

WORK-BASED LEARNING CAN ADVANCE EQUITY AND OPPORTUNITY FOR AMERICA'S YOUNG PEOPLE

By Martha Ross, Richard Kazis, Nicole Bateman, and Laura Stateler November 2020







Table of contents

Executive summary	
Introduction: For many young people, the path from school to a good job is an obstacle course	8
Part 1. The foundations of high-quality work-based learning	14
Positive relationships with adults	14
Social capital and social networks	16
Work experiences that expose young people to new environments and expectations	18
Part 2. Work-based learning: A scan of the field	20
Federal legislation	20
Career preparation and training for high school students	21
Career preparation and training for out-of-school youth	24
Part 3. Building strong programs	26
Work-based learning must put relationships at the center	26
Bringing it all together: Relationships and other elements of high-quality work-based learning	29
Part 4. Supporting strong programs with state policy	32
Conclusion: Work-based learning can promote equity and economic opportunity at scale	36
Appendix A. Elements of high-quality work-based learning	38
Appendix B. State policies that support quality, relationship-rich work-based learning experiences	39
Endnotes	40
Acknowledgements	52



List of textboxes and figures

Textboxes

Textbox 1: What is work-based learning?	13
Textbox 2: Work-based learning in high schools	28
Textbox 3: Work-based learning programs for young adults	31
Textbox 4: State-level policies that support high-quality work-based learning	34
Figures	
Figure 1: The work-based learning continuum	19
Figure 2: Select work-based learning models for high school students and out-of-school youth	22
Figure 3: Elements of high-quality work-based learning experiences	30
Figure 4: State policies that support quality, relationship-rich work-based learning experiences	33



Executive summary

For many young people, the path from the K-12 educational system to a good job as an adult is an obstacle course. High school is the last universally available educational option, and when young people leave or graduate, the next steps are not always obvious.

While education beyond high school is the surest ticket to the middle class, the postsecondary landscape is complicated and hard to navigate. For those whose families and schools can't provide adequate guidance, it is not easy to identify college and training options that are affordable and a good fit. For those who do not enroll in college—as well as for the many who do enroll but don't complete a degree or certification—employment prospects are largely limited to low-wage jobs. And, with a few exceptions, neither secondary nor postsecondary systems have a clear interface with the world of work. Among students and employers, there are few shared benchmarks outlining the skill requirements for different industries and occupations, how to obtain those skills, and how to measure them. As a result, young people have high levels of unemployment and tend to cycle in and out of jobs even as employers report difficulty finding workers with the necessary skills and experience.

Moreover, the educational and employment landscapes are riddled with inequities that routinely disadvantage young people who are Black, Latino or Hispanic, or low-income. The K-12 and postsecondary education systems are deeply stratified by race and class, and do not live up to the essential American goal of providing equal opportunity. When looking for work, young people who are poorly served by the educational system are plunged into a similarly stratified labor market, in which educational attainment and race are key markers.

The COVID-19 pandemic has only amplified these existing inequalities. But these outcomes are not inevitable—they are the result of policy choices. And better policy choices can change them.

In this report, we envision high-quality work-based learning (WBL) as a lever to advance equity and economic opportunity for young people. Through WBL experiences such as internships and apprenticeships, young people can learn the technical, academic, and interpersonal skills they need to function in a workplace—an environment they will enter in just a few years and where they will spend decades of their lives. This expansive vision of WBL would emphasize supportive relationships with adults, connections to broader social and professional networks, and authentic work experiences that provide hands-on learning opportunities and the chance to take on new roles and responsibilities.

Based on interviews and analyses of the relevant literature, we synthesize lessons from research and practice in education, youth development, and workforce development to weave together a vision of high-quality work-based learning. We identify three critical elements and explore the implications for WBL programs, particularly those serving high school students and out-of-school youth (young people who are not in school and have less than a college degree).

1. Positive relationships with adults that support growth and development. Supportive relationships with adults (teachers, youth counselors, supervisors, coaches, etc.) are critical for healthy development. They offer young people the opportunity to learn self-regulating behavior, develop social skills, and build resiliency. Relationships with adults that are grounded in safety, trust, and respect are a key ingredient in programs for youth—as important or more important

than any particular curriculum or program element. It takes deliberate effort to foster such relationships, but funding streams, program design, and performance incentives often create obstacles to them.

- 2. Social capital that provides information and contacts regarding employment. Social capital is described most succinctly by the saying, "It's not what you know; it's who you know." In a WBL context, adult supervisors, mentors, instructors, and others can provide youth with access to valuable resources such as information, assistance, exposure to adult worlds, support, and encouragement. This is especially important to those unlikely to receive such assistance through their personal and family networks. In turn, these connections can open new channels for organizations to find job candidates and, ideally, provide young people an inroad to the informal referral process that is so common in recruitment and hiring. While most employment and WBL programs recognize the value of social capital, they usually emphasize skills and credentials. Connecting young adults to a diverse array of people who can help them find resources and job opportunities is typically less of a priority.
- 3. Work experiences that offer opportunities for hands-on learning and expose young people to new environments and expectations. The basic ingredients for a successful work-based learning experience are clear job tasks and expectations, some level of responsibility, access to applied learning in a specific industry context, and feedback from supervisors and peers. When done well, WBL provides young people with meaningful exposure to workers, job duties, and workplaces, and offers opportunities to learn occupational and employability skills in ways that are difficult to achieve in the classroom alone.

The popularity of work-based learning has surged in recent years, with new energy and activity at the state and local levels. Even so, it is uneven in its availability and quality across the country, and still plays a niche role in education and workforce development. Unless we substantially increase our commitment to high-quality WBL, it will continue to reach a relatively small number of young people, relatively few programs will be designed, staffed, and funded to incorporate best practices, and probably even fewer programs will have the resources to focus on quality improvement and evaluation.

States have an important role to play in supporting high-quality WBL at the local level. In this report, we highlight four state policy strategies to expand the availability of relationship-rich work-based opportunities: developing a clear vision, definitions, and goals; identifying and tracking program quality metrics; supporting implementation with adequate funding and professional development; and coordinating across state agencies and local programs.

Of course, the COVID-19 pandemic has thrown the economy and educational systems into turmoil. Educators in the midst of a rapid pivot to remote learning understandably have limited capacity to focus on enhancing or expanding work-based learning.

At the same time, however, the dramatic rise in unemployment and the disruptions to education will hit young adults particularly hard and aggravate racial and ethnic inequities, making it even more imperative to build stronger, more robust connections to careers for young people. We need to reimagine the school-towork transition so that it does not systematically leave millions of young adults behind.

As we recover from this health and economic crisis, schools, workforce development programs, mayors, governors, business associations, and employers should develop and expand high-quality, relationshiprich work-based learning options as a pathway to greater economic opportunity.





Introduction: For many young people, the path from school to a good job is an obstacle course

The United States offers young people much less structure and support than other industrialized nations in transitioning from school into full-time employment. The interface between school and the world of work is fuzzy to say the least, except for a few clearly defined educational routes into occupations such as nursing. While it is clear that education beyond high school is increasingly a ticket into the middle class, the link betweeneducational credentials and the necessary skills to thrive in the labor market is cloudier. At the secondary and postsecondary levels, there is little communication or coordination between schools and employers, leading to unclear skill requirements for different industries and occupations, little direction about how to obtain necessary skills, and no shared mechanism to measure them. The result is that young people experience a great deal of instability in the labor market, while employers report difficulty finding workers with relevant skills and experience.¹

66

When young people leave or graduate from high school, their most common options are the labor market or a postsecondary landscape that can be confusing, difficult to navigate, and financially out of reach. Choosing a postsecondary option is especially daunting if students did not receive strong advising while in school or if their family does not include college graduates who can provide guidance. And the labor market is not a hospitable place for young people with only a high school diploma-they are mostly faced with low-wage work.² A report on the prospects of young adults who enroll in college but leave without earning a degree described them as "the new forgotten half" with "few productive pathways into adult roles."3 Another review described the U.S. as having "arguably... one of the least effective systems for preparing noncollege bound youth for the workforce in the Western World."4

The educational and employment landscapes are riddled with systemic inequities that routinely exclude large numbers of people from opportunity. On the education side, a majority of students attend racially segregated school districts where more than 75% of students are either white or students of color. School districts that predominately teach students of color receive, on average, about \$2,200 less funding per pupil than districts that are predominately white.5 And even as college enrollment grows, the postsecondary landscape is increasingly stratified by race and class, channeling white and affluent students to more selective colleges and universities with more resources and higher graduation rates. Black and Latino or Hispanic students with "A" averages are less likely to enroll in selective colleges than comparable white students, and are more likely to enroll in underresourced open access two- and four-year schools.6

The students that are poorly served by our education system also face unequal outcomes once they enter the labor market. Young adults from low-income backgrounds have lower employment rates and work in lower-paying jobs. Black and Latino or Hispanic workers are also disproportionately represented among the low-wage workforce and experience higher unemployment than the national rate. These differences cannot be fully explained by observable characteristics, and racism is clearly a factor holding

Imagine a school-to-work transition with stronger guardrails and safety nets.

back workers of color—especially Black men—from labor market success.⁹

The COVID-19 pandemic has only amplified these existing inequalities. As the virus and required social distancing wreak havoc upon the economy and schools, people of color and those with low incomes are disproportionately hurt. Remote learning requires access to a reliable internet connection and a computer, but students from low-income backgrounds are less likely than their wealthier peers to have this access, and there is a real risk that these students will fall even further behind. 10 The employment picture is equally concerning: The total unemployment rate fell to (a still high) 6.9% in October, from 14.7% in April. 11 But unemployment among Black workers is even higher, and falling more slowly: It was 16.8% in April and 10.8% in October. 12 Workers of color and low-wage workers are also more likely to have jobs that are not amenable to telecommuting such as retail and housekeeping, which means they experience greater health risks to earn a living.13

These divergent outcomes in education and employment, as well as the disparate impact of COVID-19 on people of color, are not inevitable. They result from policy choices. These policy choices are both contemporary—such as the failure to create enforceable workplace safety standards to protect workers from COVID-19 transmission—and more long-standing, such as insufficient funding for the U.S. Equal Employment Opportunity Commission to adequately investigate and address cases of workplace discrimination.¹⁴

But policies can be changed. Imagine a school-to-work transition with stronger guardrails to keep young people on track and stronger safety nets to help them recover from any missteps, and one that takes proactive steps to ensure that young people of color and those from low-income backgrounds are prepared for success. Changes in education and employment policies can help bring that about.

A more expansive vision of work-based learning (WBL) should be part of the solution, emphasizing developmental relationships with adults, connections to broader social and professional networks, and authentic work experiences that provide hands-on learning opportunities and the chance to take on new roles and responsibilities.

Such a system could create stronger, more robust pathways into the labor market and address the racial inequities that hurt young people of color both in school and on the job. Through WBL experiences such as internships and apprenticeships, young people can learn the technical, academic, and interpersonal skills they will need to function in a workplace—an environment they will enter in just a few years and where they will spend decades of their lives.

Of course, WBL is not new; integrating learning in the classroom with learning at the worksite has a long history. Apprenticeships, both in the U.S. and abroad, are a classic example. Almost three decades ago, interest in European systems of career preparation led to the enactment of the 1994 School-to-Work Opportunities Act, which pumped well over a billion dollars of federal investments into high school systems and programs, including some state and local efforts to build work-intensive youth apprenticeship models.¹⁵

Work-based learning, however, has struggled to gain traction. In the U.S., the idealized school-towork transition is now aligned with a "college-forall" philosophy: graduate from high school, go to college, earn a bachelor's degree, and then seek a full-time "career" job.16 The college-prep curriculum is classroom-based and focused on theoretical learning and analytical skills, and has not historically carved out a role for WBL.¹⁷ Especially at the high school level, WBL is most closely associated with career and technical education (CTE, formerly known as vocational education), which has a legacy of discrimination and tracking, deeming students of color or from low-income backgrounds as "non-college-bound" and shunting them into less academically challenging tracks that leave them unprepared for good jobs. 18

More recently, though, educators and policymakers have become more open to the idea that college readiness and career readiness require similar preparation, and that the long-standing distinction

between academic learning and occupational skills has become, in the formulation of Teachers College President Thomas R. Bailey, a "false dichotomy." The CTE field is acknowledging the inequities of its past and striving to create better models. For example, CareerTech, the association of state CTE officials, developed a series of guides, reports, and case studies called Making Good on the Promise, which offers "promising solutions to help state leaders close equity gaps in CTE." In this environment, employers, educators, policymakers, and the public are increasingly receptive to the idea of combining workbased and classroom learning to accelerate career readiness and preparation.

New initiatives supporting WBL are numerous, including the Partnership to Advance Youth Apprenticeship based at New America and a policy academy at the National Governors Association. In addition to relatively established programs in Georgia and Wisconsin, states with new or expanded youth apprenticeship programs include South Carolina, Colorado, Illinois, and North Carolina, as well as preapprenticeship programs in Kentucky, Washington, and Ohio.²¹

However, WBL remains uneven in its availability and quality across the country. Even with recent expansions, it still plays a niche role in education and the job market, and its current popularity may fade. Unless we substantially increase our commitment to high-quality WBL, it will continue to reach a relatively small number of young people, relatively few programs will be designed, staffed, and funded to incorporate best practices, and probably even fewer programs will have the resources to focus on quality improvement and evaluation.

In support of a renewed, equitable vision of WBL, this report pulls from and synthesizes several strands of research and practice in education, youth development, and workforce development, highlighting three key concepts:

 Positive relationships with adults which support growth and development. Positive relationships with parents, teachers, peers, and other adults are critical to help young people successfully move through adolescence to a productive adulthood.²² Not surprisingly, then, supportive relationships with adults that are grounded in safety, trust, and respect are the key ingredient in youth programs.²³ The developmental quality of relationships between young people and adults is just as important—or even more important—than any particular curriculum or program element.²⁴

Nonetheless, although the importance of relationships in youth programming is widely acknowledged, the fact remains that prevailing policy, funding, and practice often create obstacles to the cultivation of such relationships.

contacts regarding employment. Social capital is probably described most succinctly by the saying, "It's not what you know; it's who you know." More academically, it refers to "resources embedded in one's social networks, resources that can be accessed or mobilized through ties in the network." By some estimates, about half of American workers find jobs through personal connections, and social capital and career sponsorship are significantly correlated with salary, promotion, and career satisfaction. 26

Connections do not have to be strong—such as those between close family and friends—to be useful. In fact, weak ties can be especially beneficial in job searches, precisely because they are more likely to create bridges to new people and groups, and thus offer different information and contacts.²⁷

• Work experiences that offer opportunities for hands-on learning and expose young people to new environments and expectations. All work experiences, whether found by the young person directly or organized through a school or youth program, can be valuable for people at the beginning of their careers. The basic ingredients are clear job tasks, some level of responsibility, access to applied learning in a specific industry context, and feedback from supervisors and peers. By exposing young people to workers, job duties, and workplaces, WBL offers opportunities to learn occupational and employability skills in ways that are difficult to achieve in the classroom alone.²⁸



Relationships with adults are critical to work-based learning, but are not usually treated as such.

Woven together, these three elements form the basis for high-quality WBL.

Reflecting upon personal experience, many of us can likely think of a person outside of our immediate network of family and friends who opened doors to new opportunities. Such relationships are critical inputs to and outputs from WBL, but they are rarely treated as such. In a WBL program, a young person is prepared for and placed in a job by a teacher, advisor, case worker, or some other adult. Depending on the young person and program, the adult will spend more or less time assessing, coaching, and assisting the young person. But there should be a baseline level of trust and respect, which requires that the adult and young person have more than passing familiarity with each other. The young person's relationship with their supervisor is also critical—this is the person setting expectations, providing guidance, and offering feedback. Without an engaged supervisor, it is hard to imagine that a WBL experience would be worthwhile. In turn, relationships with supervisors, teachers, advisors, and others have the potential to broaden young people's social networks.

As obvious as it may seem, the substance of WBL is also critical. It is not enough to secure a commitment from an employer to host an intern, or to announce the creation of a ServiceCorps-type program employing multiple young people. A high-quality WBL experience does not automatically follow from good intentions. Program design and implementation carry the day and determine the results. Work-based learning participants must have clear job duties, expectations for their performance, and support to help them do their jobs.

In the remainder of this report, we provide more information on developmental relationships, social capital, and strategies to provide authentic work experiences to young people. We describe various programmatic approaches and elements of high-quality WBL.

We also focus on the importance of state policy in supporting quality WBL at the local level. Across the country, there are significant pockets of local programs that provide WBL for young people—but local practice is often constrained by a policy environment that provides little (if any) systemic support for these experiments and often throws up roadblocks to scale and sustainability.

Federal education policy, workforce policy, and funding are critically important. Seemingly small changes in provisions of legislation on K-12 education, career and technical education, and workforce development can have a powerful effect on how local communities approach WBL. Dedicated funding streams for programs such as YouthBuild and Job Corps have similar programmatic influence. In the post-COVID-19 era, federal policy will be even more influential, as states and localities struggle with shrinking budgets and acute needs.

Recent years have demonstrated, though, that state policy can make a real difference in the expansion of WBL, the quality of local programs, and the strength of relationships between employers, education providers, and young people. A growing number of states have been proactively building the pieces of a more coherent WBL system through funding and other policy tools, including legislation, rules and regulations, knowledge dissemination, accountability mechanisms, professional development opportunities, and technical assistance to local practitioners. These system-building efforts have borne early fruit as local innovators become more efficient, confident, connected to each other, and supported in continuous improvement networks.

The nationwide variation in WBL implementation stems, in large part, from the decisions of state leaders to promote quality models and eliminate barriers that have limited program growth and integration with other education and employment goals. We summarize policies that some states have already enacted and others that states might implement to expand WBL initiatives, with particular attention to how states can support local efforts to strengthen adult relationships and social networks.

We limit our examination of WBL programs to programs serving two groups of young people:

- High school students, since high school is the last universally available (indeed, compulsory) educational experience, giving WBL connected to high school a potentially very broad reach.
- 2. Out-of-school youth (OSY), referring to young people who are not in school, have less than a college degree, and do not have clear paths out of low-wage jobs. With additional structure and support, this second group of young people can gain a stronger footing in the labor market and increase their chances of breaking out of low-wage jobs. Otherwise, young people with less than a college degree face relatively bleak employment prospects, and the country does itself no favors by consigning millions of young people to the margins of the labor market and economic mainstream.

We recognize that WBL can also be useful for postsecondary students and adult learners, but creating stronger options for these groups involves a different set of institutions and policies, putting it beyond the scope of this research.

Of course, the COVID-19 pandemic makes this a difficult time to expand WBL. Unemployment is high, employers are reeling, educators and students are adjusting to a remote learning environment, state and local budgets are under tremendous pressure, and, as of this writing, the prospects for a fourth federal aid package are unclear. Many internships and other worksite experiences—probably the majority—simply evaporated last spring. Not all did, however, and many entities are actively planning ways to continue offering WBL experiences adapted for the times.²⁹ Given the contribution that WBL can make to greater equity in education, workforce development, and employment for young people from marginalized communities, it is particularly important at this time. It would be a mistake to shelve this tested vehicle for expanding career-related opportunity.

Textbox 1. What is work-based learning?

There are many definitions of work-based learning (WBL) developed by states, school networks, national organizations, and, not least of all, by federal legislation:

The Strengthening Career and Technical Education for the 21st Century Act (passed in 2018, reauthorizing the Carl D. Perkins Career and Technical Education Act of 2006) describes WBL as "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."³⁰

The National Governors Association has a more concrete definition, with a clear description of the elements of WBL: "High-quality work-based learning is a continuum of programs that provide work and education experiences to help participants advance along a career pathway. Those programs consist of a clear agreement between the participant and the sponsoring employer, an authentic work experience that provides the learner with a connection to real-world tasks and problem-solving, structured learning activities aligned with the work experience, and a culminating assessment and recognition of skills."³¹

Most definitions refer to students in high school or postsecondary education by default. The **National Skills Coalition**'s definition of WBL applies specifically to young people not in school, describing it as "[combining] instruction at a work site during paid employment with classroom education,

and that culminates in an industry-recognized credential."32

Several definitions highlight the importance of relationships with adults (emphasis added):

The **Southern Regional Education Board**: "High-quality work-based learning experiences *pair young people with mentors* who show them how to solve real-world problems, cultivate professional skills, shoulder adult responsibilities, build workplace relationships, identify interests and aptitudes, and make good decisions about careers and college. WBL takes many forms: internships, job shadowing, and service learning."³³

The National Research Center for Career and Technical Education: "Work-based learning offers project and problem-focused teaching and learning rather than the more abstract and theoretical teaching and learning that often takes place in classrooms. The purposes of WBL fall into three categories: cognitive development (learning through engagement with ideas and things), social/emotional development (learning through engagement with self and other people), and career development (learning through engagement with work processes and places)."³⁴

The Council of Chief State School Officers: "Quality work-based learning experiences allow students to explore a variety of career options; connect the classrooms to the skills needed to be successful in the workplace; and are *supported by consistent mentoring*." 35



Part 1. The foundations of high-quality work-based learning

POSITIVE RELATIONSHIPS WITH ADULTS

Developmental relationships: What are they, and why do they matter?

Most people intuitively understand relationships based on their own life experience. But relationships are complicated to define—they take place with many kinds of people, happen across many settings, occur with varying levels of intensity, and so on.

This report focuses on "developmental relationships," particularly on such relationships between young people and nonfamily adults such as coaches, supervisors, mentors, teachers, and counselors. Search Institute defines developmental relationships as close connections through which young people discover who they are, develop abilities to shape their own lives, and learn how to engage with and contribute to the world around them.³⁶

Importantly, developmental relationships are bidirectional and reciprocal, with each person giving and receiving—the young person is not a passive participant. They can take place anywhere people interact, including schools, sports fields, religious communities, youth programs, and the workplace.

Relationships have many facets, and perhaps the most recognized one is that of emotional attachment or caring. In addition to expressing care, however, developmental relationships include four other features. They provide challenges that lead to growth, offer support to build confidence while navigating difficult situations, share power by involving youth in decision-making, and expand possibilities by connecting youth to new people, places, and ideas.³⁷ Search Institute's studies have found that young people who regularly experience these five elements in their relationships with adults in families, schools, and out-of-school programs have higher levels of well-being

than young people whose relationships with adults are not characterized by those five developmentally beneficial actions.³⁸

Developmental relationships with adults offer the chance for children and adolescents to understand their experiences, learn self-regulating behavior, develop social skills, and build resiliency. Such relationships and the social interactions they entail "provide critical opportunities for children to experiment, learn, and grow within and across the various contexts they inhabit every day."³⁹ These relationships are sometimes called the "active ingredients" in healthy human development.⁴⁰

Developmental relationships vary in intensity and duration, and, ideally, young people are involved with multiple developmental relationships at any given time. No single relationship is likely to meet all of a young person's needs. While some developmental relationships are long-standing and emotionally close, they don't have to be in order to benefit the young person.

For example, a workplace or internship supervisor can establish a developmental relationship relatively easily by taking the following steps:

- Set high expectations for the young person's performance (challenges that lead to growth)
- Show them how to carry out their work duties, provide feedback, and check-in periodically (providing support)
- Discuss options for solving a problem or carrying out a task and solicit their feedback (sharing power)
- Chat with them and ask follow-up questions (expressing care)
- Ask them about their interests and introduce them to new places, ideas, or people (expanding possibilities)

Youth-serving systems widely acknowledge the importance of developmental relationships, but do not always support them.

Positive and supportive relationships are a core tenet of positive youth development (PYD), a widely accepted and evidence-based approach employed by youth-serving programs. PYD seeks to develop the skills and competencies of young people by building on their strengths, fostering positive relationships, and providing opportunities.⁴¹ It is a philosophy and set of practices rather than a specific curriculum or program, and can be woven into any setting where a young person spends time.⁴²

Supportive relationships with adults are one of eight key features youth-serving programs should incorporate to maximize effectiveness, according to an authoritative review of the literature. ⁴³ There is no one template of a "supportive adult"—they can provide varieties of emotional support and useful guidance that are rooted in attentiveness and responsiveness to the young person. ⁴⁴

Researchers Junlei Li and Megan M. Julian assert that developmental relationships should be "the foundational metric with which to judge the quality and forecast the impact of interventions for at-risk children and youth."45 They hypothesize that many youth-serving programs fail to meet their goals for one of two reasons: "One, the program and policy never considered enhancing developmental relationship[s] as one of its main objectives... Second, programs that had intended to promote relationships fail to do so with focus and intensity in actual implementation."46 Indeed, as articulated by sociologist and youth development leader Karen Pittman, a common trap in youth-serving programs is mistaking access for quality.⁴⁷ In this case, access to a program in which adults act as counselors, mentors, or instructors does not guarantee that the program properly supports and trains those adults to form supportive relationships with the youth and young adults they serve.

Indeed, it takes deliberate effort to foster developmental relationships in education, youth, and employment initiatives. Funding, program design, and implementation often create obstacles. It is easy for young people's relational needs to become secondary and for programming to become oriented to adult needs.⁴⁸

Starting with the right mindset is key. Leaders may assume that their staff automatically know how to build quality relationships and that it will happen on its own, given time. They may think of relationships as amorphous and lack awareness of the steps,

frameworks, or tools to guide relationship-building.⁴⁹ However, research from Search Institute on middle and high school students finds that active intervention is critical to helping developmental relationships take root, especially for low-income youth. Absent a relationship-focused initiative, only a minority of students experience improvement in developmental relationships over the school year.⁵⁰

There are operational concerns, too. It takes time to build relationships, and staff need sufficient training and professional development—but this is not usually reflected in funding and performance measures. Programs typically report on outcomes such as enrollment numbers, program completion, degree or credential attainment, and job placement. Strong developmental relationships are critical to success on these measures, but they take time and effort to build, and if they are not measured and recognized, they are not valued.

Measures of relationships are available and included in quality assessment tools from both the Weikart Center for Youth Program Quality and the National Youth Employment Coalition. The Weikart Center establishes a relationship-rich framework, with a number of items related to relationships and their role in promoting learning: Do staff provide a safe and welcoming atmosphere? Do they support youth in gaining skills and fostering a growth mindset? Do youth have opportunities to partner with adults? Do activities support active engagement to promote agency among young people?⁵¹ Similarly, in its program standards, the National Youth Employment Coalition include measures on whether young people feel valued and cared for, and whether the program develops and nurtures sustained relationships between youth and caring, knowledgeable adults.52

Lastly, relationships between participants and workplace supervisors are a fundamental—but undersupported—aspect of WBL programs. Relatively few programs have the staff and resources to reach into firms beyond a superficial level and assist supervisors in providing a quality, career-enhancing work experience. Programs can provide tools and guides for supervisors such as sample activities and tasks that youth can take on for supervisors new to WBL, or templates of how to set goals, measure skills, and assess progress along the way. They

can stay in touch with supervisors to identify any workplace problems that arise and help resolve them. In some cases, internships can surface preexisting issues around HR or scheduling. In these cases, the program's relationship extends beyond the immediate supervisor and may involve discussions with HR and more senior staff. For instance, one retailer increased its minimum shift length from four to five hours so that young people's commutes weren't longer than their shift, which then increased retention. In a manufacturing plant, the need to provide more direct and clear feedback to interns resulted in a formalized internal mentoring program.53 These latter cases expand the relational focus beyond the young person, to management and the organizational environment at work. Supporting a good relationship between the supervisor and the young person can have ripple effects throughout the company.

SOCIAL CAPITAL AND SOCIAL NETWORKS

The relationships people have with other people family, co-workers, teachers, counselors, peers, etc.-make up their social networks. Through these networks, people can access social capital: information, assistance, references, and introductions. The value of personal contacts is intuitively obvious, but academically, social capital is slippery to define, or at least to find consensus across disciplines and scholars. In this report, we rely on two descriptions. Social capital refers to "resources embedded in one's social networks...that can be accessed or mobilized through ties in the network."54 The second definition on which we rely focuses on the similarities that bind people together, highlighting the "shared norms, values and understandings that facilitate co-operation within or among groups."55

The strength of the ties between people and groups is another key concept. Ties are generally described as either strong or weak.⁵⁶ Parents, other family members, and close friends are typical examples of strong ties. Weak ties are those between people who see each other infrequently and don't know each other well, such as neighbors, acquaintances, or friends of friends. Weak ties are especially helpful in job searches; people who are weak ties belong to different networks, so they are more likely than strong ties to provide new information and contacts.

66

Young people early in their careers and low in the occupational hierarchy especially benefit from weak ties. Employment networks increase with age, as people spend more time in the labor force, meet more people, and make contact with more organizations. Those near the bottom of the occupational hierarchy are likely to have strong ties with other people who are low in the hierarchy, and need a weak tie to break out of their network.⁵⁷ Thus, adult supervisors, mentors, instructors, and others in a WBL context can provide youth with access to valuable resources such as information, assistance, exposure to adult worlds, support, and encouragement. Families, friends, and acquaintances can-and do-provide information and support to young people. However, not all young people are born into families or raised in neighborhoods with access to networks that open doors to a wide variety of career and educational opportunities and foster a sense of belonging while doing so. For these young people, WBL programs can help them identify peers and adults who are motivated to help and have time, resources, or connections.58

For example, one study found that students who obtain jobs with help from their high schools have higher earnings nine years later. Perhaps this is because their career and technical education teachers—through their relationships with employers—are able to bridge the gaps in students' networks and connect them to people and employment opportunities they otherwise would not be able to access. The study concludes that school contacts "appear to have a large and lasting impact over youths' first decade in the labor market, especially for some groups who cannot count on relatives." ⁵⁹

The importance of social ties to later employment manifests early in life. Living in a high unemployment area can "degrade [young people's] job network"—with fewer employed neighborhood residents, there are fewer people able to pass along information about employers or job openings. 60 This is consistent with literature that has found an association between the overall outcomes of children (e.g., earnings distributions, incarceration rates, teen birth rates) and the employment rates of those who live in their neighborhood. 61 Expanding a young person's social network and social capital can remove these systemic barriers to the relationships and resources they need to succeed in education and the world of work. 62

Work-based learning can expand social networks and provide an entry point into the informal referral processes that are so important in recruitment and hiring.

By their nature, WBL programs have the potential to increase young people's social capital and broaden their networks. Work-based learning places young people in situations where they interact with a variety of adults and are exposed to different occupations and careers, which can provide new sources of information, assistance, and encouragement that help young people with their educational and employment choices. In turn, this can open new channels for organizations to find job candidates and for young people to learn about job opportunities.

Ideally, WBL provides an inroad to the informal referral process that is so common in recruitment and hiring. Organizations rely on referrals in the recruitment process because they are efficient and effective, but they can all-too-easily become exclusive, locking out whole segments of the labor force who are in the "wrong" networks, resulting in a pattern of hiring people with similar backgrounds to existing staff.63 Weak ties can mitigate this, because they can pass the information to different networks. They can also counter the negative stereotypes employers may hold about people of color—a barrier that white people do not experience. The WBL program provides a formal, structured way to link people from otherwise disparate networks; an adult can vouch for a young person and portray them positively to an employer who might otherwise hold a negative stereotype, even subconsciously.64

Workforce development practitioner Edward DeJesus asserts that employment programs for young people often miss the mark by focusing on skills and credentials without also cultivating social capital. "Without access to labor market information and connections—and more importantly, not being able to decode and connect with diverse networks—many young adults are unable to put their newly acquired achievements to work, further undermining the credibility of the educational and workforce development systems," DeJesus writes.⁶⁵

Part of the lack of focus on cultivating social capital is likely because it is not as straightforward to measure as earning a credential or job placement, and it is certainly less familiar. In response, several new publications offer guidance.

The Christensen Institute outlines a four-dimensional framework for schools to measure students' social capital:

- 1. **Quantity of relationships**: The number of people in a student's network over time
- **2. Quality of relationships**: How the student experiences the relationship
- Structure of networks: The different people the student knows and the ways in which they're connected
- **4. Ability to mobilize relationships**: The mindsets and skills a student needs to activate the relationship⁶⁶

These four dimensions capture "the ways in which social capital shapes individuals' access to both critical supports and new opportunities" and students' ability to access the resources available through their networks. Based on an assessment of youth- and young-adult-serving programs, the Christensen Institute identifies a variety of ways programs are measuring success on these four dimensions, including participant and mentor surveys, relationship mapping, and checklists embedded in program curricula. Most broadly, youth- and young-adult-serving programs should integrate measures of social capital into program design and measure social capital at multiple points during an intervention.

After reviewing the literature on social capital measurement—especially for youth of color and from low-income backgrounds—Search Institute developed a logic model outlining how organizations can incorporate developmental relationships and social capital to improve postsecondary and employment outcomes for young people. It is now developing and testing measures of social capital, with an eye toward identifying the most important, useful, and feasible options.⁶⁹

WORK EXPERIENCES THAT EXPOSE YOUNG PEOPLE TO NEW ENVIRONMENTS AND EXPECTATIONS

As shown in the Textbox 1 (see page 13), work-based learning has multiple definitions and can take a variety of forms. But however it is carried out, its purpose is to introduce young people to the world of work so they can succeed in the job market as adults. Its rationale is simple: The best way to teach young people about work is to expose them to actual workers, job-related tasks, and workplaces. To be career-ready, young people must actively engage with the work context, including different environments, people, and responsibilities.⁷⁰

The work-based learning continuum

Work-based learning is commonly conceived as a continuum that includes four stages: career awareness, career exploration, career preparation, and career training.⁷¹ Although these four stages are not always uniformly named or defined, there is general agreement in the field that the continuum progresses from low-exposure to high-exposure activities.

Low-exposure activities include those that occur during the career awareness and career exploration stages of the continuum. These activities, such as job fairs or job shadowing, are characterized by short-term interactions between young people and employers and provide a broad introduction to the world of work. Experts generally agree that children should start these activities as early as elementary school.

The highest-exposure WBL activities have extensive employer involvement and provide training in both general workplace skills and occupational-specific skills. High-exposure activities such as internships and apprenticeships occur in the final years of high school or beyond. These sorts of activities provide students the opportunity to learn essential employability skills such as problem-solving, communication, and teamwork in ways that are difficult to achieve in the classroom alone. Students can learn *through* work, rather than in preparation *for* work.

Figure 1. The work-based learning continuum

		THE RELATIONSHIP ZONE		
CAREER AWARENESS Learning about work	CAREER EXPLORATION Learning about work	CAREER PREPARATION Learning at work	CAREER TRAINING Training for work	
Activities introduce participants to the world of work and a variety of careers. Short-term interactions between a group of students and a professional partner provide a foundation for later work-based activities. Models: Career fairs and career speakers.	Activities are characterized by short-term interactions between a professional partner and a single participant, or small group of students. Models: Mock interviews, job shadowing, and informational interviews.	Students apply their learning through a practical work (or work-like) experience. Activities are characterized by longer-term, direct interaction between participants and employers. Students build skills that are relevant for a variety of careers. Models: Pre-apprenticeships, internships, and school-based enterprises.	Activities involve sustained interactions with an employer. In a career training work-based learning activity, participants master occupation-specific skills. Models: Registered apprenticeships and youth apprenticeships.	
	Increasing inten	sity and duration		

Adapted from College & Career Academy Support Network, "Work-Based Learning Continuum," available at https://casn.berkeley.edu/wp-content/uploads/resource_files/work_based_learning_continuum.pdf. Relationship Zone emphasis our own.

As young people move through the continuum, there is increasing opportunity for program staff and workplace supervisors to intentionally build relationships with program participants. While relationships can and should form between young people and adults at every stage of the continuum, the repeated and sustained interactions that are characteristic of the

more intensive phases of WBL, in particular, provide a meaningful opportunity for programs to facilitate these relationships between student-workers and adults. We refer to these intensive WBL phases—career preparation and career training—as the "relationship zone."



Part 2. Work-based learning: A scan of the field

FEDERAL LEGISLATION

Most public funding for WBL comes from two pieces of federal legislation: the Strengthening Career and Technical Education for the 21st Century Act (Perkins V) and the Workforce Innovation and Opportunity Act (WIOA). Both channel federal funding to states, which weave them into their own education and workforce strategies and, in turn, pass funding to local areas.

Perkins V, signed into law in 2018, funnels about \$1.2 billion to states every year. The funds are distributed to states by formula, based primarily on the size of the population in certain age and per capita income categories. The states then distribute funds to high schools, colleges, and technical centers to help students gain technical skills and complete industry-recognized credentials, certifications, or postsecondary degrees. In the 2018 program year, nearly 5.8 million secondary and postsecondary students enrolled as CTE

Concentrators, defined as credential-seeking students taking at least two courses (secondary) or twelve credits (postsecondary) in a particular CTE program of study or career cluster. ⁷⁶ Perkins V encourages states and localities to offer WBL opportunities to their students and includes the percentage of CTE students who complete a WBL experience as one optional measure of secondary program quality.

Other federal funding for youth and young adults comes from WIOA, which provides about \$4.6 billion dollars per year for workforce development for adults and youth, channeled through local workforce development boards.⁷⁷ WIOA served 154,120 youth in the 2018 program year.⁷⁸ Seventy-five percent of WIOA's youth formula funds (about \$960 million authorized for Fiscal Year 2020) must be spent on out-of-school youth, referring to young people ages 16 to 24 who are not in school and face barriers to employment.⁷⁹ Additionally, at least 20% of youth formula funds must be spent providing paid and unpaid work experiences

such as summer and year-round employment, preapprenticeships, on-the-job training, internships, or job shadowing.⁸⁰ Department of Labor guidance defines work experience as "a planned, structured learning experience that takes place in a workplace for a limited amount of time." Beyond direct wages to youth, these funds can also support a variety of WBL activities, including "classroom training or the required academic education component directly related to the work experience" and "employability skills/job readiness training to prepare youth for a work experience."⁸¹

Lastly, the federal government supports two more narrowly focused education and employment programs for out-of-school youth, both of which incorporate work-based learning. Job Corps provides academic instruction, career and technical training, and supportive services to young people ages 16 to 24, primarily through a network of residential centers. It had a budget of \$1.6 billion in FY 2017 and serves around 50,000 to 60,000 young people each year. Becond program, YouthBuild, also provides a mix of academic and occupational instruction, coupled with leadership development, community service, and supportive services. Its budget was \$158 million in FY 2017 and it serves between 7,000 to 10,000 young people per year.

CAREER PREPARATION AND TRAINING FOR HIGH SCHOOL STUDENTS

Work-based learning in high school has been the subject of much attention over the last few decades as a potential solution to labor market churn among young people and employer dissatisfaction with worker skills.

Career and technical education (CTE) is perhaps the most common system through which students learn career skills in high school, much of it funded through federal Perkins V dollars. A survey by the National Center for Education Statistics found that 98% of public school districts offered some sort of CTE to their students during the 2016 to 2017 academic year. Through CTE, students learn career-specific skills in fields such as health, business, or IT in a series of academic and technical courses. These programs sometimes, though not always, include WBL elements such as internships or apprenticeships. Some schools and school systems pursue more widespread high

school redesign models that offer integrated academic and WBL experiences.

On the whole, however, the approach to WBL for high school students has been scattershot at best. 85 Workbased learning experiences are not available to all students who want them, are of inconsistent quality, and suffer from uneven employer involvement.

Still, evidence suggests that participating in some forms of WBL in high school improves educational and employment outcomes. Research indicates cooperative education, internships, and apprenticeships in high school boost employment after high school.⁸⁶ For young people from disadvantaged backgrounds, our previous research found that participation in these programs is associated with having a higher-quality job at age 30.⁸⁷ Career academy students, particularly young men, showed sustained earnings gains eight years after graduation.⁸⁸

Some WBL programs may also improve educational outcomes. Evaluations of Linked Learning, a high school redesign model that prioritizes preparing all students for both college and careers through rigorous academics, CTE, and WBL, indicate its students are more likely to graduate high school and complete more college preparatory courses. ⁸⁹ There is also evidence that well-implemented summer youth employment programs improve graduation rates. ⁹⁰ Internship programs may also be an avenue through which to improve educational outcomes for high school youth: Urban Alliance, an internship program for high school students in Washington, D.C. and several other cities, improved graduation rates and postsecondary enrollment among its male participants. ⁹¹

While the evidence base is promising for these high-intensity WBL programs in high school, more rigorous research is needed, particularly regarding the role of relationships in driving positive outcomes. Experimental research—the gold standard in evaluative literature—is sparse in this field. These types of evaluations are expensive and take a long time to produce. As a result, it can be difficult to parse program effects versus observed results because of the characteristics of program participants. It's also difficult to ascertain what elements are making the difference in successful programs.

Figure 2. Select work-based learning program models for high school (HS) and out-of-school youth (OSY)

				ly used th
Program type	Description	Research evidence	HS	OSY
Cooperative education (co-ops)	Cooperative education, or co-ops, occur in both secondary and postsecondary settings and pair academic programs with structured work experiences. Students often alternate their academic and vocational studies with a job in a related field and earn academic credit.	Evidence shows that co-op participants have higher post-high-school employment rates, 92 earn higher wages a few years out of high school, 93 and express more ambitious postsecondary plans. 94	Х	
Internships	Youth and young adults work at a business or worksite for a defined period. Internships are often tied to secondary or postsecondary programs, as are co-ops, but are also organized by employers, third-party programs, or self-organized by interns themselves.	There is limited evaluative literature on the effects of internships on high school and OSY participants in the U.S. One program increased graduation rates and college attendance among male high school participants. ⁹⁵ An internship program for OSY youth showed initial positive effects on employment rates and wages, but these effects quickly faded. ⁹⁶	X	X
High schools designed to offer academic and career-focused curricula, including work-based learning	There are various models, but in general, these high school programs mix college-preparatory academics with career- and occupation-focused content, including work-based learning. They often organize students into small learning cohorts around a career field. Within some program models, students are also able to earn college credit for their work in high school or even earn an associate degree.	Research supporting this approach includes the following: Career academies ⁹⁷ reduce dropout rates, improve attendance, and increase academic course-taking, the likelihood of graduating on time among students at high risk of dropping out, ⁹⁸ and long-term monthly earnings of male participants. ⁹⁹ Linked Learning ¹⁰⁰ increases graduation rates and reduces achievement gaps. ¹⁰¹ An early study of P-TECH ¹⁰² shows participants score higher on statewide standardized exams and have increased accumulation of CTE and other nonacademic credits. ¹⁰³	X	
School-based enterprises (SBE)*	Schools operate a business providing goods or services to the school population. Students manage the business and perform other related activities under the supervision of an advisor, often a teacher.	There is limited rigorous analysis of school- based enterprises in the United States. Some research indicates these programs are associated with increased college attendance. ¹⁰⁴	Х	
Summer youth employment (SYEP)*	Often organized by cities and counties, these offer time-limited employment experiences to teens and young adults over the summer months. ¹⁰⁵	Research suggests that summer jobs programs reduce violent and property crime, 106 but have no long-term effect on employment and earnings. 107 SYEP also decreases participant dropout rates and increases graduation rates. 108	X	Х

Program type	Description	Research evidence	HS	OSY
Registered apprenticeship (RA)	Required by the U.S. Department of Labor to have five components: 1) business involvement, 2) structured on-the-job training, 3) related, classroom-based instruction, 4) monetary compensation, including wage increases as skills are gained, and 5) nationally recognized occupational credential. ¹⁰⁹	There is strong evidence that Registered Apprenticeship programs increase employment rates as well as short-term and lifetime earnings. ¹¹⁰		X
Pre-apprenticeship	Pre-apprenticeship programs are designed specifically to assist individuals who do not meet Registered Apprenticeship entry requirements prepare to enter and complete those programs. 111 Programs are designed in coordination with Registered Apprenticeship program sponsors. 112 There is little research on whether or not pre-apprenticeships actually increase completion of Registered Apprenticeships or improve other outcomes, particularly for high school and OSY.		×	X
Youth apprenticeship (YAP)	Provide students with on-the-job training and related coursework. YAP often meet the same criteria as Registered Apprenticeships—such as paid work experience and a nationally recognized credential—but are designed specifically for those who are still in high school at the outset of the program. ¹¹³	Although there is significant evidence about the efficacy of apprenticeships generally, there is little rigorous research on the efficacy of youth apprenticeships in the United States.	×	
	These programs for OSY generally take two primary forms:			
Programs in which young people work for wages or stipends, combined with education, training, and supportive services	Participants typically work in small crews on projects designed to benefit the environment or community, such as building affordable housing, planting trees, or maintaining transportation infrastructure. Programs also provide a mix of academic instruction, training in occupational and work-readiness skills, mentoring, and supportive services.	Research supporting this approach includes the following: • YouthBuild ¹¹⁴ increases receipt of high school equivalency credentials. ¹¹⁵		X
	2. After intensive training in occupational and work-readiness skills, participants are placed in internships with external organizations. Internships are often in technology-related fields. Programs also provide supportive services.	Research supporting this approach includes the following: • Year Up ¹¹⁶ demonstrates long-term increased earnings for program participants as a result of increased hourly wages and hours worked. ¹¹⁷ • Per Scholas ¹¹⁸ increases participant post-program employment rates and earnings. ¹¹⁹		X

^{*} We include school-based enterprise and summer youth employment in the table because they are common work-based learning programs. However, we do not further elaborate on these programs because we could not determine from research and practice that creating and supporting a relationship with an adult is inherent in the program design.

CAREER PREPARATION AND TRAINING FOR OUT-OF-SCHOOL YOUTH

Work-based learning is also gaining traction as a valued component of programs for out-of-school youth (OSY), which refers to youth and young adults who are not in school, have less than a college degree, and do not have clear paths out of low-wage jobs. Absent a structured program to help them gain work-related skills, attitudes, knowledge, and connections, these young people are likely to cycle in and out of low-wage jobs.

These young people often require more support than what is offered in WBL programs for students. Synthesizing the current research on this population, MDRC identified the following practices as effective for improving the employment prospect of OSY: 1) paid work experience that allows youth to apply concepts and skills learned in the classroom and, importantly, provides financial support; 2) education and training strongly linked to the job market and career pathways; 3) supportive services such as case management, mentoring, and assistance with issues such as child care and transportation; and 4) continuing assistance after job placement to promote retention. 120

Other syntheses emphasize that relationships are necessary for the above program elements to succeed. Overcoming the barriers facing these young people requires ongoing outreach, particularly for the most alienated among them, whose access to "webs of support" through other means may be limited. 121 Research has shown that the relationships formed in career pathways programs can provide a more diverse range of supports—emotional, instrumental, informational, and appraisal—than relationships formed in other contexts. 122 Programs that provide more intensive case management—characterized by one provider as a "bear hug" of wrap-around services—can help these young people build the relational assets necessary for success. 123

The most common approaches with this more intensive model of WBL generally fall into two categories: 1) paid community service and educational

programs, and 2) occupational skill training programs coupled with internships and supportive services. Both require substantial time commitments, ranging from several months to a year.

Paid community service programs generally offer stipends to participants who carry out community improvement projects as a team under the direct supervision of the program, rather than placing them at a third-party worksite. YouthBuild is one program that falls under this umbrella. An evaluation of YouthBuild demonstrated educational gains among participants, including increased completion of high school equivalency credentials. 124 Conservation and service corps, or youth corps, are another long-standing set of programs that engage young adults in education, training, and community service.

The second form of intensive WBL programs provides in-depth training in occupational skills coupled with general employment readiness skills, after which students are placed in an internship. Year Up and Per Scholas—which specialize in information technology jobs—are examples of this type of program, and evaluations have shown that both increase the earnings of participants.¹²⁵

Some of these programs for OSY dedicate resources to supporting not only the young person, but the young person's supervisor. YouthBuild Philly, for example, provides coaching and feedback to improve the managerial skills of frontline supervisors at their employer partners. Year Up also provides orientation and tools for individuals managing internship participants so they can more effectively supervise and engage them. Year

Programs providing wages and with this level of instruction and support cost more than is typically provided through public funding for job training. WIOA increased the share of youth formula funds going to OSY, but it is still woefully inadequate. The average cost per participant for WIOA-funded youth services is \$4,630.¹²⁸ Meanwhile, YouthBuild spends about \$20,000 per participant, Year Up spends about \$28,000, and the California Conservation Corps spends an estimated \$36,000 per participant.¹²⁹

Recruitment is its own challenge. The workforce boards that administer WIOA funds are not always well positioned to reach OSY and gain their trust. In fact, some workforce boards have such difficulty with recruitment that they lower the total number of people they serve—including in-school youth—in order to meet the requirement that 75% of funds are spent on OSY .¹³⁰

@LIKE (Linking Innovation, Knowledge, and Employment) is one of the few examples of a relatively large program for OSY supported through the public workforce system—in this case, through competitive grants available through the Workforce Innovation Fund. The program increased the likelihood participants would find unsubsidized employment, enroll in vocational training, and earn a high school or GED diploma.¹³¹ @LIKE incorporated life coaches into its set of services and found that participants who were coached had better outcomes than those who were not. Distinct from case managers (who often focus on complying with program requirements), life coaches work with participants to identify their strengths, develop strategies to reach their goals, and help them bounce back from setbacks. 132

This is not an exhaustive accounting of all employmentfocused programs for OSY. They also participate in apprenticeship programs, internship programs, and summer youth employment programs, among others. But the models listed above are among the minority that have been evaluated, and thus can report evidence of effectiveness.

Advocates for these young people—including Jobs for the Future, the National Youth Employment Coalition, and the Aspen Institute Forum for Community Solutions—are advancing an agenda that emphasizes these comprehensive WBL programs through research, learning networks, and legislative activity. They argue that, if anything, the best programs for OSY have much to share with secondary school programs about what it takes to support young people's learning outside of the classroom and build a learning system that puts strong relationships with adults at the center of the student experience.



Part 3. Building strong programs

WORK-BASED LEARNING MUST PUT RELATIONSHIPS AT THE CENTER

Promoting relationships in a WBL program is easier said than done, as is the case with almost anything related to program design and implementation. Staff must have the skills to develop and maintain relationships, and program activities and curricula must be organized to allow staff and young people to build meaningful connections. Unless organizations make it a priority to develop relationships, it will not happen with any consistency or quality assurance.

Search Institute provides a list of seven questions that organizations can use to judge the extent to which they invest in relationships and identify opportunities for focused attention:

1. Experience: How consistently do young people experience developmental relationships in your organization? Are some groups of youth more likely than others to experience them?

- 2. Expectations: How clearly articulated are relationship actions that are essential to your mission, strategy, and culture?
- **3. Time**: Is regular time dedicated to building relationships with and among youth? What happens during that time?
- **4. Personnel**: How are abilities to nurture strong relationships factored into staff or volunteer hiring and development?
- 5. Budget: How might your budget more explicitly reflect your commitment to reinforcing relationships?
- **6. Training**: How often do staff meetings or professional development focus on practical ways to cultivate relationships?
- 7. Feedback: How do you collect and use data, feedback, or other information that can monitor and strengthen intentional relationship-building? Think about what might happen if you were to increase your investment in these areas—how might youth, staff, parents, and other stakeholders respond?¹³³

Some workforce development programs for young people consciously incorporate positive youth development principles. One example is Generation Work, a five-city initiative funded by the Annie E. Casey Foundation. In their report about the initiative, Child Trends highlighted the importance of relationships, noting that that participants "stated that staff members in these programs were some of the first supportive, consistent adult role models that they had ever had in their lives." Child Trends also noted that building such relationships is challenging in programs of brief duration, but longer-term programs may not be feasible given funding constraints.

As part of their role in supporting Generation Work, Child Trends developed a tool to facilitate the integration of positive youth development practices into workforce programs, including a focus on building relationships. The tool allows organizations to rate themselves against a list of organizational and staff practices that create positive relationships. Some examples of these practices include:

- Staff model how to ask and respond to questions in a respectful and non-judgmental manner
- The program has a system in place to identify staff members who are not creating positive, reliable relationships
- Expectations in the program are explained clearly at the beginning of the program and enforced consistently
- Staff are trained to make participants feel comfortable, supported, and safe¹³⁵



Textbox 2. Work-based learning in high schools

Linked Learning

Linked Learning is a systematic approach to education that integrates college preparatory and CTE coursework with WBL and comprehensive support services. Linked Learning has been implemented in 100 school districts across 20 states. 136 A centerpiece of the approach are career pathways organized around such sectors as engineering, health care, the arts, etc. To ensure that WBL opportunities are high-quality and equitable, districts have invested in WBL staff and structuressuch as school- or district-level WBL coordinators, liaisons, and internship supervisors—so the responsibility of providing opportunities does not fall on individual high schools and teachers alone. 137 This dedicated staff is responsible for recruiting and supporting the involvement of industry partners, facilitating and supervising student internships (including coordinating stipends, health clearances, and transportation passes), and setting the schedule at each school to allow for internships. 138

Furthermore, career pathways aim to achieve Linked Learning's highest accreditation for quality college and career preparation: the Linked Learning Gold certification. This standard emphasizes equitable access to and completion of a continuum of increasingly more intensive WBL experiences that culminates in internships, apprenticeships, and certificate opportunities. The standards specify that internships should incorporate "direct, systematic, two-way interactions with professionals" and produce "valuable work that furthers the partner's organizational goals."139 To meet this standard, industry supervisors must be invested in the student's experience, completing assessments and providing feedback to students to help them meet learning outcomes.140

NAF (formerly National Academy Foundation)

NAF is a nationwide organization that works with public high schools to establish career-themed academies, which combine career-relevant courses and WBL activities to support general education requirements. Each year, NAF supports more than 100,000 students in 600 NAF academies across the country, with a focus on low-income and underserved communities. Their approach is centered on the continuum of WBL experiences, starting with career awareness and career exploration activities that require interaction with employer partners and culminating with a paid internship. Academies are organized around career-focused themes such as engineering, finance, health sciences, and information technology.

Both NAF and its individual career academies work with employer partners directly to develop internships that provide value to the organization and allow students to hone and demonstrate mastery of college and career readiness skills in the workplace. NAF also sets guidelines and responsibilities for the adults involved in WBL experiences. Teachers and school staff prepare employers to work with high school students, monitor student performance in the workplace, and work with the employer and the student to ensure regular and effective communication. Worksite supervisors' responsibilities include: "train, coach, and guide students while they are involved" and "evaluate student progress toward learning objectives and on their development of workplace skills."142 NAF and their corporate partners established the NAFTrack Certification, an assessment system to validate students' career preparation, which includes an employer assessment of students of internship performance compared to a set of work readiness criteria. 143

BRINGING IT ALL TOGETHER: RELATIONSHIPS AND OTHER ELEMENTS OF HIGH QUALITY WORK-BASED LEARNING

Just as there are multiple organizations operating workbased learning programs, there are multiple guidelines as to what constitutes best practices. In synthesizing the research, we identified a set of program elements that provide young people with opportunities to learn in context while also promoting positive relationships with supervisors and other adults. These elements focus on the building blocks of WBL, and most directly or indirectly promote strong relationships with adults. They directly promote relationships, for example, when outlining that a teacher or program staffer should help prepare a young person for their work placement, or that a workplace supervisor should be engaged and provide periodic feedback. They indirectly promote relationships by laying the groundwork for both the young person and the supervisor to be prepared and supported—for example, by ensuring there are clear job tasks; providing assessment and feedback templates to prompt productive exchanges between

young people, supervisors, mentors, and other adults; and offering additional supportive services to allow students to remain engaged. See Figure 3 and Appendix A for more details.

High-quality work-based learning includes the following elements:

- Connections to skill-building and/or jobs and career pathways
- Meaningful job tasks with clear expectations and some level of autonomy
- Positive adult-youth relationships that provide support, guidance, and feedback
- Opportunities for assessment and reflection about skill development, learning objectives, successes, and challenges
- Supportive services that enable young people to participate (such as school schedule accommodation and transportation)
- Compensation for interns and apprentices, and school credit for less intensive or more educationdriven WBL services



Currently, work-based learning is limited in its availability, varying in its quality, and has uneven levels of employer involvement.

Figure 3. Elements of high-quality work-based learning experiences

	Work-based learning connects the classroom, worksite, and world of work.	
Connected experiences	Worksite tasks have clear learning objectives and are related to classroom/ program curriculum.	
	Experience aligns with student career goals and facilitates career planning or transition to the workforce.	
Meaningful tasks	Tasks develop target career/occupational skills and provide clear value to employer.	
meaningful tasks	Tasks align with relevant industry/occupational standards .	
	Mentor, case manager, or counselor prepares young person for work-based learning experience and provides ongoing guidance.	
Adult-youth relationships	Workplace supervisor assigns young person tasks, provides guidance, and conducts assessments.	
Assessment and reflection	Supervisors and program staff assess and provide feedback to participants throughout the worksite experience.	
	Participants are provided with structured opportunities to reflect on their experience and progress.	
0	Students are provided with basic supports to participate in programming (i.e. flexible school schedules).	
Supportive services	More intensive case management is provided when appropriate (i.e. transportation, childcare, or additional mentoring).	
Compensation	Students receive school credit for activities that are lower intensity or take place in a school rather than a worksite.	
	Students receive a wage in exchange for their work in higher intensity activities like internships or youth apprenticeships.	

Note: Refer to Appendix A for a more detailed description of these elements.

Textbox 3. Work-based learning programs for young adults

California Conservation Corps

The California Conservation Corps (CCC) combines activities to protect and restore the natural environment with education, training, service, and mentoring opportunities for young people ages 18 to 25 (or veterans through age 29). The CCC is a state program housed within the California Natural Resources Agency, with 14 locally operated and state-certified corps programs offering similar programs throughout California. Between them, the CCC and local programs enroll several thousand young adults at any given time, and strive to provide career pathways for men and women of color into environmental fields often staffed by white males. Corps members carry out a wide range of projects such as planting trees, maintaining trails, responding to fire and flood emergencies, retrofitting buildings with energy-efficient lighting, and repairing and maintaining transportation infrastructure. 144 Corps members earn a stipend, work in teams of 10 to 15 with active supervision and mentoring, and receive on-the-job training. 145 Corps members who complete a year of service are eligible for postsecondary education scholarships, and those who have not completed high school attend courses with a partner public charter school to earn their diploma. 146

Throughout the course of a day, Corps members interact with adult supervisors, mentors, teachers, and peers in a structured, supportive environment. Supervisors receive training in technical and supervisory skills, and provide regular performance evaluations to Corps members focusing on issues such as attendance, punctuality, cooperation, adaptability, work safety, and technical skills. Corps members can take on formal leadership roles after they complete the program; with additional training, they can become specialists or crew leaders to assist with instruction, logistics, supervision, and mentoring.¹⁴⁷

Year Up

Year Up is a one-year intensive training program that provides low-income young adults ages 18 to 24

with a combination of hands-on skills development, coursework eligible for college credit, corporate internships, and support services. Year Up operates in 35 locations across the country, with over 5,000 students. It expects to serve 8,000 to 8,500 students by 2022.148 For the first six months of the program, students build their technical skills (e.g., hardware repair, software installation, Microsoft Office) and professional skills (e.g., business etiquette, workplace relationship skills, nonverbal communication, and career networking) in the classroom. Most Year Up locations have a college partner where students are formally dual-enrolled. Otherwise, the coursework is taught by Year Up staff and generates college credits through local articulation agreements. Students then apply their classroom learning during the second six months on an internship at one of Year Up's corporate partners—oftentimes a Fortune 500 company. 149

Year Up's "high support, high expectation" model provides students with meaningful adult relationships from the outset. 150 Each incoming cohort of young adults is put into a "learning community" of 40 peers and assigned a staff coach for the duration of the program.¹⁵¹ Every Year Up staff member serves as a coach to four to eight students. They meet with their students weekly, and during "Friday Feedback" sessions, students practice giving and receiving constructive feedback with their staff advisor. During the internship component, program staff actively monitor the interns through site visits and communicate with both the student and workplace supervisor. Work supervisors provide formal feedback on student attendance, dependability, initiative, technical performance, and professional manner via online surveys at two points during the internship. 152 Work supervisors receive training and attend an orientation before hosting young adults, to learn how to manage interns and create effective working relationships. At some Year Up locations, students are formally paired with a mentor from the local business community for additional personal and professional guidance, usually meeting once or twice a month. These mentors provide students with the chance to network with professionals in their occupational field of interest.153



Part 4. Supporting strong programs with state policy

and sustained. Creative models that meet the needs of local school districts, youth programs, and employer communities have emerged and taken root. Much of this activity is supported with federal funds that stream through states to localities. Employer or local foundation support is often a key component as well.

It has become increasingly clear, however, that state governments have a very important role to play in supporting quality WBL. At least 28 states have implemented policies to guide and support local WBL programs. ¹⁵⁴ Some states first became active in this arena around the time of the 1994 Schoolto-Work Opportunities Act, but the past decade has seen significant state activity, often with the goal of integrating high-quality WBL with other state education and employment-related policies.

States that have invested resources, staff expertise, and guidance for localities have seen growth in the number of opportunities available to young people, formalization of learning networks for local program staff, and steps toward more consistency and quality in local initiatives. California, Colorado, Delaware, Georgia, North Carolina, Rhode Island, South Carolina, and Washington are some of the states that have implemented legislative and executive policies to support WBL and promote career exploration and

experience outside the classroom aligned with learning expectations and curricula.

States have started in different places, prioritized different aspects of system-building, invested at different levels, and been guided by different visions of WBL's ultimate value for young people. States vary greatly in the extent to which their WBL policy actions are explicitly geared to strengthening relationships between young people and adults. Some are, but many are not. Our scan of state policymaking around the country highlights four ways that states can use—or are using—policy tools to expand the availability of work-based opportunities and to encourage stronger and more learning-rich relationships between employers

and young people (see Figure 4). These are:

- Development and dissemination of a clear vision, definition, and goals for local programs
- Identification and tracking of metrics for program quality and success
- Funding, professional development, program support, and tools to simplify and improve implementation
- Mechanisms for coordination and communication across state agencies and among local programs

A few representative examples of how states have elevated relationship-rich approaches to WBL are described in Textbox 4 (page 34).

Figure 4. State policies that support quality, relationship-rich work-based learning experiences

Framework for state and local action	Vision, definition, and goals for work-based learning include positive relationships and network-building as key program elements that local efforts will support and expand.	
Metrics and outcomes	Local programs gather student and program-level data to assess progress compared to state benchmarks.	
tracking	State benchmarks and student- and program-level metrics include measures of relationships with adults and alignment with local employer demand.	
	Stable funding for staff who implement programs and work closely with youth and employers.	
Support for local programs to deliver and sustain quality WBL experiences	Adequate resources for professional development and training for coordinators and mentors.	
	Tools (playbooks, manuals, etc.) that make it easier for program staff and workplace personnel to support, engage, and monitor young people.	
Coordination and communication across state agencies and local programs	Coordination and communication mechanisms designed to a) reinforce state priorities and messages, b) align WBL-related initiatives and funding in different agencies (education, labor, economic development, youth services), and c) continually elevate the power of positive relationships in otherwise siloed state efforts.	

Note: Refer to Appendix B for a more detailed description of these elements.

66

There is much more work to be done if states are to move from current levels of WBL support to a more robust system that promotes advancement for large numbers of young people. Some have argued that stronger incentives or supports for employers to provide workplace opportunities and regularly review priority competencies and skills are needed. However, evidence on the value of tax credits for hiring interns or apprentices is weak.

The development of workable systems for assessing competencies learned at the worksite and enabling young people to earn credits for mastery of those competencies is in its infancy, as are state policies that align applied and academic pathways from high school through postsecondary credentials. Revamping technical program curricula to make the most of work-based experiences could improve the teaching and learning of technical, academic, and interpersonal skills. But resources would be needed to support collaboration between teachers and employer representatives in that process.

Even in the more basic state system-building functions—such as tracking the quantity and quality of WBL opportunities over time and ensuring equitable

Many advances in work-based learning are developed and sustained at the state and local level.

access and success—current practice is more of a proof point of possibility than a blueprint for states to follow. Yet before COVID-19, momentum had been building for many states to take a more active role in shaping local program practice through targeted, strategic incentives and investments.

It remains to be seen whether this will continue as states and localities try to rebound from the pandemic. States will certainly have competing and acute needs that threaten to stall the progress they had been making. At the same time, though, the deep disruption to career-focused exposure and workplace experience makes it all the more important to find new ways to expand relationship-rich opportunities for interaction with adults, and to maximize the quality and learning value of those opportunities as they come back. States will have to decide how they will respond.

Textbox 4. State-level policies that support high-quality work-based learning

Vision and definition

In 2016, Governor Gina Raimondo launched **Prepare Rhode Island (PrepareRI)** to ready its youth for college and careers. WBL is an important component of the initiative. The Governor's Workforce Board set the following vision related to WBL: "All high schools will have high-quality work-based learning programming, and all career pathway programs will be aligned to Rhode Island's high-wage, high-demand career fields." ¹⁵⁵ It also defines WBL: "A planned, structured learning experience that provides youth (ages 14-24, in school or out of school) with real-life or simulated work experiences where they can develop and apply academic, technical, and essential skills; and contributes to the achievement of their

postsecondary and employment goal(s)."¹⁵⁶ PrepareRl's framework outlines quality standards, including one focused on relationships with adults: "Multiple and extended opportunities for students to interact with industry professionals, whether as supervisors, mentors, advisors, or collaborators."¹⁵⁷

Metrics

South Carolina is precise in defining the metrics it uses to track high school WBL, which are carefully aligned to the state's WBL definition. More intensive experiences—such as internships and apprenticeships—are tied to the state's accountability system as a career-ready indicator for high school report card ratings. A WBL experience is counted as a career-ready qualifying

experience only if it includes: 1) at least 40 hours of practical experience or the highest number of hours required by industry-defined competencies; 2) a mutually developed training agreement outlining the skills and objectives to be mastered during the placement with the employer supervisor; 3) a positive student performance evaluation based on the training agreement; and 4) alignment with the student's career pathway and program of study. 158 This specificity sets clear expectations in consistency of quality and supports for what is counted across the state.

Stable funding and adequate resources for staff who implement programs

The nonprofit intermediary CareerWise Colorado works statewide to promote multiyear apprenticeships that begin in high school and extend to postsecondary career training. The apprenticeships lead to both industry credentials and postsecondary credits, and are designed to fully prepare students to step into high-growth positions in modern fields such as IT and financial services. CareerWise receives funding from a mix of sources, including philanthropic grants, state and federal grants and contracts, and earned revenue such as fees paid by employers and consulting contracts. 159 Funding allows for a dedicated staff of Customer Success Managers to liaise between employers, schools, and students to ensure successful apprenticeships. 160 Additionally, Careerwise Colorado provides worksite mentor training through workshops and quarterly trainings.

Tools that make it easier for program staff to support, engage, and monitor young people

A State Board of Education rule requires the **Tennessee Department of Education (TDOE)** to provide districts with a Work-Based Learning Implementation Guide. This resource is intended for WBL Coordinators, employers,

and administrators to help prepare, implement, and evaluate quality programs at each stage of a WBL experience. The Guide covers a range of topics, including orienting students to the worksite, developing Personalized Learning Plans with the WBL Coordinator and supervisor, and best practices for workplace mentors to supervise interns and build relationships. 161 The TDOE additionally provides a WBL Toolbox that provides complementary resources to the Guide. For example, "Employer Guidelines for Working with Interns" is a customizable document for districts to share with employers. It gives tips for promoting learning through the workplace, addresses employer responsibilities, and provides communications expectations and contact information.162

Ongoing coordination

In 2016, then Delaware Governor Jack Markell signed an executive order that established a permanent cross-agency steering committee to continue the expansion of **Delaware Pathways**, an education and workforce partnership that creates a career pathways system for all youth.

The Pathways Strategic Plan identified the lack of systemic coordination as one of the greatest obstacles to overcome, and in response, set clear expectations and roles for stakeholders. The Strategic Plan was implemented under the leadership of current Governor John Carney, positioning Delaware Technical Community College as the lead for developing WBL experiences, and the Department of Education as the lead for building a system of career preparation for grades 7 through 14. The strategic plan also highlights career coaching and mentoring between students and employers as one of the elements for success, as well as building the professional capacity of employers to recruit and onboard students. 163



Conclusion: Work-based learning can promote equity and economy opportunity at scale

This report discusses three ideas that work in concert to produce high-quality workbased learning:

- · tasks that are meaningful, productive, and offer chances to build skills;
- · supervision and guidance from supervisors, mentors, and counselors; and
- new social and career connections to expand horizons and provide more connections to opportunity.

Even though few people would argue against these ideas, in practice, they struggle to gain traction in current education, youth development, and workforce development systems. Even as WBL is resurging in popularity, it is difficult to sustain programs, maintain funding, and elevate quality.

It doesn't have to be this way. We should not mistake access for quality, in Karen Pittman's formulation, and we should not fund or incentivize mediocrity.

Whether a young person completes a WBL experience positioned for success or not rests upon a great

deal of work that is often invisible, unmeasured, and undervalued. Policy and programs should do more to center relationships in their design and implementation. In addition to focusing on access (who can participate in high-quality WBL) and content (the skills young people learn and whether they are valuable to employers), we need to focus on who young people interact with and who they learn from. These interactions are just as important as access and content.

And because social capital and developmental relationships are intertwined (it is through relationships that people access and mobilize resources), programs need to focus on both. Programs need two basic elements to be successful:

- Regular opportunities for young people to interact with adults who can provide guidance, assistance, and connections, and
- 2. Opportunities for young people to learn skills and behaviors that enable them to build and enhance their relationships with others. This has a host of practical implications for organizations, most generally in how they allocate resources. Relationship-building processes should be "explicit and intentional," as expressed by Search Institute, and reflected in job descriptions, staff training, performance measurement, and, not least of all, staff time.¹⁶⁴

States can do more to support relationship-rich program models, incentivize more robust adult-youth relationships, reduce policy barriers, and use the bully pulpit to underscore the role of positive relationships for young people. State action can enable local school districts and programs for out-of-school youth to avail themselves of resources, knowledge, and peer sharing that enable them to structure strong relationships, promote learning that is difficult to master in school alone, and strengthen networks that can help young people advance to jobs they might otherwise have never been able to access.

No doubt, the COVID-19 pandemic has caused massive upheaval for employers, schools, workers, and their

families. With high unemployment, reduced consumer demand, and many schools teaching remotely, it is a difficult time.

The country's last recession hit young people particularly hard, and history will likely repeat itself in the COVID-19 downturn. Young adults are disproportionately likely to work in industries particularly affected by social distancing, such as retail, hospitality, and food service. As of October 2020, the overall unemployment rate was 6.9%, and higher for young people: 13.9% for 16- to 19-year-olds and 10.8% for 20- to 24-year-olds.

Unemployment is typically higher among Black and Latino or Hispanic young people: In 2019 (that is, pre-COVID-19), unemployment was 20.7% for Black teens, 15.4% for Latino or Hispanic teens, 11.7% for white teens, and 8.2% for Asian American teens. Among young adults ages 20 to 24 in 2019, the unemployment rate was 11.5% for Black workers, 6.6% for Latino or Hispanic workers, and 5.8% for both white and Asian American workers.¹⁶⁸

Now that the pandemic and social distancing have upended school operations and wreaked havoc upon the labor market, it is even more important to build stronger, more robust connections to jobs and careers for young people. Even before COVID-19, the labor market was not working for millions of young adultsparticularly those without college degrees, who were disproportionately in low-wage jobs or out of work.¹⁶⁹ As the nation weathers this health crisis and rebuilds the economy, we should not strive to return to previous conditions, but to build a labor market that provides ample opportunities for everyone who needs to support themselves and their families-not only for a relatively narrow band of the population, disproportionately comprised of affluent white people with bachelor's degrees.

Labor market policies are not inevitable. Lack of employment opportunities for young people is not a given. Schools, workforce development programs, mayors, governors, business associations, and employers should make work-based learning part of the recovery.

Appendix A. Elements of high-quality work-based learning

This appendix provides a more detailed description of the best practices shown in Figure 3 on page 30.

- Connected experiences: Work-based learning is not an isolated activity. Many WBL programs link to academic programs or incorporate a classroom component, while others do not. All, however, use the worksite experience to build skills—academic, occupational, and/or workplace—and serve as a bridge to the world of work.
 - ➤ Worksite and classroom: Classroom curricula support academic standards and promote career entry or two-year/four-year college prep.¹⁷⁰ Worksite tasks have clear learning objectives¹⁷¹ and are related to school-based content.¹⁷²

and/or

- ➤ Worksite and the world of work: Experience informs and is aligned with student career goals and facilitates further career planning or transitions into the workforce.
- Meaningful job tasks: Supervisors provide students with clear expectations and autonomy over their work. Work responsibilities develop specific career/occupational skills, with training plans developed for each student at each worksite outlining the learning objectives, which are then included in the student's evaluation. Tasks performed by the young person provide value to the employer.¹⁷³
- Adult-youth relationships: In most programs, there are two essential adult roles: 1) an engaged worksite supervisor, and 2) a youth worker, case manager, or teacher who places and supports a young person at a worksite. 174 (Note: When the program also serves as the employer, rather than placing the young person in an external worksite, the two roles are less distinct.) Adults in both roles offer guidance and support and promote

social and professional contacts that would otherwise be inaccessible to the young person.

- ➤ Workplace supervisor: A designated supervisor assigns tasks, provides guidance and feedback, and conducts periodic assessments. The supervisor receives appropriate orientation and support from the organization that places the young person at the worksite.¹⁷⁵
- ➤ Mentor, case manager, or youth worker: An adult at a school, nonprofit organization, or workforce development organization prepares the young person for WBL, places them at a worksite, and provides ongoing guidance and support. This person typically focuses on workplace skills and personal and professional development, and may also help connect the young person to needed social services.¹⁷⁶
- Assessment and reflection: Student, supervisor, and teacher/program staff assess progress toward learning objectives and career/occupational skills at designated points throughout the experience.¹⁷⁷ Students are provided with structured reflection opportunities throughout their workplace experience and/or a culminating reflection activity which enables them to demonstrate learning.¹⁷⁸
- Supportive services: Participants receive the support necessary to fully participate and persist in the worksite experience (such as school schedule accommodation, transportation, child care, or additional mentoring).¹⁷⁹
- Compensation: In higher-intensity WBL activities such as an internship or youth apprenticeship, students receive a wage in exchange for their work.
 For lower-intensity activities that are educationdriven or take place in a school rather than a worksite, students receive school credit.¹⁸⁰

Appendix B. State policies that support quality, relationship-rich work-based learning experiences

This appendix provides a more detailed description of the best practices shown in Figure 4 on page 33.

- A framework for state and local action: Legislation, rules, and regulations establish a coherent framework for investments, incentives, and guidance that drive local decisions.¹⁸¹
 - ➤ Vision: A clear vision establishes program goals, who it will serve, and key program elements such as positive relationships with adults and network-building.¹⁸²
 - ➤ **Definition:** A WBL definition incorporates positive relationships with adults and establishes activities and programmatic elements that local efforts will support and expand.¹⁸³
- Metrics and outcomes tracking:
 - Metrics of quality and success: Student- and program-level metrics include measures for relationships with adults.
 - Data/assessments: Local programs collect, evaluate, and track progress against determined state goals, including how well programs align with local employer demands.¹⁸⁴

- Support for local capacity to deliver and sustain quality WBL experiences
 - ➤ Stable funding: State resources accompany and leverage support from corporations, foundations, and other government sectors for local delivery infrastructure and program staff (coordinators, intermediaries, designated teachers, etc.) who implement programs and work closely with youth and employers.¹⁸⁵
 - ➤ Support for staff within intermediaries or education and workforce systems:

 Adequate resources—including professional development, training, staff time, and technology—for the designated personnel who implement, support, and monitor WBL activities.¹⁸⁶
 - ➤ Investment in tools and activities that support employer provision of quality work-based experiences: Playbooks, manuals, and toolkits that make it easier for program staff and workplace personnel to support, engage, and monitor young people.¹⁸⁷
- Coordination and communication across state agencies and local programs: Mechanisms for communication and coordination that reinforce state priorities and messages, align WBL-related initiatives and funding in different agencies (education, labor, economic development, youth services, etc.), and continually elevate the power of positive relationships in otherwise siloed state efforts.¹⁸⁸

Endnotes

- **1.** Alan Kerckhoff, "From Student to Worker." In Jeylan Mortimer and Michael Shanahan, eds. *Handbook of the Life Course* (New York: Springer, 2004).
- 2. Bureau of Labor Statistics, "Unemployment and Earnings by Educational Attainment," available at https://www.bls.gov/emp/chart-unemployment-earnings-education.htm (June 2020); Martha Ross and Nicole Bateman, "We Can't Recover From a Coronavirus Recession Without Helping Young Workers," available at helping-young-workers/ (May 2020).
- **3.** James Rosenbaum and others, "The New Forgotten Half and Research Directions to Support Them" (New York: William T. Grant Foundation, 2015): 6.
- **4.** David L. Blustein, Cindy L. Juntunen, and Roger L. Worthington, "The School-to-Work Transition: Adjustment Challenges of the Forgotten Half." In Steven D. Brown and Robert W. Lent, eds., *Handbook of Counseling Psychology*, 3rd ed. (Hoboken, N.J.: John Wiley & Sons, 2000).
- **5.** EdBuild, "Nonwhite School Districts get \$23 Billion Less than White Districts Despite Serving the Same Number of Students," available at https://edbuild.org/content/23-billion (February 2019).
- **6.** Anthony P. Carnevale and Jeff Strohl, "Separate and Unequal: How Higher Education Reinforces the Intergeneration Reproduction of White Racial Privilege" (Washington: Georgetown Center on Education and the Workforce, 2013).
- 7. Greg J. Duncan, Kathleen M. Ziol-Guest, and Ariel Kalil, "Early-Childhood Poverty and Adult Attainment, Behavior, and Health," *Child Development* 81 (1) (2010): 306–325; Rosenbaum and others, *Bridging the Gaps*; Staff and Mortimer, "Social Class Background and the School-to-Work Transition"; Martha Ross and others, "Pathways to High Quality Jobs for Young Adults" (Washington: Brookings, 2018).
- **8.** Martha Ross and Nicole Bateman, "Meet the Low-Wage Workforce" (Washington: Brookings, 2019); U.S. Bureau of Labor Statistics, "Labor Force Characteristics

- by Race and Ethnicity, 2018," available at https://www.bls.gov/opub/reports/race-and-ethnicity/2018/home.htm (October 2019).
- 9. Lincoln Quillian and others, "Meta-Analysis of Field Experiments Shows No Change in Racial Discrimination in Hiring Over Time," Proceedings of the National Academy of Sciences 114 (41) (2017): 10870-10875; Valerie Wilson and William M. Rodgers III, "Black-White Wage Gaps Expand with Rising Wage Inequality" (Washington: Economic Policy Institute, 2016); Marie T. Mora and Alberto Davila, "The Hispanic-White Wage Gap has Remained Wide and Relatively Steady" (Washington: Economic Policy Institute, 2018); Mary C. Daly, Bart Hobjin, and Joseph H. Pedtke, "Disappointing Facts about the Black-White Wage Gap" (San Francisco: Federal Reserve Bank of San Francisco Economic Letter, 2017); Tomaz Cajner, Tyler Radler, David Ratner, and Iban Vidangos, "Racial Gaps in Labor Market Outcomes in the Last Four Decades and Over the Business Cycle" (Washington: Board of Governors of the Federal Reserve System, 2017); Raj Chetty and others, "Race and Economic Opportunity in the United States: An Intergenerational Perspective," Quarterly Journal of Economics 135 (2): 711-783.
- 10. Monica Anderson and Madhumitha Kumar, "Digital Divide Persists even as Lower-Income Americans make Gains in Tech Adoption," available at https://www.pewresearch.org/fact-tank/2019/05/07/digital-divide-persists-even-as-lower-income-americans-make-gains-in-tech-adoption/ (May 2019); National Center for Education Statistics, "Children's Internet Access at Home," available at https://nces.ed.gov/programs/coe/indicator_cch.asp (May 2020).
- **11.** Bureau of Labor Statistics, "Employment Situation Summary," available at https://www.bls.gov/news.release/empsit.nr0.htm (November 2020).
- 12. Bureau of Labor Statistics, "Table A-2. Employment Status of the Civilian Population by Race, Sex, and Age," available at www.bls.gov/news.release/empsit.t02.htm (November 2020); Bureau of Labor Statistics, "Table A-1. Employment Status of the Civilian Population by Sex and Age," available at https://www.bls.gov/news.release/empsit.t01.htm (November 2020). Access

historical labor force statistics for these tables here: https://www.bls.gov/cps/cpsatabs.htm.

- 13. Elise Gould and Valerie Wilson, "Black Workers Face Two of the Most Lethal Preexisting Conditions for Coronavirus—Racism and Economic Inequality" (Washington: EPI, 2020); Bureau of Labor Statistics, "Ability to Work from Home: Evidence from Two Surveys and Implications for the Labor Market in the COVID-19 Pandemic," available at httm (June 2020/article/ability-to-work-from-home.
 httm (June 2020); Elise Gould and Heidi Shierholz, "Not Everybody Can Work from Home: Black and Hispanic Workers are Much Less Likely to be Able to Telework," available at https://www.epi.org/blog/black-and-hispanic-workers-are-much-less-likely-to-be-able-to-work-from-home/ (March 2020).
- 14. Maryam Jameel, "More and More Workplace Discrimination Cases are Closed Before They're Even Investigated" (Washington: The Center for Public Integrity, 2019); Maryam Jameel and Joe Yerardi, "Despite Legal Protections, Most Workers Who Face Discrimination are on Their Own" (Washington: The Center for Public Integrity, 2019); Maryam Jameel and others, "More than 1 Million Employment Discrimination Complaints Have Been Filed with the Government since 2010: Here's What Happened to Them" (Washington: The Washington Post and The Center for Public Integrity, 2019).
- **15.** David Neumark and Donna Rothstein, "Do School-to-Work Programs Help The 'Forgotten Half?'" Working Paper 11636 (National Bureau of Economic Research, 2005); U.S. Congress, Office of Technology Assessment, *Learning to Work: Making the Transition from School to Work*, OTA-EHR-637 (Washington: U.S. Government Printing Office, 1995).
- **16.** William Symonds and others, "Pathways to Prosperity: Meeting the Challenges of Preparing Young Americans for the 21st Century" (Boston: Harvard Graduate School of Education, 2011).
- 17. Annelies Goger, "Free College Won't be Enough to Prepare Americans for the Future of Work," available at https://www.brookings.edu/blog/the-avenue/2019/10/15/free-college-wont-be-enough-to-prepare-americans-for-the-future-of-work/ (October 2019).
- 18. Thomas R. Baily and Clive R. Belfield, "The

- False Dichotomy between Academic Learning and Occupational Skills," *Daedalus* 148 (4) (2019): 164–178; Emily Hodge and others, "Tracking and the Future of Career and Technical Education: How Efforts to Connect School and Work Can Avoid the Past Mistakes of Vocational Education" (Boulder, CO: National Education Policy Center, 2020); New Skills for Youth Initiative, "Making Good on the Promise," available at https://careertech.org/resource/series/making-good-promise (n.d.); Maureen T. Hallinan, "The Detracking Movement," *Education Next* 4 (4) (2004): 72–76.
- **19.** Baily and Belfield, "The False Dichotomy between Academic Learning and Occupational Skills."
- **20.** New Skills for Youth Initiative, "Making Good on the Promise."
- 21. Brent Parton, "Youth Apprenticeship in America Today: Connecting High School Students to Apprenticeship" (Washington: New America, 2017); Rachael Stephens, "State Strategies to Scale Work-Based Learning: Lessons Learned from NGA Policy Academy" (Washington: National Governor's Association, 2020); New America, "PAYA: Partnership to Advance Youth Apprenticeship," available at https://s3.amazonaws.com/newamericadotorg/documents/PAYA_11x17_v6b-pages3.pdf (n.d.); Robert Lerman, Daniel Kuehn, and Jessica Shakesprere, "Youth Apprenticeship in Georgia: Experiences and Recommendations" (Washington: Urban Institute and Peachtree Corners, GA: Georgia Center for Opportunity, 2019).
- **22.** David Murphey and others, "Caring Adults: Important for Positive Child Well-Being" (Bethesda, MD: Child Trends, 2013); Jenny Nagaoka and others, "Foundations for Young Adult Success: A Developmental Framework" (Chicago: The University of Chicago Consortium on Chicago School Research, 2015).
- 23. Annie E. Casey Foundation, "Generation Work: Equipping Young People with In-Demand Employment Skills and Credentials" (Baltimore: Annie E. Casey Foundation, 2018); Junlei Li and Megan M. Julian, "Developmental Relationships as the Active Ingredient: A Unifying Working Hypothesis of 'What Works' Across Intervention Settings," *American Journal of Orthopsychiatry* 82 (2) (2012): 157–166; Kristin A. Moore, "Commentary: Positive Youth Development

- Goes Mainstream," *Child Development* 88 (4) (2017): 1175–1177.
- **24.** Li and Julian, "Developmental Relationships as the Active Ingredient"; Kent Pekel and others, "Finding the Fluoride: Examining How and Why Developmental Relationships are the Active Ingredient in Interventions that Work," *American Journal of Orthopsychiatry* 88 (5) (2018): 493–502.
- **25.** Nan Lin, "A Network Theory of Social Capital." In Dario Castiglione, Jan W. van Deth, and Guglielmo Wolleb, eds., *The Handbook of Social Capital* (Oxford, UK: Oxford University Press, 2008): 4.
- 26. Steve McDonald and others, "Frontiers of Sociological Research on Networks, Work, and Inequality," Research in the Sociology of Work 24 (2013): 1–41; Thomas W. H. Ng and others, "Predictors of Objective and Subjective Career Success: A Meta-Analysis," Personnel Psychology 58 (2) (2005): 367–408.
- **27.** Mark Granovetter, "The Strength of Weak Ties," *The American Journal of Sociology* 78 (6) (1973): 1360–1380.
- **28.** Blustein, Juntunen, and Worthington, "The Schoolto-Work Transition."
- **29.** Hannah Dalporto and Will Swarts, "The Newly Virtual Workplace: Employers and Trainers Adapt" (New York: MDRC, 2020).
- **30.** Strengthening Career and Technical Education for the 21st Century Act, H.R. 2353, 115th Cong. 2 sess. (2018).
- **31.** Jessica Giffin and others, "Work-Based Learning Definitions: Themes from States and National Organizations" (Washington: American Institutes for Research, 2018): 42.
- **32.** Bryan Wilson, "Work-Based Learning Policy Toolkit for Out-of-School Youth and Disadvantaged Adults" (Washington: National Skills Coalition, 2017).
- **33.** Giffin and others, "Work-Based Learning Definitions," 44.
- **34.** Giffin and others, "Work-Based Learning Definitions," 42.

- **35.** Giffin and others, "Work-Based Learning Definitions," 37.
- 36. Eugene Roehlkepartain and others, "Relationships First: Creating Connections that Help Young People Thrive" (Minneapolis: Search Institute, 2017).
- **37.** Ibid.
- **38.** Kent Pekel and others, "Don't Forget the Families: The Missing Piece in America's Effort to Help all Children Succeed" (Minneapolis: Search Institute, 2015); Peter C. Scales and others, "Academic Year Changes in Student-Teacher Developmental Relationships and Their Linkage to Middle and High School Students' Motivation: A Mixed Methods Study," *The Journal of Early Adolescence* 40 (4) (2019): 1–38; Peter C. Scales and others, "Effects of Developmental Relationships With Teachers on Middle-School Students' Motivation and Performance," *Psychology in the Schools* 57 (4) (2020): 646–677; Pekel and others, "Finding the Fluoride."
- **39.** Nagaoka and others, "Foundations for Young Adult Success."
- **40.** National Scientific Council on the Developing Child, "Young Children Develop in an Environment of Relationships." Working Paper 1 (Cambridge, MA: Center on the Developing Child, Harvard University, 2009).
- **41.** "Positive Youth Development," available at https://youth.gov/youth-topics/positive-youth-development (n.d.).
- 42. Moore, "Commentary."
- **43.** National Research Council and Institute of Medicine, *Community Programs to Promote Youth Development* (Washington: The National Academy Press, 2002).
- **44.** National Research Council and Institute of Medicine, *Community Programs to Promote Youth Development*, 94–95.
- **45.** Li and Julian, "Developmental Relationships as the Active Ingredient," 1.
- **46.** Li and Julian, "Developmental Relationships as the Active Ingredient," 10.

- **47.** Karen Pittman, "Positive Youth Development as a Strategy for Addressing Readiness and Equity: A Commentary," *Child Development* 88 (4) (2017): 1172–1174.
- **48.** Nagaoka and others, "Foundations for Young Adult Success"; Marisa Gerstein Pineau, Leann Down, and Andrew Volmert, "They All Play a Role: Mapping the Gaps Between Expert and Public Understandings of Developmental Relationships" (Washington: Frameworks Institute, 2019); Peter C. Scales, Ashley Boat, and Kent Pekel, "Defining and Measuring Social Capital for Young People: A Practical Review of the Literature on Resource-Full Relationships," (Minneapolis: Search Institute, 2020).
- **49.** Kent Pekel (President and CEO, Search Institute) email message to Martha Ross, July 22, 2020; Sean Flanagan (Senior Director of Research, Center for Promise at America's Promise Alliance) email message to Martha Ross, July 22, 2020.
- **50.** Scales and others, "Effects of Developmental Relationships With Teachers on Middle-School Students' Motivation and Performance"; Scales and others, "Academic Year Changes in Student-Teacher Developmental Relationships and Their Linkage to Middle and High School Students' Motivation."
- **51.** David P. Weikart Center for Youth Program Quality, "Youth Program Quality Assessment" (Ypsilanti, MI: Forum for Youth Investment, 2012); Poonam Borah (Senior Research and Practice Specialist, The David P. Weikert Center for Youth Program Quality, Forum for Youth Investment), email message to Martha Ross, July 31, 2020.
- **52.** National Youth Employment Coalition, *PEPNet Guide to Quality Standards for Youth Programs: Linking Youth to Work and Education for a Successful Transition to Adulthood* (Washington: 2005).
- **53.** Jenny Weissbour and Amanda Newman, "The Benefits of Bridging Divides: How YouthBuild Philly Shares its Supportive practices to Build Business Value and Better Jobs," "Skilling the Next Generation." In Nichola Lowe, *Putting Skill to Work: How to Create Good Jobs in Uncertain Times* (Cambridge, MA: The MIT Press, Forthcoming).
- 54. Lin, "A Network Theory of Social Capital," 4.

- **55.** Tom Healy and Sylvain Côté, "The Well-Being of Nations: The Role of Human and Social Capital" (Paris: OECD Centre for Educational Research and Innovation, 2001): 41.
- 56. Granovetter, "The Strength of Weak Ties."
- **57.** McDonald and others, "Frontiers of Sociological Research on Networks, Work, and Inequality."
- 58. Sean Flannigan and Eleanor Castine, "Ready, Connected, Supported: A Framework for Youth Workforce Development and the Yes Project" (Washington: America's Promise Alliance, 2020); Laura Fisher and Daniel Fisher, Who You Know: Unlocking Innovations that Expand Students' Networks (San Francisco: Jossey-Bass, 2018); Robin L. Jarrett, Patrick J. Sullivan, and Natasha D. Watkins, "Developing Social Capital Through Participation in Organized Youth Programs: Qualitative Insights from Three Programs," Journal of Community Psychology 33 (1) (2005): 41–55. Our language here relies heavily on recommendations presented by Wonder: Strategies for Good, "Fostering Connections and Professional Networks: Messaging Insights and Preliminary Recommendations on How to Talk about Social Capital," presented during Talking About Social Capital webinar (September 14, 2020).
- **59.** James Rosenbaum and others, "Pathways into Work: Short- and Long-Term Effects of Personal and Institutional Ties," *Sociology of Education* 72 (3) (1999): 192.
- **60.** Rosella M. Gardecki, "Racial Differences in Youth Employment," *Monthly Labor Review* 124 (8) (2001): 53.
- **61.** Raj Chetty and others, "The Opportunity Atlas: Mapping the Childhood Roots of Social Mobility." Working Paper 25147 (National Bureau of Economic Research, 2020).
- **62.** Scales, Boat, and Pekel, "Defining and Measuring Social Capital for Young People."
- **63.** Mark Granovetter, *Getting a Job: A Study of Contacts and Careers*, 2nd ed. (Chicago: University of Chicago Press, 2018); McDonald and others, "Frontiers of Sociological Research on Networks, Work, and Inequality."
- **64.** Edward DeJesus, "A Social Capital Framework" (Columbia, MD: DeJesus Solutions, 2018); Enrique W. Neblett Jr. and others, "Racism, Racial Resilience, and

African American Youth Development: Person-Centered Analysis as a Tool to Promote Equity and Justice," Advances in Child Development and Behavior 51 (2016): 43–79; Joleen Kirschenman and Kathryn Neckerman, "We'd Love to Hire Them, But…': The Meaning of Race for Employers." In Christopher Jencks and Paul E. Peterson, eds., The Urban Underclass (Washington: Brookings, 2001); Philip Moss and Chris Tilly, Stories Employers Tell: Race, Skill, and Hiring in America (New York: Russell Sage Foundation, 2001).

- 65. DeJesus, "A Social Capital Framework."
- **66.** Mahnaz Charania and Julia Freeland Fisher, "The Missing Metrics: Emerging Practices for Measuring Students' Relationships and Networks" (Christensen Institute, 2020).
- **67.** Charania and Fisher, "The Missing Metrics," 6–7.
- **68.** Charania and Fisher, "The Missing Metrics"; Scales, Boat, and Pekel, "Defining and Measuring Social Capital for Young People."
- **69.** Scales, Boat, and Pekel, "Defining and Measuring Social Capital for Young People."
- **70.** Flannigan and Castine, "Ready, Connected, Supported."
- 71. Our description of the work-based learning continuum is generally aligned with the College & Career Academy Support Network, with some slight modification: College & Career Academy Support Network, "Work-Based Learning Continuum," available at https://casn.berkeley.edu/wp-content/uploads/resource_files/work_based_learning_continuum.pdf (n.d.). We also considered the continuum presented by Jobs for the Future when developing our perspective: Deborah Kobes, Charlotte Cahill, and Kyle Hartung, "Work-Based Learning Framework," available at https://www.jff.org/resources/work-based-learning-framework/ (May 2018).
- **72.** Nancy Hoffman and Robert B. Schwartz, *Learning for Careers: The Pathways to Prosperity Network* (Cambridge, MA: Harvard Education Press, 2017).
- **73.** Linked Learning Alliance, "A Work-Based Learning Strategy: The Career Practicum Version 1.0" (2011).
- **74.** Boris Granovskiy, "Reauthorization of the Perkins Act in the 115th Congress: The Strengthening Career

- and Technical Education for the 21st Century Act (R45446)" (Washington: Congressional Research Service, 2018).
- **75.** Granovskiy, "Reauthorization of the Perkins Act in the 115th Congress."
- **76.** Perkins Data Explorer, "CTE Concentrator Enrollment Data," available at https://perkins.ed.gov/pims/DataExplorer (n.d.); Strengthening Career and Technical Education for the 21st Century Act, H.R. 2353, 115th Cong. 2 sess. (2018).
- 77. U.S. Department of Education, "Statewide Performance Report: WIOA Title II Adult Education Program PY 2018, National Summary," available at https://www2.ed.gov/about/offices/list/ovae/pi/AdultEd/spr/py2018/nationalsummary.pdf (n.d.); U.S. Department of Education, "WIOA Statewide and Local Performance Report," available at https://www2.ed.gov/about/offices/list/osers/rsa/wioa/vr-annual-reports/py18-national-summary.pdf (June 2018); U.S. Department of Labor, "WIOA Adult Performance Report PY 2018," available at https://www.doleta.gov/Performance/Results/AnnualReports/PY2018/PY-2018-WIOA-National-Performance-Summary-3.27.2020.pdf (2020).
- **78.** U.S. Department of Labor, "WIOA Adult Performance Report PY 2018."
- 79. U.S. Department of Labor, "Workforce Innovation and Opportunity Act: About," available at https://www.dol.gov/agencies/eta/wioa/about (n.d.); National Skills Coalition, "FY 2020 Workforce and Education Appropriations," available at https://nationalskillscoalition.org/federal-policy/body/FY2020-Presidential-Budget-Request-comparison-chart.pdf (March 2019).
- **80.** David H. Bradley, "The Workforce Innovation and Opportunity Act and the One-Stop Delivery System" (Washington: Congressional Research Service, 2015).
- **81.** Byron Zuidema, "Operating Guidance for the Workforce Innovation and Opportunity Act, Third Workforce Innovation and Opportunity Act (WIOA) Title 1 Youth Formula Program Guidance," Training and Employment Guidance Letter WIOA No. 21-16 (Washington: U.S. Department of Labor, Employment and Training Administration Advisory System, 2017).

- **82.** U.S. Government Accountability Office, "Employment and Training Programs: Department of Labor Should Assess Efforts to Coordinate Services Across Programs." Publication number GAO-19-200 (2019); Jillian Berk and others, "The External Review of Job Corps: An Evidence Scan Report" (Washington: Mathematica Policy Research, 2018).
- **83.** U.S. Government Accountability Office, "Employment and Training Programs"; Cynthia Miller and others, "Laying a Foundation: Four-Year Results from the National YouthBuild Evaluation" (New York: MDRC, 2018).
- **84.** Lucinda Gray and Laurie Lewis, "Career and Technical Education Programs in Public School Districts: 2016–17: First Look," NCES 2018-028 (Washington: National Center for Education Statistics, U.S. Department of Education, 2018).
- **85.** Nancy Hoffman, Schooling in the Workplace: How Six of the World's Best Vocational Education Programs Prepare Young People for Jobs and Life (Cambridge, MA: Harvard University Press, 2011).
- **86.** David Neumark and Donna Rothstein, "School-to-Career Programs and Transitions to Employment and Higher Education." Working Paper 10060 (National Bureau of Economic Research, 2003).
- **87.** Martha Ross and others, "Pathways to High-Quality Jobs for Young Adults" (Washington: Brookings; Bethesda, MD: Child Trends, 2018). Young people are considered to be from disadvantaged backgrounds if they meet any of the following criteria in adolescence: family income equal to or less than 200% of the federal poverty line; neither parent has a postsecondary degree; mother was age 19 years old or younger when her first child was born; or family receives public assistance.
- **88.** James J. Kemple, "Career Academies: Long-Term Impacts on Work, Education, and Transition to Adulthood" (New York: MDRC, 2008).
- **89.** Kyra N. Caspary and others, "Taking Stock of the California Linked Learning District Initiative: Fifth-Year Evaluation Report" (Menlo Park, CA: SRI International, 2014); Miya T. Warner and others, "Taking Stock of the California Linked Learning District Initiative: Seventh-Year Evaluation Report" (Menlo Park, CA: SRI International, 2016).

- **90.** Alicia S. Modestino and Richard Paulsen, "School's Out: How Summer Youth Employment Programs Impact Academic Outcomes" (Boston: Northeastern University, 2019).
- **91.** Brett Theodos and others, "Pathways After High School: Evaluation of the Urban Alliance High School Internship Program" (Washington: Urban Institute, 2017).
- **92.** Neumark and Rothstein, "School-to-Career Programs and Transitions to Employment and Higher Education."
- **93.** Paul E. Barton, "Cooperative Education in High School: Promise and Neglect, A Policy Issue Perspective" (Princeton, NJ: Educational Testing Service, Policy Information Center, 1996).
- **94.** Sinan Gemici and Jay W. Rojewski, "Contributions of Cooperative Education in Preparing At-Risk Students for Post-High School Transition," *Journal of Education for Students Placed at Risk* 15 (3) (2010): 241–258.
- 95. Theodos and others, "Pathways After High School."
- **96.** Melanie Skemer and others, "Reengaging New York City's Disconnected Youth Through Work: Implementation and Early Impacts of the Young Adult Internship Program." OPRE Report 2017-22 (Washington: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services, 2017).
- 97. Career academies are small learning communities (150 to 200 students) that combine academic and career technical curricula around a career theme. They often partner with local employers to provide career awareness and work-based learning opportunities for students. Career academies establish a more supportive, personalized learning environment than the traditional high school experience. For more information about career academies, please see: https://www.ncacinc.com/nsop/academies.
- **98.** James J. Kemple and Jason C. Snipes, "Career Academies: Impacts on Students' Engagement and Performance in High School" (New York: MDRC, 2000).
- 99. Kemple, "Career Academies."
- **100.** Linked Learning combines college and career education in a systemic high school redesign model.

The model provides a rigorous academic education, career technical education, work-based learning experiences, and supportive services to all students. Learn more about the Linked Learning model at: https://www.linkedlearning.org/.

- **101.** Caspary and others, "Taking Stock of the California Linked Learning District Initiative"; Warner and others, "Taking Stock of the California Linked Learning District Initiative."
- **102.** The P-TECH model spans grades 9-14. In a P-TECH school, students earn a high school diploma and a two-year associate degree in a STEM field. Students also learn career-readiness skills through various work-based learning activities, such as paid internships. To learn more about the P-TECH model, visit https://www.ptech.org/about/.
- **103.** Rachel Rosen and others, "Bridging the Schoolto-Work Divide: Interim Implementation and Impact Findings from New York City's P-TECH 9-14 Schools" (New York: MDRC, 2020)
- **104.** Neumark and Rothstein, "School-to-Career Programs and Transitions to Employment and Higher Education."
- **105.** Martha Ross and Richard Kazis, "Renew the Federal Commitment to High-Quality Summer Youth Employment Programs" (Washington: Brookings, 2016).
- 106. Alexander Gelber, Adam Isen, and Judd B. Kessler, "The Effects of Youth Employment: Evidence from New York City Summer Youth Employment Program Lotteries." Working Paper 20810 (National Bureau of Economic Research, 2014); Boston Mayor's Office of Workforce Development and Northeastern University Dukakis Center for Urban and Regional Policy, "Reducing Inequality Summer by Summer: An Analysis of the Short-Term and Long-Term Effects of Boston's Summer Youth Employment Program" (2017); Erin Jacobs Valentine and others, "An Introduction to the World of Work: A Study of the Implementation and Impacts of New York City's Summer Youth Employment Program" (New York: MDRC, 2017); Jonathan M.V. Davis and Sara B. Heller "Rethinking the Benefits of Youth Employment Programs: The Heterogeneous Effects of Summer Jobs." Working Paper 23443 (National Bureau of Economic Research, 2017); Sara B. Heller, "Summer Jobs Reduce Violence Among

- Disadvantaged Youth," *Science* 346 (6214) (2014): 1219–1223.
- **107.** Valentine and others, "An Introduction to the World of Work."
- 108. Modestino and Paulsen, "School's Out."
- **109.** U.S. Department of Labor "Apprenticeship Toolkit: What are the basic program components of Apprenticeship?" available at https://www.dol.gov/apprenticeship/toolkit/toolkitfaq.htm#1b (n.d.).
- 110. Debbie Reed and others, "An Effectiveness Assessment and Cost-Benefit Analysis of Registered Apprenticeship in 10 States" (Oakland, CA: Mathematica Policy Research, 2012); Kevin Hollenbeck and Wei-Jang Huang, "Net Impact and Benefit-Cost Estimates of the Workforce Development System in Washington State." Technical Report No. 06-020 (Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, 2006).
- **111.** U.S. Department of Labor Employment and Training Administration, "Pre-Apprenticeship: Pathways for Women into High-Wage Careers—A Guide for Community-Based Organizations and Workforce Providers" (2015).
- **112.** Olivia Rice and others, "Connecting Secondary Career and Technical Education and Registered Apprenticeship: A Profile of Six State Systems" (Washington: U.S. Department of Education, Office of Career, Technical, and Adult Education, 2016).
- **113.** Parton, "Youth Apprenticeship in America Today: Connecting High School Students to Apprenticeship."
- 114. YouthBuild serves low-income youth who left high school without a diploma. Through the 10-month program, participants complete a diploma or GED, receive a stipend, and split their time between academic learning and hands on construction jobtraining. The program offers wraparound services and emphasizes the importance of a caring adult and peer network. To learn more about YouthBuild visit https://www.youthbuild.org/.
- 115. Miller and others, "Laying a Foundation."
- **116.** Year Up is a one-year program that provides participants with job skills training, college-level coursework, and a corporate internship. The program

provides wrap-around supports based on individual participant needs, as well as a stipend. To learn more about Year Up, visit https://www.yearup.org/.

- 117. David Fein and Jill Hamadyk, "Bridging the Opportunity Divide for Low-Income Youth: Implementation and Early Impact of the Year Up Program." OPRE Report 2018-65 (Washington: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services, 2018).
- **118.** Per Scholas provides free training in IT fields for qualified low-income workers. Participants receive 10 to 15 weeks of full-time technology and career-readiness training, depending on the course. The program also provides job placement assistance. To learn more about Per Scholas, visit https://perscholas.org/.
- 119. Richard Hendra and others, "Encouraging Evidence on a Sector-Focused Advancement Strategy: Two Year Impacts from the WorkAdvance Demonstration" (New York: MDRC, 2016); Kelsey Schaberg, "Can Sector Strategies Promote Longer-Term Effects: Three-Year Impacts from the WorkAdvance Demonstration" (New York: MDRC, 2017); Kelsey Schaberg and David H. Greenberg, "Long-Term Effects of a Sectoral Advancement Strategy: Cost, Benefits, and Impacts of the WorkAdvance Demonstration" (New York: MDRC, 2020).
- **120.** Farhana Hossain and Dan Bloom, "Toward a Better Future: Evidence on Improving Employment Outcomes for Disadvantaged Youth in the United States" (New York: MDRC, 2015).
- 121. Chris Warland and others, "Providing True Opportunity for Opportunity Youth: Promising Practices and Principles for Helping Youth Facing Barriers to Employment" (Chicago: Heartland Alliance's National Initiatives on Poverty & Economic Opportunity, 2015); Elizabeth Pufall Jones and others, "Turning Points: How Young People in Four Career Pathways Programs Describe the Relationships that Shape their Lives" (Washington: America's Promise Alliance).
- 122. Jones and others, "Turning Points."
- **123.** Dan Bloom, Saskia Thompson, and Rob Ivry, "Building a Learning Agenda Around Disconnected Youth" (New York: MDRC, 2010).

- **124.** Miller and others, "Laying a Foundation."
- 125. Fein and Hamadyk, "Bridging the Opportunity Divide for Low-Income Youth"; Hendra and others, "Encouraging Evidence on a Sector-Focused Advancement Strategy"; Schaberg, "Can Sector Strategies Promote Longer-Term Effects"; Schaberg and Greenberg, "Long-Term Effects of a Sectoral Advancement Strategy."
- **126.** Weissbour and Newman, "The Benefits of Bridging Divides: How YouthBuild Philly Shares its Supportive practices to Build Business Value and Better Jobs."
- **127.** Garrett Warfield (Chief Research Officer, Year Up), in discussion with Richard Kazis and Laura Stateler, January 10, 2020.
- **128.** U.S. Department of Labor, Employment and Training Administration "WIOA Adult Performance Report PY 2018."
- **129.** Fein and Hamadyk, "Bridging the Opportunity Divide for Low-Income Youth"; YouthBuild, "Our Impact," available at https://www.youthbuild.org/our-impact (n.d.); Mac Taylor, "Improving Outcomes for California Conservation Corpsmembers" (Sacramento, CA: Legislative Analyst's Office, 2018).
- **130.** U.S. Government Accountability Office, "Workforce Innovation and Opportunity Act States and Local Areas Report Progress in Meeting Youth Program Requirements." Publication number GAO-18-475 (2018).
- **131.** Sonam Gupta and others, "Evaluation of the Linking Innovation, Knowledge, and Employment Program: Final Evaluation Report" (Riverside, CA: Riverside County Economic Development Agency, 2016).
- 132. Gupta and others, "Issue Brief."
- 133. Roehlkepartain and others, "Relationships First."
- **134.** Kristin A. Moore and others, "The PILOT Assessment: A Guide to Integrating Positive Youth Development into Workforce Training Settings" (Bethesda, MD: Child Trends, 2018).
- 135. Moore and others, "The PILOT Assessment."
- 136. Roneeta Guha (Vice President of Strategy and

Impact, Linked Learning Alliance), email message to Martha Ross, Nicole Bateman, and Laura Stateler, July 22, 2020.

- **137.** Kyra Caspary and Miya Warner, "What It Takes to Create Linked Learning: A Report on Lessons Learned from Evaluating the Approach in Practice" (Menlo Park, CA: SRI Education, 2016).
- **138.** Warner and others, "Taking Stock of the California Linked Learning District Initiative."
- **139.** Linked Learning Alliance, "Work-Based Learning in Linked Learning: Definitions, Outcomes, and Quality Criteria" (San Francisco: 2012).
- **140.** Linked Learning Alliance, "Linked Learning Gold Certification Standards" (San Francisco: 2019).
- **141.** Tiffany Barfield, "Building Future-Ready Workforce Pipelines: Recommendations for State and Local Policymakers to Expand Work-Based Learning" (New York: NAF, 2019).
- **142.** National Academy Foundation, "National Academy Foundation Guide to Work-Based Learning: A Continuum of Activities and Experience" (New York: 2017).
- **143.** Barfield, "Building Future-Ready Workforce Pipelines."
- **144.** California Conservation Corps, "Who We Are," available at https://ccc.ca.gov/who-we-are/about/ (n.d.).
- **145.** Bruce Saito (Director, California Conservation Corps) and Dan Knapp (Executive Director, California Conservation Corps of Long Beach), in discussion with Martha Ross and Laura Stateler, May 1, 2020.
- 146. California Conservation Corps, "Educational Opportunities," available at https://ccc.ca.gov/life-in-the-corps/educational-opportunities/ (n.d.); California Conservation Corps, "Training and Career Pathways," available at https://ccc.ca.gov/life-in-the-corps/training-and-career-pathways/ (n.d.).
- 147. California Conservation Corps, "Training and Career Pathways," available at https://ccc.ca.gov/life-in-the-corps/training-and-career-pathways/ (n.d.); Bruce Saito (Director, California Conservation Corps) and Dan Knapp (Executive Director, California

Conservation Corps of Long Beach), in discussion with Martha Ross, May 1, 2020.

- **148.** Year Up, "About," available at https://www.yearup.org/about; Garrett Warfield (Chief Research Officer, Year Up), in discussion with Richard Kazis and Laura Stateler, January 10, 2020.
- 149. Year Up, "Why Year Up?" available at https://www.yearup.org/students (n.d.); Garrett Warfield (Chief Research Officer, Year Up), in discussion with Richard Kazis and Laura Stateler, January 10, 2020; Fein and Hamadyk, "Bridging the Opportunity Divide for Low-Income Youth."
- **150.** Year Up, "About Us," available at https://www.yearup.org/about (n.d.).
- **151.** Fein and Hamadyk, "Bridging the Opportunity Divide for Low-Income Youth."
- **152.** Ibid.
- 153. Ibid.
- **154.** Giffin and others, "Work-Based Learning Definitions."
- **155.** Rhode Island Governor's Workforce Board to Rhode Island Department of Education, Rhode Island Office of the Commissioner, and Workforce Network Partners, "Defining Work-Based Learning Activities and Standards" (January 2018).
- 156. Ibid.
- 157. Ibid.
- **158.** Angel Malone (Director of the Office of Career & Technical Education, South Carolina Department of Education), email message to Martha Ross, July 15, 2020.
- 159. CareerWise Colorado, "Partners and Funders," available at https://www.careerwisecolorado.org/ ourstory/partners/ (n.d.); Philanthropy News Digest, "CareerWise Colorado, Denver Public Schools Receive \$9.5 Million" (2016); Erin Silver (Chief Advisor, Public Policy and Legislation, CareerWise Colorado), in discussion with Richard Kazis, Laura Stateler, and Faith Smith, December 11, 2019.
- **160.** Erin Silver, December 11, 2019.

- **161.** Tennessee Department of Education, "Work-Based Learning Implementation Guide" (2016).
- **162.** Tennessee Department of Education, "WBL Toolbox," available at https://www.tn.gov/education/career-and-technical-education/work-based-learning/wbl-toolbox.html (n.d.).
- **163.** Delaware Pathways, "Learning to Work: Delaware Pathways Strategic Plan" (2017).
- **164.** Scales, Boat, and Pekel, "Defining and Measuring Social Capital for Young People."
- **165.** David N. F. Bell and David G. Blanchflower, "Young People and the Great Recession," *Oxford Review of Economic Policy* 27 (2) (2011): 241–267; Hilary Hoynes and others, "Who Suffers During Recessions?" *Journal of Economic Perspectives* 26 (3) (2012): 27–48; Maria Sironi, "Economic Conditions of Young Adults Before and After the Great Recession," *Journal of Family and Economic Issues* 39 (1) (2018): 103–116.
- 166. Alan Berube and Nicole Bateman, "Who are the Workers Already Impacted by the COVID-19 Recession?" available at https://www.brookings.edu/research/who-are-the-workers-already-impacted-by-the-covid-19-recession/ (April 2020); Hande Inanc, "Breaking Down the Numbers: What Does COVID-19 Mean for Youth Unemployment?" (Cambridge, MA: Mathematica, 2020).
- **167.** U.S. Department of Labor Bureau of Labor Statistics, "A-10. Unemployment Rates by Age, Sex, and Marital Status, Seasonally Adjusted," available at https://www.bls.gov/web/empsit/cpseea10.htm (November 2020).
- 168. 2019 annual data used because monthly, seasonally adjusted data is not fully available by age, race, and ethnicity. Note that persons identified as Hispanic and Latino ethnicity may be of any race. U.S. Department of Labor Bureau of Labor Statistics, "Household Data, Annual Averages: Employment Status of the Hispanic or Latino Population by Age and Sex," available at https://www.bls.gov/cps/cpsaat04.pdf (2020); U.S. Department of Labor Bureau of Labor Statistics, "Household Data, Annual Averages: Employment Status of the Civilian Noninstitutional Population by Age, Sex, and Race," available at https://www.bls.gov/cps/cpsaat03.pdf (2020).

- **169.** Ross and Bateman, "Meet the Low-Wage Workforce"; Martha Ross and Natalie Holmes, "Meet the Millions of Young Adults Who are Out of Work" (Washington: Brookings, 2019).
- 170. Curriculum supports academic standards and promotes career entry or two-year/four-year college prep: Charlotte Cahill, "Making Work-Based Learning Work" (Boston: Jobs for the Future, 2016); Blustein, Juntunen, and Worthington, "The School-to-Work Transition"; Linked Learning Alliance, "Work-Based Learning in Linked Learning"; New Ways to Work, "Quality Work-Based Learning: Guide to Creating Quality Work-Based Learning" (2009); Svetlana Darche, Nara Nayar, and Kathy Reeves Bracco, "Work-Based Learning in California: Opportunities and Models for Expansion" (San Francisco: The James Irvine Foundation, 2009).
- 171. Clear learning objectives: David Stern, Mikala L. Rahn, and Yue-Ping Chung, "Design of Work-Based Learning for Students in the United States," Youth & Society 29 (1998): 471–502; Linked Learning Alliance, "Work-Based Learning in Linked Learning"; Lisa Johnson and others, "FHI 360 Work-Based Learning Manual" (Durham, NC: FHI 360, 2018); National Academy Foundation, "National Academy Foundation Guide to Work-Based Learning"; New Ways to Work, "Quality Work-Based Learning"; Darche, Nayar, and Reeves, "Work-Based Learning in California."
- 172. Worksite tasks related to school-based content: Bettina L. Brown, "CTE and Work-Based Learning," ERIC Clearinghouse on Adult Career and Vocational Education 252 (2003); Cathleen Stasz and Dominic J. Brewer, "Work-Based Learning: Student Perspectives on Quality and Links to School," Educational Evaluation and Policy Analysis 20 (1) (1998): 31-46; Corinne Alfeld and others, "Work-Based Learning Opportunities for High School Students" (Louisville, KY: National Research Center for Career and Technical Education, 2013); Kimberly Hauge, "States Continue Advancing Strategies to Scale Work-Based Learning" (Washington: National Governors Association, 2018); Linked Learning Alliance, "Work-Based Learning in Linked Learning"; Johnson and others, "FHI 360 Work-Based Learning Manual"; National Academy Foundation, "National Academy Foundation Guide to Work-Based Learning"; New Ways to Work, "Quality Work-Based Learning."
- **173. Meaningful job tasks**: Cahill, "Making Work-Based Learning Work"; Linked Learning Alliance, "Work-Based

Learning in Linked Learning"; Johnson and others, "FHI 360 Work-Based Learning Manual."

- **174. Adult-youth relationships**: Linked Learning Alliance, "Work-Based Learning in Linked Learning"; Johnson and others, "FHI 360 Work-Based Learning Manual"; New Ways to Work, "Quality Work-Based Learning."
- 175. Workplace supervisor: Cahill, "Making Work-Based Learning Work"; Blustein, Juntunen, and Worthington, "The School-to-Work Transition"; Hauge, "States Continue Advancing Strategies to Scale Work-Based Learning"; Linked Learning Alliance, "Work-Based Learning in Linked Learning"; New Ways to Work, "Quality Work-Based Learning"; Darche, Nayar, and Reeves, "Work-Based Learning in California."
- 176. Mentor, case manager, or youth worker: Alfeld and others, "Work-Based Learning Opportunities for High School Students"; Thomas Showalter and Katie Spiker, "Promising Practices in Work-Based Learning for Youth" (Washington: National Skills Coalition and National Youth Employment Coalition, 2016).
- 177. Student assessment: Hauge, "States Continue Advancing Strategies to Scale Work-Based Learning"; Linked Learning Alliance, "Work-Based Learning in Linked Learning"; National Academy Foundation, "National Academy Foundation Guide to Work-Based Learning"; New Ways to Work, "Quality Work-Based Learning"; Darche, Nayar, and Reeves, "Work-Based Learning in California."
- 178. Reflection opportunities: Alfeld and others, "Work-Based Learning Opportunities for High School Students"; Linked Learning Alliance, "Work-Based Learning in Linked Learning"; Johnson and others, "FHI 360 Work-Based Learning Manual"; National Academy Foundation, "National Academy Foundation Guide to Work-Based Learning"; New Ways to Work, "Quality Work-Based Learning"; Darche, Nayar, and Reeves, "Work-Based Learning in California."
- **179. Supportive services:** Cahill, "Making Work-Based Learning Work"; Showalter and Spiker, "Promising Practices in Work-Based Learning for Youth."
- **180. Compensation:** Cahill, "Making Work-Based Learning Work"; Linked Learning Alliance, "Work-Based Learning in Linked Learning"; National Academy Foundation, "National Academy Foundation

- Guide to Work-Based Learning"; New Ways to Work, "Quality Work-Based Learning"; Showalter and Spiker, "Promising Practices in Work-Based Learning for Youth."
- 181. Framework for state and local action: Cahill, "Making Work-Based Learning Work"; Jennifer Zinth, "Work-Based Learning: Model Policy Components" (Denver: Education Commission of the States, 2018); Perkins Collaborative Resource Network, "Creating a State Work-Based Learning (WBL) Strategy," available at https://cte.ed.gov/wbltoolkit/strategy.html (n.d.); Stephens, "State Strategies to Scale Work-Based Learning."
- 182. Vision: Alfeld and others, "Work-Based Learning Opportunities for High School Students"; Zinth, "Work-Based Learning"; Hauge, "States Continue Advancing Strategies to Scale Work-Based Learning"; Melissa Canney and Dr. Danielle Mezera, "Developing High-Quality State Work-Based Learning Programs: A Playbook for State Policymakers" (Tallahassee, FL: ExcelinEd, 2020); Perkins Collaborative Resource Network, "Creating a State Work-Based Learning (WBL) Strategy"; Stephens, "State Strategies to Scale Work-Based Learning."
- **183. Definition**: Zinth, "Work-Based Learning"; Hauge, "States Continue Advancing Strategies to Scale Work-Based Learning"; Canney and Mezera, "Developing High-Quality State Work-Based Learning Programs"; Perkins Collaborative Resource Network, "Creating a State Work-Based Learning (WBL) Strategy"; Stephens, "State Strategies to Scale Work-Based Learning."
- **184. Metrics and outcomes tracking**: Stern, Rahn, and Chung, "Design of Work-Based Learning for Students in the United States"; Zinth, "Work-Based Learning"; Hauge, "States Continue Advancing Strategies to Scale Work-Based Learning"; Canney and Mezera, "Developing High-Quality State Work-Based Learning Programs"; Stephens, "State Strategies to Scale Work-Based Learning"; Barfield, "Building Future-Ready Workforce Pipelines".
- **185. Stable funding**: Cahill, "Making Work-Based Learning Work"; Zinth, "Work-Based Learning"; Stephens, "State Strategies to Scale Work-Based Learning."
- 186. Support for staff within intermediaries or education and workforce systems: Alfeld and others,

"Work-Based Learning Opportunities for High School Students"; Zinth, "Work-Based Learning."

187. Investment in tools and activities that support employer provision of quality work-based experiences: Alfeld and others, "Work-Based Learning Opportunities for High School Students"; Zinth, "Work-Based Learning"; Canney and Mezera, "Developing High-Quality State Work-Based Learning Programs"; Perkins Collaborative Resource Network, "Creating a State Work-Based Learning (WBL) Strategy."

188. Coordination across state agencies: Cahill, "Making Work-Based Learning Work"; Alfeld and others, "Work-Based Learning Opportunities for High School Students"; Zinth, "Work-Based Learning"; Hauge, "States Continue Advancing Strategies to Scale Work-Based Learning"; Canney and Mezera, "Developing High-Quality State Work-Based Learning Programs"; Perkins Collaborative Resource Network, "Creating a State Work-Based Learning (WBL) Strategy"; Stephens, "State Strategies to Scale Work-Based Learning."

Acknowledgements

The Brookings Metropolitan Policy Program would like to thank the Annie E. Casey Foundation for their generous support of this analysis, as well as program officers Allison Gerber and Patrice Cromwell for helping to conceptualize the project. We would also like to thank the Metropolitan Council, a network of business, civic, and philanthropic leaders that provides both financial and intellectual support for the Program.

The authors would like to thank Caroline George for her contributions to background research and editing, and Kenza Kamal for helping to start the project with a thorough and thoughtful literature review. The following colleagues provided valuable insights and comments on drafts of the report, for which we are very grateful: Alan Berube, Annelies Goger, and Tracy Hadden Loh.

We would also like to thank the following people for sharing their time and knowledge in interviews and email correspondence, and providing valuable review and comments on early drafts: Pauline Abetti, David Abromowitz, Omofehintola Akinrinade, Lili Allen, Joe Bertoletti, Amy Blair, Ashley Boat, Poonam Borah, Marissa Cole, Lisa Countryman, Nora Crowley, Kelli Diemer, Austin Estes, Roneeta Guha, Craig Henrickson, Kevin Hickey, Alisha Hyslop, Doug Ierley, Catherine Imperatore, Ranita Jain, Dan Knapp, Deborah Kobes, Robin Kroyer-Kubicek, Nichola Lowe, Angel Malone, Monique Miles, Nicholas Minar, Andrew Moore, Kristin Anderson Moore, Eleni Papadakis, Kent Pekel, Amy Phillips, John Ratliff, Melissa Rey, Luke Rhine, Brooke Rice, Bruce Saito, Thomas Showalter, Erin Silver, Matthew Spinella, Anne Stanton, Lori Strumpf, Dan Tsin, Shannon Varga, Garrett Warfield, and Eric Wolf.

The authors would also like to thank the following colleagues for valuable support in producing the report and contributing to outreach efforts: Julia Kraeger, David Lanham, and Michael Gaynor. Thanks to Luisa Zottis for layout and design.

The Brookings Institution is a nonprofit organization devoted to independent research and policy solutions. Its mission is to conduct high-quality, independent research and, based on that research, to provide innovative, practical recommendations for policymakers and the public. The conclusions and recommendations of any Brookings publication are solely those of its author(s), and do not reflect the views of the Institution, its management, or its other scholars. Brookings is committed to quality, independence, and impact in all of its work. Activities supported by its donors reflect this commitment.

Photo credits

Cover and page 27: Per Scholas

Pages 2, 7, 8, 14, 20, 36, and: Shutterstock

Pages 3: Brian Ujiie via Flickr (CC BY-NC-ND 2.0)

Pages 4, 5, 26: Urban Alliance

Page 32: IFA teched via Flickr (CC BY-NC-ND 2.0) Back cover: Jon Mannion via Flickr (CC BY-NC-ND 2.0)

About the Brookings Metropolitan Policy Program

Brookings Metro delivers research and solutions to help metropolitan leaders build an advanced economy that works for all.

To learn more, visit brookings.edu/metro.

For more information

Martha Ross Senior Fellow Brookings Metropolitan Policy Program mross@brookings.edu

