



BUILDING LADDERS OF OPPORTUNITY FOR YOUNG PEOPLE IN THE GREAT LAKES STATES, BRIEF 3

Strategies for Promoting Successful Transitions to Adulthood, Higher Education, and the Workforce

Shayne Spaulding

November 2017

A critical factor in promoting economic growth is ensuring that there are workers who can fill the jobs that provide the economic engine for shared prosperity. Although the Great Lakes region—Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin—has seen declines in manufacturing, there are signs of regional growth and improvement that can be further realized with a workforce that meets the needs of a changing economy. Attracting workers (including immigrants) is one strategy for meeting the region’s workforce needs, but future growth and prosperity will depend on ensuring that young people who live in the region remain and attain the education and skills relevant for future jobs. Although several federal funding streams aim to improve educational and workforce outcomes for youth, much of the power to effect change rests with state and local governments. Employers and philanthropy also have important roles to play in supporting the workforce. In this brief, I explore why the transition to adulthood matters and how it predicts future economic success. I also examine the challenges that young people face and look at effective and promising strategies that leverage funding and partnerships to support improved outcomes for youth in the Great Lakes region.

BOX 1

About This Policy Brief Series

This brief is part of a series recommending policies that will build ladders of opportunity and economic mobility for young people in the six state Great Lakes region—Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin.

The series of policy briefs follows a [framing paper](#) that detailed the challenges and opportunities facing the Great Lakes region (Pendall et al. 2017). During the first decade of the 2000s, manufacturing employment and incomes fell substantially, government revenues declined, and young people moved away from the region. Manufacturing has begun to rebound, but communities throughout the region are still dealing with the direct and ripple effects of this unprecedented blow to their economic base. Despite these severe challenges, ample evidence suggests the Great Lakes region has significant assets and a strong foundation that can sustain future economic and population growth and higher levels of prosperity. Ensuring the future productivity, stability, and prosperity of the region, though, requires policies and investments that bolster the people currently living in the Great Lakes states, especially young people.

The series includes five policy briefs with strategies for the following:

- supporting access to high-quality child development and preschool programs ([Katz 2017](#))
- eliminating gaps in K–12 education so all can read by third grade and graduate from high school ready for college or career ([Gallagher and Chingos 2017](#))
- promoting successful transitions to adulthood, higher education, and the workforce ([Spaulding 2017](#))
- reducing criminal and juvenile justice involvement for young people ([Jannetta and Okeke 2017](#))
- supporting basic needs to promote opportunity and economic mobility for young people ([Hahn 2017](#))

The in-depth policy analyses and recommendations in these briefs shed light on what needs to be done and what decisionmakers can do to invest in young people and ensure broad-based prosperity and a high quality of life in the Great Lakes region for coming generations.

Why the Transition to Adulthood Matters

The transition to adulthood from the late teen years into one’s mid-20s is a critical time for establishing a foundation for future labor market success. Building on the fundamental skills that have been developed in early childhood and the primary and secondary school years, the transition to adulthood is when young people continue to build their academic skills while exploring their career interests and developing needed qualifications for jobs through work and education or training. The presence of caring adults can help young people navigate this challenging time.

Research indicates a strong association between credential attainment and labor market success. In 2015, workers with bachelor’s degrees had weekly median earnings of \$1,341, compared with \$798 for workers with an associate’s degree and \$678 for those with a high school diploma. Workers with less

than a high school degree had weekly median earnings of only \$493. People with higher levels of education were also more likely to be employed.¹ Thus, there is value in assisting young people in obtaining high school and college credentials.

Recent research has also pointed out that some programs of study—for example, STEM (science, technology, engineering, and mathematics) subjects—yield higher labor market earnings (Carnevale, Cheah, and Hanson 2015). Credentials that require less than two years of education can also yield labor market payoff depending on the field of study and the state in which they are earned (Carnevale, Rose, and Hanson 2012). These data speak not only to the relationship between field of study and earnings, but to the importance of strong career advising in helping young people navigate college and career options.

Interviews with employers provide further insight into what is needed to secure and be successful in jobs. In addition to academic and technical skills, employers value 21st-century skills, which include written and oral communication, the ability to work in teams and collaborate, and problem solving (Casner-Lotto and Barrington 2006). Early work experiences can be an important mechanism for building and demonstrating to employers these workplace skills and for exploring career interests (Sum et al. 2014). Extracurricular activities can offer additional ways for young people to build skills, explore interests, and demonstrate relevant experience. Evidence shows that young people applying for entry-level jobs are evaluated based on a combination of these factors—academic skills and qualifications, work experience, and extracurricular activities—which influence employer perceptions of employability (Cole et al. 2007).

Challenges to the Transition to Adulthood

Young people face several challenges in realizing educational and employment success, but with greater resources and heightened focus on effective strategies, states can help young people overcome these obstacles and thrive in adulthood.

Some of these challenges are structural and stem from racism, generational poverty, and inequality. With a greater likelihood of residing in isolated, low-income neighborhoods, youth of color are more likely to attend low-quality schools, face disciplinary action in school, be involved in crime or targeted for arrest (especially for drug-related offenses), and have limited employment networks. These factors can affect their ability to build critical academic skills and access jobs. Discriminatory hiring practices, combined with a reliance on personal networks in hiring, further disadvantage certain jobseekers (Spaulding et al. 2015). Changes in the economy and labor market in recent decades have also disproportionately affected youth, exacerbating structural barriers (Sum et al. 2014).

These structural issues create barriers for people in making progress toward adulthood. With inadequate guidance in high school, many students lack the support to make suitable decisions about college and careers or do not get the support they need once they enter college (Woods and Domina 2014). In addition, many students leave high school unprepared for college, languish in developmental

education programs, and do not make progress toward credential attainment, leading many to drop out (Bailey, Jeong, and Cho 2010). Financial difficulty, familial responsibilities, mental health issues, and other challenges can get in the way of completion. Nationwide, only about 20 percent of students starting college at two-year public institutions earn a certificate or degree within 150 percent of the expected time for completing their programs. For students starting in four-year public colleges and universities, 51 percent earn a certificate or degree within six years.²

Young people also have a hard time building early work experiences that can be important for employability and intermediate- and long-term employment outcomes, including hours worked and earnings (Baum and Ruhm 2014; Hossain and Bloom 2015). National data show that during the summer months of 2017, the average monthly unemployment rate for youth ages 16 to 24 was 9.6 percent, compared with just 4.3 percent for workers overall. African American youth had even higher rates of unemployment (16.2 percent) (BLS 2017a; BLS 2017b).

Even those who stay in school and complete college can face difficulty getting a job, potentially a reflection of postsecondary academic programs that are not aligned with industry needs (Bills 2003; Cappelli 2014; Deil-Amen 2006; Manpower 2013). In addition to academic and technical skills, employers note a lack of soft skills among the entry-level workforce (Cappelli 1992; Handel 2003; Moss and Tilly 2001; Rosenbaum 2001, Manpower Group 2017). Enriched learning in and out of school and work experience opportunities can help young people develop the skills employers seek. Relative to low-income students, high-income students have better access to these opportunities, creating what some observers call an “opportunity gap” (Council of Economic Advisers 2015; Kaushal, Magnuson, and Waldfogel 2011; Reardon 2011).

Youth who struggle to stay in school and find work face even greater challenges in their career prospects. An estimated 4.9 million 16-to-24-year-olds are “disconnected” and not engaged in school or work (Burd-Sharps and Lewis 2017). Although there have been improvements overall since the Great Recession, Latinos, African Americans, and Native Americans have higher rates of disconnection than Asian and white youth, even when controlling for income. There is also a divide between urban and rural areas, with higher rates of disconnection for rural youth. Explanations for the high rates of disconnection among rural youth include fewer job opportunities, poor transportation, and increasing opioid use, which has disproportionately affected rural communities and may explain lower employment rates for young men (Krueger 2016).

The Picture for Young People in the Great Lakes Region

In the Great Lakes states, young people face the challenges that are apparent in the national data on educational and workforce outcomes. But economic challenges in some states have contributed to greater challenges for young people.

Postsecondary Outcomes

Postsecondary credentials are associated with higher rates of employment and earnings. Research has also shown that college attendance patterns, particularly at community colleges, are complex, with students transitioning in and out of school and from institution to institution (Costa 2013). Tables 1 and 2 show the college completion rates for two- and four-year public institutions in the Great Lakes states. Among the six states, Illinois has the highest completion rates from four-year public colleges, and Ohio has the lowest. Among two-year institutions, Minnesota is the leader in college completion, whereas Indiana and Ohio have the lowest rates. Indiana, Ohio and Michigan are all below the national average, while Illinois, Minnesota, and Wisconsin are above the national average. Many students come to college unprepared for the level of work and get held up in developmental education courses. The lack of adequate guidance and support can also be a factor, with many public institutions having high student-to-adviser ratios, making it difficult to provide the support needed to navigate college. Many institutions cannot meet the needs of adult students, who make up a sizeable portion of the college population. Finally, students who are poor tend to do worse in school, and the lower graduation rates in some states may suggest those states have inadequate support to meet students' needs.

TABLE 1

Six-Year Outcomes for Students Who Started at Four-Year Public Institutions, by Origin State

	Total completion rate	First completion at starting institution	First Completion at Different Institution (Anywhere in US)		Still enrolled (at any institution)	Not enrolled (at any institution)
			Four-year	Two-year		
US	62.43%	49.46%	9.76%	3.21%	13.24%	24.33%
Illinois	72.18%	61.12%	6.36%	4.70%	9.49%	18.33%
Indiana ^a						
Michigan	69.63%	60.04%	6.67%	2.92%	12.48%	17.90%
Minnesota	73.77%	49.66%	18.43%	5.67%	9.83%	16.40%
Ohio	58.63%	46.66%	9.03%	2.94%	12.20%	29.17%
Wisconsin	68.23%	51.27%	11.85%	5.11%	11.29%	20.49%

Source: Doug Shapiro, Afet Dundar, Phoebe Khasiala Wakhungu, Xin Yuan, Angel Nathan, and Youngsik Hwang, *Completing College: A State-Level View of Student Attainment Rates* (Herndon, VA: National Student Clearinghouse Research Center, 2017).

^a Coverage for historical cohort was less than 65 percent and was not included in the National Student Clearinghouse report.

TABLE 2

Six-Year Outcomes for Students Who Started at Two-Year Public Institutions, by Origin State

	Total completion rate	First completion at starting institution	First Completion at Different Institution (Anywhere in US)		Subsequent completion at a four-year institution	Total four-year completion rate	Still enrolled (at any institution)	Not enrolled (at any institution)
			Two-year	Four-year				
US	39.29%	26.67%	3.32%	9.30%	6.65%	15.95%	15.80%	44.90%
Illinois	46.15%	32.80%	3.62%	9.73%	9.81%	19.54%	12.61%	41.24%
Indiana ^a	23.15%	15.53%	0.64%	6.98%	1.70%	8.68%	17.65%	59.20%
Michigan	35.51%	24.13%	2.30%	9.09%	4.91%	14.00%	16.30%	48.19%
Minnesota	54.72%	36.87%	5.48%	12.37%	6.94%	19.30%	10.98%	34.30%
Ohio	33.57%	23.01%	1.46%	9.09%	4.04%	13.14%	13.05%	53.39%
Wisconsin	49.86%	39.00%	4.71%	6.16%	4.75%	10.91%	10.24%	39.90%

Sources: Doug Shapiro, Afet Dundar, Phoebe Khasiala Wakhungu, Xin Yuan, Angel Nathan, and Youngsik Hwang, *Completing College: A State-Level View of Student Attainment Rates* (Herndon, VA: National Student Clearinghouse Research Center, 2017); Doug Shapiro, Afet Dundar, Phoebe Khasiala Wakhungu, Xin Yuan, Angel Nathan, and Youngsik Hwang, *Completing College: A State-Level View of Student Attainment Rates* (Herndon, VA: National Student Clearinghouse Research Center, 2016).

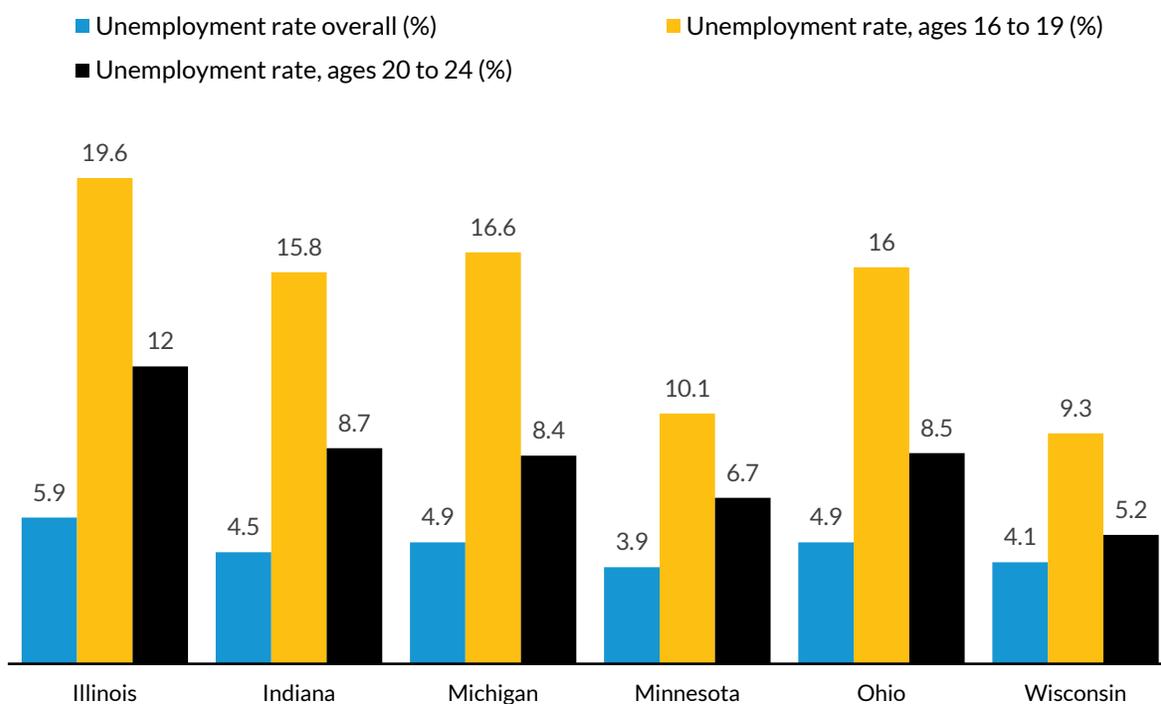
^a Reflects 2016 report as 2017 report did not include data on Indiana because there were fewer than three institutions included.

Employment Outcomes

Another key outcome for young people transitioning to adulthood and the workforce is employment. Across the six states were high rates of unemployment among youth ages 16 to 24 (figure 1). Unemployment rates for young people ages 16 to 19 are three to four times larger than the average for all age groups, except in Wisconsin, where young people ages 16 to 19 are only about two times more likely to be unemployed than the average jobseeker in that state (9.3 percent for 16-to-19-year-olds compared with 4.3 percent overall). Minnesota also has low total unemployment (3.9 percent), and young people seem to fare better in the job market than in the other states. Illinois, which has the highest overall unemployment rate at 5.9 percent, has the highest unemployment rates for 16-to-19-year-olds at nearly 20 percent, approximately double the rates for the same age group in Wisconsin and Minnesota. Overall, 20-to-24-year-olds tend to do better in the labor market than 16-to-19-year-olds, but unemployment rates are still high relative to the average for all age groups.

FIGURE 1

Unemployment Rates Overall and for Young People (2016 annual averages)



Source: Bureau of Labor Statistics, 2016.

Note: Data reflect the employment status of the civilian, noninstitutional population.

Disconnection from Work and School

A key area of concern for policymakers is the number of young people who are disconnected from school and work. Since the Great Recession, the number of disconnected youth has declined nationally,

and this is true in the Great Lakes states as well. Illinois, Indiana, Minnesota, Ohio, and Wisconsin have lower percentages of disconnected youth than nationwide (table 3). But low percentages overall can mask differences for population subgroups. For example, in Minnesota, the state with the lowest percentage of disconnected youth at 7.5 percent, the Latino rate of disconnection is 18.7 percent. In Illinois, Michigan, and Wisconsin, the rate of disconnection for African American youth is more than double the statewide rate (Burd-Sharps and Lewis 2017).

TABLE 3
Rates of Disconnection among Youth in the Great Lakes States

	Disconnected youth (2015) (percentage of 16-to 24-year-olds)	Change, 2010–15 (%)
US	12.3	-16.4
Illinois	12.1	-7.6
Indiana	12.1	-12.3
Michigan	13.0	-14.6
Minnesota	7.5	-19.0
Ohio	11.5	-22.2
Wisconsin	8.8	-21.1

Source: Sarah Burd-Sharps and Kristen Lewis, *Promising Gains, Persistent Gaps: Youth Disconnection in America* (New York: Social Science Research Council, Measure for America, 2017).

How the Great Lakes States Are Addressing These Challenges

Over the past decade, people have recognized the need to address the challenges facing young people. Government and philanthropy have focused resources on high youth unemployment and high numbers of disconnected youth, as well as reforms in higher education to address low graduation rates and concerns that the US education system is not preparing young people for work. State and local governments have been instrumental in these efforts, working with employers and leveraging philanthropic investments to develop effective strategies.

This is true in the Great Lakes states. Below, I highlight policies, strategies, and programs that facilitate the transition to adulthood and careers and how these strategies are being implemented in the Great Lakes region. I examine six strategy areas:

1. Career and college pathway programs at the high school level
2. High-quality career and technical education
3. Work-based and out-of-school-time learning opportunities
4. Higher education systems reforms
5. Labor market information and systems data
6. Adequate funding for postsecondary education

Career and College Pathway Programs at the High School Level

The focus of career and technical education at the high school level has changed in the past several decades. In the 1980s, “vocational education” prepared students for direct entry into the labor market after high school. As economic demands have shifted and because of pushback against certain students being tracked into noncollege paths, school systems have recognized the importance of preparing students for college and careers (Visher and Stern 2015). Research has shown the effectiveness of several models. Career academies, which are small learning communities developed within larger high schools that combine rigorous education with an industry focus and work-based learning, have positive and significant impacts on labor market outcomes (Kemple 2008). Also effective are models that allow students to enroll in college coursework in high school (dual enrollment) or work toward a college degree (early college high schools). Berger and colleagues (2013, 2014) found that early college high schools increase high school graduation, college enrollment, and college completion.

Several initiatives have helped implement models that facilitate the transition to college and careers for high school students. Visher and Stern (2015) provide examples of how these models are being implemented across the country. Table 4, based on Visher and Stern’s analysis, shows some of these initiatives and how they are being implemented in the Great Lakes states. Efforts under way in every one of the Great Lakes states suggest that career pathway models at the high school level are starting to take hold.

TABLE 4

Career and College Pathway Implementation in the Great Lakes States

Initiative	Description	States	Supporting organizations and funders
Pathways to Prosperity ^a	State-based system of pathways from ninth grade through college that is sector focused (advanced manufacturing, information technology, health, construction, and first responders)	IL, IN, MI, MN, OH, WI	Jobs for the Future and the Harvard Graduate School of Education
Youth Career Connect ^b	Encourages school districts, institutions of higher education, the workforce investment system, and their partners to integrate rigorous educational standards with work experiences and skills; focus is on employer engagement, high-demand industries, integration of postsecondary education, and training	IL, IN (2), MN (2), OH	US Department of Labor
Dual enrollment with a CTE focus ^c	Formal arrangements between a state, school districts, and college systems that allow high school students to enroll in CTE courses in local community colleges, earning college credit or certificates while completing high school programs, sometimes with extra support	IL, IN, MI, MN, OH, WI	State-level college and K–12 agencies
Career academies ^d	Small learning communities within larger high schools that integrate rigorous academics with CTE coursework, work-based learning, and personalized learning environments	IN (1), MI (8), MN (10), WI (18)	National Academy Foundation and National Career Academy Coalition
Early college high schools ^e	Combining high school and college in a rigorous, supportive environment that enables struggling students to graduate with college credit and the tools for postsecondary success	IL (1), IN (1), MI (3), OH (11), WI (1)	Jobs for the Future and the Bill & Melinda Gates Foundation
New Tech Network ^f	Project-based learning, collaborative learning with integration of cutting-edge technology; focus is on college and deeper learning and includes specialized curricula, STEM, global studies, and environmental education	IL (2), IN (15), MI (7), OH (8),	The William and Flora Hewlett Foundation, Carnegie Corporation of New York, Bill & Melinda Gates Foundation, Steelcase Education Solutions, Educate Texas, UTeach, Center of Excellence in Leadership of Learning, North Carolina New Schools Project, Buck Institute for Education, and the Asia Society

Source: Adapted from Mary G. Visher and David Stern, *New Pathways to Careers and College: Examples, Evidence, and Prospects* (New York: MDRC, 2015). The table is not exhaustive and may exclude efforts not captured by Visher and Stern (2015), including more recent initiatives or related programs not attached to one of these national initiatives.

Note: CTE = career technical education; STEM = science, technology, engineering, and mathematics.

^a See “Pathways to Prosperity Network,” Jobs for the Future, accessed October 6, 2017, <http://www.jff.org/initiatives/pathways-prosperity-network>.

^b See “Youth Career Connect,” US Department of Labor, Employment and Training Administration, last updated November 9, 2016, <https://doleta.gov/ycc/>.

^c See “50-State Comparison: Dual/Concurrent Enrollment Policies. Education Commission of the States, accessed November 6, 2017. <https://www.ecs.org/dual-concurrent-enrollment-policies/>

^d See the National Academy Foundation’s website at <http://naf.org/> and the National Career Academy Coalition’s website at <http://www.ncacinc.com/>.

^e See “Early College Designs,” Jobs for the Future, accessed October 6, 2017, <http://www.jff.org/initiatives/early-college-designs>.

^f See the New Tech Network’s website at <https://newtechnetwork.org/>.

High-Quality Career and Technical Education

High-quality career and technical education (CTE) at the high school and college levels can give students access to careers that will pay family-sustaining wages and meet employers' needs for workers with appropriate technical skills. Many of the pathways described above involve integrating career and technical education at the high school level. A major source of CTE funding is the Carl D. Perkins Career and Technical Education Act, which supports career and technical education at the high school and college levels. Table 5 shows differences in the availability of funding across the Great Lakes states and the distribution of local funding allocations between the high school and college levels.

TABLE 5

Career and Technical Education: Title I Spending

	Total allocation (\$) ^a	Local allocation (\$)	Percentage of local funding spent on secondary CTE	Percentage of local funding spent on postsecondary CTE
Illinois	39,793,241	33,824,255	60	40
Indiana	25,042,301	33,824,255	60	40
Michigan	36,960,258	31,416,220	60	40
Minnesota	16,684,637	14,181,941	42	58
Ohio	42,750,001	36,337,501	88	12
Wisconsin	20,241,685	17,205,433	48	52

Source: "State Profiles," US Department of Education, Office of Career, Technical, and Adult Education, Division of Academic and Technical Education, Perkins Collaborative Resource Network, accessed October 4, 2017, <http://cte.ed.gov/grants/state-profiles>.

Note: CTE = career and technical education.

^aTotal allocation includes funding for leadership, administration, and reserves at the state level. Remaining funding is distributed at the local level with discretion about the distribution between secondary and postsecondary programs. Basic grants are allocated to states based on (1) size of segments of their population (number of youth ages 15 to 19, young adults ages 20 to 24, and adults ages 25 to 65) and (2) the state's per capita income where states with lower per capita incomes are eligible to receive more funding per student than states with higher per capita incomes.

Of the six states, Ohio receives the most in Title I formula funds and distributes 88 percent of the local funding to support secondary education programs. Illinois, Indiana, and Michigan also favor secondary education programs, but in these states, 60 percent of funding is spent in secondary programs compared with 40 percent in postsecondary. Minnesota and Wisconsin spend more of their Perkins CTE funding on postsecondary programs, although the split is close to half.

Beyond the availability of resources, one indicator of quality can be how well CTE funding focuses on the industries where jobs are in demand. Table 6 shows the primary areas of study for "concentrators," or students who have completed focused coursework in a CTE program area.³ At the high school level, there is variation in the leading career clusters for enrollment, but at the postsecondary level, the highest enrollments are in the health science cluster, an area of projected job growth. Health care occupations also offer the opportunity for career advancement, even if entry-level jobs are low paying, potentially making them a good choice for the focus of CTE programs.

TABLE 6

Career Clusters with Highest Levels of Enrollment for CTE Concentrators, 2014–15

Rank ^a	Illinois	Indiana	Michigan	Minnesota	Ohio	Wisconsin
Secondary						
1	Business, management, and administration	Health science	Health science	Business, management, and administration	Agriculture, food, and natural resources	Education and training
2	Transportation, distribution, and logistics	Transportation, distribution, and logistics	Marketing, sales, and service	Human services	Health science	Business, management, and administration
3	Architecture and construction	Science, technology, engineering, and math	Business, management, and administration	Agriculture, food, and natural resources	Transportation, distribution, and logistics	Manufacturing
Postsecondary						
1	Health science	Health science	Health science	Health science	Health science	Health science
2	Law, public safety, corrections, and security	Business, management, and administration	Business, management, and administration	Business, management, and administration	Business, management, and administration	Business, management, and administration
3	Business, management, and administration	Science, technology, engineering, and math	Law, public safety, corrections, and security	Law, public safety, corrections, and security	Manufacturing	Law, public safety, corrections, and security

Source: “State Profiles,” US Department of Education, Office of Career, Technical, and Adult Education, Division of Academic and Technical Education, Perkins Collaborative Resource Network, accessed October 4, 2017, <http://cte.ed.gov/grants/state-profiles>.

^a Top three career clusters based on those that have the highest rates of enrollment.

Work-Based and Out-of-School-Time Learning Opportunities

Given the importance of early work experiences in building skills and credentials for youth, the opportunity to access work-based and other out-of-school-time learning opportunities is critical. Summer youth employment programs offer young people the chance to gain employable skills. Although research has found limited impacts on later employment, several studies have shown positive impacts on employment in the summer of participation and on other medium- and long-term outcomes, such as avoidance of criminal behavior, reduced mortality, and better school attendance (Leos-Urbel 2014; Heller 2014; Gelber, Isen, and Keller 2014). Registered apprenticeships, which are part of a federal program that is managed by states, combine classroom training with paid on-the-job training. Registered apprenticeships have shown strong positive impacts on participants and are attractive because they are strongly linked to employers, allow participants to gain skills while earning a wage, and offer young people the opportunity to build a relationship with a caring adult, found to be important when working with young people (Reed et al. 2012).

The 2014 Workforce Innovation and Opportunity Act (WIOA), the main law governing the public workforce system, puts a strong emphasis on work-based learning (including summer jobs) and expanded services to youth, including disconnected youth. State WIOA plans reveal that several Great Lakes states plan to use WIOA resources to support summer youth employment and other career-focused enrichment for youth. The Illinois state plan describes an effort to develop an apprenticeship program with the Illinois Manufacturers' Association and offer a summer learning academy for middle school girls. Indiana, Michigan, and Wisconsin have efforts to focus on summer youth employment opportunities. Indiana and Michigan plans also focus on providing other out-of-school-time learning programs through summer camps and after-school programs. Minnesota's plan describes summer programs focused on work experience and work readiness for special populations, including teen parents and Temporary Assistance for Needy Families recipients.

WIOA also emphasizes apprenticeships. Table 7 shows the 2016 totals for registered apprenticeship programs. Of the six Great Lakes states, Ohio had the largest number of active apprentices, and Michigan had the largest number of active programs. Indiana had the most new apprentices, and Wisconsin had the most new programs. Minnesota has the least number of active apprentices, new apprentices, completers, active programs, and new programs. Although registered apprenticeships have historically been common in manufacturing and trade professions, the federal government and some states have expanded apprenticeships to include other occupations.

TABLE 7

State Apprenticeship Program Information*Fiscal year 2016 state totals*

	Active apprentices	New apprentices	Completers	Active programs	New programs
Illinois	13,754	4,927	1,667	486	19
Indiana	12,406	7,178	2,891	880	58
Michigan	13,753	5,068	1,116	999	75
Minnesota	11,656	576	689	225	1
Ohio	16,237	6,781	2,132	926	25
Wisconsin	10,078	5,632	949	975	80
Great Lakes	77,884	30,162	9,444	4,491	258
United States	505,371	206,020	49,354	21,339	1,701

Source: US Department of Labor, Registered Apprenticeships National Results, FY 2016,
https://www.doleta.gov/OA/data_statistics.cfm.

Higher Education System Reforms

Recent government and foundation activity has focused on improving higher education so that it better serves students, especially disadvantaged students. Community colleges have often been the focus of demonstration programs to help targeted populations obtain the education and training they need to succeed in the workforce. Strategies embodied in these initiatives include the following:

- Class schedules that allow working students to enroll
- Modularized courses in a program to accelerate learning
- Online or hybrid learning
- Better articulation of noncredit to for-credit programming within the community college and of transfer of credits to four-year institutions
- Short-term credentials that articulate or are “stackable” toward a degree
- More effective outreach and engagement of employers and industry that goes beyond advisory boards
- Cohort-based approaches and learning communities
- Transformation of counseling and advising, financial aid, and other student supports to be more accessible and helpful to students
- Changes in how students enter and move beyond remedial and developmental education, including integrating adult basic education with career and technical education

It is difficult to know how well these strategies are taking hold across the Great Lakes region. Some information comes from the National Skills Coalition, which conducted state-level research in 2016 to assess implementation of strategies to support students and jobseekers through system-level improvements, including integrated education and training, stackable credentials, job-driven financial aid, and systems alignment policies. All six states have implemented policies to meet the needs of disadvantaged students. Minnesota has the most indicators of support for these students, while Ohio uses only stackable credentials (table 8).

TABLE 8

Policies for Meeting the Needs of Disadvantaged Students

	Integrated education and training ^a	Stackable credentials ^b	Job-driven financial aid ^c	Alignment ^d
Illinois	X		X	
Indiana	X			
Michigan			X	
Minnesota	X	X	X	X
Ohio		X		
Wisconsin	X	X		X

Source: National Skills Coalition (NSC), “Skills Equity Policy in the States: A Summary of Findings from NSC’s 50-State Scans” (Washington, DC: NSC, n.d.).

^a States that have integrated education and training have “policies that address the basic skill gaps of jobseekers by encouraging the adoption of program models that allow participants to develop or refresh basic skills, such as math, reading, or spoken English, while simultaneously training for an in-demand occupation or industry.”

^b A stackable credential is “an industry-recognized credential offered by a certificate or other nondegree program, or a third-party certification or occupational license, which articulates toward a higher-level certificate or associate’s degree in the same occupational area.”

^c Job-driven financial aid policies address gaps in funding for students pursuing career-focused programs not covered by Pell grants or other federal financial aid. States can offer grants or tuition waivers to students pursuing short-term training or who are enrolled less than full time.

^d States can use alignment policies to ensure alignment of different pieces of the system so students can make progress along career pathways. The following are key elements that signal systems alignment policies: integrated education and training, career counseling, support services, high school equivalent credentials, industry-recognized and stackable postsecondary credentials, and industry engagement.

Labor Market Information and System Data

Analyzing labor market and systems performance data is critical to developing systems aligned with employer and labor market needs. States need accessible data on a regular basis to understand the demand for workers and skills for particular occupations and industries to design a workforce and education system responsive to employer needs and that prepares workers for the right jobs and skills. Tracking progress through educational institutions and into the workforce is important and can be done through P-20 data systems, which link individual records in employment and educational data starting in preschool and continuing through college and entry into the workforce.

A scan by the Educational Commission of the States indicates that all six of the Great Lakes states are operating P-20 data systems thanks to federal efforts to promote such systems on behalf of the US Departments of Education and Labor.⁴ However, there is still variation across states in terms of what systems are included, with Illinois, Indiana and Minnesota data systems encompassing early education, K-12, postsecondary and workforce data and the remaining states including only two or three of these systems' data. An assessment by the Workforce Data Quality Campaign (2016) suggests that states are in different stages of development with respect to data quality and access. Indiana, Michigan, Minnesota, and Ohio achieved goals around use and access to labor market data. Ohio and Minnesota were the only states that secured state funding to support data efforts. According to the report, Indiana, Minnesota, and Ohio are leaders, while Wisconsin made only minimal progress on several indicators.

Many states have made funding for public higher education performance based by tying a portion of funding to student outcomes, such as course completion or graduation. No research points to the effectiveness of such policies in improving performance for program graduates (Dougherty et al. 2016; Hillman 2016). Proponents argue that the traditional approach to reimbursement based on the number of full-time equivalent (FTE) students (or the number of students "in seats") provides incentives for institutions to fill seats rather than help people cross the finish line. Critics argue that performance-based funding does not wholly account for differences in the populations served by different institutions. One concern is that this approach to financing may underresource institutions most in need. In that vein, there is an argument for equity-based funding, where colleges that serve the most at-risk students receive more funding (Hillman 2016). Critics also worry about "cream skimming," where performance-based funding provides incentives to institutions not to admit students who put colleges most at risk of not meeting performance goals. Although the best approach is not clear, understanding reimbursement structures in the Great Lakes states can highlight points of leverage and opportunities for reform depending on each state's needs.

Research by the National Council of State Legislatures in 2015 documented performance-based funding for higher education across the 50 states. Selected data from the Great Lakes states are shown in table 9. Ohio has the greatest proportion of higher education funding being allocated to college through performance reimbursement, whereas Illinois has the least. Wisconsin's performance-based funding structure applies only to technical colleges.

TABLE 9

Performance-Based Funding for Higher Education

State	In place at	Funding amount
Illinois	Two- and four-year institutions	Less than 1 percent of base funding.
Indiana	Two- and four-year institutions	6 percent for FY 2014 and FY 2015.
Michigan	Two- and four-year institutions	For FY 2014–15, \$37.3 million in new appropriations for universities and \$8.9 million in new appropriations for community colleges was allocated based on performance metrics.
Minnesota	Two- and four-year institutions	5 percent of base funding is reserved until institutions meet three out of five performance goals.
Ohio	Two- and four-year institutions	Ohio is phasing in changes to the state's performance funding model. In FY 2014, 50 percent of funding for four-year institutions will be based on degree completion, and 30 percent will be based on course completion. For community colleges, 25 percent of funding will be based on course completion, and 25 percent will be based on success points.
Wisconsin	Technical colleges	10 percent of base funding will be at stake during FY 2014–15. The amount of performance funding will increase by 10 percent increments until reaching 30 percent in FY 2016–17.

Source: “Performance-Based Funding for Higher Education,” National Conference of State Legislatures, July 31, 2015, <http://www.ncsl.org/research/education/performance-funding.aspx>.

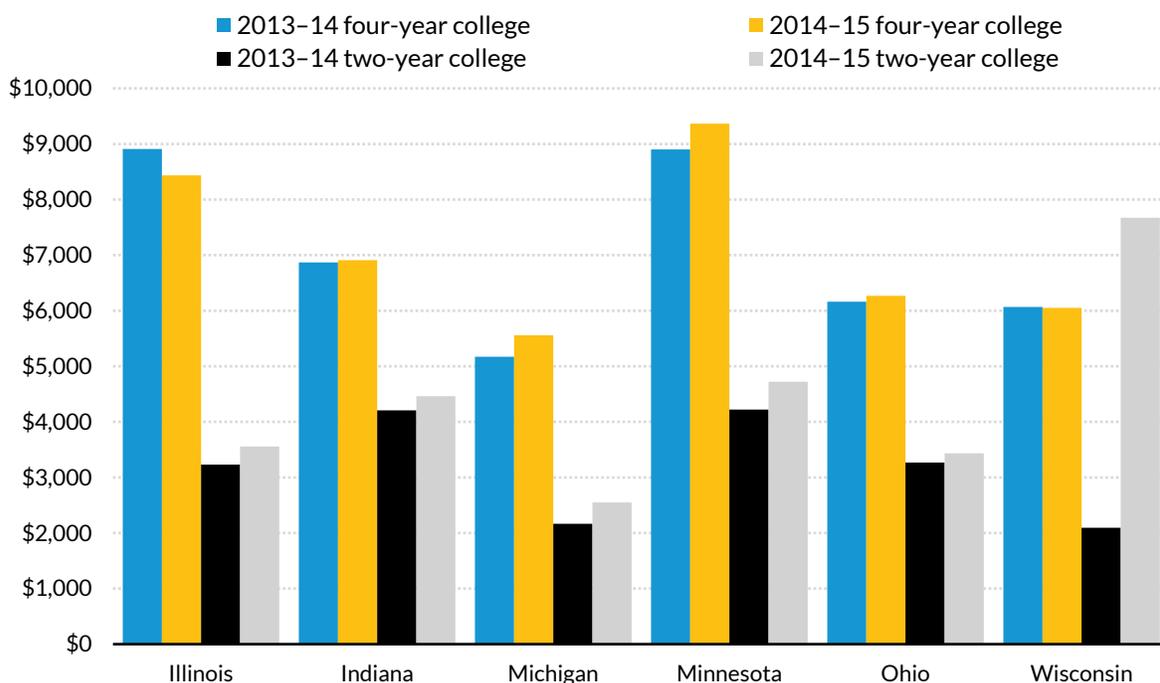
Note: FY = fiscal year.

Adequate Funding for Postsecondary Education

The amount of funding available for postsecondary education is a critical factor in ensuring that youth can transition to careers that yield sufficient earnings. The resources dedicated to postsecondary education is a function of population size, the number enrolled in college, and the overall funding available in a state’s budget. Figure 2 shows state funding per full-time equivalent student for two- and four-year public colleges in the 2014–15 school year. Minnesota and Illinois spend the most per FTE at four-year public colleges at \$9,364 and \$8,433, respectively, while Michigan spends the least at \$5,558 per FTE student. Illinois and Minnesota also boast the highest college completion rates at the four-year level. For two-year colleges, Wisconsin spends the most (\$7,674 per FTE student in 2014–15), although this is a jump from 2013–14, when Wisconsin only spent \$2,095 per FTE student, the lowest of any of the six Great Lakes states that academic year, possibly because of external grant funding that year. Minnesota spent the most per FTE student in 2013–14 at \$4,211 and boasted one of the highest graduation rates, with more than 54 percent starting at two-year institutions, completing within six years.

FIGURE 2

State Funding per FTE Student at Public Colleges in 2013–14 and 2014–15



Source: Urban Institute analysis of Integrated Postsecondary Education Data System data.

Note: FTE = full-time equivalent.

What the Great Lakes Region Can Do

There has been momentum in addressing the needs of disadvantaged youth and improving the institutions that facilitate their successful transition to adulthood and the workforce. To continue this momentum, states, local governments, and private funders should focus on the following strategies that have proven successful in meeting the needs of this population.

Implement and Expand Career and College Pathways Programs at the High School Level

Career academies, early college high schools, and dual-enrollment programs are evidence-based strategies for improving outcomes. These strategies are being implemented in all six Great Lakes states. Broader adoption and expansion of these efforts will require the commitment of state and local governments, employers, and philanthropy.

- States can contribute resources to these efforts, focus federal funding (e.g., Perkins CTE state grants and WIOA funding) on these strategies, and establish policies that provide incentives to local areas to implement them. In setting state education standards and policies, states can

make it easier for dual-enrollment and early college high schools to develop and can help orient systems to realize goals related to college and careers. States can also help galvanize the participation of statewide partners, including departments of higher education and major employers in a state.

- Local governments, in addition to contributing resources, can oversee college and career pathway programs while they oversee K–12 education and some postsecondary education. Because job markets are often local or regional, local governments can convene partners, including employers and philanthropic organizations.
- Employers are critical partners in these efforts and can provide information to career and college pathway programs about in-demand occupations, feedback on program content, and opportunities for students to explore occupations and gain exposure to work.
- Philanthropic partners can help spur innovation and provide a more flexible source for funding to support local efforts. Philanthropy can also bring stakeholders to the table.

Expand and Improve Opportunities for Work-Based and Out-of-School-Time Learning

Employers evaluate job candidates based on educational attainment, employment experience, and extracurricular activities. States can expand and improve options available to young people, particularly those who are disadvantaged and may not have equal access to jobs and enrichment activities.

Expand registered apprenticeships to include additional occupational clusters. Registered apprenticeships have strong positive impacts, offering young people the chance to build skills, earn credentials, receive mentorship, and enter into good jobs and careers. But registered apprenticeships have been limited to certain careers and sectors. States and employers can bolster registered apprenticeship opportunities for youth, focusing on how to expand apprenticeships to new occupations and sectors.

The Great Lakes states already operate robust apprenticeship programs, and state governments can set standards for registered apprenticeships. Yet, the United States lags behind its European counterparts in using registered apprenticeships for workforce preparation across sectors. WIOA placed a strong emphasis on registered apprenticeships, and expansion is a priority under the current administration. States can market apprenticeship to employers in new sectors while making apprenticeships more attractive for underserved populations.

Improve and expand summer youth employment programs. The Great Lakes states use WIOA dollars to support summer youth employment programs. Given the lack of evidence about the effectiveness of summer youth employment in improving medium- and long-term employment outcomes for youth, states should explore opportunities to experiment with enhancements to summer youth employment programs and test their efficacy in achieving improved outcomes. Valentine and colleagues (2017), in their study of New York City’s Summer Youth Employment Program, conclude that to have employment

effects, a program likely requires an intensive and supportive investment with close connections to career and college outcomes for youth. Summer youth employment programs could be linked to specific career and college pathway programs (described above) or to specific industries or employers. States could further these efforts by setting aside WIOA or CTE dollars for this purpose or by bringing statewide actors to the table to support local efforts.

Valentine and colleagues (2017) also found there may be risks to operating at scale (as suggested by the New York City experience), so states and localities should experiment with enhancements and modifications on a smaller scale while offering summer youth employment opportunities more broadly as a strategy for engagement in positive activities during the summer.

Explore other opportunities for work-based and out-of-school-time learning. At the state and local levels, governments can create other opportunities for work-based learning that fall outside of registered apprenticeships. Although registered apprenticeships have shown strong positive impacts, alternative avenues exist for young people to gain experience and skills, including the following:

- Apprenticeships that are not registered
- Internships or externships for high school students
- Co-op education, where internships are required components of college programs and are credit bearing
- Clinical experience as a part of career and technical education programs

Given the financial constraints students face, opportunities for students to “earn and learn” while gaining meaningful skills and experience connected to the workplace will be most effective.

Beyond work-based learning, state and local governments can expand and improve opportunities for out-of-school-time learning. Employers evaluate entry-level candidates based, in part, on extracurricular activities, yet low-income youth may not have access to enrichment activities that allow them to gain the skills employers seek. Cities, with access to cultural institutions, can offer after-school programming and other enrichment options to youth.

Leverage Federal Policy Changes to Support Continued Systems Reforms and Effective Programs

Changes to WIOA have allowed states and localities to implement changes to workforce systems to improve and expand workforce services for young people. Although partisanship at the federal level has prevented policy changes in many areas, workforce development is one area where both sides have found agreement. WIOA passed in 2014 with bipartisan support. A bill reauthorizing and updating the Perkins Career and Technical Education Act overwhelmingly passed the House in 2016. Although the bill stalled in the Senate, a similar bill was introduced in the House in 2017. The Higher Education Act is also up for reauthorization.

Employers and philanthropy can push Congress to include reforms that benefit young people in the Great Lakes states, including ensuring that funded programs engage and build relationships with industry and use funding to prepare young people for jobs in in-demand fields. Career and technical education could also be linked to work experience programs to ensure young people develop the skills employers demand and can access available opportunities. Efforts to align programs and outcome measures with WIOA will help create a more coordinated and aligned system for meeting the skill development needs of young people to fill open jobs today and in the future. If reauthorized, the Perkins law will grant states expanded authority to set priorities, and the Great Lakes states should use this authority to create systems better aligned with student needs and the labor market.

Reauthorizing the Higher Education Act reforms can expand access to financial aid by making it easier for students to apply and allowing students access to information and supports for navigating their college and career options. Institutions of higher education can use these reforms to continue progress made in transforming colleges to be more responsive to industry and student needs. Robust counseling, guidance, and supportive services have been essential components of effective models for serving disadvantaged students.

Expand Labor Market Information Capacity, and Use It to Shape Available Programs and Engage Employers

Although progress has been made across states in developing labor market information systems, some states still have further to go. The Great Lakes states need data to understand employers' needs, help young people make career choices, design programs that meet employer demand, and assess student outcomes. Data capacity can be key for understanding employers' needs and for building strong relationships with them. Through these strong relationships, states will be better positioned to understand the changing economy and future skill demands. A key challenge is connecting education and labor market data to follow the young people's trajectory through educational programs to careers.

Despite significant challenges facing young people in the Great Lakes region, states can bring about change by leveraging funding and partnerships to support improved outcomes and economic prosperity for youth and a brighter future for the region.

Notes

1. Dennis Vilorio, "Education Matters," Bureau of Labor Statistics, accessed October 4, 2017, <https://www.bls.gov/careeroutlook/2016/data-on-display/education-matters.htm>.
2. "Undergraduate Retention and Graduation Rates," US Department of Education, Institute of Education Sciences, National Center for Education Statistics, accessed October 4, 2017, https://nces.ed.gov/programs/coe/indicator_ctr.asp.
3. Students are designated as participants if they take one or more credits in a CTE program area. At the secondary level, concentrators have earned three or more credits in a CTE program area or two credits in a CTE program area when the two-credit sequence is recognized by the state or its local eligible recipients. At the postsecondary level, a concentrator is a student who completes at least 12 academic or CTE credits within a program area sequence that terminates in an industry-recognized credential, certificate, or degree.

4. Zeke Perez, Jr., "50-State Comparison: Statewide Longitudinal Data Systems," Educational Commission of the States, October 17, 2016, <https://www.ecs.org/state-longitudinal-data-systems/>.

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About the Authors



Shayne Spaulding is a senior research associate in the Income and Benefits Policy Center at the Urban Institute, where her work focuses on the evaluation of workforce development and postsecondary education programs. She has spent more than 20 years in the workforce development field as an evaluator, technical assistance provider, and program manager. Her research has included studies of programs for young noncustodial fathers, sectoral employment programs, social-purpose staffing agencies, faith-based programs, and other workforce development topics.

Acknowledgments

This brief was funded by the Joyce Foundation. We are grateful to them and to all our funders, who make it possible for Urban to advance its mission.

The views expressed are those of the author and should not be attributed to the Urban Institute, its trustees, or its funders. Funders do not determine research findings or the insights and recommendations of Urban experts. Further information on the Urban Institute’s funding principles is available at www.urban.org/support.



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