

# **Youth Apprenticeship and Work-Based Learning in the Skilled Trades**

Findings from Discussions with  
Employers, Educators, and Intermediaries

## **Introduction**

Apprenticeship has a long history in skilled trades occupations such as construction, manufacturing, and automotive repair. Today, these occupations account for the large majority of registered apprenticeship programs approved by the U.S. Department of Labor or state apprenticeship agencies. In the growing field of youth apprenticeship, however, the skilled trades are not as well represented. Youth apprenticeship programs, which typically begin when students are in high school, are more common in “nontraditional” apprenticeship fields such as information technology, health care, education, and business.<sup>1</sup> In late 2020, New America’s Partnership to Advance Youth Apprenticeship began a series of discussion groups and interviews with business and education stakeholders in order to better understand why youth apprenticeship and other intensive work-based learning (WBL) opportunities in the skilled trades remain relatively uncommon.<sup>2</sup>

The discussions revealed broad agreement on the importance of skilled trades education and the need to create more seamless pathways for young people to access training, work experience, and credentials. There was strong consensus that WBL experiences can be a valuable component of youth skilled trades pathways, and that employers must engage actively and consistently in WBL if it is to be effective. However, the discussions also revealed that stakeholders’ expectations and operating structures are often misaligned, making it difficult to deliver youth apprenticeships and other WBL opportunities that provide benefits for both businesses and young adults.

## **Misaligned Expectations**

Leaders from industry, labor, and education agreed that youth apprenticeship and WBL programs are a promising strategy for attracting and training a new generation of skilled trades talent. However, discussants related that different stakeholders’ expectations about the quality, purpose, and design of effective WBL programming are poorly aligned, stymying efforts to build partnerships and effective programs.

For example, while employers are eager to recruit young adults into skilled trades occupations, they expressed low confidence in the quality of skilled trades career and technical education (CTE) programs offered by K–12 schools and community colleges. Concerns about CTE quality create doubts about the job-readiness of young candidates and discourage employers from offering WBL opportunities for learners who lack experience. Without strong foundational knowledge and skills, some employers told us, youth in WBL programs require too much support and supervision to add value.

Education stakeholders acknowledged that the quality of skilled trades CTE courses can vary considerably but felt that CTE could provide better career outcomes if students had more opportunities to learn and apply skills in real-world settings through intensive WBL experiences. As a representative of a Texas community

foundation said, “the content and quality of [CTE] really varies, and the biggest piece that’s lacking are those work-based learning experiences.” Stakeholders expressed frustration that opportunities for students to gain on-the-job experience and industry mentorship are relatively rare, and employers are often reluctant to participate.

However, the quality of employer-provided on-the-job training can vary, with some programs assigning tedious or unexpectedly difficult tasks that do not help learners develop skills or gain meaningful experience. “Too often, a young person with limited experience gets pushed into an unskilled labor job, and they don’t see any value to how they’re spending their day,” said the vice president of business development for a Maryland mechanical contractor. A culture of “paying one’s dues” with menial tasks can make meaningful experience hard to come by, particularly if WBL students do not have a chance to advance from preparing or cleaning up work spaces into more engaging construction, production, or repair tasks.

Coordination and communication between employers, educators, program staff, and youth are important for contextualizing learning and setting realistic expectations for the pace of skill acquisition, job advancement, and workplace behavior. Work-based learning intermediaries, which work between education systems, employers, and other stakeholders, can carry out these critical functions, helping to avoid mistrust and misunderstandings by balancing stakeholders’ different priorities and needs. While labor organizations have a long history of providing training and WBL opportunities in the trades, nonprofit and community organizations, educational institutions, and industry groups can also provide this intermediary function.<sup>3</sup>

Perhaps the most important role for intermediaries is in “translating” across business and educational imperatives, supporting programs that fulfill the priorities of employers as well as learners and their families. This translation role is critical to improving the alignment of expectations across stakeholders, particularly in reaching agreements between employers and educators about skill needs and how programs can address them. A trusted mediator makes it easier to find compromises. For example, an intermediary might front-load OSHA safety training or partner with local colleges to supplement high-school CTE coursework and provide credit for technical instruction.

Discussants also noted that intermediaries can make it easier for businesses to participate in WBL programs by providing a clear business case for the approach and reducing administrative and legal hurdles that sometimes discourage potential employer partners. Intermediaries can also address concerns about the quality and consistency of WBL experiences by setting clear program standards and providing direct support to employers, including through training for staff mentors who supervise students.

Intermediaries can play a role in supporting student success by addressing employers’ concerns about their work ethic, skills, and abilities by screening and coaching candidates, preparing them for workplace expectations, and

providing ongoing case management. Even more fundamentally, discussants noted, intermediaries can help generate greater awareness of and interest in the skilled trades by providing information, resources, and employer connections to introduce learners to different career paths that exist in the trades. Unfortunately, dedicated intermediary capacity is underdeveloped in most skilled trades education ecosystems, according to discussants.

### **INTERMEDIARY SPOTLIGHT: CONSTRUCTION READY**

While intermediaries are valuable for training programs in any occupation, they provide especially crucial help with the sector-specific concerns of skilled trades employers. The Georgia-based Construction Ready initiative exemplifies how industry-focused intermediaries can support youth WBL at the state and local levels.

Construction Ready supports a range of career exploration, credentialing, and youth apprenticeship options in construction, fabrication, and architectural fields through over 160 local programs in schools across the state. It works closely with the Georgia Department of Education's Youth Apprenticeship Program as well as WBL coordinators in local school districts, matching learners with employer partners, aligning expectations, and providing support to ensure satisfactory outcomes for all partners. When young trainees start off with basic tasks, Construction Ready's vice president said, "employers can show students why it's vital, why you're going to do this for a little bit, and what's next."

Construction Ready is an independent nonprofit founded as the Construction Education Foundation of Georgia in 1993 by construction industry executives. The organization was renamed in 2022 as it began working to expand its operations outside the state.

### **Structural Challenges**

Even where strong intermediary capacity does exist, however, WBL stakeholders still face obstacles to establishing mutually beneficial partnerships between industry and education. Work-based learning does not yet fit easily into the bell schedules and graduation requirements of most American high school students. Employers, for their part, may struggle to adequately invest in and implement productive youth WBL programs, owing to the tight margins under which they operate. Fortunately, potential solutions exist across practice and policy.

## **Scheduling & credit issues**

A simple but significant challenge for skilled trades WBL concerns aligning schedules. Employers often work shifts that are incompatible with the high school day. Although this problem may be less severe in manufacturing and automotive occupations, work scheduling presents a massive challenge in construction, where the workday can start before 6 a.m. and end by mid-afternoon.

Fortunately, some schools have found ways to accommodate WBL, modifying course schedules to provide adequate time for on-the-job learning and related instructional training that may take place outside of the high school. Block scheduling and course credit for WBL are two promising solutions, for example.<sup>4</sup> State and local policy can support flexible credit policies and school schedules, and it can set clear expectations to ensure WBL programs align with educational priorities such as high school graduation requirements.

Clear guidance on different partners' roles in the development and delivery of WBL programs can also address logistical issues, including scheduling, that can make WBL in the skilled trades especially challenging. States such as North Carolina, Wisconsin, Maryland, and Washington have gone furthest, by formally defining work-based learning and youth apprenticeship in state law, regulation, or agency guidance, giving interested employers and schools a clear mandate to collaborate and innovate.<sup>5</sup> Formal WBL frameworks also make it easier to allocate funding to approved programs. Some states provide purpose-built funding to cover the costs of apprentices' related technical instruction which, in addition to providing financial relief to students, can encourage cooperation between education institutions and employers.<sup>6</sup>

## **Transportation**

Even when WBL models are well defined in policy and fit neatly into student schedules, for many programs in the trades, a license to drive is a license to work.

Students without a driver's license or access to a car face practically insurmountable barriers to participation in skilled trades WBL, especially in construction, where job sites change locations regularly and can be far flung, according to discussants. Public transportation is not a reliable option for most WBL students, even in dense urban centers. But this issue may be especially problematic for trades programs given that worksites—even in advanced manufacturing and automotive occupations—tend to be located outside of central business districts, further from transportation hubs.

Where transportation infrastructure is limited, employers, intermediaries, education, and government agencies can collaborate.<sup>7</sup> In one encouraging example, Ramsey County and the City of St. Paul, MN, recently co-invested \$500,000 of American Rescue Plan funding into a Driver's License Academy Pilot. In partnership with local community-based organizations, the program will provide approximately

250 young adults with free driver's education, guidance through the licensing process, and stipends for their time.

### **Insurance & child labor laws**

Employers' concerns about liability insurance and child labor laws are also a significant barrier to their participation in intensive WBL programs such as internships and apprenticeships. Although federal child labor laws do not prohibit participation of high school students in most types of skilled trades WBL, state laws or employers' own policies may impose restrictions. Concerns about job site risks or higher insurance premiums can also discourage employer participation in WBL, even in cases where the true risks or costs are low.

Clear, accessible guidance from education partners or state agencies can often be enough to assuage these concerns. Wisconsin's Department of Workforce Development, for example, maintains a web page that "provides a list of equipment commonly used in manufacturing and construction jobs and explains when minors may use such equipment," as well as clarification on the state's unique "Student Learner" designation, which allows students in state-recognized WBL programs to complete tasks otherwise prohibited by state labor laws, so long as certain conditions are met.<sup>8</sup>

In some cases, however, new policy may be necessary to provide incentives or protections. In 2016, for example, the Georgia state legislature passed HB 402 to allow businesses providing state-certified WBL programs to receive discounts on their workers' compensation insurance.<sup>9</sup> The following year in Texas, lawmakers authorized public schools to purchase insurance to cover both students and businesses participating in CTE and WBL programs.<sup>10</sup>

### **Staff & supervision**

Beyond the logistical difficulties of youth WBL, the tight margins and shifting contracts on which many trades businesses operate can make it difficult for employers to devote staff time to adequately supervise and support WBL students. Fears about lost productivity of existing staff can outweigh the perceived benefits of participating in these programs. "Contractors are bottom-dollar businesses," one electrician educator told us, "and [summer internships are] tough."

Intermediaries can help here too, by supplementing employer staff capacity by providing case management and supervisor training. They can share best practices for creating supportive, developmentally appropriate learning environments at work. Intermediaries can also support employers by facilitating recruitment and onboarding to ensure WBL participants are set up for success, discussants said. These services can greatly reduce the staff burden that mentorship and on-the-job training components of WBL can impose on businesses.

Taken together, structural challenges can deter employers who prefer talent strategies with a clear, quick return on investment, especially in the skilled trades. However, our discussions drew out a range of options available to make it easier for businesses to invest in WBL programs and expand opportunities for young people in the skilled trades. Supportive state and local policies can help reduce the overall costs of WBL by clarifying program definitions and requirements; providing scheduling flexibility to accommodate high-quality WBL experiences; and defraying training costs for employers, learners, and intermediaries.

### **POLICY SPOTLIGHT: CAREER CONNECT WASHINGTON**

The Career Connect Washington (CCW) initiative, which was created in 2017 and received dedicated state funding in the 2019 Workforce Education Investment Act (HB 2158), laid out a spectrum of WBL options in Washington State, set ambitious targets for participation, and invested in intermediary capacity to help programs grow.

CCW provides infrastructure for a variety of programs including career exploration, career preparation, and more intensive programs such as youth apprenticeship. Building on recommendations from the CCW Task Force, Washington's Department of Labor & Industries published statewide standards for youth apprenticeship, which provided greater clarity on high school students' ability to participate in apprenticeship, including in the skilled trades.<sup>11</sup> To support uptake and participation in apprenticeship, state policymakers also modified scholarship initiatives to reduce apprentices' training costs.<sup>12</sup>

CCW provides funding for regionally focused Career Connected Learning coordinators who support educators, business leaders, and on-the-job mentors. In addition, CCW administers competitive funding to local intermediaries looking to develop new programming. For example, the Thurston County Chamber of Commerce received a grant in 2021 to develop career preparation programs for the construction trades. That same year, the Independent Technicians Automotive Committee (iTAC), a training initiative of the Northwest Auto Care Alliance (an industry group) and a participant in our discussion groups, received a grant to expand registered apprenticeship programs for automotive service technicians.

## **Conclusion**

Youth work-based learning, especially intensive programs such as youth apprenticeship, can be more difficult to design and deliver in the skilled trades than in other occupations. Our discussion groups suggest that the educational priorities of schools and employers often diverge, and schedules, transportation, and corporate and government policies present challenges. These issues can be mitigated, however, through robust intermediary capacity and supportive policies at the local, state, and federal level. With thoughtful employer engagement and more systemic approaches to supporting programs and partnerships, youth WBL in the skilled trades can evolve to satisfy the educational goals of students and their parents, as well as the talent needs of businesses.

Still, there is much to learn about how to get there. New America will continue work on this topic. Over the next two years, the second phase of our project will dig deeper into several issues we encountered in the discussion groups, such as diversity, equity, and inclusion in the trades. As part of this work, we will convene a national work group to support the development and exchange of ideas, strategies, and resources for expanding and improving youth apprenticeships and other high-quality WBL opportunities for young people interested in the skilled trades.

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## Footnotes

1 For the purposes of this brief, the skilled trades are defined as occupations that emphasize the expert use of tools and materials to build or repair products and structures, and include the building trades, automotive technology, and manufacturing. Youth apprenticeships are registered or unregistered apprenticeship programs that begin in high school, and which include paid work-based learning, related classroom instruction, alignment with established skills standards, and culmination in postsecondary credentials and/or credit. See “Our Principles: A Shared Vision for Advancing High-Quality Youth Apprenticeship,” New America, <https://www.newamerica.org/education-policy/partnership-advance-youth-apprenticeship/about/our-principles/>

2 New America hosted the six 90-minute discussions on Zoom between November 2020 and March 2021. Each discussion included five to eight participants and focused on a different stakeholder group: educators (including local and state leaders); intermediary organizations offering WBL in the skilled trades; intermediary organizations not offering skilled trades WBL; skilled trades industry associations and employer representatives; labor organization representatives and representatives of labor-affiliated training programs; and automotive industry stakeholders. In addition to the six discussion groups, we also conducted interviews with several stakeholders who were unable to participate in the scheduled sessions.

3 A report from Education Strategy Group provides an overview of intermediary functions in youth apprenticeships as well as examples of different types of organization that can serve in the role. See The Critical Role of Intermediary Organizations in Expanding Youth Apprenticeship (Chevy Chase, MD: Education Strategy Group, November 2019), 4–11, <https://edstrategy.org/wp-content/uploads/2019/11/ESG-Youth-apprenticeship-12092019-update.pdf>

4 Block scheduling uses longer class periods to provide students with more in-depth engagement with their course material. For a discussion of block scheduling and other alternative scheduling models, see Emily Liebttag, “Scheduling for Learning, Not Convenience,” Getting Smart, February 24, 2017, <https://www.gettingsmart.com/2017/02/24/scheduling-for-learning-not-convenience/>

5 For a discussion of state and federal definitions of youth apprenticeship, see Michael Prebil, Kelly Vedi, Damicia Rodney, and Yun Zhao, “Let’s Make It Official: Youth Apprenticeship Needs a Federal Definition,” EdCentral (blog), New America, November 19, 2021, <https://www.newamerica.org/education-policy/edcentral/youth-apprenticeship-needs-a-federal-definition/>

6 In both California and North Carolina, for example, state appropriations reimburse college coursework for registered apprentices, including youth. See Michael Prebil, Solid Foundations: Four State Policy Approaches for Supporting College-Connected Apprenticeships (Washington, DC: New America, September 17, 2019), <https://www.newamerica.org/education-policy/reports/solid-foundations-four-state-policy-approaches-supporting-college-connected-apprenticeships/>

7 Allan Freyer, “Addressing Youth Apprenticeship Transportation Barriers: How Employers Can Lead,” EdCentral (blog), New America, November 10, 2020, <https://www.newamerica.org/education-policy/edcentral/addressing-youth-apprenticeship-transportation-challenges-how-employers-can-lead/>

8 Department of Workforce Development (website), “Manufacturing & Construction Equipment & Wisconsin’s Employment of Minors Laws,” <https://dwd.wisconsin.gov/er/laborstandards/workpermit/prohibitedwork.htm>

9 HB 402 allows employers who are certified by the Georgia State Board of Education as WBL providers to request a reduction in their workers’ compensation insurance. The reduction, up to a maximum of 5 percent or \$2,500, whichever is lower, is based on the number of students enrolled in an employer’s WBL programs. See Georgia Work-Based Learning and Youth Apprenticeship, “Georgia House Bill 402: The Law on Workers’ Compensation and Discounts for Work-Based Learning Students,” <https://gawbl.org/docs/HB402-Explainer.pdf>

10 Texas HB 639, 85th Legislature, Regular Session, 2017, <https://legiscan.com/TX/bill/HB639/2017>

11 Registered youth apprenticeship is defined by the same statutes and regulations in Washington State as registered apprenticeship, with some additional guidelines for the registration process. See Washington State Department of Labor & Industries (website), “Apprenticeship Laws, Rules & Policies: Registered Youth Apprenticeship Standards,” <https://lni.wa.gov/licensing-permits/apprenticeship/laws-rules-policies>

12 Washington State provides two scholarships that can be used to support youth apprentices’ training expenses: the Washington College Grant for Apprenticeship, which is delivered through apprenticeship sponsors, and the Passport to Apprenticeship Opportunities scholarship, which supports eligible foster youth and homeless youth. See Washington Student Achievement Council (website), “Apprenticeship Program Providers: Washington College Grant for Apprenticeship” and “Passport to Careers,” <https://wsac.wa.gov/apprenticeship-program-providers> and <https://wsac.wa.gov/passport-to-careers>