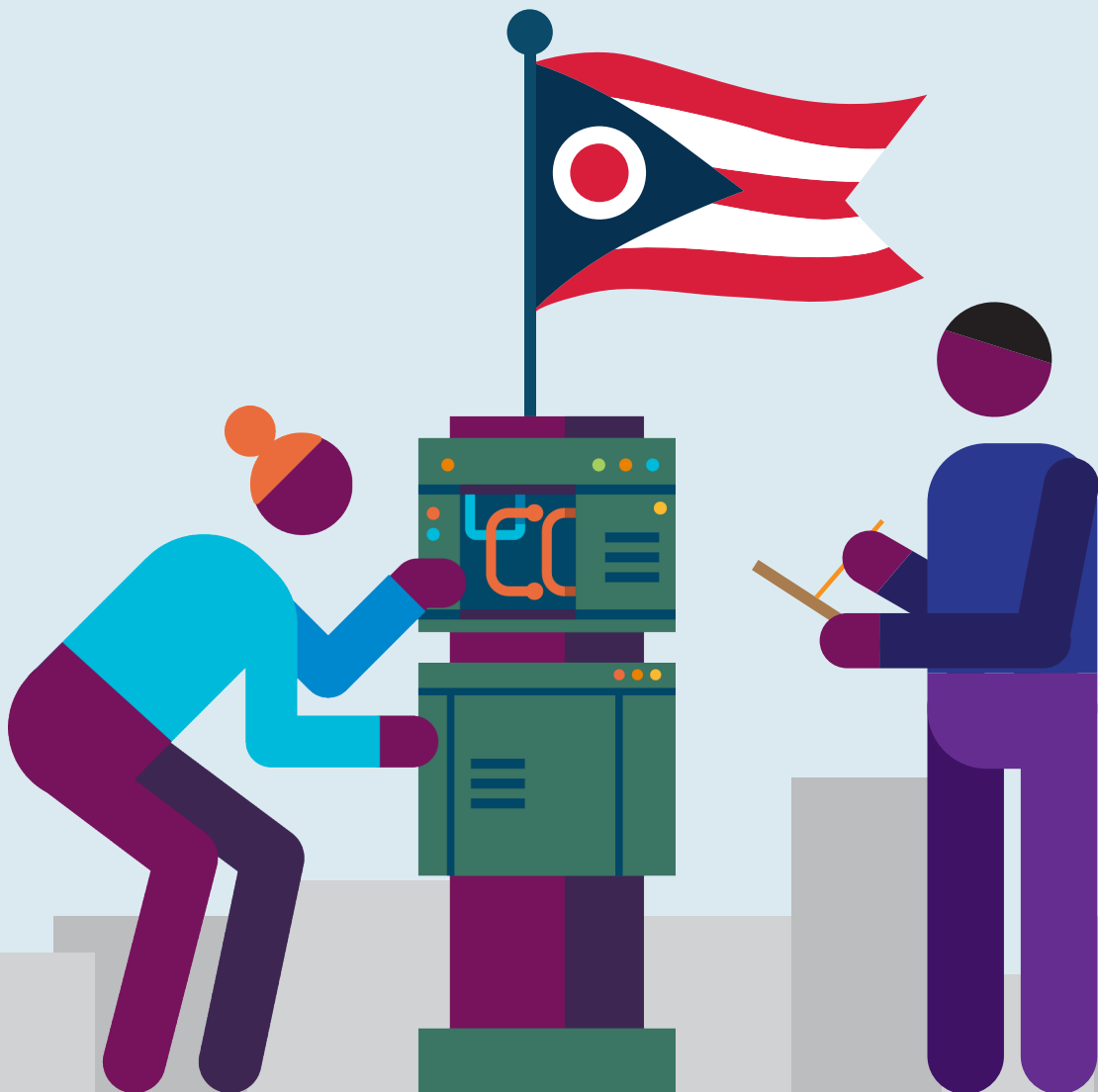


A REPORT FROM EXCELINED IN COLLABORATION
WITH WORKMORPHIS AND OHIO EXCELS

STRENGTHENING WORK-BASED LEARNING IN OHIO





ExcelinEd About ExcelinEd

Launched by former Florida Governor Jeb Bush in 2008, ExcelinEd supports state leaders in transforming education to unlock opportunity and lifelong success for each and every child.

From policy development to implementation, ExcelinEd brings deep expertise and experience to customize education solutions for each state's unique needs. Focused on educational opportunity, innovation and quality, ExcelinEd's agenda is increasing student learning, advancing equity and readying graduates for college and career in states across the nation.



Ohio Excels About Ohio Excels

[Ohio Excels](#) is a nonprofit, nonpartisan organization dedicated to improving and transforming Ohio's education system. We were created in 2018 by several prominent business leaders from across the state, including the Ohio Business Roundtable, Greater Cleveland Partnership, Cincinnati Business Committee and Columbus Partnership, on the steadfast belief that the perspective, insights, and support of Ohio's business leaders could - and should - add meaningful value to our state's efforts to improve educational outcomes for our students.

As a 501(c)(3) nonprofit, we elevate and represent the voice of the business community at the Statehouse and education policy tables and help Ohio businesses have a "united focus" on critical education issues. We are committed to helping improve educational outcomes for all Ohio students and ensuring that all K-12 schools prepare students for success in the next step of their lives, whether it is higher education, the military or the workforce.



Workmorphis About Workmorphis

[Workmorphis](#) is driving major reforms in workforce and economic development for public-serving organizations. Guided by core values of transformation, collaboration, and integrity, our skilled team translates vision into action and impactful outcomes through comprehensive policy analysis, proactive stakeholder engagement, and strategic planning. We are dedicated to crafting solutions that positively impact people and foster economic growth.



Table of Contents

Executive Summary 2

Introduction 4

Work-Based Learning in Ohio 5

About the Research 7

Summary of Findings from Stakeholders in Ohio 8

Solutions for Strengthening Work-Based Learning in Ohio 13

The Future of Work-Based Learning Experiences in Ohio 15

Contributions & Acknowledgments 16

Appendix 16

Notes 26

Executive Summary

High-quality pathways spanning K-12 to postsecondary and on to the workforce can provide students with the knowledge, skills and abilities to achieve long-term economic security. They provide students with opportunities to master academic knowledge, gain technical and employability skills, earn postsecondary and industry credentials while in high school, and apply their learning through partnerships with business and industry.

That last element—what is more formally called work-based learning (WBL)—is the focus of this report. Work-based learning serves as a cornerstone of a high-quality pathway, representing the direct connection between K-12 students and the world of work. It is also one of the most difficult components to implement and scale. After all, it requires close collaboration across two sectors that have not historically been strong partners: K-12 education and the business community.

To its credit, Ohio has prioritized WBL as a critical experience for students, even embedding it in its career and technical education programs and high school graduation pathways. And for good reason. As much as WBL is an educational priority, it is also an economic imperative. Like many states, Ohio is struggling to fill jobs and recruit businesses in higher-skill, higher-wage sectors. Work-based learning can help bridge the gap between the skills employers need and the skills a talented workforce possesses.

To find out how Ohio is faring in its efforts to promote high-quality work-based learning, we engaged Ohio's public policy, education, employer and intermediary leaders to explore the following questions:

1. What is the current state of work-based learning in Ohio?
2. What opportunities and challenges related to WBL exist across the public and private sectors?
3. How can Ohio ensure that all K-12 students have access to high-quality WBL experiences?



HIGH-LEVEL FINDINGS: OHIO STAKEHOLDERS...

- **Value a variety of WBL experiences that allow students to explore careers, gain real-world experience and develop “soft skills.”** This applies to all students, not just those enrolled in career and technical education (CTE).
- **Emphasize the importance of employer engagement and mentorship in successful experiences, but also recognize challenges.** Strong partnerships exist in regions across the state, but stakeholders cited the need for greater engagement if more students are to benefit from WBL.
- **Report challenges in navigating state policies and programs—including a lack of clarity about definitions and quality expectations.** Ohio uses the term “work-based learning” only in the case of capstone experiences (what this report calls Formal WBL). It uses “career-connected learning” to refer to the broader range of experiences along the WBL continuum. Guidance for programs and quality are similarly separated.
- **Cite funding, capacity and transportation barriers that limit their ability to start or scale quality experiences.** From dedicated funding for staff to coordinate WBL to transportation assistance, stakeholders identified several supports the state could provide to scale high-quality WBL.

SOLUTIONS FOR STRENGTHENING WORK-BASED LEARNING IN OHIO

Built on stakeholder input, the following solutions are intended to prioritize high-quality work-based learning experiences as a part of every Ohio student’s K-12 experience—regardless of pathway or postsecondary plans.

- **Establish a cross-agency, cross-sector [WBL Leadership Council](#)** charged with providing a vision, strategic direction and ongoing evaluation of a K-16 Work-Based Learning continuum that is accessible to all students.
- **Provide stakeholders with the data and information they need to make decisions.** This includes collecting and reporting on data related to quality and outcomes, not just completion of hours.
- **Invest in strategies that build local capacity to expand high-quality experiences.** Work-based learning coordinators, career coaches and mentors can be critical to ensuring both students and employers see value in WBL.
- **Address common barriers to work-based learning.** Consider providing scholarship accounts for students to cover equipment and transportation, and simplifying educator licensure requirements so that more students can access pathway opportunities.

Introduction

At ExcelinEd and Ohio Excels, we believe that well-articulated pathways extending from K-12 to postsecondary and on to the workforce can provide students with the knowledge, skills and abilities to achieve long-term economic security. When high-quality, these pathways provide a range of benefits to students who might otherwise experience high school as a checklist of requirements to complete. These benefits include:

- Mastering academic knowledge both in foundational areas and those of particular interest to students;
- Learning both technical and employability skills necessary for success in the workplace;
- Earning credit toward postsecondary credentials as well as industry credentials that have currency with employers; and
- Applying learning in real-world situations through partnerships with business and industry.

We are not alone in this belief. States across the nation, including Ohio, have prioritized high-quality pathways as a critical lever for ensuring that families and communities can thrive in this 21st-century economy.

However, it is the last pathway benefit mentioned—work-based learning (WBL)—that is the focus of this report. Work-based learning (WBL) occupies one cornerstone of a high-quality pathway. It represents the direct connection between K-12 students and the world of work. When done well, work-based learning allows students to gain invaluable hands-on learning—and helps them consider the career pathways they might choose (or avoid) in the future.

Ohio has prioritized work-based learning as a critical educational and economic experience for students, embedding it in its career and technical education programs and traditional high school graduation pathways. Like many states, Ohio is struggling to fill jobs in higher-skill, higher-wage sectors. Work-based learning, when part of a high-quality pathway, can help bridge the gap between the skills employers need and the skills job seekers possess.

So how is Ohio faring in its efforts to promote and support high-quality work-based learning? To find out, ExcelinEd and Ohio Excels partnered with Workmorphic to explore the following critical questions:

1. What is the current state of work-based learning in Ohio?
2. What opportunities and challenges related to WBL exist across the public and private sectors?
3. How can Ohio ensure that all K-12 students have access to high-quality WBL experiences?

As part of our collective work, we engaged Ohio’s public policy, education, business and intermediary leaders to determine how we can best expand access to and prioritize quality across work-based learning experiences. This report represents the culmination of a months-long effort encompassing policy research and analysis, stakeholder engagement, facilitated discussions and a statewide survey.

What follows are a set of findings and recommendations for policymakers, practitioners and implementers, with a strong focus on embedding quality throughout the full breadth of work-based learning experiences. Together, they represent an opportunity for policymakers to prioritize work-based learning and to help ensure Ohio has quality and robust policies.



Work-Based Learning in Ohio

Definitions of work-based learning [vary widely from state to state](#), but they typically feature a range of hands-on and applied learning experiences that can take place in schools, virtually and on-site with employers. Early on, WBL experiences can take the form of industry tours, on-site projects, job shadows, etc. Deeper and capstone experiences may include school-based enterprises, internships and clinical rotations, and even apprenticeships. However, all of these experiences usually fall under the umbrella of “work-based learning.”

Not so in the Buckeye State. Ohio differentiates these experiences under two distinct categories and frameworks: Career Connections and Work-Based Learning. Although these frameworks cross-reference each other, they operate separately in both policy and practice. **(Note: To avoid confusion and for sake of this report’s discussion, Ohio’s “Work-Based Learning” framework will be referred to as “Formal Work-Based Learning.”)** What follows is a high-level summary of the state’s policy context. More detailed information and data can be found in Appendix C.

CAREER CONNECTIONS

Ohio’s Department of Education & Workforce (DEW) oversees a [Career Connections Framework](#) that focuses on career awareness (grades K-5), career exploration (grades 6-8) and career planning (grades 9-12). It includes activities like industry tours, job shadows, career fairs, etc. A key component of Career Connections is the [requirement](#) to incorporate connections to careers throughout K-12 instruction across academic and technical content areas. Ohio [law](#) requires each school district to develop a local policy and implement biennial plans to provide career advising throughout students’ K-12 experiences. To support local implementation, DEW offers policy guidance and resources. The state also provides dedicated [funding](#) to support K-12 career awareness and exploration activities through Career-Technical Education Planning Districts. However, there is no public data showing how well (or if) the Career Connections Framework and investments are implemented at the local level.

FORMAL WBL POLICY AT A GLANCE

Definition	Guiding Principles	Types of Formal WBL Experiences	Graduation Requirements	Accountability and Program Approval
A coordinated sequence of experiences designed to provide students with real-world learning through partnerships with local business and industry. These learning activities help a young person explore careers and choose an appropriate career path.	All Formal WBL experiences must: <ol style="list-style-type: none"> 1. <i>Occur at a work site</i> (including virtual/school). 2. <i>Be co-supervised</i> by a business mentor and instructor. 3. <i>Be formalized by a learning agreement.</i> 	<ul style="list-style-type: none"> • Off-Site Placement or Internship • Apprenticeship/ Pre-Apprenticeship • Remote or Virtual Placement • Entrepreneurship • School-Based Enterprise • Simulated Work Environment 	<ul style="list-style-type: none"> • Demonstrating Readiness Diploma Seals: OhioMeansJobs (OMJ) Readiness Seal, Industry-Recognized Credential Seal and Honors Diploma Seal • Demonstrating Competency: Career Experience and Technical Skill alternative pathway for students who <u>do not meet</u> required math and ELA scores 	<ul style="list-style-type: none"> • College, Career, Workforce and Military Readiness (CCWMR) indicator • Perkins V secondary program quality indicator 5S3 • Career-Technical program quality standards

FORMAL WORK-BASED LEARNING

DEW has established a [definition](#), [guiding principles and types](#) of Formal WBL experiences. These experiences can be paid or unpaid, during or outside of school hours, for-credit/not-for-credit, of varying lengths (weeks/hours), etc. DEW provides guidance and resources to support Formal WBL implementation, although [ApprenticeOhio](#) governs pre-apprenticeship and apprenticeship programs. Districts and schools [may report](#) students' participation in Formal WBL, but this data is voluntary and is not publicly available. The state has also invested in several [state-supported internship programs](#).

Ohio has incorporated Formal WBL into its graduation requirements and accountability systems. In most cases, Formal WBL is one option or component among a variety of experiences—allowing it to “count” but not explicitly requiring it for any student or pathway. While these policies highlight the state’s prioritization of Formal WBL, the number of students using WBL to meet these expectations is relatively low. For example, nearly 40% of recent Ohio graduates met at least one of the College, Career, Workforce and Military Readiness (CCWMR) indicator benchmarks, **yet fewer than 1.5% of the 2022-23 graduating class did so through WBL-related metrics.**

The separation of Career Connections and Formal WBL in Ohio can be confusing to the field. While the former captures experiences that students should have across their school careers, the latter is tied up in policy and regulations associated with graduation and narrow definitions of activities. Consider one intermediary’s perspective on this dichotomy:

“We were excited about the support around work-based learning, but it got so convoluted with the rules and the restrictions about what can count. I have now quit using the term work-based learning because there’s so much baggage. We absolutely support the career centers and the career tech programs with their work-based learning requirements. However, it is just very confusing.”

- *Intermediary Stakeholder*

THE ROLE OF EMPLOYERS

In Ohio, a student must be at least 14 years old to work, and employers must secure a [work permit](#) for any employee under 18, with [certain exclusions](#). The state has implemented several measures to reduce employers’ concerns about employing minors by removing liability for workers’ compensation claims related to WBL experiences, providing options to hire students through temp agencies and offering special variances to allow employment of minors in certain fields/occupations.

Ohio offers an [income tax credit for businesses](#) that employ career-technical students under age 19 in Formal WBL, although usage data are not available. The state also provides grant funds to support sector-specific and regional partnerships that can (but do not always) include work-based learning.



About the Research

While it is important to understand Ohio's policy context related to work-based learning, we know that policies are only as impactful as their implementation. To dig deeper into the availability, quality, strengths and challenges of work-based learning in Ohio, ExcelsinEd and Ohio Excels partnered with Workmorphis to hold focus groups and conduct a statewide survey to gather input from Ohio's experts who regularly engage with students, families and employers.

KEY RESEARCH QUESTIONS

1. What is the current state of work-based learning in Ohio?
2. What opportunities and challenges related to WBL exist across the public and private sectors?
3. How can Ohio ensure that all K-12 students have access to high-quality WBL experiences?

STAKEHOLDER GROUPS

- **Public Policy:** Government, advocacy groups and economic/workforce development organizations.
- **Business & Industry:** Employers, business coalitions and labor groups.
- **Education:** Educators, training providers, practitioners or researchers.
- **Intermediaries:** Community-based organizations, bridge builders, funders or intervention specialists.

FOCUS GROUPS

Twenty-six stakeholders participated in a virtual cross-sector input session in **July 2023**. Attendees were divided into four focus groups by sector, with each group consisting of six to eight participants. Facilitated focus group discussions lasted 75 minutes before all participants reconvened for a 30-minute full group discussion. In total, the session yielded more than 300 minutes of recorded insights from statewide leaders. These recordings were then transcribed, anonymized and destroyed, and a summary of the findings was developed.

STATEWIDE SURVEY

To validate or build upon the findings from the input session, Ohio Excels and Workmorphis distributed a supplemental anonymous survey to additional stakeholders. This survey was open for two weeks in early **August 2023** and received 217 responses. The results of this survey were cross-referenced with the input session results to identify additional gaps, opportunities and perspectives.

Additional information about the methodology can be found in Appendix A.

Summary of Findings from Stakeholders in Ohio

The findings that follow represent the perspectives of stakeholders in public policy, business and industry, education (“traditional” K-12 and CTE) and intermediary organizations.

1. Stakeholders value a range of experiences that allow students to explore careers, gain real-world experience and develop “soft skills.”

Stakeholders identify a wide variety of work-based learning and career-connected learning experiences, reflecting the many ways that local communities across Ohio are helping students engage in the world of work.

Leaders across sectors agree that these experiences have the potential to help address perceived gaps in “Soft Skills/Professional Skills,” (also referred to as employability skills, durable skills, etc.), which can provide tangible benefits for individual students and Ohio’s workforce broadly. They also emphasize that these experiences allow students to develop and receive feedback on professional skills in ways that are not possible in a traditional classroom context. In fact, they consistently reference “developing students’ professional skills” as one of the most important markers of quality experiences. **However, educators and employers may not have consistent expectations about the role each plays in helping students develop these skills.** For example, employers share instances where programs failed to adequately assess and prepare students for the workplace, leading to reputational damage and a reluctance to engage with those (or other) schools/programs in the future.

“From the employer perspective, I think there is a misalignment in expectations of those entering the “work world.” Schools and employers can talk about soft skills such as attendance/punctuality; however, if the expectations are not set and followed daily with consequences when needed, employers will struggle down the road.”

- *Business & Industry Stakeholder*

Stakeholders largely believe WBL can benefit—and should be available to—all students, but many agreed that this is not the reality in many places across the state. They note specific challenges in reaching students from lower-income families and those with special needs. There is also a prevalent perception that students in career-technical education programs have more opportunities to pursue Formal WBL experiences.

Although there is broad consensus that all students can benefit from WBL, there seems to be some tension in stakeholders’ beliefs about the primary purpose and “target population” of WBL. Most survey respondents (73%) disagree that “WBL experiences are primarily intended for non-college bound students seeking alternative pathways to graduation,” however, many of these same stakeholders frame open-ended responses around students pursuing “alternatives to college” or “getting a job right after high school.”



“We tend to just make assumptions that if students want [WBL] experiences that they can get a lot through the career centers. But it leaves out thousands of students in traditional high schools who still need the same level of services and exposure opportunities because college isn’t the end goal, right? Career is the end goal, yet...there’s no equity in the experience and the exposure that are provided to high school students in what we would call traditional high schools.”

- *Intermediary Stakeholder*

2. Stakeholders emphasize the importance of employer engagement and mentorship in successful experiences.

Employer engagement is one of the top most influential factors in WBL quality—and one of the biggest challenges. While 56% of survey respondents agree their local business communities are highly engaged, only 28% agree that their current partnerships are effective enough to help them meet their goals. Further, 71% of respondents report needing more partnerships to meet their WBL and career-connected learning goals.

Even when employers understand the potential benefits, pressure to fill talent needs quickly can be at odds with longer-term talent pipelines strategies like WBL and career-connected learning. Some employers report challenges in designing high-quality experiences and finding the right staff (with sufficient capacity) to supervise students. They also struggle with the constant need to build new relationships, with some stakeholders operating with a “one strike” rule for discontinuing placements or relationships. Respondents also acknowledge that employers assume risk in these partnerships and need assurance regarding liability and student age concerns before engagement.

“I think there’s no one who’s going to say that they don’t support career exploration or experiences, including employers who all say “absolutely.” But I don’t know that everyone’s prepared to do what it takes to really help students have the type of experiences we all need them to have [in order] to pursue whatever postsecondary education or training they need to...ultimately become employees of these companies. We all like to say we do. But then you ask for numbers, and I can count on two hands the number of students who are actually involved.”

- *Intermediary Stakeholder*

Almost all respondents (more than 90%) agree that mentorship is essential for success across a continuum of WBL experiences. Mentorship is frequently cited as both a “make or break” element of Formal WBL quality and as a way to help students build professional networks. Some stakeholders also discuss mentorship as a career-connected experience in and of itself, especially in terms of supporting students’ career exploration and pathway navigation activities. Others note that high-quality mentorship could help expand access and support for students from under-represented populations. While all agree on its importance, there does not seem to be a consistent understanding of what quality mentorship looks like within various work-based and career-connected learning experiences. Interestingly, some employers require their WBL mentors to be experienced supervisors, while others use WBL mentorship as a management skill-building strategy for aspiring managers within their organization.

“One of the biggest challenges for student programs is the ability to manage them internally with existing staff.”

- *Business & Industry Stakeholder*

3. Stakeholders report challenges in navigating state policies and programs—including a lack of clarity about quality expectations.

There is a disconnect between formal WBL and career connections. Most survey respondents believe “early career exploration is essential to later career success,” and more than half agree that “WBL and career-connected learning should be prioritized together.” In practice, though, stakeholders often discuss Formal Work-Based Learning as separate and distinct from career-connected learning (awareness and exploration) activities. They frequently “bucket” their comments, deliberately or not, in these two categories—but rarely describe explicit or intentional connections between them that create seamless pathway experiences for students. This disconnect may be influenced by Ohio’s definition of Formal WBL being separate from the Career Connections Framework. This unintentional divide may make it difficult for educators, employers, students, and families to determine where career-connected learning stops and Formal WBL begins—raising questions about who is responsible for providing various experiences and whether some experiences are intended for certain groups of students.

Stakeholders want clearer, more streamlined expectations across a continuum of WBL experiences. Just 8% find current state policies and program requirements easy to navigate, and 59% want clearer state standards and program requirements—especially for Formal WBL experiences. The complexity of WBL-related policies and initiatives that span multiple agencies make it difficult for local leaders to understand which processes, requirements, costs, and benefits apply to different experiences. For example, one state-funded internship program was frequently described as “highly convoluted,” leading many employers to opt out rather than try to navigate it. The widespread confusion and frustration surrounding current Formal WBL definitions and qualifying experiences have prompted some organizations to avoid using the term “work-based learning” altogether.



Stakeholders identify gaps in measuring experience quality and student performance. Just 15% believe “current evaluation methods and testing are easy to use and effective”—and they rank “meets state educational standards” last among 10 possible markers of quality experiences. This suggests that current standards may be unreliable or insufficient indicators of quality. Several employers report developing their own processes to gauge program quality and student performance, which include journaling, capstone projects, or in-house employee evaluation processes. When asked to describe an ideal evaluation model, many stakeholders suggest approaches that have some consistency across Formal WBL settings (ex. self-reflections, student and employer evaluations, and “professional skills” growth and mastery) alongside customized goals for technical skills development that are identified and assessed based on each unique experience. In contrast, some express concerns that new student evaluation and/or reporting requirements may discourage students and employers from participating.

“It is incredibly challenging to create universal work-based learning that is high quality because the experiences vary from very low quality to very high quality in terms of what is provided to students. Often it can be very low level without much learning or stimulation. This is a problem with the employer side of the equation and correlates to engagement. But for the state, it means inconsistency in the experience for students.”

- *Public Policy Stakeholder*

4. Stakeholders cite funding, capacity and transportation barriers that limit the ability to start or scale high-quality experiences.

Stakeholders report gaps in awareness of—or access to—state funding sources, identifying “not enough funding opportunities” as their primary pain point. Most stakeholders believe that they have exhausted all available state funding sources. However, public policy leaders express concerns that many of the available state programs and funding sources are underutilized and not well known. Intermediaries note having trouble navigating the full variety of investments and programs available to them. Additionally, stakeholders across sectors report using ARPA and other pandemic-related federal funds to support their programs—which could create additional financial pressure when those funds expire. Notably, none of the stakeholders report using the state’s new work-based learning tax credit introduced in 2022—although several proposed introducing and/or expanding tax breaks as a strategy to increase employer engagement

“Funding seems to run through area career-tech schools. They are not able to support the demand from students for this type of program. Thus, K-12 public schools are being forced to find ways to implement in their home schools - with no additional funding support.”

- *Education Stakeholder*

Dedicated staff add value and capacity to coordinate experiences and manage relationships. Stakeholders across sectors recognize that Formal WBL and career-connected learning require significant investments of time and capacity to maintain relationships and design/supervise high-quality experiences. Employers add that it is difficult to manage partnerships with multiple school systems who approach WBL and career-connected learning in different ways. Some Ohio intermediaries and districts employ dedicated staff, such as WBL coordinators or career coaches, to serve as the critical link between educators, employers and students. Focus group participants emphasize this dedicated role as a crucial asset in successful WBL offerings. In contrast, survey respondents express varying levels of prioritization for dedicated WBL coordinators, ranking “dedicated staff” in the bottom three of 10 markers of quality experiences. This disconnect likely reflects the belief that dedicated staff may not be necessary to offer high-quality formal WBL experiences, but a lack of staff capacity may limit a community’s ability to efficiently scale quality experiences to serve more students and partner with more employers.

“My company values these partnerships and is willing to invest. It took a while, but we are seeing the fruits of the labor. My managers have been investing time and effort... and we have hired some really good individuals as a result. They definitely take more time and effort to educate and nurture. I wish more businesses would make the effort to be involved as I have constant requests from schools/clubs for partnerships. I hate to miss an opportunity or have a school not get the interaction they seek, but these requests are taking up a lot of my time.”

- *Business & Industry Stakeholder*

Nearly 80% agree that transportation is a significant barrier to formal WBL participation, especially for students from lower-income families. Leaders noted that car ownership and driver’s education are cost-prohibitive for many students, while public transportation options can be limited and unreliable. Schools and community partners face budget constraints in providing direct transportation services to students who have varying work schedules at a variety of employer locations. These challenges are especially pronounced in rural areas with fewer public transportation options and long travel times which can exacerbate costs and scheduling complexities. Some respondents report that employer commitments to hosting WBL experiences have fallen through because students could not reliably get to work.

“We offered the High School Tech Internship this summer and had four employers ready to each take 3-5 students. We could not find ANY interested students who had transportation to get to work during the summer.”

- *Intermediary Stakeholder*



Solutions for Strengthening Work-Based Learning in Ohio

Built on stakeholder input, the following solutions, when implemented well, will prioritize high-quality work-based learning experiences as a part of every Ohio student’s K-12 experience—regardless of pathway or postsecondary plans. But these solutions will, in fact, solve nothing if this report and its solutions are put on the shelf to gather dust with so many other efforts. The first and most important step in making these solutions work begins with state policymakers, for whom they are specifically designed. All others with a stake in the success of Ohio college and career readiness efforts can become familiar with these recommendations and stand ready to provide their full support as solutions are put in place.

1. Establish a unified vision for and governance of work-based learning.

Establish a cross-agency, cross-sector [WBL Leadership Council](#) to provide a vision and strategic direction for the state’s investments in, and work toward, implementing a high-quality, K-16 Work-Based Learning continuum that is accessible to all students. Essential to these responsibilities would be the Leadership Council’s ongoing evaluation of progress toward these goals. Specifically, this entity could:

- Set a vision for work-based learning (including career-connected learning) in the state and the role that it should play in each student’s journey from K-12 through postsecondary to careers.
- Create and codify definitions for WBL experiences across a continuum of work-based learning that are adopted across all state agencies and systems. Set quality standards for each type of experience in terms of program-level measures of quality as well as individual “student success” metrics, where appropriate.
- Establish and then monitor progress toward statewide goals for high-quality WBL experiences whose success will be measured by short- and long-term student outcomes.
- Assess and strategically reorganize existing WBL-related policies and initiatives to make the most of current investments, reduce duplication and mitigate unintended consequences. Effectively monitor and improve outcomes across student groups, geographic regions, industries, etc.
- Streamline processes, resources and information to improve implementation, strengthen local partnerships and expand access to high-quality experiences.
- Seek regular feedback from students, families, educators, employers and intermediaries to proactively identify and address common challenges and barriers.

2. Provide stakeholders with the data and information they need to make decisions.

Collect and publicly report data on participation, quality and outcomes across a continuum of work-based learning experiences. This information should prioritize student performance (such as growth and mastery of professional and technical skills, mentor evaluations, etc.) alongside expanded information about the characteristics of each experience to ensure all students have the best—and most practical and efficient—WBL interactions. This could help policymakers and practitioners better understand which students have access to different types of WBL experiences and can expose gaps across student groups, geographic regions, industry sectors, etc. It could also allow stakeholders to better understand how the use of WBL within graduation pathways and accountability policies impacts schools and student outcomes.

“Improve data collection and analysis to evaluate the options that are out there, how they improve (or don’t improve) student outcomes, and where gaps in access, participation and outcomes exist. Without detailed data, it’s impossible to craft effective solutions for how to improve access and outcomes.”

- *Public Policy Stakeholder*

Provide resources to practitioners, students and families. Ohio should create a user-friendly online WBL hub open and accessible to all students who are weighing their career options and to all stakeholders involved in providing work-based and career-connected experiences. This hub could include definitions, a program inventory, best practices and technical assistance. To facilitate easy access, a single state contact should be designated for regional and local practitioners seeking program or funding information. Maintaining regular engagement through workshops, seminars, web conferences and site visits can promote successes.

3. Invest in strategies that build local capacity to expand high-quality experiences.

Provide funding for WBL coordinators and/or career coaches. To help ensure the success of these solutions, Ohio can establish or leverage existing competitive grant programs to fund local or regional WBL coordinators. The funds should prioritize partnerships across schools or districts to ensure maximum impact and consistent communication and coordination with employers. Successful grantees would be asked to prioritize quality experiences and expanded access for students facing the highest barriers to work-based learning.

Cultivate a cadre of high-quality mentors. Leveraging expertise and resources across agencies, industry associations and other groups can help employers elevate the role of mentorship in the workplace—and build their capacity to offer high-quality WBL experiences. This could include identifying best practices, providing mentor training and resources (such as a “train the trainer” model for intermediaries) and offering technical assistance to employers providing WBL experiences.



4. Address common barriers to work-based learning.

For students, establish [Pathway Opportunity Accounts](#). These accounts provide funds directly to students and families for experiences that prepare students for college and career—including work-based learning. Students would be able to use these funds to cover state-approved expenses such as transportation to and from worksites, drivers' education and license fees, required tools and uniforms, etc. This would allow for greater flexibility in supporting student needs while alleviating the burden on schools and districts.

For educators, expand opportunities to bring industry trends and practices into every classroom. Students need qualified teachers and intentional instruction to build career awareness and facilitate a continuum of high-quality work-based learning experiences. However, education providers struggle to hire—and retain—educators with industry experience. Policymakers can streamline educator licensure requirements to help industry experts become teachers and instructors at comprehensive districts, career-technical districts and community colleges. Additionally, funding should be provided to establish and scale initiatives that bring existing general education and CTE teachers into the workplace, which could include building upon the state's [teacher bootcamps](#) and developing intensive, employer-led educator externships.

For employers, increase engagement and help overcome their concerns. Ohio can collaborate with chamber and industry association leaders to develop and distribute communication tools and build greater commitment to providing work-based learning experiences for students—Ohio's next great job resource. This effort should include clear information about available programs, partners and resources, and include industry-specific resources as appropriate. Policymakers can help reduce employers' liability concerns by allowing for more variance agreements among students, parents and employers. These agreements would enable more students between the ages of 16 and 18 to participate at safety-compliant industry worksites.

The Future of Work-Based Learning Experiences in Ohio

During the focus groups and survey, stakeholders were invited to step into the shoes of students completing a work-based learning experience. They pondered what they, as students, would hope to gain from such an opportunity. Their responses varied widely, encompassing aspirations for job offers, skill development, networking and income growth. However, two overarching themes emerged: clarity and direction for the future. Stakeholders emphasize that the most valuable experiences extend beyond mere learning; they empower students to envision their future paths. This is the transformative potential of a high-quality work-based learning experience, granting students the power of choice in a competitive and evolving job market.

Ohio has clearly prioritized work-based learning as a strategy that will benefit students and its economy in the long term. It is also well prepared to meet the challenges outlined in the report—by addressing the recommendations for ensuring every student in the Buckeye State has access to a high-quality experience. Policymakers have an opportunity to ensure that Ohio builds and expands on its existing priorities. **Now is the time!**

Contributions & Acknowledgments

This report was developed in a collaboration between ExcelinEd, Ohio Excels and Workmorphis. Lead authors from Workmorphis include Nicholas Klein, Project & Policy Consultant, and Emily Fabiano, Founder and President. [Workmorphis](#) is dedicated to driving major reforms in workforce and economic development for public-serving organizations. Our approach includes comprehensive policy analysis, proactive stakeholder engagement, and strategic planning.

We would also like to express thanks to our contributors and advisors, including Christy Bertolo and Chris Svec from BridgED, Sharr Pechac from Grey Print Consulting, Nicholas Mlakar from Workmorphis, as well as McKinzie McGuire and Steve Dackin.

Appendix

Sections include:

A. Detailed Methodology

B. Formal WBL Guiding Principles and Definitions

- Stakeholder Analysis
- Virtual Input Session
- Statewide Survey

C. Detailed Policy Context

- Career Connections
- Formal Work-Based Learning
- K-12 Policies that Incorporate Formal WBL
- Policies Promoting Employer Engagement

D. Examples of Relevant Workforce Programs in Ohio



A. Detailed Methodology

To prioritize quality in work-based learning experiences, it was crucial to hear from Ohio’s experts who regularly engage with students, families and employers.

STAKEHOLDER ANALYSIS

In Spring 2023, we conducted a statewide stakeholder analysis, identifying over 130 stakeholder groups and organizations across four key sectors:

- **Public Policy:** Government, advocacy groups and development organizations.
- **Business & Industry:** Employers, business coalitions and labor groups.
- **Education:** Educators, training providers, practitioners or researchers.
- **Intermediaries:** Community-based organizations, bridge builders, funders or intervention specialists.

VIRTUAL INPUT SESSION

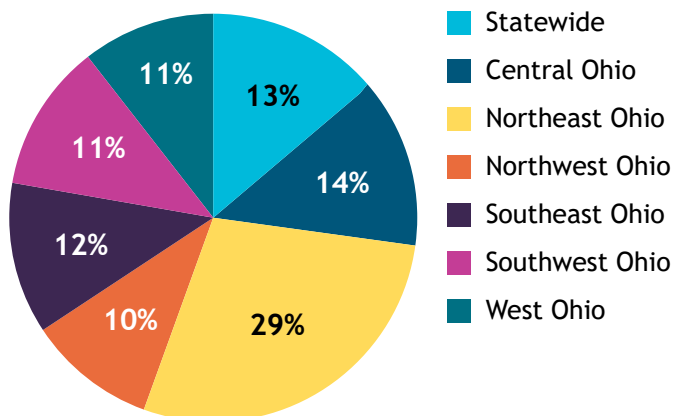
A diverse subset of 32 organizations were selected for engagement, chosen to represent a variety of perspectives and geographic regions across Ohio. These stakeholders were invited to a virtual cross-sector input session in July 2023, in which 26 stakeholders ultimately participated.

Attendees were divided into four focus groups by sector, with each group consisting of six to eight participants. Facilitated focus group discussions lasted 75 minutes before all participants reconvened for a 30-minute full group discussion. In total, the session yielded more than 300 minutes of recorded insights from statewide leaders. These recordings were then transcribed, anonymized and destroyed, and a summary of the findings was developed.

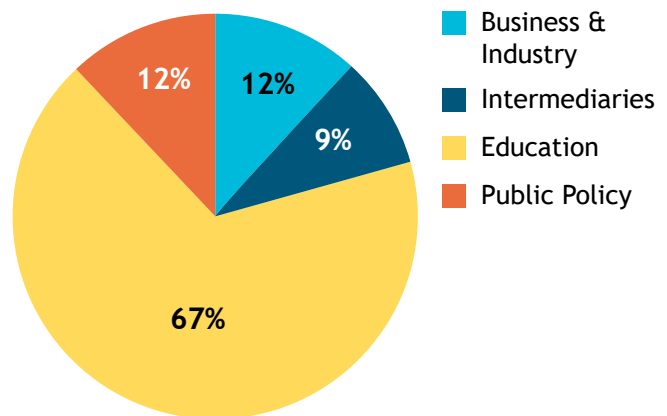
STATEWIDE SURVEY

To validate or build upon the findings from the input session, Ohio Excels and Workmorphis distributed a supplemental anonymous survey to additional stakeholders, including key stakeholders who did not participate in the input session and members of various statewide mailing lists. This outreach is estimated to have reached the inboxes of at least 6,000 stakeholders across the state. This survey was open for two weeks in early August and received 217 responses. The results of this survey were cross-referenced with the input session results to identify additional gaps, opportunities and perspectives.

SURVEY RESPONDENTS BY REGION



SURVEY RESPONDENTS BY SECTOR



B. Formal WBL Guiding Principles and Definitions

Ohio defines Formal [Work-Based Learning](#) as “a coordinated sequence of experiences designed to provide students with real world learning through partnerships with local business and industry. These learning activities help a young person explore careers and choose an appropriate career path.” The Ohio Department of Education and Workforce (DEW) requires all Formal WBL experiences to meet 3 Guiding Principles:

- Occur at a worksite (including virtual/school)...that includes regular interaction with community members similar to the typical experience in that industry.
- Co-supervised by an instructor or other educational representative and an employer or business mentor.
- Formalized by a learning agreement built on professional, academic and technical competencies aligned to the student’s program of study, student success or graduation plans.

While the guiding principles are broad, in practice the term “work-based learning” in Ohio is used to refer to six narrowly-defined types of Formal [WBL experiences](#):

- 1. Off-Site Placement or Internship:** The student is a paid employee or non-paid intern for a business or community partner. The student performs tasks and demonstrates skills necessary for the operation of the business or organization, as determined by the employer, with additional guidance from the instructor or educational supervisor. In this type of work-based learning experience, work occurs off-site and can take place during school hours or when school is not in session.
- 2. Remote or Virtual Placement:** The student is a paid employee or non-paid intern for a business or community partner, but work-based learning most often takes place outside of the physical location of the employer. The student performs tasks and demonstrates skills necessary for the operation of the business or organization, as determined by the employer, with additional guidance from the instructor or educational supervisor. Work can be completed during school hours or when school is not in session.
- 3. Simulated Work Environment:** The student works cooperatively with a business mentor to perform work in a simulated environment. The student performs tasks and demonstrates skills necessary for success in a particular industry, as determined by the business mentor, with input and additional guidance from the instructor or educational supervisor. Facilities, resources and equipment can be provided by the school or an outside source, if necessary. The student should have the opportunity to practice interaction with customers or community members as is commiserate with the typical experience of the industry. Work can be completed during school hours or when school is not in session.



4. **Entrepreneurship:** The student operates his or her own business or service, including oversight of all operational and risk management decisions. The student performs tasks and demonstrates skills necessary for the operation of the business, as determined in a business plan, with input and guidance from the instructor or educational supervisor as well as an external business mentor. Facilities, resources and equipment can be provided by the school or an outside source, if necessary. Work can be completed during school hours or when school is not in session. Planning completed prior to the operation of the business would not qualify as work-based learning experience.
5. **School-Based Enterprise:** Students work cooperatively to operate a business or service, with facilities, resources and equipment most often provided by the school. The students perform tasks and demonstrate skills necessary for the operation of the business, as determined in a business plan, with input and guidance from the instructor or educational supervisor as well as an external business mentor. The experience can be structured as a partnership or cooperative with an outside entity; when this is the case, a partnership agreement should define roles, responsibilities and profit distribution between participants. In this type of work-based learning experience, work often will be completed during school hours.
6. **Apprenticeship/Pre-Apprenticeship:** Students participate in work-based learning experiences in designated occupations or industry sectors in preparation for formal, registered apprenticeship training programs. Pre-apprenticeships follow recognition procedures as outlined by ApprenticeOhio. Apprenticeships have similar but distinct registration requirements through ApprenticeOhio to teach a skilled occupation pursuant to a registered apprenticeship agreement. Apprentices must be at least 16 years old, except when a higher minimum age standard is fixed by law.

C. Detailed Policy Context

CAREER CONNECTIONS

Ohio's [Career Connections Framework](#) focuses on career awareness (grades K-5), career exploration (grades 6-8) and career planning (grades 9-12) and includes activities like industry tours, job shadows, career fairs, etc. A key component of Career Connections is the requirement¹ to incorporate connections to careers throughout K-12 instruction across academic and technical content areas. Ohio law² requires each school district to develop a local policy and implement a plan to provide career advising throughout students' K-12 experiences—and to review and revise these policies and plans at least every two years.

Quality

No statewide quality criteria could be found that address specific expectations for each of the requirements or types of experiences included across the Career Connections framework. However, the requirement for each district to review its career advising policy and update its plan at least every two years sets an expectation for continuous improvement. To support local implementation, DEW offers policy guidance and resources (e.g., the [Career Advising Toolkit](#)), provides a statewide career planning tool³ ([OhioMeansJobs K-12](#), in partnership with the Ohio Department of Job and Family Services) and elevates locally developed resources through [SuccessBound](#) and [OpenSpace](#).

Data

There is no public data showing how (or if) the Career Connections Framework is implemented at the local level. There are no reporting requirements related to student participation/exposures, although districts are required to document each student's career advising. Additionally, there do not seem to be reporting requirements related to how the "career awareness and exploration funds" are used. As a result, there is not a way to evaluate statewide access, participation or outcomes related to Career Connections activities and instruction.

State Funding and Targeted Initiatives

Ohio currently provides dedicated funding⁴ to support K-12 career awareness and exploration activities through Career-Technical Education Planning Districts. It's unclear how these funds are used or whether the state is collecting information about the uses and impact of these funds. Additionally, from 2014-19, the state provided matching grants for the Community Connectors⁵ program to support community organizations/partnerships that provided career advising and mentorships to students in eligible school districts. This funding ended after fiscal year 2019.



FORMAL WORK-BASED LEARNING

Although it is referenced in the Career Connections Framework, Formal WBL in Ohio seems to operate as a very separate initiative in both policy and practice. In Ohio, [K-12 Work-Based Learning](#) is defined as “a coordinated sequence of experiences designed to provide students with real world learning through partnerships with local business and industry. These learning activities help a young person explore careers and choose an appropriate career path.” The state’s approach to WBL prioritizes flexibility for schools and students. DEW [defines three guiding principles that apply to the six types of formal work-based learning experiences](#):

Guiding Principles	Types of WBL Experiences
<ol style="list-style-type: none">1. WBL must occur at a worksite (including virtual/school)...that includes regular interaction with community members similar to the typical experience in that industry.2. WBL must be co-supervised by an instructor or other educational representative and an employer or business mentor.3. A learning agreement built on professional, academic and technical competencies aligned to the student’s program of study, student success or graduation plans must be in place.	<ul style="list-style-type: none">• Off-Site Placement or Internship• Apprenticeship/Pre-Apprenticeship• Remote or Virtual Placement• Entrepreneurship• School-Based Enterprise• Simulated Work Environment

Formal work-based learning experiences can be paid or unpaid, during or outside of school hours, for-credit/not-for-credit and of varying lengths (weeks/hours), etc. Additionally, state law⁶ requires all districts to ensure compliance with the [Framework to Issue Credit for Work-Based Learning](#). [ApprenticeOhio](#) governs⁷ and recognizes pre-apprenticeship and apprenticeship programs, and state law⁸ requires DEW, ODJFS and OWT to establish an option for career-technical students to participate in pre-apprenticeship training.

Quality Expectations for Formal WBL

Neither Ohio Revised Code nor Administrative Rule set explicit definitions or expectations for the quality of all WBL experiences. DEW provides several [resources](#) to support implementation (such as sample learning agreements, portfolios, employer guidelines, etc.), but there are no requirements for local districts to use or include the components of these resources in their Formal WBL offerings.

State policy may inadvertently set inconsistent expectations for the quality of WBL. Career-technical education programs are subject⁹ to additional [program quality standards](#) and monitoring, which includes Quality Indicator 7 (experiential learning) that sets more specific expectations for WBL quality. Quality is implied in code/rule references to these standards—but these only apply to formal WBL experiences that are part of a career-technical education program. In contrast, general education WBL offerings must only be approved by each school/district’s business advisory committee (and other stakeholders)—like all other educational options.¹⁰

State Funding and Targeted Initiatives

No statewide funding streams could be identified that are dedicated specifically to Formal WBL implementation; however, districts can use federal Perkins V funds, state CTE funds, local funds or other funds to support WBL experiences for students. Additionally, the state has invested in several industry-specific WBL programs and pilots, including the [High School Tech Internship program](#), the [High School Health Care Preceptor pilot](#) and the [Ohio Manufacturing Extension Partnership \(MEP\) High School Internship Program](#).

Table A. Formal WBL Data Reporting

Formal WBL Program Codes

- Internship Completion
- Apprenticeship/Pre-Apprenticeship
- Apprenticeship Acceptance (18+ enrollment requirement)
- Apprenticeship Completion (registered apprenticeships)
- Other WBL (entrepreneurship, school-based enterprises, simulated)

Formal WBL Hour Bands

- Formal WBL Hour Bands
- 1-40 hours
- 40-99 hours
- 100-249 hours
- 250-499 hours
- 500+ hours

Data Reporting for Formal WBL

Ohio collects some statewide data related to formal WBL participation, but reporting this data is voluntary for schools/districts and is not reported publicly. Districts and schools may report¹¹ students’ participation in formal WBL within broad bands of participation hours—although these bands can include participation in multiple formal WBL experiences. Table A lists the program codes for WBL types and hour bands that can be reported by the school/district for each student.

Notably, this data does not include information about the industry of the WBL experience/mentor, credit vs. non-credit experiences, paid vs. unpaid experiences, measures of student growth and performance, student and employer evaluations, or other indicators of quality. Including this information could help the state answer critical questions about the access to and quality of WBL experiences across industries and regions of the state.

K-12 POLICIES THAT INCORPORATE FORMAL WBL

Ohio has prioritized WBL in recent years by incorporating formal WBL into graduation requirement policies and accountability systems. In most cases, WBL is included as one metric or option among a variety of experiences and achievements—allowing participation in formal WBL to “count” in various ways but not explicitly requiring WBL for any student or pathway. While the inclusion of WBL in these policies demonstrates the state’s strong prioritization of these experiences, the actual number/percentage of students leveraging these opportunities is relatively low (Table B).

Formal WBL in Graduation Requirements

In Ohio, all high school graduates are required to earn at least two diploma seals to demonstrate readiness.¹² Among many options, students can earn the [OhioMeansJobs \(OMJ\) Readiness Seal](#) to showcase their professional skills, often referred to as “soft skills,” which are validated by three mentors from school, work or the community. The [Industry-Recognized Credential Seal](#) and [Honors Diploma Seal](#) also include options that could be met through formal WBL.

Additionally, students who do not meet the required math and English “competency scores” can demonstrate competency¹³ for graduation through the [Career Experience and Technical Skill](#) alternative pathway. Three of the seven options within this pathway relate to formal WBL: 250+ hours of WBL, apprenticeship/pre-apprenticeships and the OMJ Readiness Seal. While students can gain important real-world experience and demonstrate valuable knowledge and skills through WBL, positioning these experiences as an “alternative” competency pathway could inadvertently send the message that Formal WBL is less rigorous—or an opportunity that is only for struggling students.



Table B. Available WBL-related data for recent graduates

Graduating Class	2021-22	2022-23
Total graduation cohort	134,807	134,402
% CCWMR (all metrics)	37.5%	39.2%
% OMJ Readiness Seal + 250 Hours WBL	0.3%	0.8%
% Completed Pre-Apprenticeship	0.1%	0.4%
% Accepted into post-HS Apprenticeship	0.0%	0.0%
% Completed Apprenticeship	0.0%	0.0%
Earned OMJ Readiness Seal*	6.9%	n/a

*increase from 3.3% in 2020-21; data not available for 2022-23.

Sources: DEW [CCWMR data download](#) and [OhioMeansJobs-Readiness Seal Dashboard](#)

Formal WBL in Accountability

A new [College, Career, Workforce and Military Readiness](#) (CCWMR) indicator is being phased into the state’s accountability¹⁴ system and school report cards starting as early as 2024. DEW has started collecting and reporting [CCWMR data](#) for individual schools and districts. The CCWMR indicator includes 11 different metrics, including 250+ hours of formal WBL and the OMJ Readiness Seal or pre-apprenticeship/apprenticeship participation. Although nearly 40% of recent Ohio graduates met at least one of the CCWMR benchmarks, fewer than 1.5% of the 2022-23 graduating class did so through WBL-related metrics (Table B).

Ohio’s [Perkins V secondary program quality indicator \(5S3\)](#) is “the percentage of career-technical education concentrators¹⁵ graduating from high school having participated in work-based learning” experiences. The state’s goal is for career-technical concentrators to accumulate 250-plus hours of work-based learning increases, from 12% to 15% from FY2020-FY23. As shown in Table C (below), there was a substantial increase in the number of concentrators who met this benchmark between 2021 and 2022, but significant differences remain across learner groups and career clusters.

POLICIES PROMOTING EMPLOYER ENGAGEMENT

In 2022 the state enacted an [income tax credit for employers](#)¹⁶ who hire students under age 19 in formal WBL experiences. Data on usage of this tax credit is not yet available; however, it should be noted that it would only be available for employers who offer formal WBL to students enrolled in Career-Technical programs (rather than all students). Additionally, employers may be able to leverage federal [Work Opportunity Tax Credits](#) for hiring students who meet certain characteristics and requirements. The state also provides grant funds to support [sector-specific](#) and regional partnerships that can (but don’t always) include work-based learning.

Addressing Employers’ Concerns: Liability and Employment of Minors in Formal WBL

In Ohio, a student must be at least 14 years old to work, and employers must secure a [work permit](#) for any employee under 18, with [certain exclusions](#). Ohio has implemented measures to reduce business’ legal and liability concerns related to minors in the workplace:

- Employers are not held liable for workers’ compensation claims arising from work-based learning experiences¹⁷—but only if the student is enrolled in a career-technical program.
- Employers have the [option](#) to hire students through a temporary agency instead of direct W2 employment, further mitigating liability concerns.
- Opportunities for “special variance” policies to expand opportunities in certain fields/occupations, as used by the [Manufacturing Mentorship Program](#) (similar to the “special variance” policy in [Washington State](#)).

Table C. Formal WBL in Career-Technical Education: Perkins V 5S3 (WBL) Performance

	Class of 2021				Class of 2022				5S3 Change 21-22
	250+ Hours Formal WBL		CTE Concentrators		250+ Hours Formal WBL		CTE Concentrators		
	%	#	#	Share	%	#	#	Share	
All CTE Concentrators	9.3%	3,620	38,950	of All	17.2%	7,099	41,262	of All	8%
Gender									
Female	8.3%	1,485	17,814	46%	15.7%	2,933	18,740	45%	7%
Male	10.1%	2,135	21,136	54%	18.5%	4,166	22,522	55%	8%
Race									
American Indian/Alaskan Native	7.3%	##	41	0%	16.4%	9	55	0%	9%
Asian	3.4%	23	678	2%	7.1%	54	757	2%	4%
Black/African American	2.8%	139	4,910	13%	7.1%	373	5,263	13%	4%
Hispanic/Latino	7.8%	142	1,828	5%	14.5%	307	2,111	5%	7%
Native Hawaiian/Pacific Islander	9.7%	##	31	0%	16.7%	##	24	0%	7%
White	10.8%	3,235	29,913	77%	19.5%	6,113	31,308	76%	9%
Two or More Races	4.8%	75	1,549	4%	13.7%	239	1,744	4%	9%
Special Populations									
Economically Disadvantaged	6.1%	928	15,273	39%	12.7%	2,014	15,846	38%	7%
English Learners	3.6%	29	802	2%	6.7%	58	872	2%	3%
Foster Care	7.4%	50	675	2%	15.1%	87	578	1%	8%
Homeless	4.1%	40	972	2%	7.7%	78	1,014	2%	4%
Military Parent	9.2%	18	195	1%	17.0%	45	265	1%	8%
Non-traditional	7.3%	377	5,159	13%	15.7%	915	5,831	14%	8%
Single Parents	4.7%	9	190	0%	21.1%	34	161	0%	16%
Students with Disabilities	8.2%	560	6,810	17%	17.5%	1,183	6,749	16%	9%
Career Cluster									
Agriculture, Food & Natural Resources	15.3%	812	5,303	14%	20.4%	1,249	6,119	15%	5%
Architecture & Construction	15.3%	484	3,160	8%	30.0%	1,047	3,486	8%	15%
Arts, A/V Technology & Communications	2.5%	54	2,155	6%	8.8%	200	2,286	6%	6%
Business Management & Administration	5.8%	126	2,167	6%	11.7%	293	2,499	6%	6%
Education & Training	15.6%	233	1,496	4%	25.7%	367	1,427	3%	10%
Finance	3.0%	##	168	0%	2.4%	##	167	0%	-1%
Health Science	5.9%	400	6,730	17%	11.9%	847	7,101	17%	6%
Hospitality & Tourism	10.2%	155	1,521	4%	19.5%	298	1,532	4%	9%
Human Services	9.7%	193	1,985	5%	20.5%	400	1,954	5%	11%
Information Technology	2.7%	95	3,571	9%	7.0%	259	3,683	9%	4%
Law, Public Safety, Corrections & Security	3.5%	51	1,463	4%	13.0%	179	1,381	3%	9%
Manufacturing	17.2%	386	2,242	6%	31.4%	713	2,273	6%	14%
Marketing	17.0%	199	1,172	3%	23.8%	238	1,000	2%	7%
STEM	2.4%	75	3,195	8%	5.8%	210	3,633	9%	3%
Transportation, Distribution & Logistics	13.4%	352	2,622	7%	29.2%	795	2,721	7%	16%

Definitions

- **% 250+ Hours WBL (5S3 Actual Performance):** The percentage of graduates who were CTE concentrators in the 4 year graduation cohort who participated in a minimum of 250 hours of state-defined work-based learning.
- **# 250+ Hours WBL (5S3 Numerator):** The number of graduates who were CTE concentrators in the 4 year graduation cohort who participated in a minimum of 250 hours of state-defined work-based learning.
- **# CTE Concentrators (5S3 Denominator):** The total number of graduates who were CTE concentrators in the 4 year graduation cohort.
- **Share of all CTE Concentrators:** The portion of all CTE concentrators that corresponds with each student group or career cluster. This is included for context only.

Source: [Perkins V Data Explorer](#)



D. Examples of Relevant Workforce Programs in Ohio

It is estimated that Ohio administers approximately 200 workforce or workforce-adjacent programs spread across 17 state agencies. The following is a selection of some prominent programs that support or impact work-based learning experiences.

Program	Description	Agency	Annual Funding
Business Advisory Councils (BACs)	Partnerships between regional educational service centers (ESCs) and their business community.	DEW	N/A
Choose Ohio First	Scholarships with WBL experiences for students in STEM degree pathways.	ODHE	\$30 million
Diversity & Inclusion Technology Internship Program	Reimburses 2/3 of wages for companies that hire diverse young intern talent.	ODOD	< \$2 million
High School Tech Internship	Competitive grant for employers engaging students through internships in tech-focused careers.	DEW	\$200,000
Industry-Sector Partnership Grant	Funds regional partnerships between business, education and training providers.	OWT	\$5 million
Manufacturing Mentorship Program	Allows 16- and 17-year-olds to participate in manufacturing workplaces.	Commerce	N/A
Ohio Manufacturing Extension Partnership (Ohio MEP)	Provides resources to manufacturers, including workforce training dollars.	ODOD	\$6.6 million
Pre-apprenticeship	Provides intensive exposure to a work environment in advance of a Registered Apprenticeship.	ODJFS	\$1.3 million via formula-funded DOL grant
Regionally Aligned Priorities in Delivering Skills (RAPIDS/Super RAPIDS)	Provides equipment investments for postsecondary and career-technical institutions.	ODHE	\$8 million + \$100 million via one-time investment of ARPA ¹⁸ funds
Tax Credit for Work-Based Learning Experiences	Reduces tax liability for employers providing certain formal WBL experiences.	DEW	\$2.5 million
Work Opportunity Tax Credit (WOTC)	Federally funded, state-distributed tax credit for employing job seekers with barriers to employment.	ODJFS, ODRC	N/A

(ODHE) [Ohio Department of Higher Education](#)

(ODOD) [Ohio Department of Development](#)

(OWT) [Ohio Governor's Office of Workforce Transformation](#)

("Commerce") [Ohio Department of Commerce](#)

(ODJFS) [Ohio Department of Job and Family Services](#)

(DOL) [United States Department of Labor](#)

(ARPA) [American Rescue Plan Act of 2021](#)

(ODRC) [Ohio Department of Rehabilitation & Correction](#)

Notes

1. Ohio Revised Code [3301.079\(B\)\(2\)](#) Academic standards - model curriculum.
2. Ohio Revised Code [3313.6020](#) Policy on career advising.
3. [HB393](#) (2014) | Ohio Revised Code: [6301.15](#) (ODJFS); [3301.45](#) (ODE); [3313.89](#) (school districts).
4. Ohio Revised Code [3317.014](#) Career-tech education program funding | [DEW Guidance](#) | Latest Appropriations([HB 33](#)) FY24 \$12.25 million; FY25 \$16.325 million.
5. Community Connectors ([HB483](#); 2014) [Media Release](#), [FY19 Grant Guidelines](#), [RStreet Analysis](#).
6. Ohio Revised Code [3313.603\(J\)\(3\)](#) Requirements for high school graduation; workforce or college preparatory units; Ohio Administrative Rule [3301-35-06](#) Educational programs and support.
7. Ohio Administrative Code Rule [5101:11-2-01](#) Ohio state apprenticeship council and the council office.
8. Ohio Revised Code [3313.904](#) Pre-apprenticeship training programs for career-technical education students.
9. Ohio Administrative Code [Rule 3301-61-03](#) | Criteria for career-technical programs.
10. Ohio Administrative Code Rule [3301-35-06](#) | Educational programs and support.
11. Table A displays the Formal WBL reporting options outlined in [EMIS Manual v. 14.3](#) (p. 317).
12. Ohio Revised Code [3313.6114\(C\)\(6\)](#) State diploma seals.
13. Ohio Revised Code [3313.618](#) Diploma Requirements.
14. Ohio Revised Code [3302.03](#) Submission of preliminary report card data; grading school districts.
15. Ohio defines a “career-technical concentrator” as a student who has achieved two or more credits in a career-technical education program of study.
16. Ohio Revised Code [5747.057](#) Tax credit for career-technical education program employees. ([Amended Substitute SB 166](#), 2022).
17. Ohio Revised Code [4123.345](#) Employers Providing Work-Based Learning Program ([Amended Substitute SB 166](#), 2022).
18. According to the [Ohio Poverty Law Center](#), with passage of the latest biennial budget, the State of Ohio has received and spent its total \$5.4 billion allocation of federal ARPA funding.

