



**WORK-BASED
LEARNING: CRITICAL
INFRASTRUCTURE
FOR A FUTURE-READY
WORKFORCE**

*RECOMMENDATIONS FOR
POLICYMAKERS*

FALL 2021



Executive Summary

As the country approaches the two-year mark of the COVID-19 pandemic, states are grappling with continued uncertainty of the future of both education and the workforce. Disruptions in learning and instruction increase the risks that students may be even less prepared for life after graduation. Continued shifts in the labor market, particularly due to automation and inability to fill skilled positions, mean that economic growth and mobility are still open questions for many states and families. At the same time, ongoing discussions continue about how to tackle long-standing problems with the nation's infrastructure, the results of which could be both an influx of federal dollars and real questions about whether states have the talent needed to put them to work.

To address all these challenges, states will need to ensure their own talent infrastructure is sound. That means helping schools and districts develop and support strong student pathways aligned with postsecondary credentialing, higher wage occupations, and employability skills. It also means ensuring that these student pathways are high-quality and include critical experiences to build real-world knowledge and skills.

Fortunately, there is a proven strategy to help ensure that pathways prepare students for long-term career success: work-based learning. In addition to enabling young people to gain work experience while in high school, work-based learning helps students hone the academic, technical and employability skills needed to succeed in postsecondary and the workplace.¹

Recommendations for Policymakers

To meet the infrastructure demands of tomorrow, policymakers should recognize student pathways and work-based learning as the critical infrastructure of today. Here are five recommendations state policymakers can take to support high-quality work-based learning.

- 1. Provide tax or other financial incentives for employers who engage with schools and offer work-based learning opportunities to students.**
- 2. Reduce legal barriers to student participation by establishing clear policies for appropriate student liability insurance coverage.**
- 3. Define success metrics for work-based learning and regularly collect and report on them.**
- 4. Recognize work-based learning metrics in graduation requirements, accountability measures and school fiscal incentive models.**
- 5. Prioritize funding, support and resources for historically underserved students and communities.**

¹ Martha Ross, Richard Kazi, Nicole Bateman, and Laura Stalder. [Work-based Learning Can Advance Equity and Opportunity for America's Young People](#). Brookings Metropolitan Policy Program. 2020

Introduction

As the country approaches the two-year mark of the COVID-19 pandemic, states are grappling with continued uncertainty of the future of both education and the workforce. Disruptions in learning and instruction increase the risks that students may be even less prepared for life after graduation. Continued shifts in the labor market, particularly due to automation and inability to fill skilled positions, mean that economic growth and mobility are still uncertain for many states and families.

At the same time, the US Congress advanced a roughly \$1 trillion infrastructure package aimed at improving roads, bridges, railways, broadband access and much more. States and communities will have an influx of federal dollars to tackle a long list of needed upgrades and additions. But money alone will not fix the nation's infrastructure. It also requires a small army of engineers, technicians, public and private sector professionals, and skilled tradespeople. With the uncertainty in education and the workforce, many states could be scrambling to find businesses and firms to complete the work. And a generation of young people may be left out of the rebuilding of state and local infrastructure (and in many cases, economies).

To address all these challenges, states will need to ensure their own talent infrastructure is sound. That means helping schools and districts develop and support strong student pathways aligned with postsecondary credentialing, higher wage occupations, and employability skills. It also means ensuring that these student pathways are high-quality and include critical experiences to build real-world knowledge and skills.

Fortunately, there is a proven strategy to help ensure that pathways prepare students for long-term career success: work-based learning. In addition to enabling young people to gain work experience while in high school, work-based learning helps students hone the academic, technical and employability skills needed to succeed in postsecondary and the workplace.²

Given this, it's imperative that state policymakers develop and strengthen policies that support and expand access to high-quality work-based learning. To meet the infrastructure demands of tomorrow, policymakers should recognize student pathways and work-based learning as the critical infrastructure of today. Both need bolstering, and by focusing attention and resources on the workforce infrastructure needs of young people, we can ensure that states, communities and families will fully benefit from addressing America's traditional infrastructure needs.

In this paper, NAF examines what comprises a high-quality work-based learning program, challenges to developing and expanding these programs, and recommendations for policymakers seeking to strengthen policies that support them.



Parents and Young Adults Value Workplace Skills and Experiences

High-quality work-based learning is not only recognized by experts as a proven strategy for success, it's what parents and students want. In recent research, when asked to prioritize those experiences that prepare students for success after high school, both parents and young adults (ages 18-24) cited acquiring skills and work experience as more important than any other factors.³

² Martha Ross, Richard Kazi, Nicole Bateman, and Laura Stalder. [Work-based Learning Can Advance Equity and Opportunity for America's Young People](#). Brookings Metropolitan Policy Program. 2020

³ ExcelinEd. [Pathways Matter to Families: What Parents and Young Adults Believe and Want to Know about Education to Workforce Pathways](#). 2021

Defining Work-Based Learning

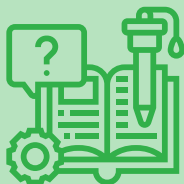
Though this paper will highlight some of the central challenges and solutions facing states in the promotion of high-quality K-12 work-based learning, for a lot of states, the conversation begins with something more basic: a clear understanding of what work-based learning is. Despite the inclusion of work-based learning in several federal acts (i.e., Carl D. Perkins Career and Technical Education Act, V; Workforce Innovation and Opportunity Act; Individuals with Disabilities Education Act; and Every Student Succeeds Act),⁴ defining and deploying work-based learning is not as straightforward as one might expect. (Refer to Appendix for sample definitions.) States acknowledge the influencing role of work-based learning when it comes to learner readiness and workforce readiness.⁵ However, fewer than half of all states and territories have a formal definition of work-based learning, and the remaining states have either informal definitions or no definitions at all. Even among those that do promote a work-based learning policy (formally or informally), the definitions vary noticeably, causing confusion, and at times inequities, with what constitutes work-based learning.

To maximize the role and impact work-based learning can play in addressing student readiness and workforce needs, it is important to start first with an understanding of what comprises a high-quality work-based learning program in practical terms.



What is Work-Based Learning?

In a general sense, work-based learning (WBL) is an instructional strategy designed to help students connect what they learn in the classroom with what is expected in the workplace by integrating learning with real-world applications in partnership with industry professionals.



Characteristics of a High-Quality Work-Based Learning Program

A high-quality work-based learning program should provide a continuum of diverse work-relevant experiences that (a) allow students to build on their knowledge and skills and (b) become more complex as students move through their learning pathways. At the time of graduation, a high-quality work-based learning program should be able to show a measurable impact on student readiness.

High-Quality Work-Based Learning: Policy and Program

Policy

For state policymakers, promoting a high-quality work-based learning program involves several key steps. These include establishing (a) shared priorities, (b) shared definitions, and (c) collective accountability across various state agencies so there is a clear understanding of what and how work-based learning will support state needs. By accomplishing these steps, policymakers are also able to consider ways to leverage federal and state funding opportunities and address various operational challenges that arise in support of work-based learning as a critical component of a state's readiness strategy.

⁴ [Carl D. Perkins, V; Workforce Innovation and Opportunity Act; Individuals with Disabilities Education Act; and Every Student Succeeds Act](#)

⁵ College and Career Readiness and Success Center, American Institutes for Research. [Work-Based Learning Definitions Themes From States and National Organizations](#). 2018; American Student Assistance and Bellwether Education Partners. [Working to Learn and Learning to Work](#). 2021.



Higher Skill, Higher Wage Occupations and the Role of Work-Based Learning

In spring 2020, shutdowns from the COVID-19 pandemic displaced 22 million people in just two months - with workers in low wage jobs being the most adversely affected. Unfortunately, many of those jobs will not be coming back due to continued automation in the workplace and a broader reassessment of employer and workforce needs.⁶

Now more than ever, K-12 college and career pathways need to prepare learners for opportunities in higher wage, higher skill occupations, which have proven to be more resilient during economic upheavals. High-quality work-based learning programs are an integral part of college and career pathways, providing learners with essential workplace knowledge and skills necessary to be successful in higher wage, higher skill occupations.

In its 2018 release, [Work-Based Learning Model Policy Components](#), the Education Commission of the States similarly called out this shared purpose when it identified five key components (coordination, access, finance/funding, program quality, and graduation credit) that should be represented in state policy on work-based learning. Of particular note are the recommended action steps assigned to three of the components:⁷

- **State and Regional Coordination – by addressing**
 - **Single, clear and statewide definition of various work-based learning experiences**
 - **Development of a state strategic plan for work-based learning**
 - **Designated entity or entities coordinating state and regional efforts**
 - **Development and broad dissemination of effective strategies, and**
 - **Clear communication on critical employer logistics**
- **Finance/Funding – by addressing**
 - **Funds to support deployment of all activities at the state, regional and local levels, and**
 - **Funds available to pay students in time-intensive work-based learning experiences**
- **Program Quality – by addressing**
 - **Development and dissemination of a state framework for work-based learning**
 - **Student awareness of and exposure to high-quality employability standards - aligned with state standards**
 - **Educator [and employer] participation in high-quality training**
 - **Program reporting and inclusion in state accountability systems, and**
 - **Post-experience evaluation for students, employers, educators and other stakeholders**

⁶ Nicole Bateman and Martha Ross. [The Pandemic Hurt Low-Wage Workers the Most -- and So Far, the Recovery Has Helped Them the Least](#). Brookings Institution. July 28, 2021

⁷ ECS. [Work-Based Learning Model Policy Components report](#). 2018

For state policymakers, whatever core components are used to formalize work-based learning policy, it will be essential that the components are intentional and clear. It is also critical that they acknowledge the various agencies and stakeholders who need to be a part of the overall program’s buildout, delivery, and assessment at the state, regional, and local levels.

NAF’s Approach to Work-Based Learning

NAF’s approach to work-based learning is centered on helping individual learners achieve the aspirations, skills, and professional network connections needed through intentional employer-engaged experiences, beginning with career awareness, progressing to career exploration, and culminating in career preparation. These intentional experiences require meaningful interactions between educators and employers to ensure that learners gain the knowledge and skills necessary to be successful in the classroom and the workplace.



AWARENESS

Guest Speaker
Worksite Tour
Career Fair



EXPLORATION

Informational Interview
Job Shadow
Mock Interview
Mentoring



PREPARATION

Paid Internship
Clinical Experience
Mentored Industry Project

Program

As policy evolves to implementation, cross-agency leadership and messaging should continue to play a central role in building out and sustaining high-quality work-based learning. As part of this process, robust program guidance should be developed for stakeholders outlining program implementation steps. Guidance should also include the identification of program quality indicators and accountability measures to inform progress and ensure a high level of fidelity between policy and program, as well as supportive approaches, on how “education and business and industry [can] collaborate to achieve mutual priorities.”⁸

At the heart of this work is the ability to (a) establish meaningful partnerships that are aligned with K-12 college and career pathways and (b) identify the necessary conditions to promote a high-quality work-based learning delivery model at scale, allowing all students to gain and demonstrate employability skills that are transferable in the classroom and in various workplace settings.

⁸ ExcelinEd: [Pathways Matter](#) (2021)

In ExcelinEd's 2020 playbook [Developing High-Quality State Work-Based Learning Programs](#), it lists six core elements of a high-quality statewide work-based learning program. These include:

- ***Authentic Student-Workforce Engagement that is relevant to, and consistent with, their student pathways***
- ***Holistic Student Learning Experiences that reflect integrated academic and technical learning curriculum and employability skills-based demonstrations – and are accessible for all students***
- ***Progressive Continuum of career and work-relevant experiences that are intentional and align to students' pathways, acquired learning and skills, and work-relevant experiences***
- ***Purposeful Employer Engagement that is well-defined and well-matched to students' learning and skills progression and occupational goals***
- ***Stakeholder Professional Development for educators and employers to reinforce program quality and consistency and to affirm roles and responsibilities***
- ***Measurable Program Data that allows for meaningful analysis of program quality and student college and career readiness; measures should be embedded as program priorities and outcomes***

High-Quality Work-Based Learning: Implementation Challenges and Solutions

Even the most well-thought-out policy on work-based learning will face challenges as its delivery structure is built out and implemented. For state policymakers, agency leads, and local district and workforce leads, addressing these challenges in policy and then later through programming can dramatically increase the likelihood that work-based learning will produce the learner readiness and workforce readiness results desired at the state and local levels. Consider five of the most common challenges to providing high-quality work-based learning:

1. Employer Engagement

Employer recruitment and ongoing engagement remains a challenge for education leaders tasked with the responsibility. Though company policies are often attributed, there are a fair number of employers who opt out of participating due simply to a lack of information, uncertainty over their roles and responsibilities, general liability concerns, and/or a lack of incentives to compensate their company for perceived lost productivity. By targeting various monetary and non-monetary incentives, developing clear communications, ensuring meaningful onboarding, and enlisting intermediary organizations and influential peers to assist with recruitment and training, policymakers can create realistic conditions for ongoing and consistent engagement by employers.

2. Legal and Logistical Barriers

Work-based learning often involves a learner being physically on-site at an employer's business or worksite. Organizing and implementing such experiences can raise legal issues around age restrictions and legal liability for employers. Similarly, providing release time and transportation for students can be a logistical challenge for schools, especially in areas where public transportation is limited or travel times from school to worksite are lengthy. States can help local partners overcome these hurdles by cutting unnecessary red tape around worksite exemptions for minors, promoting paid work-based learning for learners, allowing schools and districts to utilize existing, or purchase new, liability insurance for participants, and providing additional flexibility and funding for student release time and transportation.

3. Educator Capacity and Training

Educators are often charged with ensuring their students are prepared for work-based learning placements, while also serving as de facto career coaches throughout their students' pathway experiences. An often-overlooked challenge in this is ensuring that schools and districts provide

their educators with supportive working conditions, so they are well prepared to support their students throughout their learning. States can play a role in addressing this challenge. They can provide program guidance and training offerings, program grants, targeted educator release time, and incentives for schools and districts to evaluate program and personnel needs to address long-standing capacity issues.

4. Program Quality Indicators and Data

Ensuring the quality of work-based learning requires measuring its progress and outcomes. However, those states that do collect data on work-based learning often limit it to the number of students who complete a placement with an employer rather than identify and track program and participant indicators that look at the continuum of work-based learning, who actually experiences the opportunities, and the overall quality of those experiences. To better understand the quality of work-based learning and its impact on student college and career readiness, states must expand how, and in what manner, work-based learning is measured. Program quality indicators should be identified that accurately reflect policy and program expectations, and appropriate data collection methods and sources should be identified to assist the evaluative process.

5. Inequitable Student Access

While directly related to program barriers and program quality indicators, the challenge of ensuring all students receive equitable access to work-based learning merits its own focus. Work-based learning opportunities are intensely local and regional endeavors, balancing student needs with student access and employer capacity. In rural or underserved areas, this can mean some students simply do not receive or have access to high-quality work-based learning experiences. To address this challenge, states first need to know who is and is not participating and why, including reporting by student subgroups at the school level wherever possible. Additionally, states can require cross-agency collaboration to assess employer diversity and capacity in hard-to-place areas. Addressing participant inequities requires intentional and targeted policy and program expectations, along with necessary supports (monetary and non-monetary) to sustain equitable access.

Transferable Employability Skills⁹

As part of NAF's work-based learning focus, we identify six common overarching career readiness skills that every student should develop and possess at time of graduation.

Collaboration – reflected through accountability, cooperation, helpfulness, leadership, participation, conflict resolution, and teamwork

Communication – reflected through listening, negotiation, persuasion, presentation, verbal communication, and written communication

Problem-Solving – reflected through creative thinking, critical thinking, decision making, innovation, and strategic thinking and planning

Social Awareness – reflected through appreciation, cultural competence, empathy, emotional intelligence, ethics, global awareness, perceptiveness, responsibility, social intelligence, and social skills

Initiative and Self-Direction – reflected through adaptability, agility, focus, grit, optimism, perseverance, project management, self-awareness, self-discipline, and work ethic

Planning for Success – reflected through goal setting, ambition, self-regulation, and time management

⁹ NAF: New Approach to Work-Based Learning - Overview (2021)



Measuring A High-Quality Work-Based Learning Program

Measuring student engagement and the quality of that engagement involves determining specific indicators that (a) reflect the state's student readiness priorities, (b) are objective and obtainable, (c) reflect individual student exposure, as well as skills growth, and (d) can be collected and analyzed by student subgroups at district-level and school-level. Example indicators include:

- **Advanced WBL Experience (e.g., internship, co-op, pre-apprenticeship, apprenticeship, etc.)**
 - Collected through course codes, by student enrollment and completion, and student pathways
- **Technical and Employability Skills Growth through Advanced WBL Experience (e.g., internship, co-op, pre-apprenticeship, apprenticeship, etc.)**
 - Collected through employer and student evaluations, provided at the start and at the completion of an experience
- **Extended Learning Exposure (e.g., job shadow, employer site visit, guest speaker, skills demonstration, informational interviews, etc.)**
 - Collected through course codes and educator course evaluations that include student participation and attendance
- **Program to Experience Alignment (i.e., work-based learning experiences aligned with student pathways)**
 - Collected through course codes, educator course evaluations, and student and employer evaluations that affirm alignment and quality of experience

Spotlight: How NAF Addresses Two Common Challenges

NAF’s work spans 42 years, and it has grown into a network of more than 600 career academies serving over 117,000 students annually across 34 states, plus Washington D.C., Puerto Rico, and the U.S. Virgin Islands. The lessons learned over the course of its growth and expansion include insights into addressing challenges to developing high-quality work-based learning programs: engaging employers and supporting educators.

CHALLENGE	NAF’S APPROACH
<p>Engaging Employers</p>	<p>First, NAF starts conversations with employers by asking “What are your goals and what impact do you want to have?” Employers have different reasons for engaging — from actively living their company values or getting students interested in a career field, to long-term talent development efforts. It’s important to understand and have shared expectations around the value proposition for work-based learning partnerships. In some cases, that value can be immediate. Hosting and working with students often raises broader employee morale. Better morale translates into greater productivity at work. That’s a bottom-line benefit.</p> <p>Second, NAF academy educators and employers address potential barriers early in the process. These can include everything from real or perceived legal or liability concerns, logistics around the number of students and when they can be onsite, and even assumptions (sometimes mistaken) about what students can do as part of “working on-the-job.” This serves to further align partners’ expectations for success and foster the critical ongoing communication needed to ensure that work-based learning experiences meet shared value propositions.</p> <p>Finally, as part of their engagement, NAF also helps prepare employers for working with students. Instead of immediately organizing internships, staff and employers identify lower-stakes opportunities for both students and employers to engage in successfully. Building these experiences progressively over time also builds relationships and trust among everyone involved.</p>
<p>Capacity and Training</p>	<p>First, NAF’s curriculum and supports provide a robust foundation for teachers new to the academy model and work-based learning. The NAF curriculum includes a comprehensive back-mapping of skills and activities that help educators more easily support students from middle to high school. Similarly, one of NAF’s hallmark supports is its use of advisory boards. Composed of business and industry partners, these boards operate at the local level to guide involvement across sectors and ensure that student work-based learning activities are well supported and high quality. For educators, these boards are an invaluable resource for engaging with local partners and mentoring students.</p> <p>Second, NAF provides educators with a variety of tested resources they can use to become career coaches for students. From email templates, resume models and mock interview protocols, NAF educators can access the tools they need to ensure that students not only learn needed academic or technical content but also acquire those employability skills employers require for success in the workplace.</p> <p>Finally, on an experiential level, educators need a similar progressive exposure to work-based learning as students do. Therefore, educators are offered and/or incorporated into a wide range of work-based learning experiences of their own. These include interactions with employer partners and training opportunities onsite at local and regional businesses. They can also culminate in externships, whereby educators are embedded with industry teams for a more extended period of time (e.g., several weeks in the summer).</p>

Recommendations for Policymakers

To meet the infrastructure demands of tomorrow, policymakers should recognize student pathways and work-based learning as the critical infrastructure of today. Here are five recommendations state policymakers can take to support high-quality work-based learning.

- 1. Provide tax or other financial incentives for employers who engage with schools and offer work-based learning opportunities to students.** While these incentives exist in many states for adult apprenticeship programs, they can be expanded to include K-12 students and a broader range of work-based learning experiences. These incentives should focus both on the number of students served by and amount of time employers give to programs.
- 2. Reduce legal barriers to student participation by establishing clear policies for appropriate student liability insurance coverage.** This policy can help districts understand which coverage to add/include so that students are protected onsite. It can also address employer concerns about legal liability that might otherwise keep them from engaging with local education providers and intermediaries.
- 3. Define success metrics for work-based learning and regularly collect and report them.** States must move beyond basic metrics such as “did students attend work-based learning” to address more pressing questions around longer-term outcomes and program quality. Such metrics can also help local program providers make adjustments and improve student/employer experiences.
- 4. Recognize work-based learning metrics in graduation requirements, accountability measures and school fiscal incentive models.** State requirements for access and offerings create both urgency and momentum around work-based learning programs. Fiscal and accountability system incentives aligned with success metrics can help ensure that programs are focused on outcomes and quality.
- 5. Prioritize funding, support and resources for historically underserved students and communities.** From providing transportation allotments to supporting work-based learning coordinators in high-need schools, states can target resources and funding to increase equitable access for students to high-quality work-based learning opportunities.

Federal Action Can Support Work-based Learning in States



States are at the forefront of supporting regional and local career pathways that feature work-based learning. However, the US Congress can provide much-needed funding to boost program capacity and support partnerships with employers. One easy way to do so is to approve and fund a \$5 million US Department of Labor demonstration program that would provide full-time, work-based learning coordinators in underserved communities with a proven track record for supporting career pathways.

Such an investment — when coupled with state funding and support — would directly address key challenges all programs face with regards to educator capacity and employer engagement. More importantly, it would also help expand access for underserved students to high-quality work-based learning experiences.

Appendix

Work-based learning terminology used at the federal level and the varying languages utilized as guidance for states to follow.

FEDERAL ACT	WORK-BASED LEARNING DEFINITION
<p>The Strengthening Career and Technical Education for the 21st Century Act (Perkins V)</p>	<p>“...Sustained interactions with industry or community professionals in real workplace settings, to the extent practicable, or simulated environments at an educational institution that foster in-depth, firsthand engagement with the tasks required of a given career field, that are aligned to curriculum and instruction.” WBL is further defined under innovative delivery models, stating, “... including school-based simulated work sites, mentoring, work site visits, job shadowing, project-based learning, and skills-based and paid internships.”</p>
<p>Every Student Succeeds Act (ESSA)</p>	<p>“...Provide students in-depth interaction with industry professionals and, if appropriate, academic credit ...” ESSA also lists WBL as a possible indicator of career competencies at the secondary school level.”</p>
<p>Workforce Innovation and Opportunity Act (WIOA)</p>	<p>As defined by Job Corps Ctrs: “...Provide opportunities for [WBL] experiences (including internships, short-term employment apprenticeships, and fellowships), and opportunities for pre-employment transition services.”</p> <p>As defined by Youth Workforce Investment Activity: “Paid and unpaid work experiences that have as a component academic and occupational education, which may include ... (ii) pre-apprenticeship programs; (iii) internships and job shadowing; and (iv) on-the-job training opportunities.”</p> <p>As defined by Vocational Rehabilitation’s Pre-Employment Transition Services - “... Experiences may include in-school or after school opportunities, or experiences outside the traditional school setting (including internships), that are provided in an integrated environment to the maximum extent possible.”</p>
<p>Individuals With Disabilities Education Act (IDEA)</p>	<p>Referenced in requirements associated with transitional services for students with disabilities; collaborative language in WIOA under Vocational Rehabilitation.</p>

Contact Us

Tiffany Barfield
Senior Director, Policy and Advocacy

TBarfield@naf.org
(212) 635-2400
NAF.org/policy

NAF
218 West 40th Street, 5th Floor
New York, NY 10018



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