Expanding Work-Based Learning Opportunities for Youth: Insights from the Field

Summary of Responses to the U.S. Department of Education’s Request for Information on Work-Based Learning

Introduction

The $1.3 billion Carl D. Perkins Career and Technical Education Act of 2006, as amended by the Strengthening Career and Technical Education for the 21st Century Act (Perkins V), assists states and outlying areas in expanding and improving career and technical education (CTE) in secondary schools, technical schools, and community colleges. Work-based learning\(^1\) (WBL) is featured prominently in Perkins V as a strategy for preparing career and technical education (CTE) students for further learning and careers. WBL is a key component of the law’s definition of CTE (20 U.S.C. 2302(5)). Perkins V directs states to identify in their state plans how individuals who are members of special populations\(^2\) will be provided instruction and WBL opportunities in integrated settings that support competitive, integrated employment (20 U.S.C. 2342(d)(9)(E)) and permits them to use state leadership funds to establish and expand WBL opportunities that are aligned to CTE programs and programs of study (20 U.S.C. 2344(b)(18)), as well as to facilitate the inclusion of WBL opportunities (including internships, externships, and simulated work environments) in CTE programs of study (20 U.S.C. 2344(b)(4)(C)). At the local level, the law requires eligible recipients to describe in their applications for funds the WBL opportunities that they will provide to students participating in CTE programs and how they will work with representatives from employers to develop or expand WBL opportunities for CTE students (20 U.S.C. 2354(b)(6)). Providing a continuum of WBL opportunities, including simulated work environments, is also an authorized use of the funds by local recipients (20 U.S.C. 2355(b)(5)(E)). Importantly, the new law also included participation in WBL by secondary CTE concentrators as a new optional indicator of state performance (20 U.S.C. 2323(b)(2)(A)(iv)(I)(cc)). In the State plans submitted during summer 2020, 26 states selected this indicator as one of their measures of secondary CTE program quality.\(^3\)

The prominence of WBL in Perkins V and interest in expanding its availability comes at a time when participation in the labor market by youth is at a low point. Since 2000, there has been a steady drop in participation in the job market by adolescents ages 16 to 19 of all major races and

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1 Section 3(55) of Perkins V defines the term “work-based learning” to mean “sustained interactions with industry or community professionals in real workplace settings, to the extent practicable, or simulated environments at an educational institution that foster in-depth, firsthand engagement with the tasks required in a given career field, that are aligned to curriculum and instruction.” These opportunities may include, but are not limited to, paid internships, work study, cooperative education, apprenticeships, and pre-apprenticeships.

2 Section 3(48) of Perkins V defines “special populations” to mean “(A) individuals with disabilities; (B) individuals from economically disadvantaged families, including low-income youth and adults; (C) individuals preparing for non-traditional fields; (D) single parents, including single pregnant women; (E) out-of-workforce individuals; (F) English learners; (G) homeless individuals described in section 725 of the McKinney-Vento Homeless Assistance Act (42 U.S.C. 11434a); (H) youth who are in, or have aged out of, the foster care system; and (I) youth with a parent who—(i) is a member of the armed forces (as such term is defined in section 101(a)(4) of title 10, United States Code); and (ii) is on active duty (as such term is defined in section 101(d)(1) of such title).”

3 Perkins V State Plans approved by the Department can be found on the Department’s website at https://cte.ed.gov/grants/state-plan.
The labor force participation rate measures the percentage of individuals who are employed or who are seeking employment. During July, at the height of the summer, the labor force participation rate of 16- to 19-year-old youth declined from 62.9 percent in 1999 to 40.0 percent in 2020. This deep decline occurred among Asian youth, Black youth, Hispanic youth, and White youth. Summer job opportunities are particularly limited for low-income youth. The employment rate measures the percentage of individuals in the labor force who are employed. In July 2020, the employment rate of youth ages 16 to 19 from families with annual incomes of $20,000 or less was about half that of their peers from families with annual incomes of $150,000 or more. Youth participation in the labor market throughout the year also has dropped significantly since 2000. The annual average rate of labor force participation among youth ages 16 to 19 fell from 52.0 percent in 1999 to 35.3 percent in 2019, with Asian youth, Black youth, Hispanic youth, and White youth all experiencing a decline.

Occurring as it does while participation in work by young people is waning, the heightened interest in expanding WBL for CTE students poses a challenge to states and local educational agencies. What are the barriers to expanding WBL opportunities for youth and how might we remove them? Are there exemplars in the field that are succeeding in supporting extensive WBL participation by CTE students from which we may learn? And how has the COVID-19 pandemic impacted participation in WBL? The Office of Career, Technical, and Adult Education (OCTAE) sought answers to these and other related questions in a Request for Information published in the Federal Register on December 2, 2020. This document summarizes the highlights of the 63 comments that were provided by a wide range of interested individuals and entities, including from state and local educational agencies, nonprofit organizations, professional and industry associations, and research organizations. The complete set of comments can be viewed in their entirety on Regulations.gov.

Executive Summary

Barriers to Expanding WBL Participation and Strategies to Address Them

- Commenters reported that confusion about federal and state child labor and occupational safety laws is a significant barrier to WBL expansion, particularly as they relate to participation in work by 16- and 17-year-old youth, but some believed that this barrier could be overcome with improved communications tools that correct employer misperceptions about child labor and occupational safety laws. Some commenters also recommended revisiting some child labor and safety laws to consider additional exceptions for students who are closely supervised in WBL programs.

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Many commenters expressed the view that some employers are reluctant to participate in WBL due to concerns about liability and workmen’s compensation insurance. Several of these commenters indicated that, in their experience, employers had found that the costs of extending liability insurance coverage to minors in their workplace was prohibitively expensive, while others had found that liability insurers refused to cover minors in WBL programs. One commenter recommended that school districts or employers consider contracting with a third-party organization to serve as the ‘employer of record’ for WBL participants, noting that this strategy had been successful in Wisconsin.

Many commenters reported that making extensive WBL opportunities available to students requires greater staff capacity and expertise than is available in the typical school or school district. External public or private non-profit intermediary organizations that work with employers and schools to facilitate WBL have emerged as a good solution to this problem. Commenters highlighted the Iowa Intermediary Network, Career Connect Washington, the Wisconsin youth apprenticeship program, CareerWise, and others for their successes in connecting schools and employers to provide WBL at scale.

Many commenters noted that transportation was a significant barrier to greater WBL participation for many young people, particularly economically disadvantaged youth and youth who reside in rural communities or other areas that lack public transportation. Several commenters provided examples of how some schools and WBL programs were addressing this challenge.

Several commenters identified some school policies and practices that sometimes inhibit participation in WBL at scale. Inflexible scheduling, not offering credit for WBL participation, and failing to prepare students for WBL with career awareness and career development activities in the early grades impede greater participation in WBL by students. However, commenters described numerous examples of states, school districts, and others who had surmounted these barriers.

Commenters indicated that unpaid WBL opportunities are a barrier to participation by students from low-income families and recommended all WBL opportunities be paid.

Many commenters expressed the view that more employers would offer WBL opportunities if they were provided incentives to do so. Several commenters identified examples of incentives, such as wage subsidies or tax credits, that they felt would be attractive to employers.

The absence of wraparound services and supports is a barrier to WBL participation by students from special populations, several commenters noted. Commenters reported that these support services could be provided through interagency collaboration, such as with vocational rehabilitation agencies, and through partnerships with non-profit organizations.

Some commenters stated that the absence of strong and supportive state policies can make expanding WBL participation challenging and offered several examples of states that had established policies that facilitate WBL, including Tennessee, Illinois, and Rhode Island.
Many commenters stated that the funding available to support WBL expansion was inadequate and called for greater public support for WBL. Most of these commenters recommended strongly that policymakers provide flexibility in how these additional funds are used.

Many commenters reported that the COVID-19 pandemic was creating additional barriers to WBL participation for many students. Several commenters identified examples of how school districts and WBL intermediaries were trying to address the challenges posed by COVID-19.

*How Strategic Partners Can Help Expand WBL Participation*

- Commenters suggested that the support of philanthropic organizations for pilot testing and evaluating new WBL programs and strategies was particularly valuable, while others indicated that philanthropic support for WBL intermediary organizations was important.

- Several commenters recommended that state and local workforce development boards established by Title I of the *Workforce Innovation and Opportunity Act (WIOA)* strengthen their outreach to school districts, employers, and WBL providers so that they better understand how *WIOA* funds may be used to expand WBL opportunities for students. Another strategy for strengthening connections between the education and workforce development systems identified by some commenters is submitting a Combined State Plan under section 103 of *WIOA*.

*Essential Components for WBL Success*

- Commenters offered many different responses to the RFI’s question about the interventions, strategies, or practices that are most likely to increase the likelihood of the success of WBL, particularly sustained and intensive WBL like internships, pre-apprenticeships, and apprenticeships.

*Metrics to Monitor and Measure the Outcomes of WBL Participation*

- Commenters suggested a variety of different metrics that should be used to assess the success of WBL programs. Several recommended strongly that states, schools, and WBL programs disaggregate participation and outcome data by participant demographic characteristics.
Barriers to Expanding WBL Participation and Strategies to Address Them

The RFI asked commenters to identify barriers they had encountered in helping youth, particularly 16- and 17-year-old students, gain a WBL experience. Commenters described many examples of barriers, but many also identified some strategies to address these barriers.

Confusion about Child Labor and Occupational Safety Laws

Many commenters reported confusion about federal and state child labor and occupational safety laws is a significant barrier to WBL expansion, particularly as they relate to participation in work by 16- and 17-year-old youth. Dennis Harden, chief of the Bureau of CTE in the Iowa Department of Education, noted that while “Child Labor Laws exist for an important reason, to protect children from injury,” the laws are a barrier to WBL expansion “because they are confusing for educators and industry partners. It appears every district must navigate to first learn which labor laws to follow first, federal or state, and then to navigate which ones are applicable or not applicable for their students.” He recommended “reforming the language in the laws or providing communication documents that better explain and define the laws.” New America concurred, commenting:

“Misconceptions about youth employment provisions limit the pool of talent from which employers draw and present a barrier to apprenticeship expansion. States can help mitigate this by issuing clear guidance on youth labor laws and regulations related to work permits, school attendance, wages, hours, restricted and prohibited occupations, and employer requirements specifically within the context of youth apprenticeship. Furthermore, states can proactively engage employers in industries that tend to have strict safety guidelines, like advanced manufacturing and healthcare, to identify which jobs in a career path might be most appropriate for high school apprentices.”

Representing the National Governors Association (NGA), Rachel Hirsch pointed to a fact sheet for employers produced by the Montana Office of Public Instruction, Montana Work-Based Learning: Myth vs. Fact, as an example of a communication tool that seeks to correct employer misconceptions about federal and state child labor and occupational safety laws. Representatives of Advance CTE and the Association for Career and Technical Education (ACTE) highlighted a similar publication produced in 2015 by Jobs for the Future and the Pathways to Prosperity Network, What Employers Need to Know: Frequently Asked Questions about High School Students in Workplaces.

Several commenters suggested revisiting federal and state child labor and occupational safety laws to consider additional exceptions for students who are closely supervised in WBL programs. New America noted that the Wisconsin Department of Workforce Development had “made exceptions to the state’s youth employment laws for ‘student learners’ enrolled in a qualified, credit-bearing work-based learning program. In Wisconsin, student learners are allowed to perform some hazardous tasks under the direct and close supervision of a qualified and experienced mentor, which makes it possible for businesses to employ youth apprentices in a wider range of occupations.”
Costs and Availability of Liability and Workers’ Compensation Insurance

Many commenters expressed the view that some employers are reluctant to participate in WBL due to concerns about liability and workmen’s compensation insurance. Several of these commenters indicated that, in their experience, employers had found that the costs of extending liability insurance coverage to minors in their workplace was prohibitively expensive, while others had found that liability insurers refused to cover minors in WBL programs. Jobs for the Future (JFF) noted that the Chamber of Commerce in Madison, Wisconsin had succeeded in addressing these liability concerns by contracting “with a third-party organization to serve as the ‘employer of record’ for the chamber-sponsored internship program, providing payroll and insurance support to employers that host interns.” One of the respondents to a survey of local CTE coordinators on WBL issues conducted by the Mississippi Department of Education suggested that school districts consider extending their liability insurance policy to include students in WBL programs just as they include student athletes. Some commenters voiced support for federal or state action to ease the liability concerns of employers, such as by providing subsidies for the costs of liability insurance for WBL participants.

Limited School Capacity to Support Wide-Scale WBL Participation

Many commenters reported that making extensive WBL opportunities available to students requires greater staff capacity and expertise than is available in the typical school or school district. In its comments, the Urban Alliance stated:

An institutional barrier many students face is also the work required for schools to get a WBL program off the ground. Building the relationships needed for effective WBL partnerships with employers can be overwhelming for resource-strapped schools, and businesses are also finding that the time, resources, and effort needed to develop in-house WBL opportunities can often be prohibitive. Schools and districts can certainly tackle these hurdles in-house but committing to a successful internship program requires a dedicated staff along with a bolstered curriculum. Staff need to understand the local employment landscape and serve as liaisons between the job site and students. Comprehensive programming that combines employment experiences, work-skills training, and youth coaching needs specialization and consistent oversight.

JFF concurred. “K-12 schools and educators typically lack expertise and capacity for engaging employers and preparing and matching students. When schools do succeed, it is often-person dependent (e.g., a caring teacher goes above and beyond, or a principal has formed relationships with local businesses). This lack of systematized approach creates inconsistency and equity challenges, and it puts undo strain on individual K-12 staff to meet and support student needs.”

Township High School District 214 in Illinois reported that it is one LEA that makes a significant investment in the infrastructure necessary to provide its students access to a large and diverse set of WBL opportunities. Staffed by a full-time coordinator and maintaining relationships with 950 employer partners, Township High School District 214’s Center for Career Discovery placed students in 3,000 WBL opportunities during the 2018-19 school year. “The Center for Career Discovery integrates academic curriculum with workplace learning to
create a customized experience for each student that supports career development, interests, and postsecondary goals.” Students earn credit for successfully completing WBL opportunities, which are either 16-week internships or 1-3 week “micro-internships.” Township High School District 214 also provides WBL students with transportation to their worksites.

In other cases, commenters noted that external entities have emerged to provide the infrastructure that schools and employers need in order to offer WBL opportunities at scale:

- With an annual budget of $1.5 million in state funds, the Iowa Intermediary Network supports full-time coordinators housed at each of the state’s community colleges who work systematically with the employers and schools in their region to implement career development activities for students, including WBL opportunities. Dennis Harden, CTE Bureau Chief in the Iowa Department of Education reported that “every regional Intermediary provides students with: job shadows, student tours, hands-on experiences, and assistance with student internship placement (oversight and preparation is provided by the educator). Regional Intermediaries also provide hands-on opportunities for students and professional development opportunities for educators.” In Fiscal Year 2020, 91.5 percent of Iowa school districts took advantage of the opportunities provided by the regional intermediaries. Harden also noted that Iowa educators and employers also enjoy the support of the state-funded Iowa Clearinghouse for Work-Based Learning, which connects students and their teachers with business partners across the state who are interested in offering WBL opportunities or other kinds of career development activities.

- Advance CTE, ACTE, and New America touted Career Connect Washington as another example of a noteworthy state-funded intermediary organization that uses regional coordinators to make a range of WBL opportunities available to young people.

- State support for regional coordination of WBL is also key to the Wisconsin Youth Apprenticeship program, which was highlighted in comments from the Urban Institute and the Wisconsin Department of Public Instruction (Wisconsin DPI). Wisconsin DPI described the program’s structure:

  Wisconsin Youth Apprenticeship Program is offered statewide and administered locally by a network of regional consortia using uniform statewide curriculum guidelines. These guidelines are developed by the Wisconsin Department of Workforce Development, Bureau of Apprenticeship Standards, in collaboration with representatives from Wisconsin businesses, industry associations, and trade representatives in each program area. Youth apprenticeship (YA) consortia are managed by a YA Coordinator. A YA Consortium (YAC) is required to consist of one or more school districts and other partners. Therefore, the boundaries are generated by the school district boundaries. Most YACs are multi-school district entities that employ a Regional YA Coordinator with support from a local YA Coordinator and school-based coordinators depending on the local program design.
Commented the Urban Institute, “Youth apprenticeship has become so standardized in Wisconsin that there are now more employers seeking apprentices than apprentices available and state funding for the program is strongly supported statewide. The Wisconsin model, which features partnership between employers, schools, parents, and youth; stable funding; in-school support throughout the state; and experienced state administrators could easily be implemented in other states.”

- In other cases, non-profits have stepped forward to act as intermediaries between schools and employers in order to create WBL opportunities for youth at scale. In its comments, CareerWise, a non-profit organization that promotes the development of youth apprenticeships throughout Colorado and, more recently, New York, Indiana, and Washington D.C., commented that it strives to balance “the needs of young people with the needs of industry, for a mutually beneficial return to both. Intermediaries are able to simplify, streamline and coordinate efforts to relieve burdens for all partners involved, each of which is, alone, responsible for a much broader set of issues than work-based learning alone. Intermediaries offer a neutral third party to aggregate and learn from efforts that are dispersed across communities, tracking key indicators to quickly identify issues of equity and to rally supports to address them.” The Urban Institute noted that it had recently published a case study of CareerWise and how it has worked to scale its model at the state level and beyond.

- Other non-profit organizations are acting as WBL intermediaries on a smaller scale. The Urban Alliance, pointed to its efforts to partner with schools and employers to provide paid internships, professional soft skills training, one-on-one mentoring, and ongoing post-program support to economically disadvantaged high school students. The intermediary role it plays “is structured as a bridge between schools and employers, bringing both key stakeholders together to help employers build a local talent pipeline and help schools provide additional WBL opportunities to students with a lower lift for each party. Cross-sector collaboration is key, but in the absence of philanthropy or government bringing the parties together, nonprofit intermediaries play a vital role in providing effective WBL opportunities for youth that help both schools and employers meet key goals.” In its comments, WestEd noted that “one randomized controlled trial study of Urban Alliance’s high school internship program (Theodos et al., 2017), which combines a paid internship with six weeks of professional training and mentoring, found large impacts on college attendance for young men.”

- In its comments, the Consortium for Public Education in McKeesport, Pennsylvania, another non-profit organization, highlighted its internship program that connects teams of students with professionals to solve real-world problems. “We start by providing the teacher with training in project-based learning (PBL). Our PBL training helps teachers know how to guide and support their students through the project while also ensuring that the youth lead the work. Once a teacher has completed the training, we find an appropriate business partner for their students to work with, and we help the business identify a real-world problem that the students can work to solve. We ask the participating businesses to recruit a diverse team of employees to work with the students. This ensures that the students learn about multiple career pathways within the company
and, because the adults can work together, it helps alleviate any anxiety they may have
about working with youth. The students meet with the professionals, learn about the
company and the problem they are challenged to explore. While most of the research,
exploration, prototyping, etc. is done in the classroom with their peers, the students also
meet regularly with their business partners to share their work, obtain feedback, ask
questions, etc. As they work on the projects, students also learn about career
opportunities and pathways from their business partners. Projects culminate with the
students making formal presentations of their proposed solutions to their business
partners.”

• Other non-profit organizations highlighted in the comments for their intermediary efforts
to create WBL opportunities for young people include: Goodwill Industries International,
Inc., which facilitates pre-apprenticeships, apprenticeships, internships, career exposure
activities, mentorships and entrepreneurial experiences for youth and adults, and
MAGNET: The Manufacturing Advocacy and Growth Network, which has established
the Early College, Early Career (ECEC) Program to provide high school students in
northeast Ohio with WBL opportunities in the manufacturing industry.

Lack of Access to Transportation

Many commenters noted that transportation was a significant barrier to greater WBL
participation for many young people, particularly economically disadvantaged youth and youth
who reside in rural communities or other areas that lack public transportation.

Township High School District 214 has removed this barrier by providing transportation to WBL
worksites for students, but it noted that transportation costs are the largest expense associated
with its WBL program. Others noted that New York City, Detroit, St. Louis, and Washington,
DC provide free transit passes to WBL participants.

JFF described how Heart of Oregon Corps, an education and training provider in Sisters, Oregon
that serves a large geographic area, “partnered with the local transportation authority and city
government in Bend to establish a new dedicated bus route to serve communities without
existing access to public transportation and built an official bus stop just outside their building.
In collaboration with the local schools, they coordinated the route to have the shortest travel time
possible and aligned it with the program start and end times. This reduced overall commuting
time for many students by an hour or more and removed critical barriers to accessing work-based
learning and other programs.”

New America reported that employers involved in North Carolina’s Eastern Triad Workforce
Initiative “contribute to a transportation fund administered by the Community Foundation for
Greater Greensboro, which could be spent on gas cards, Uber or Lyft cards, bus passes, and, in
some cases, car repairs. The fund has been used, in part, to support apprentice car pools.”

Advance CTE and ACTE highlighted West Virginia’s Simulated Workplace program as an
initiative that removed transportation as an obstacle to WBL participation, while others pointed
to efforts to offer “virtual” WBL.
School Policies and Practices That Inhibit WBL Participation

Several commenters identified some school policies and practices that can inhibit participation in WBL at scale. Inflexible scheduling, for example, can be barrier. JFF emphasized that schools’ logistical practices must enable students “to balance work experience and education…In some cases, this may look like part of each day spent at school and another at work, while in other cases it may require alternating days of school and work.” Leah Amstutz, Associate Director of the Office of Career Technical Education in the Ohio Department of Education, highlighted Butler Tech’s “Fifth Day Experience” as an example of how creative scheduling by schools can facilitate greater participation in WBL by students. From early February through mid-May, Butler Tech does not hold regular classes on Friday. Students may engage in WBL on these Fridays, or they may participate in CTE, arts education, and enrichment classes organized by Butler Tech.

Many commenters indicated that not offering credit for WBL participation can also be a barrier. The Urban Institute, JFF, Goodwill Industries, New America, and GPS Education Partners recommended that WBL programs give students the opportunity to earn not only high school credit, but postsecondary credit as well. In their joint comments, representatives of the National Tooling and Machining Association and Precision Metalforming Association agreed, stating:

We believe college-based credits for work experience will provide a strong incentive for parents and students to participate in WBL programs…An AP-style credit program for WBL will help students earn college credits, receive a work-based learning opportunity, and advance their higher education at the same time. This an important incentive that will draw in students previously dissuaded from participating in a WBL.

Several commenters contended that the absence of career awareness and career development activities in the early grades impedes greater participation by high school students in WBL. They recommended that schools start educating young people as early as possible about career opportunities. Dennis Harden, CTE Bureau Chief in the Iowa Department of Education, wrote:

Career awareness and career exploration activities are essential for students to experience prior to the training opportunities for students outlined above for maximum success. WBL career awareness in Iowa includes: career fairs, industry tours, classroom speakers, and authentic projects. WBL career exploration in Iowa includes: job shadows, entrepreneurship, authentic projects, and school-based enterprises. The purpose behind career awareness and exploration opportunities are to offer students initial and in-depth learning experiences about careers. The success of career awareness and career exploration opportunities derives from the conversations following those experiences to help guide future career exploration and appropriate coursework. Without those intentional conversations, the various career experiences will just be an experience not a scaffolding opportunity to guide future learning.

WestEd agreed, stating that students are more likely to be successful in WBL if they receive this early exposure to careers: “Allowing students to enter the continuum of work-based learning
experiences early on, starting with Career Awareness and Exploration, enables them to understand workplace expectations and cultures in low-stakes settings and better understand their own interests and goals, thereby preparing them to make wise decisions about their next steps. These exploratory experiences should be undergirded by career research, self-assessments of interests, and counseling and guidance services.”

Several commenters emphasized that parents and school counselors should be included in career development activities in the early grades to address, as the Urban Institute put it, “the predominant mindset of students, parents, and counselors that college is the next step after graduating high school and college education is seen as a prerequisite for entry into decent jobs… Exposing parents and students to the idea of WBL programs as early as possible (elementary or middle school) offers students options for career exploration sets up a positive context for alternative paths to quality jobs. School guidance counselors similarly need to be educated on the benefits of alternate pathways to college.”

Lack of Compensation for Student WBL Participation

Several commenters indicated that unpaid WBL opportunities are a barrier to participation particularly by students from low-income families. “Young people participating should be rewarded for their meaningful contributions,” commented JFF. “Offering paid work-based learning experiences is a strategy to increase participation in WBL for young people who are experiencing poverty and are making intentional decisions about how they spend their time and coming to an understanding about the ROI of WBL.” The Urban Alliance agreed, commenting, “Unpaid internships and WBL favor more affluent youth who do not have to choose between workforce development and needed income. Working with employers to ensure all students are paid for their WBL experience broadens its reach in communities of color and under-resourced communities.”

Absence of Employer Incentives

Many commenters expressed the view that more employers would offer WBL opportunities if they were provided incentives to do so. Dennis Harden, CTE Bureau Chief in the Iowa Department of Education, emphasized that financial incentives were important to engage employers in sustained, long-term WBL opportunities. “Employers are eager to participate in short-term opportunities, so financial incentives aren’t needed for career awareness and career exploration activities. Employers could use some financial motives to offer training opportunities (internships and apprenticeships) since there is a larger time commitment from industry partners and additional time will be taken away from managers to train the students, therefore reducing their efficiency. CareerWise agreed that incentives were key to attract employers to offer apprenticeship programs: “Administrative burdens that companies take on, as well as efforts to build the capacity of staff to support intentional training, development and learning of young people, are significant given the historical lack of investment in such capacity. This is especially true in the start-up phase of any work-based learning initiative. Therefore, until rigorous work-based learning becomes normalized in American business culture, government incentives to take on these initiatives can make a critical difference for employers.”
Advance CTE and ACTE noted that a 2017 analysis by the National Skills Coalition found that 18 states provided at least one type of employer subsidy for WBL participation. According to the Urban Institute, South Carolina is one such state, offering employers that register apprenticeship programs a $1,000 direct tax credit for each apprentice they employ. These efforts have led to a dramatic increase in apprenticeships, with most of the apprenticeships created outside of the construction sector.” The Urban Institute also noted that, in its experience as an intermediary that helps employers establish apprenticeships, a subsidy of $500 per apprentice is attractive to employers. Goodwill Industries International, Inc. suggested that federal policymakers consider revamping the Work Opportunity Tax Credit. “Through the Work Opportunity Tax Credit, employers can claim a tax benefit for hiring youth from low-income communities in summer employment. This incentive could be expanded to include year-round paid work experiences for opportunity youth, where such employment is aligned with educational programs of study or youth career pathways.”

**Inadequate Wraparound Services and Supports**

Inadequate wraparound services and supports is a barrier to WBL participation by students from special populations, several commenters noted. “Simply delivering training or a WBL is not enough,” commented the Society for Human Resources Management Foundation and Jobs for America’s Graduates. “Supportive services, career guidance and services to address student barriers in partnership with multiple programs, CBOs and other stakeholders are critical for retention and success.” Marguerite Lukes from the Internationals Network reported that English language learners need extra support to participate and be successful in WBL. She recommended that recruitment materials be in multiple languages; outreach to students and their families be carried out in partnership with community organizations, and that training be provided to “WBL staff, instructors, support personnel to adapt, scaffold and differentiate their offerings to make them accessible for English learners.”

Commenters noted that interagency partnerships can help deliver the support services students need to succeed in WBL. To engage more students with disabilities in WBL, the Minnesota Department of Education reported that it has partnered with Vocational Rehabilitation Services (VRS) to align work-based learning coursework and resources with the Pre-Employment Transition Services (Pre-ETS) offered by VRS. “A purposeful collaboration with VRS and their Pre-ETS efforts has assisted school districts in understanding where VRS can fill in the gaps and provide additional programming for students when it is not available at the school district. The Department encouraged similar efforts at the federal level.

Community-based organizations are another important source of support services, Goodwill Industries International, Inc. pointed out. “Community-based organizations serve as an important connection point between work-based learning programs and the support services that help address barriers to participation for youth populations. Moreover, community-based organizations can bring their particular experiences and expertise to help inform the design, implementation and progress of youth employment initiatives.” Priority in funding for WBL, it added, should be given to “multisystem partnerships that include community-based organizations that serve youth experiencing barriers to opportunity.”
Lack of State Policy Support

Some commenters stated that the absence of strong and supportive state policies can make expanding WBL participation challenging. The Education Systems Center at Northern Illinois University, Township High School District 214, and JFF highlighted Illinois’ Postsecondary and Workforce Readiness Act (PWR) enacted in 2016 as an example of a state policy that has facilitated WBL expansion. Reported JFF, “The PWR applies a student-centered and competency-based approach to support Illinois students in preparing for postsecondary education and future careers. The Act implements four aligned strategies that required coordinated efforts among school districts, postsecondary education institutions, employers, and other public and private organizations that lead to coherent and aligned approaches to WBL at scale.”

JFF, as well as the Tennessee Department of Education, also highlighted how Tennessee’s state policies have fostered the growth of WBL opportunities. Noted JFF:

The Tennessee Department of Education (TDOE) has clear policies and procedures to support outcomes-driven WBL experiences and programs across the state that adhere to the State’s WBL framework. TDOE policies establish requirements and provide specific detail about all WBL activities in the state, with local districts able to choose to adopt additional guidelines above and beyond these policies based on the workforce development needs of regional employers, local postsecondary opportunities, and high-demand, high-skill careers. A WBL Implementation Guide and WBL course documents provide additional supporting documentation, resources, and information for successful WBL strategies.

Similarly, the National Governors Association (NGA) pointed to Rhode Island’s efforts to establish definitions and standards and provide guidance regarding WBL for youth. NGA also highlighted its work with several states to establish definitions and policies to promote WBL, as detailed in NGA’s State Strategies to Scale Work-Based Learning: Lessons Learned from an NGA Center Policy Academy.

Insufficient Funding

Many commenters stated that the funding available to support WBL expansion was inadequate. Brandon Slaughter, from New York, New York commented, “Investment in WBL and career pathways (CP) for low-income students varies tremendously from district to district and school to school. Generally, additional investments in low-income schools focus on supports related to academics, attendance, and extracurricular activities. Too often WBL and CP are considered as an afterthought rather than as a strategy to level the playing field. The time is now to invest in Work-Based Learning and Career Pathways for high school students, not as an alternative, not as an addendum to college preparation, but as an intentional way to improve postsecondary decision making and longer-term outcomes.” WestEd agreed. “A shared barrier between federal, state, and local institutions is funding. Lack of sustainable, long-term funding is a barrier to expanding WBL and is a challenge for implementation. WBL programs created using discretionary funding are often the first to be cut. Thus, when those programs are cut, momentum is lost, and it can be
difficult or time-consuming to reinstate those programs.” CareerWise emphasized the need for
greater federal support:

Overall funding levels to support the robust development of educational pathways that
incorporate work-based learning are too low and too siloed from the “traditional”
pathway of a purely academic route (pursuing a two or four-year degree directly after
high school). Perkins, WIOA in-school youth, and other Department of Labor funding
streams such as youth-specific apprenticeship funding initiatives must be increased in
light of changing student preferences and economic realities that make a purely academic
pathway too long and expensive for most Americans and their families.

Simone Garcia, Director of Career Education Development in the Office of the State
Superintendent of the District of Columbia, encouraged federal policymakers to consider
earmarking two percent of the funds provided under Title I, Part A of the Elementary and
Secondary Education Act for career awareness and preparation. “This would allow intentional
targeting of all students with high needs for career preparation opportunities and build a stronger
pipeline into CTE programs.”

JFF expressed the view that additional funding was needed to support intermediary organizations
that facilitate WBL. “Particularly as the economy recovers, flexible resources such as incentive
funds could be the difference between an intermediary organization continuing with its work or
not. Providing small incentive funds to help drive specific aspects of program delivery (such as
marketing materials, convening, small portions of staff time) could help support intermediary’s
ability to connect employers to students and educators.”

Dennis Harden, CTE Bureau Chief in the Iowa Department of Education indicated that
additional federal funding was particularly needed to pay transportation costs associated with
WBL:

To ensure students without transportation have equitable opportunities, there really needs
to be a systematic opportunity to provide transportation to students in need. Relying on a
patchwork approach doesn’t encourage widespread participation, so any grant
opportunities or advocacy at the federal level could make tremendous progress for
students across the United States. When school district budgets are tight, often
opportunities requiring transportation (and possibly additional substitute costs) are
reduced or eliminated. In order for widespread student engagement in WBL opportunities
outside of the classroom, funding for these needs to come from somewhere. Grant
opportunities at the federal level could dramatically improve opportunities for students to
engage in WBL outside of the school building, which is the goal.

He added that it was unclear to his state that Perkins V funds could be used for transportation
costs.

recommended greater federal funding to make broadband accessible in rural and other
underserved communities. “The department should encourage a significant investment in the
expansion of broadband as vital national infrastructure to ensure that youth in all communities
can access virtual training platforms and career services. Agencies should consider modifications
to existing programs, as well as swiftly move to implement new initiatives authorized as part of
the government’s response to the COVID-19 pandemic that will provide affordable connected
devices and internet access for youth to participate in virtual learning platforms at home. It is
also important to engage youth participants in a familiar digital environment. The department
should encourage the development of innovative mobile applications that can help facilitate and
enhance youth work-based learning experiences.”

Most of the commenters who called for greater funding for WBL recommended strongly that
policymakers provide flexibility in how these additional funds are used. Advance CTE and
ACTE cautioned, “[I]t is important not to promote a one-size fits all approach, such as
requiring intermediaries in every community, because different strategies have worked well in
different places. Further, our members shared that not having too many contingencies on
funding is important; allowing flexible funding that state and local leaders can align to their
needs is most helpful.”

COVID-19

Commenters reported that the COVID-19 pandemic was creating new barriers to WBL
participation for many students. The Urban Institute stated that “COVID-19 has caused disparate
impacts on the employment of young people than others. Youth in the 16-24 age category are
more likely to be employed in seasonal, casual, or part-time jobs, often without any benefits. In
2019, 25 percent of youth (the largest group) worked in leisure and hospitality, 17 percent youth
were in retail, and 13 percent worked in education and health services. The majority of these jobs
do not support work-from-home and when the pandemic hit and stay at home orders were issued,
25 percent of these youth became unemployed.” Allyssa Johnson, from Jefferson City, Missouri
reported, “The pandemic highlighted new issues and barriers in helping teenagers connect with
WBL experiences. Accessing, engaging and keeping students safe while connecting them to
WBL opportunities has become a barrier. Business closures, decreases in business operations,
and job losses have caused reductions in WBL and internship opportunities.”

WestEd and several commenters added that many students lack the technology and broadband
access necessary to access remote WBL opportunities. WestEd also expressed concern about the
financial strains on local and state governments, commenting, “As schools and other public
institutions limit and cut staff, those cuts will negatively impact staff such as counselors and
WBL coordinators who collaborate, support, and prepare students for WBL.”

Advance CTE and ACTE highlighted some examples of state and local initiatives that were
overcoming some of the barriers created by the pandemic:

Technology can be leveraged to provide WBL through virtual, simulated, and augmented
reality in places that have geographic barriers, such as rural and frontier regions as well
as economic barriers. WBL delivered through technology allows students to participate
who otherwise would be limited due to a lack of industries or resources. In Miami-Dade,
Florida, the summer 2020 youth internship program was redesigned into a virtual

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experience following the pandemic. Almost 3,000 learners worked in South Florida this summer in a wide range of industries. WBL coordinators in South Carolina also pivoted and created virtual tour videos in place of field trips. Louisiana—as part of its Jump Start CTE initiative—has launched a multifaceted effort combining technology and hands-on teacher support to provide rural students with employer engagement, a process the state calls micro-industry engagement. Micro-industry engagement enables all students to engage with workplace experts in every industry sector they want to explore.

JEVS Human Services indicated that it may continue to offer some WBL experiences virtually after the end of the pandemic. “[W]e have experimented with organizing virtual career exploration, job shadowing, and internship experiences for students. We have seen the most success with virtual internships in tech fields, such as help desk support. We have also found that using simulation packages for virtual career exploration across fields (health, tech, construction, manufacturing, etc.) has been very effective. We envision that after the pandemic, we will continue to use hybrid virtual/in-person models for career exploration especially.” Casey Lamb from Big Picture Learning also indicated that the imperative to offer WBL virtually during the pandemic had some positive consequences. “Students are no longer confined geographically and can connect with professionals across the country and globe. This means students can more easily explore their authentic interests. It also means students in rural or under-resourced communities are not limited by their teacher’s network or town’s companies.”

Simone Garcia, Director of Career Education Development in Office of the State Superintendent of Education of the District of Columbia, reported that schools in the District of Columbia also were successful in using technology to overcome some of the challenges posed by the COVID-19 pandemic:

In addition to utilizing online resources such as Nepris or VirtualJobShadow.com, with the onset of the COVID-19 pandemic, the District successfully pivoted to a remote internship framework where 814 students secured internship placements:

- All in-person interviews were transitioned to phone interviews;
- The state education agency collaborated with their WBL committee to design a project-based framework and created planning tools to support host employers;
- All host employers submitted plans outlining a project of value to the employer or community, with a question or problem statement that interns would be solving;
- Staff provided feedback on the submitted plans; and
- Host employers submitted weekly schedules aligned to the framework.

She reported that interns worked over 110,000 hours and earned more than $1,300,000 and that many host employers reported that they may be interested in returning as a host employer in the future.
How Strategic Partners Can Help Expand WBL Participation

The RFI sought commenters’ views on how two important strategic partners could help support the expansion of WBL opportunities: philanthropic organizations and state and local workforce development boards (WDBs) established by Title I of the Workforce Innovation and Opportunity Act (WIOA).

Philanthropic Organizations

Commenters had a number of different perspectives on how philanthropic organizations could be helpful in increasing youth participation in WBL. Several commenters recommended that philanthropy focus their support on research and development. Commented JEVS Human Services:

Philanthropy’s best role is to provide seed funding to promising WBL approaches/programs before they are adopted by school systems. In our experience, philanthropic funding is most useful when it supports testing new or promising approaches with the specific goal of eventual district-wide (or even state-wide) adoption. Philanthropic funding shouldn’t be required to sustain a work-based learning program year over year; rather, it should fund initial development and testing of WBL models so that school districts can permanently adopt only the most impactful models.

WestED agreed and added that philanthropic organizations should “also provide funding to conduct rigorous evaluation of WBL programs and practices and disseminate the information to local communities across the country. State legislatures are often reluctant to provide considerable funding for costly, comprehensive evaluations for fear that the money is not going to direct services.” The Urban Alliance concurred. “Rigorous evaluations such as randomized controlled trials (RCT) and other program assessments can be prohibitively expensive for the nonprofit organizations operating prevention programs. Additionally, philanthropic sponsorship can help organizations better understand the details of exactly what makes youth employment interventions work—the type of skills, experiences, industries, or employers that make the greatest impact to a young person at risk of disconnection.”

The Urban Institute and JFF expressed the view that philanthropic support was important to the survival of non-profit intermediary organizations like CareerWise that facilitate WBL opportunities. JFF stated, “A significant challenge related to the role of philanthropic organizations funding WBL is sustainability, particularly as it relates to grant funding for intermediaries and the infrastructure and leadership they provide to WBL delivery systems. While philanthropy can play a role in providing funding to jumpstart intermediary development or build capacity, dedicated ongoing funding streams (e.g., Connecting Activities in Massachusetts) are needed for sustainability over time.

State and Local Workforce Development Boards

Several commenters recommended that state and local workforce boards strengthen their outreach to school districts, employers, and WBL providers so that they better understand how
WIOA funds may be used to expand WBL opportunities for students. JEVS Human Services commented, “State and local workforce development boards (WDBs) should provide more education and technical assistance for employers, schools, and nonprofit service providers on how to leverage federal workforce dollars to support WBL for youth. WDBs can educate employers on the benefits of engaging in work-based learning and the associated legal requirements/processes and can work with school districts/schools and nonprofit partners to leverage workforce dollars to fund WBL programming.” The Minnesota Department of Education recommended that local workforce boards work more closely with school districts, reporting that “[m]any school districts are not familiar with the services available to youth through WIOA or the local workforce development boards’ Youth Blueprint within their local plan. If local workforce development boards can purposefully connect with school districts within their region to ensure educators understand their work, this may help to leverage Federal workforce dollars.” Allyssa Johnson from Jefferson City, Missouri commented that greater collaboration between local workforce boards and schools would reduce duplication in career preparation services.

In its comments, WestEd identified a successful example of the kind of outreach it and other commenters recommended that WDBs undertake:

Workforce Connections, the southern Nevada local workforce development board, created a “Workforce Fellows” program. The board partnered with the local school district to identify high school counselors to take part in a 10-week program. During this period, the high school counselors learned about the WIOA One-Stop Delivery system, engaged in professional learning communities, and networked with board and community leaders to consider new approaches that better serve their students and families. Prior to this fellowship, the counselors were unaware of the One-Stop Delivery system and key components of WIOA. As a result, federal workforce dollars targeting youth will be better leveraged.

Another strategy for strengthening connections between the education and workforce development systems identified by NGA and JFF is submitting a Combined State Plan under section 103 of WIOA. JFF explained:

WIOA currently requires states to develop a four-year Unified Plan for each Title but they also allow for the submission of a combined plan together with one or more of Perkins, TANF,8 and SNAP Education and Training,9 among other funding streams. Combined

8 The Temporary Assistance for Needy Families (TANF) program provides grant funds to states and territories to provide families with financial assistance and related support services. State-administered programs may include childcare assistance, job preparation, and work assistance. For more information, see https://www.acf.hhs.gov/ofa/programs/tanf/about

9 The Supplemental Nutrition Assistance Program (SNAP) Education and Training program helps SNAP participants gain skills and find work that moves them forward to self-sufficiency. Through SNAP E&T, SNAP participants have access to training and support services to help them enter or move up in the workforce. These programs also help to reduce barriers to work by providing support services – such as transportation and childcare – as participants prepare for and obtain employment. Each state is required to operate a SNAP Education and Training program and receives federal funding annually to operate and administer the program. For more information, see https://www.fns.usda.gov/snap/et
planning with other federal programs committed to work-based learning can de-silo efforts and bring together resources to create more substantial investments in expanding these opportunities for youth. For example, Delaware’s Combined Workforce Plan combines the state’s Perkins, WIOA, Trade Adjustment Assistance for Workers, and Jobs for Veterans State Grants plans. Combining these plans has enabled state leaders to effectively align programs, braid funding, and leverage existing infrastructure (e.g., intermediaries, sector associations) to serve multiple populations. This has supported the expansion of WBL for youth by enabling state leaders to build on existing efforts instead of building youth WBL from the ground up.

According to WestEd, another way state and local workforce development boards can help support and expand WBL is increasing their evaluations of providers that serve youth. “Boards can conduct comprehensive program evaluations of youth organizations, assess best practices, and disseminate those practices to other programs. Boards can start by conducting comprehensive evaluations of youth-based organizations on their Eligible Training Provider List (ETPL). While it is common to update ETPLs, conducting research-based evaluations of their practices and outcomes are uncommon; it is even more uncommon to formally disseminate best practices among organizations. However, understanding which programs are most and least effective will ensure WIOA dollars that serve youth are invested wisely.”

**Essential Components for WBL Success**

Commenters offered many different responses to the RFI’s question about the interventions, strategies, or practices that are most likely to increase the likelihood of the success of WBL, particularly sustained and intensive WBL like internships, pre-apprenticeships, and apprenticeships.

JFF pointed to its publication *Making Work-Based Learning Work* in which it reports that WBL programs that integrate the following seven principles are more likely to be successful:

1. Support entry and advancement in an in-demand career track;
2. Provide meaningful job tasks that build career skills and knowledge;
3. Offer compensation, which is particularly important to facilitate the participation of low-income students;
4. Identify target skills and how gains will be validated;
5. Reward skill development;
6. Support college entry (and, after high school, persistence and completion); and
7. Provide comprehensive student supports.

JEVS Human Services offered a similar list of elements it considers key to the success of WBL:

- Strong employer buy-in, including incentives for employers to participate;
- Technical assistance for employers from a regional TA provider, such as a workforce development board or other intermediary, to educate employers on the benefits of WBL and ensure they can navigate clearances/insurance requirements;
• A designated point person from each entity collaborating in a WBL program (school, employer, nonprofit provider) to coordinate the program;
• Career exposure/exploration activities before the WBL experience begins so students can learn about a range of potential occupations and workplaces;
• Incentives for students to participate, such as school credit, transportation stipends, or monetary incentives; and
• Formal connections between the WBL program and further education, including apprenticeships and postsecondary programs.

WestEd identified six “program-level structural factors” as “necessary to high-quality work-based learning pedagogy:”

1. Experiences are connected to thematic programs and to student interests;
2. Experiences are sequenced — work-based learning follows some career exploration and leads to next steps;
3. Teachers, counselors, and other staff at the school coordinate their services to support students in work-based learning;
4. Partnerships are created with postsecondary institutions, apprenticeship, and job training programs to facilitate transitions to next steps;
5. The work-based learning coordination function is adequately staffed and intermediaries are engaged as needed to broker placements and facilitate communication between educators and employers; and,

The Tennessee Department of Education highlighted the key elements of its strategy to ensure WBL experiences are successful and high-quality. In its Work-Based Learning: Career Practicum course, it has established 16 standards students must meet in order to earn course credit. Students are required to create a portfolio and a personalized learning plan that documents progress toward mastery of each standard. Tennessee also has training requirements for WBL coordinators. “[I]n order to be the teacher of record for a WBL course and oversee a WBL program, an educator must complete WBL Certification Training, which outlines WBL program requirements, best practices, the Child Labor Act, and classroom resources, along with both formative and summative assessment requirements for certification. WBL coordinators are required to complete WBL Recertification every two years in order to continue overseeing WBL programs.”

From the perspective of Advance CTE and ACTE, WBL opportunities are more likely to be successful if they are connected to a CTE program or program of study. They also recommended providing paid WBL opportunities, student support services, such as the...

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10 Section 3(41) of Perkins V defines “program of study” to mean “a coordinated, nonduplicative sequence of academic and technical content at the secondary and postsecondary level that—(A) incorporates challenging State academic standards, including those adopted by a State under section 1111(b)(1) of the Elementary and Secondary Education Act of 1965; (B) addresses both academic and technical knowledge and skills, including employability skills; (C) is aligned with the needs of industries in the economy of the State, region, Tribal community, or local area; (D) progresses in specificity (beginning with all aspects of an industry or career cluster and leading to more occupation-specific instruction); (E) has multiple entry and exit points that incorporate credentialing; and (F) culminates in the attainment of a recognized postsecondary credential.”
employability skills training and coaching employed in the Urban Alliance High School Internship program, and dedicated program coordinators like those provided by CareerWise and the Iowa Intermediary Network.

Pennsylvania’s Community College of Beaver County recommended “[u]tilizing career coaches or program mentors who follow, advise, and support an assigned group of students, from beginning to end, as these students work through educational training, apprenticeships, on-the-job training, or internships and progress into a full-time employment in a high priority occupation.”

Dennis Harden, CTE Bureau Chief in the Iowa Department of Education, agreed that active and engaged support by educators was essential for WBL to be successful for students and employers:

The educational institution needs to prepare the students immediately prior to the student starting training on site with the industry partner with a focus on foundational communication, conflict, and professional skills. This training will aid the student learner at a much larger capacity because the student sees the immediate need to utilize those skills for success in the near future. Besides the immediate professional skill development, an educator needs to be closely monitoring the students at their industry partner training site. The representation from secondary or postsecondary is essential to support the student’s skill development, monitor for safety concerns, assist with on-site coaching, as well as support the industry partner. The reality is students are still students and will make mistakes, having the support of a trained educator is essential for guiding the student as well as supporting the industry partner in a collaborative manner for student success.

In order for the educator to provide the important on-site support, the educator needs the support from their employer to have time built into their day to support student learners at the training site. Educators overseeing the experiences with time built into their day will have greater success both short-term and long-term with supporting their students and industry partners. Students need a trusting adult to brainstorm ways to handle everyday workplace issues, potential safety concerns, or someone to advocate for skill-building projects and experiences at the industry partner site. Industry partners need the opportunity to connect with an educator on how to handle everyday challenges working with youth as well as feel supported on how to develop learning opportunities for students. Providing time for educators to visit the industry partner site during the day is essential for the success of local internship and apprenticeship programs.
Metrics to Monitor and Measure the Outcomes of WBL Participation

Commenters suggested a variety of different metrics that should be used to assess the success of WBL programs. For the Minnesota Department of Education, the most important metrics to measure “include rates of postsecondary enrollment, employment, entrepreneurial endeavors, or registered apprenticeships in related career fields following students’ participation in work-based learning experiences.” For the Urban Alliance, “[t]he most useful outcome metric is student connection post-program to either college, employment, or continued training programs.”

JEVS Human Services recommended focusing on the development of “soft skills:”

Growth in students’ soft skills and sense of personal agency are the most meaningful outcomes of work-based learning. In JEVS’ view, the end goal of a particular work-based learning experience isn’t necessarily entry into a specific career path or further education in a specific field. Rather, these programs are mostly about exploration: affording students an opportunity to learn about various potential careers and workplaces and thereby expand their sense of possibility for their own future. In successful work-based learning experiences, we see growth in students’ soft skills (such as teamwork, professionalism, communication, leadership, and work ethic) as well as increases in their confidence that they will be able to learn and succeed in a wide variety of potential career paths.

JFF recommended tracking outcomes during WBL participation, immediately following completion of a WBL program, and in the longer-term after completion of a program. Short-term indicators should include “program application, admission, participation and completion rates (when applicable) in career awareness, exploration and preparation activities such as: career fairs and workplace tours, job-shadowing, industry-led project-based learning, resume writing and mock-interviewing as well as in work-based learning experiences like internships, pre-apprenticeships and apprentices and other training activities for specific industries,” as well as student GPA before, during, and after program participation. In the medium-term, JFF recommended collecting data on the outcomes of participants and non-participants for such indicators as secondary completion, “related postsecondary courses/completion and credential attainment, final student GPA, # of conversions from internships to jobs; and # of conversions from pre-apprenticeship to apprenticeship.” In the longer-term, programs should measure for both participants and non-participants, “postsecondary enrollment, credits earned, and credential attainment, industry-recognized credential attainment and/or enrollment in registered apprenticeships, and employment status and wages.”

The Urban Institute also emphasized the importance of tracking outcomes over the long-term. “Predictive measures of success for youth apprenticeship begin with income and earnings, but they do not end there. Youth apprentices form strong connections to the labor market and develop important occupational skills, so a more important metric of success than income and employment during an apprenticeship program may be persistent self-sufficient earnings and employment after the completion of the program.”
The Institute for Community Inclusion at the University of Massachusetts recommended a careful look at the intensity and features of different WBL experiences and their associated student outcomes. “One emerging question is that we are not sure what ‘dose’ of WBL is needed for youth to increase their employment, wage, and post-secondary educational opportunities. Measuring the number of activities, type of activities, whether or not they received a stipend or were paid, and what constellation of services is needed would be important to understand. Would also suggest that business focused measures are included to understand patterns of engagement in WBL and what outcomes are achieved.”

New America’s Partnership to Advance Youth Apprenticeship (PAYA), a national network of partners that are collaborating to scale up high-quality youth apprenticeships across the United States, has developed a list of quality metrics that apprenticeship programs should collect to document their processes, track progress, and monitor their outcomes. There are three categories of metrics:

- **Partnership Data**, which “collect data on the partner organizations involved in the youth apprenticeship partnership to understand which stakeholders are at the table and engaged in the development, design, and planning of the program, as well as the educational context in which the program operates.” They include on-time high school graduation, CTE concentrator status, postsecondary enrollment, and others.

- **Pathway Data**, which “collect information about the design, structure, requirements, outcomes, and partnering employers of each pathway,” such as the duration of the pathway, and prerequisites.

- **Participant Data**, which “collect information about the students who apply to and participate in the apprenticeship program, including participant demographics, outcomes, and completion of the program components,” such as program retention and completion, starting wages post-completion, enrollment in further learning, and employment in related fields following program completion.

Several commenters also recommended strongly that participation and outcome data be disaggregated by participant demographic and other characteristics. The National Governors Association recommended that states “collect data on work-based learning programs that can be disaggregated by demographics such as race, ethnicity, gender, and other special populations. Once states are able to collect and analyze this data, they can identify equity gaps and work to address them. An example of this is Minnesota’s Employment and Economic Development Report Card, which breaks down several programs and outcomes by various demographics to clearly reveal gaps.”

### Other Exemplars in Expanding WBL Participation

Commenters identified many other noteworthy WBL programs, including:

- The Consortium for Public Education in McKeesport, Pennsylvania described its career mentoring program. “As anyone who has worked with youth knows, it can be awkward at
first and for those who facilitate mentoring matches, it can be difficult pairing adults and youth to ensure a positive relationship. Our model matches small groups of youth, e.g., 5-6, with 2-3 adults. Our staff or a school faculty member facilitates each session. They build in icebreakers to help participants get to know each other and cultivate relationships. They also ensure that the discussions are meaningful and related to career exploration. Being in a small group with a facilitator alleviates the pressure on the mentor of having to plan each discussion and sustain a conversation. The facilitators are also skilled in working with youth and are able to draw in those who may not be as eager to engage in these discussions. By connecting youth with several adults, we also help them to begin building social capital and a professional network that can benefit them as they begin entering the workforce.”

- Per Scholas described its newly launched Technology Careers Exploration Program which is comprised of “54 hours of technical instruction, work-based learning, skill-building, and career navigation through projects that simulate baseline technical tasks in IT Support, Computer Networking and Cybersecurity. The curriculum is industry vetted and aligns to entry-level careers across a variety of sectors. The modules can be integrated into a tech or career exploration elective or comprise a stand-alone course. Teachers facilitate the curriculum remotely as students work on tasks and projects asynchronously.” The program also offers teachers “a summer Externship showcasing the business context for technology careers.”

- The Institute for Community Inclusion at the University of Massachusetts described several state-led WBL initiatives for persons with disabilities funded by the Rehabilitation Services Administration in the U.S. Department of Education.

- The Afterschool Alliance highlighted the work of unCommon Construction (UCC) in New Orleans, Louisiana. “UCC is a non-profit organization in New Orleans that delivers afterschool programming and weekend on-site apprenticeships. Their model engages high school students in career pathways within the construction industry, while also building and selling essential market rate homes for residents and families in the students’ home town. The program provides high school students with the opportunities to gain more than 100 paid internship hours per semester in on-site, hands-on work-based learning in the construction trades, through partnerships with area schools and the Louisiana statewide CTE program known as Jump Start. UCC student apprentices engage in trainings after school and spend the weekends building a home in their community alongside construction industry experts including architects, engineers, carpenters, electricians, realtors, title attorneys, and more. UCC programming utilizes the flexibility of the afterschool hours to emphasize the development of communication and teamwork skills, also known as employability skills, to compliment the work-based learning opportunities students receive on the job site.”

- Project Lead the Way (PLTW) highlighted a Lockheed Martin program that originated in Fort Worth, Texas. “Lockheed Martin first launched a high school engineering internship program at their Fort Worth Aeronautics facility – in partnership with PLTW and the Arlington Independent School District in Texas – in 2014. The program offers a student workforce experience that provides academic rigor in the workplace while drawing on the transportable skills developed in the PLTW classroom. This scalable, replicable process
provides a student workforce experience continuum that begins in high school, continues in college, and leads to employment with Lockheed Martin upon graduation from college. Interns work on “C-level projects,” including engineering drawings, lab tasks, reports, experiments, data collection, and leading facility tours. Due to the success of the program in Fort Worth, Lockheed Martin has since partnered with PLTW and additional school districts to expand the program to include two additional business areas – rotary mission systems and missile and fire control. Five Lockheed facilities across the country now offer the Lockheed Martin High School Internship program.”

• CAST (originally the Center for Applied Special Technology) described several of its career development projects. Funded by the Tillotson Foundation, “[t]he Outdoor Recreation Pathways project brings together professionals from the outdoor recreation industry, students, and educators (secondary and post-secondary), to develop competencies and outline a CTE pathway into high-wage high-demand careers in this emerging field for youth in New Hampshire.” WBL experiences are embedded in the pathways. “BioFab Explorer is an open (free) educational resource developed by CAST in partnership with industry members from the Advanced Regenerative Manufacturing Institute (ARMI)/Biofab USA, as well as in collaboration with Career and Technical Education (CTE) educators and their students.”

JFF also offered several additional examples of intermediary organizations that were working to with employers and educators to expand WBL opportunities:

• “The Delaware Pathways initiative is driven by a strategic plan that prioritizes WBL and has clear associated metrics for success. In order to drive the expansion of WBL, state leaders established an intermediary, the Office of Work-Based Learning at Delaware Technical and Community College. The intermediary is housed within the state’s community college in order to leverage the college’s strong connections to the state’s business community, K12 educators, and workforce development efforts. Work-based learning for students in the state is aligned to the Delaware Department of Education’s State-Model Programs of Study, ensuring that it is embedded within pathways.”

• “Through the Texas Regional Pathways Network, the Texas Education Agency, in collaboration with the Texas Higher Education Coordinating Board and the Texas Workforce Commission, is supporting the expansion of WBL in regions across the state. TEA is leveraging Perkins reserve funds to award competitive grants to cross-sector regional partnerships committed to designing and implementing college and career pathways that include WBL as a core component. Funding for dedicated regional intermediary staff to support scaling WBL is among the required uses of grant funds for each regional partnership.”

• “The Massachusetts Work-Based Learning Plan supports the expansion of high-quality WBL experiences for students across the state. The plan includes a publicly accessible WBL database that tracks student participation in WBL and details about WBL experiences, including job descriptions, skills gained, and assessments. WBL expansion in Massachusetts is supported by the Connecting Activities line item in the state budget, which provides an
ongoing source of funding for intermediaries by supporting public-private partnerships that connect schools and businesses through the state’s 16 workforce boards.”

- **YouthForce NOLA** coordinates with employers, high schools, and community-based organizations to provide nearly 800 New Orleans high school students with paid work readiness training and paid internships through 200 regional employers. YouthForce NOLA collaborates with other local organizations to coordinate and centralize industry involvement and investment in work-based learning opportunities for youth. Young people gain real-world, work-based experience in the region’s fast-growing, high-wage industries. Participants also benefit from virtual training in essential professional skills, business etiquette, financial and digital literacies, and workplace rights and responsibilities.”