan. Share the tool with stakeholders who most often interact with training seekers—including public workforce system career coaches and staff, high school career counselors, community and technical college counselors, and programs serving people exiting incarceration. States could also consider distributing the tool through their unemployment insurance system and through targeted marketing campaigns.

TrainingProviderResults.gov and State ETP Websites

In 2020, the U.S. Department of Labor launched the website TrainingProviderResults.gov. The website is part of an effort to centralize federal data on ETP programs across states and provide a resource to training seekers to "help individuals make informed career training choices based on the program's completion and employment results." However, data gaps currently limit the tool's usefulness, particularly when it comes to accessing outcomes for training programs. According to an analysis of the website's first release by the Harvard Project on Workforce, "metrics like participants served, completion rates, employment rates, and quarterly earnings are missing for between 75 and 99 percent of programs. For earnings metrics in particular, the share missing was over 95 percent."

In an ideal world, the federal tool would be robust and dynamic enough that states would not need to each build similar tools in parallel. However, there are some advantages to each state providing online resources unique to its own context. States can integrate tools with data on participant demographics, information about benefits programs for unemployed and low-wage workers, and state-specific funding options. State systems may also include connections to career navigation resources or information on career pathways that would be difficult to include and keep up to date on the federal website. Additionally, hosting ETP program data separately from TrainingProviderResults.gov allows states to update program information more frequently and include fields not included in federal data reporting.

Washington State's Career Bridge: An Outcomes-Informed Career and Education Navigator Tool

Washington state's Career Bridge is a free, online career and education planning resource for state residents. Also home to the state's ETPL, Career Bridge enables residents to discover how likely a particular program is to lead to employment, how much recent graduates earned, and in which key industries they went to work.

Between 2008 and 2011, Washington spent around \$130,000 on the initial creation of the Career Bridge site and another \$130,000 on an update to fix technical issues and make the site more user friendly. Workforce Board research staff match student-level records with Unemployment Insurance (UI) wage files to independently assess and provide performance results for thousands of Washington postsecondary education programs—from short-term training programs and all registered apprenticeships, to associate and bachelor's degrees, and even some master's degree programs. Student records include information collected on all participants (both WIOA and non-WIOA). Research staff also match student records with national UI records through the State Wage Interchange System—so if Washington graduates land out-of-state jobs, their employment and earnings can still be calculated as part of overall program performance.

Maintaining the site relies on training providers to manage and edit their own program information. This requires extensive and sometimes time-consuming outreach to schools and colleges, particularly as program offerings regularly shift, new programs are created, or existing programs are canceled.

In 2022, the Legislature provided Washington's Workforce Board with \$460,000 for a short-term project that will help pay for initial updates to Career Bridge's aging site architecture. The agency has hired a project manager to oversee this foundational step. The one-year project will provide a detailed evaluation of site needs, create a road map for future improvements, and if time and funding permit, begin key updates, such as making the site mobile-friendly for phones and tablets. The Workforce Board is seeking additional legislative funding in 2023-24 to continue modernizing the site, including launching a long-awaited digital portfolio for users to save their career and education searches. The Workforce Board also has plans to make the site more accessible for speakers of different languages and more closely align the site with Washington state's High School and Beyond Plan requirements. This funding request, which totals just under \$1.3 million, includes hiring dedicated staff to manage Career Bridge and oversee IT improvements to sustain it as a forward-looking education and career planning tool for learners and workers throughout Washington state.

Case study information provided by the state of Washington

INTraining: Indiana's Searchable Training Locator Tool with Performance Criteria

In 2014, Indiana launched an online platform for job seekers to navigate training programs, called INTraining. The website houses the state's ETPL. Programs featured on the ETPL must meet two requirements: (1) the target occupation must reach a certain demand threshold; and (2) the programs must lead to a recognized postsecondary credential. INTraining allows users to search by location, provider, and program name, as well as filter by eligibility for WIOA funding, specific type of certificates and degrees, region, and online or in-person delivery.

Critically, the system also includes indicators that delineate programs on the ETPL that meet "exceptional performance" criteria from those that meet "minimal performance" criteria. In Indiana, "exceptional performance" means that 80% of all participants served received a credential, completers have median earnings of at least \$15 an hour, and completers' employment rate is at least 60% in either the 2nd or 4th quarter after exit. "Minimum performance" can be met in several ways: either 50% of all participants served receive a credential, completers have an employment rate of more than 30% in the 2nd or 4th quarter after exit, or completers have median earnings of at least \$10 an hour. The Indiana Department of Workforce Development (DWD) is currently working with an outside vendor to analyze program performance data with the goal to set a higher threshold for minimum performance in 2023.

A key impetus for creating INTraining was the desire among DWD staff and the State Workforce Innovation Council to provide a way for training seekers to navigate their options with a searchable tool, including one that allows them to choose from the highest-performing programs. Prior to the launch of INTraining, Indiana's programs were accessible to training seekers only as a flat list, without this performance criteria or any meaningful features to search.

Creating the online search platform took around six months of close work between the DWD and its in-house IT department, which provides ongoing support for the system. DWD and IT staff hold weekly meetings to continually improve the user experience. The initial funding for this project came through Workforce Investment Act (WIA) funding, including some WIA discretionary dollars, and is now maintained with funding through WIOA.

The process for maintaining the data in the system involves individual training providers creating accounts and uploading data from their programs on at least an annual basis. Providers are also required to review and make annual changes to their program information.

Case study information provided by the state of Indiana

Area for Advancement 4: Identify and Address Gaps in the Training Landscape

WIOA requires that state workforce boards develop a Unified State Plan (USP) outlining workforce strategies for each of their core workforce programs, updated every two years. This includes analyses of the states' labor markets and the capacity of their workforce systems to meet workforce needs, along with a plan for aligning the two.⁴¹ States have an opportunity to go beyond these federal requirements and use program-specific outcomes—supplemented by additional data, such as surveys or focus groups of unemployed and under-employed workers, current training program participants, employers, and/or training providers—to guide analysis of the training system on an ongoing basis.⁴² They also may choose to conduct sector-focused analyses of fast-growing industries such as direct care work, infrastructure, or healthcare.

Critical Challenges

- Lack of aligned and connected data. Without strong data systems in place, states may be limited in their ability to thoroughly assess the training landscape.
- States' capacity to conduct gap analyses may be limited. This is especially the case when it comes to more labor-intensive data collection. In a late-2020 survey of state workforce agencies, more than one-third of responding agencies reported that their staff capacity "to conduct or oversee priority research efforts" was "inadequate." Partnerships or contracts with external organizations familiar with the range of data sources and methods that could inform these analyses may be necessary.
- Labor market projections of workforce demand are uncertain and may miss key indicators of upcoming workforce needs. For example, existing labor market data may not consider upcoming public investments in certain sectors, such as those in infrastructure, climate, and research and development through the Infrastructure Investment and Jobs Act, the Inflation Reduction Act, and the CHIPS and Science Act. 44

Recommended State Strategies

- A. Conduct analyses to support strategic alignment of labor supply with demand for specific skills. Develop an understanding of the state's training strengths and most urgent training needs, whether through internal analyses or external experts. Coordinate with others across the state to understand the upcoming impact of public investments not reflected in labor market data. In fast-growing or high-demand sectors, consider conducting gap analyses specific to that employment area.
- **B.** Understand barriers to entry and completion, particularly for marginalized training seekers. Analyses can go beyond labor supply and demand to document the specific needs and barriers of the state's training seekers and employers through surveys, focus groups, or interviews. Analyses should focus on how well the state's training offerings are serving low-income training seekers and demographic groups facing pronounced barriers in the labor market.
- **C. Direct resources to high-quality programs to fill gaps.** Scale programs in high-demand sectors that show effectiveness for participants post-training, while filling gaps in programming to remove barriers to participant success. This should include addressing barriers for workers from demographic groups marginalized in the labor market to support completion of training, including supportive services such as child care, transportation subsidies, career navigation and mentoring, and flexible emergency funding supports.

Washington, D.C., Training Gap Analyses: Engagement with Employers, Job Seekers, and Training Providers

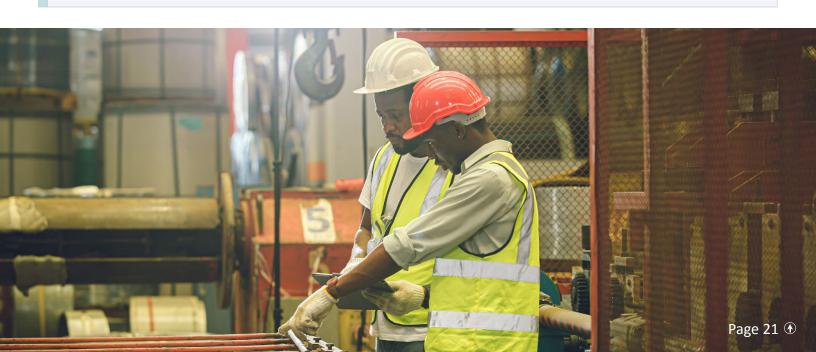
The Washington, D.C., Workforce Investment Council (WIC)—a private-sector-led board responsible for advising the city's leadership on the workforce development system—has taken a multi-pronged approach to understanding and addressing the gaps in D.C.'s workforce training landscape. The WIC divides its efforts into three buckets: labor demand, labor supply, and training landscape.

The first bucket of initiatives is on the demand side—ensuring training offerings are aligned to business needs. After holding a series of focus groups in fall 2021 with employers and workforce system partners in six high-demand industries, the WIC created a set of career pathway maps to inform public investment in the workforce system. The WIC also released a Healthcare Occupations Report in summer 2021 out of its partnership with the healthcare sector, which identified the healthcare industry's highest in-demand occupations and associated skills. This research informed an expansion of training grants to employers and community-based organizations.

The second bucket is on the supply side—ensuring the workforce system is responsive to job seekers' needs, interests, and barriers. The WIC conducted the Unemployed Worker Survey in fall 2020, releasing its findings in March 2021. The survey collected more than 3,000 responses from D.C. workers who were unemployed or negatively impacted by COVID-19, asking residents about their demographics, employment status, and the services that would support their career goals. The WIC identified digital literacy and supportive services as key areas of need, a finding that influenced the launch of a two-year pilot expansion of D.C.'s career coaching services, Career Coach DC, which provides guidance on improving worker connections to quality jobs.

The third bucket focuses on understanding the training landscape itself. In three rounds of outreach and surveys to training providers, the WIC is developing a Training Provider Landscape Analysis. As part of this process, the WIC developed a database of more than 150 training providers in D.C. (about one-third are non-degree training providers). A capacity assessment to compare training capacity with employment demand in D.C. is also underway.

Case study information provided by Washington, D.C.



Conclusion

States play a critical role in directing adults to workforce training programs that can offer paths to employment with economic security, especially people with low incomes and displaced workers. In particular, states manage which workforce training programs are eligible to receive funding through federal training subsidies and host public directories of workforce training and education offerings. States have unique access to data around these programs, including their participants' labor market outcomes, and also oversee systems that can guide training seekers to these directories (e.g., career navigation services in the public workforce system).



Developing the data systems and public tools necessary to improve transparency about ETP programs has proven challenging, too often leaving training seekers, career coaches, and policymakers with insufficient information to guide their decisions. Given that research suggests these programs do not all reliably serve participants in the labor market, states have an opportunity to be more intentional in directing training seekers to high-quality programs.

Improving transparency around workforce training program outcomes is an especially critical piece of broadening economic opportunity for low-income training seekers and those who face pronounced, compounding barriers in the labor market.

States have four critical areas for advancement to consider: develop robust state data systems, design a program quality framework, maintain a navigable resource on program quality, and identify and address gaps in the training program landscape. By taking action in these four areas using the strategies outlined in this policy brief, state leaders can begin building the data systems, quality benchmarks, public-facing tools, and targeted investments essential to expanding economic opportunity for all workers.



References

- 1 Office of Management and Budget, WIOA Performance Report Program Year 2019, 2020.
- 2 Estimate includes spending on training for adults and dislocated workers. Congressional Research Service, "<u>The Workforce Innovation and Opportunity Act and the One-Stop Delivery System</u>," 28 Sep. 2022.
- The number of programs reported on TrainingProviderResults.gov (the source for the analysis cited here) and on individual state ETPL tools can differ. Deming, David et al, "Navigating Public Job Training," Harvard Project on Workforce, Mar. 2023.
- Federal efforts to increase outcomes transparency and regulate quality for degree-granting programs have taken multiple forms. The U.S. Department of Education's College Scorecard resource, for example, provides limited field-of-study-level outcomes information for many postsecondary institutions based on students who received federal financial aid. The Department also provides institution-level data through the Integrated Postsecondary Education Data System (IPEDS). In 2014, the Gainful Employment regulations aimed to regulate programs' debt-to-income ratio, but the rule was suspended and eventually rescinded by the Trump administration. Institutions were required to complete a consumer disclosure template and meet performance measures or risk losing their access to federal financial aid, pushing many schools to make improvements to their program offerings, improve affordability, and end programs that were not serving students in anticipation of the rule's implementation. See The Institute for College Access and Success, "Why Students Need a Strong Gainful Employment Rule," 3 Feb. 2021.
- 5 Deming, David et al, "Navigating Public Job Training," Harvard Project on Workforce, Mar. 2023.
- This piece considers a good quality job to be one that offers essential economic security in the form of family-sustaining wages and benefits, workplace safety and respect, and mobility potential. For additional factors that could be considered to constitute a good quality job, see the eight job quality principles developed by the U.S. Department of Labor and Department of Commerce, or the job quality framework developed by the Aspen Institute's Economic Opportunities Program.
- 7 See Third Way's analysis of graduates' earnings by institution compared to the earnings of the typical high school graduate who never attended any postsecondary institution in the same state. 39% of institutions that primarily granted certificates left a majority of graduates earning less than those who never attended college, compared to 7% of associate's degree-granting institutions and 1% of four-year degree-granting institutions. Third Way, "Price to Earnings Premium: A New Way of Measuring Return on Investment in Higher Ed," Apr. 2020.
- 8 Third Way, "Price to Earnings Premium: A New Way of Measuring Return on Investment in Higher Ed," Apr. 2020.
- 9 Deming, David et al, "Navigating Public Job Training," Harvard Project on Workforce, Mar. 2023.
- 10 Ositelu, Monique, "Five Things Policymakers Should Know About Short-Term Credentials," New America, 2 Mar. 2021.
- 11 Zhavoronkova, Marina, "Meeting the Moment: Equity and Job Quality in the Public Workforce Development System," Center for American Progress, 17 Feb. 2022.
- 12 Camardelle, Alex, "Principles to Support Black Workers in the Workforce Innovation and Opportunity Act," Joint Center for Political and Economic Studies, Oct. 2021.
- 13 McDermott, Janie and Annelies Goger, "The Health Care Workforce Needs Higher Wages and Better Opportunities," Brookings, 20 Dec. 2020; Goger, Annelies and Luther Jackson, "The Labor Market Doesn't Have a 'Skills Gap'—It Has an Opportunity Gap," Brookings, 9 Sep. 2020.
- 14 WIOA, Sec. 122 and Sec. 133(b).; Office of Management and Budget, "State Training Provider Eligibility Collection: OMB Control Number 1205-0523," September 2019.
- 15 America Forward, "Building a Stronger, More User-Friendly Workforce Data System," 27 Oct. 2022.
- 16 Some of the external organizations that have provided resources or assistance to states in this space include the Coleridge Initiative, Data for the American Dream Initiative, Education Quality Outcomes Standards (now housed within Jobs for the Future), and the National Skills Coalition.
- 17 For example, the U.S. Department of Labor has awarded nearly \$70 million to states through the Workforce Data Quality Initiative grants to support the development or enhancement of longitudinal administrative data systems that allow for tracking students from school (beginning in pre-kindergarten) into their work lives. Most states have received an award. Other federal funding sources include the Department of Education's Statewide Longitudinal Data Systems (SLDS) grant program and the Strengthening Career and Technical Education for the 21st Century Act (Perkins V) Program. See Data Quality Campaign, "State and Local Governments Can Use Federal Funding for Education Data," Apr. 2021.
- 18 Jamieson, Carlos et al, <u>"50-State Comparison: Statewide Longitudinal Data Systems,"</u> Education Commission of the States, Dec. 2021.
- 19 Kim, Anne, "Train in Vain," Washington Monthly, 28 Aug. 2022.
- 20 National Center for Education Statistics, "SLDS Issue Brief: Sources and Linking Strategies for Employment Data," Dec. 2022.
- 21 Leventoff, Jenna et al, "<u>Data Policy Toolkit: Implementing the State Blueprint</u>," Workforce Data Quality Campaign, Oct. 2016.
- 22 Perez, Zeke, "Examining SLDS Development and Utility," Education Commission of the States, Mar. 2017; The Markle Foundation State Training Collaborative, 2022.

- 23 <u>26 states</u> sought and received waivers from the U.S. Department of Labor (DOL) on the WIOA requirement that eligible training providers collect performance data on all participants. These waivers expired in July 2021, a change that will likely have implications for data quality as all states and territories are now required to collect performance data on all participants. But problems with incomplete state data—significant enough that states are falling short of federal reporting requirements—<u>are not new.</u> In 2011, more than 35 states had received waivers to delay or waive portions of performance reporting required under WIA (the predecessor to WIOA), indicating that data quality challenges have been meaningful enough to affect performance management for more than a decade. Under WIA, logistical challenges were compounded by opposition from training providers who argued that the benefits of staying on the ETPL did not outweigh the costs.
- 24 Leventoff, Jenna, "State Wage Interchange System: Better Data for Stronger Workforce Programs," Jul. 2019; The Markle Foundation State Training Collaborative, 2022.
- 25 The Institute for College Access and Success, "Of Metrics and Markets: Measuring Post-College Employment Success," Dec. 2018; Workforce Information Council, "Enhancing Unemployment Insurance Wage Records: Potential Benefits, Barriers, and Opportunities," Sep. 2015.
- 26 The Institute for College Access and Success, "Of Metrics and Markets: Measuring Post-College Employment Success," Dec. 2018.
- 27 The Markle Foundation State Training Collaborative, 2022.
- 28 Mathematica, "Performance Accountability, Eligible Training Providers, Labor Market Information, and Evaluation Requirements Under WIOA," 30 Nov. 2020.
- 29 The Education Trust, "Re-Imagining Outcomes-Based Funding: Using Metrics to Foster Higher Education Equity," Apr. 2021; The Markle Foundation State Training Collaborative, 2022.
- 30 Mathematica, "Performance Accountability, Eligible Training Providers, Labor Market Information, and Evaluation Requirements Under WIOA," 30 Nov. 2020.
- 31 Deming, David et al, "Navigating Public Job Training," Harvard Project on Workforce, Mar. 2023.
- 32 <u>WIOA</u>, Sec. 122 states: "the Governor, after consultation with the State board, shall establish criteria, information requirements, and procedures regarding the eligibility of providers of training services to receive funds provided under section 133(b) for the provision of training services in local areas in the State."
- 33 As Anne Kim quotes John Pallasch, former assistant secretary for employment and training at the U.S. Department of Labor: "If we're being honest about our eligible training provider lists right now, we know that they are bloated. We know that there are programs on there that are not performing."
- 34 <u>WIOA</u>, Sec. 122; Office of Management and Budget, "<u>State Training Provider Eligibility Collection: OMB Control Number 1205-0523," September 2019.</u>
- 35 Deming, David et al, "Navigating Public Job Training," Harvard Project on Workforce, Mar. 2023.
- 36 The Markle Foundation State Training Collaborative, 2022.
- 37 Burke, Lilah, "What's a college degree worth? States start to demand colleges share the data," The Washington Post, 21 Jan. 2023.
- 38 The Markle Foundation State Training Collaborative, 2022.
- An active debate exists over the relationship between immediate and long-term labor market outcomes for shorter-term training programs. Regardless, high-quality non-degree training programs should be able to connect workers to good jobs in the near term, as that is a very often the goal for low-income adults seeking workforce training. States can also consider a return-on-investment metric that incorporates both program cost and expected wages. See Ositelu, Monique et al, "The Short-term Credentials

 Landscape: Labor Market Outcomes," New America, 5 May 2021; Minaya, Veronica and Judith Scott-Clayton, "Labor Market

 Outcomes and Postsecondary Accountability: Are Imperfect Metrics Better than None?" Nov. 2019; Itzkowitz, Michael, "Price-to-Earnings Premium: A New Way of Measuring Return on Investment in Higher Ed," Third Way, 1 Apr. 2020.
- 40 The Institute for College Access and Success, "<u>Data for Equity: Closing Racial and Economic Gaps Through a Federal-State Partnership</u>," 28 Jul. 2021.
- 41 Congressional Research Service, "The Workforce Innovation and Opportunity Act and the One-Stop Delivery System," 26 Sep. 2022.
- For more specifics on data sources and research questions that could guide workforce system planning, see Wilson, Bryan, "How Many More Skilled Workers Do We Need?" National Skills Coalition, Jun. 2014; J.P. Morgan Chase & Co., "Understanding Your Community: Labor Market and Workforce Development System Data Toolkit," Jan. 2019.
- 43 National Association of State Workforce Agencies, "Evidence Building Capacity in State Workforce Agencies," 2021.
- The Markle Foundation, National Association of State Energy Officials, and Eno Center for Transportation, "Realizing the Workforce Potential of Infrastructure Investments: State Strategies to Advance Job Quality and Build Inclusive Workforces in Transportation and Clean Energy," Feb. 2023.