

What Contributes to Youth Workforce Success and How States are Responding

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The United States is no longer a global leader in education. Many of our youth are not developing the skills they need to prosper in the 21st century economy. Unless we equip youth with the education and workforce skills they need to succeed, we are in danger of leaving millions of young people on the sidelines, severely jeopardizing our nation's ability to remain competitive in a global economy. Harvard's 2011 Pathways to Prosperity report challenges the prevalent mentality that a four-year college degree is the best path for all students, and argues that we need to create multiple pathways for youth to succeed. These pathways must combine rigorous academics with strong career/technical education and work-based learning that provide the skills and credentials youth need in today's changing labor market. All this will require significant changes in our existing approach to education. It will involve intensive collaboration between youth, families, schools, employers, and policymakers. Multiple local, state, and national initiatives hold promise for improving economic and life outcomes for struggling youth.

In recent years, the U.S. has taken an increasingly academic approach to high school. The goal of preparing students to attend four-year colleges is widely seen as the preferred pathway to success. Despite decades of promoting this approach, we have seen little improvement in academic achievement and have been unable to get more than 30% of young adults to earn a bachelor's degree by their mid-20s. What's more, young adults who fail to earn a bachelor's degree often feel like second-class citizens. The *Pathways to Prosperity* report argues that as a nation we must adopt a broader, more holistic approach to education and youth development. The report discusses several innovative national and state initiatives that are far more successful in preparing youth to prosper as adults. Successful systems offer students multiple pathways to success, through relevant and rigorous curricula and hands-on, work-linked learning experiences.

The *Pathways to Prosperity* report resonated deeply with employers, educators, and state officials across the nation struggling with high unemployment rates, perceived skills mismatches, and the devastating effect of the financial crisis on young people. Since its release, I have been invited to about two-thirds of the states, both Red and Blue states, encompassing every region of the country, to present the report's findings and strategies. The immense amount of interest may stem from the current employment landscape: Getting a job is now the number one concern of Americans, yet unemployment remains high in the current recession. Youth in particular have been hit harder than any other age group. Unemployment among 16- to 24-year-olds has doubled over the past decade, and this figure does

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not account for the many young adults who have dropped out of the labor market entirely.¹ Low-income minority teens have been hit especially hard, even though they are the very youth who are most likely to struggle in school and who most need jobs if they are to form and maintain stable families.² Just 9% of low-income black teens and 15% of low-income Hispanic teens are employed, compared to 41% of upper middle-income white teens.

The drastic hit to youth employment has dire implications for youth development. Employment in the teen and young adult years has positive effects on future employment and earnings prospects. Teens with good high school work experiences are more inspired to stay in school, graduate, and adopt ambitious goals. The lifetime earnings gap between those with a high school education and those with a college degree is now estimated to be nearly \$1 million and growing.³ What's more, low-income youth who cannot find work may be more likely get into trouble with the law or have children out of wedlock.

These consequences have ripple effects on family and child well-being. In recent decades, lower-income groups have experienced declines in marriage. Today, more than half of all children born to women under 30 are born out of wedlock. Unfortunately, single parents are much more likely to struggle with poverty, which threatens the life chances of children.⁴ At the same time, economic and demographic changes have contributed to a prolonged transition to adulthood for youth. Youth today require far more time to complete their education, secure employment, form stable families, and establish financial independence. This prolonged transition affects the lifetime earnings potential of youth and strains their parents who must continue to support their young adult children.⁵ Expanding education and training opportunities for young people, especially through multiple pathways that lead to earlier educational and employment success, can streamline the transition to adulthood, ease family burdens, and improve child outcomes.

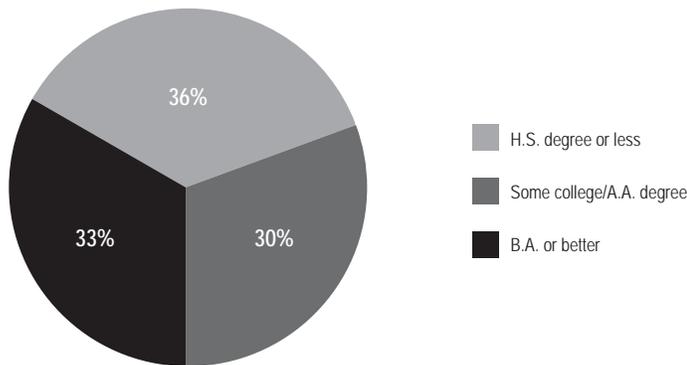
How can we best prepare our youth to become full participants in American society? In this chapter, I first discuss what youth need to succeed in today's workforce. What skills are required by the 21st century labor market and what do employers see as lacking in today's graduates? Next, I present a new vision for how to prepare youth for the workforce, one that involves multiple pathways to success. I consider the intertwined roles of youth, family, schools, employers, and policymakers in creating these pathways. Finally, I describe promising state and national initiatives that point the way toward achieving these goals.

What Do Youth Need to Succeed in Today's Workforce?

The U.S. economy is projected to add some 47 million job openings over the 10-year period ending in 2018.⁶ Nearly two-thirds of these new jobs will require education beyond high school. But despite popular beliefs, only about half these jobs will require a four-year degree or higher. The rest will require two years or less of college: the kind of education provided by Wisconsin's Technical College System. As Figure 1 illustrates, 36% of jobs will still be available to people with a high school degree or less. The problem is that these jobs typically offer low

pay and few benefits, and they will continue to decrease in number. Over the past few decades, all of the net job growth in America has been generated by positions requiring at least some postsecondary education. Successfully completing a postsecondary degree offers young adults the best insurance that they will find work. Yet because the majority of young adults do not earn even an associate's degree, much less a bachelor's degree, we face an ever-rising population of less educated teens and young adults who are persistently disconnected from both education and employment.

Figure 1. Level of Education Required for Projected Job Openings for 2008-2018



Adapted from *Pathways to prosperity: Meeting the challenge of preparing young Americans for the 21st century* (p. 7). Adapted with permission. Source: March CPS data various years; Center on Education and the Workforce forecast of educational demand to 2018.

Even amidst high unemployment rates, U.S. employers complain that today's young adults are not equipped with the necessary skills and qualifications to fill the job openings they do have. In large-scale surveys of employers, respondents report that more than half of high school graduates are "deficient" in such skills as oral and written communication, critical thinking, and professionalism.^{7,8} Leading companies such as Microsoft, Apple, Cisco, and Pearson have been equally critical of what they see as obsolete and outmoded approaches to education, and are calling for more focus on the development of such "21st century skills" as problem solving, creativity, and communication.⁹ Our schools have doubled-down on teaching academically-oriented "hard skills" (e.g., reading, writing, math, and science), while often giving little attention to the "soft skills" that employers demand (e.g., professionalism, creativity, and decision-making).

Our intense focus on an academic approach to learning may help explain the extraordinarily high dropout rates we are witnessing in our high schools. Although academic and socioeconomic factors certainly play a role in why students drop out, many high school dropouts are actually middle achievers from middle-income families. Large numbers of students say they dropped out because they felt their classes were not interesting, and that high school was boring. In other words, they didn't believe high school was relevant, or providing a pathway to achieving their dreams. Too many can't see a clear, transparent connection between their program of study and tangible opportunities in the labor market.

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Rethinking How We Prepare Youth for Success in the Workforce

It is long past time that we reexamine the relevance of our educational system to the 21st century economy. It's time to broaden the range of high-quality options that we offer to our young people. Evidence detailed in the *Pathways to Prosperity* report and my other writing suggests several key principles and strategies that we can draw from successful approaches in other states and countries. These are some of the most important elements of such systems:

- 1) Multiple Pathways.** In order to truly prepare all youth for success, it is critical that we offer and promote multiple pathways to success. To start, the pathways to all major occupations should be clearly defined from the beginning of high school (or earlier). Young people and their families should be provided with detailed information about the patterns of course-taking and other experiences that would best position them to gain access to certain jobs. Students can then make informed decisions about which pathway to pursue, and retain the freedom to change course. We need to emphasize the importance of work experience in preparing youth for adulthood and elevate the status of pathways other than the traditional college preparatory track. Many Americans still stereotype vocational education as narrow training for “dead-end” jobs, when today’s cutting-edge career and technical education bears little relation to this old model. Today’s best vocational programs do a better job of preparing many students for college and career than traditional academics-only programs. Well-designed systems equip students with a comprehensive set of competencies, including technical and critical thinking skills, personal traits (e.g., reliability and self-confidence), and social competencies (e.g., the ability to form good relationships). These skills enable students to prosper as adults.
- 2) Extensive Employer Engagement.** High-quality career and technical education cannot succeed without the extensive involvement of employers. If career pathways for youth are to be detailed beginning in high school, employers need to be deeply engaged in the process. Employers can play a vital role in providing career guidance by talking to students about the opportunities available in today’s economy. Employers are also essential for defining the qualifications needed to enter the field, setting standards, developing relevant curriculum, and providing on-the-job training opportunities. Businesses might make substantial financial investments in youth preparation programs, as they recognize the benefits to the bottom line of being involved in such efforts. Employers would benefit from training an eventual pipeline of employees who have already proven themselves on the job and who have relevant skills. In addition, studies suggest that, even when students are paid, the value of work done by student apprentices or interns often exceeds the labor costs.¹⁰
- 3) Ample Opportunities for Work-Based Learning.** The incorporation of work-based learning into traditional education systems is another key strategy for success. Growing evidence shows that work-linked experiences, such as job shadowing, service-learning, internships, and apprenticeships, are extremely effective. They increase student engagement and help them develop skills,

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attain degrees, and eventually, succeed on the job. These opportunities allow students to learn and practice skills on state-of-the-art equipment under the supervision of knowledgeable trainers. Students develop essential soft skills in real-world environments, such as learning to cooperate in teams and dealing with customers. Internships and apprenticeships, where students are more immersed in the workplace, allow students to contribute to a business or organization while they are learning, and help facilitate their transition into more permanent employment. The U.S. already recognizes the value of work-based learning in our highest-status professions. Surgeons, for instance, must complete lengthy residencies. Yet when it comes to younger students, we often overlook the immense value of these experiences.

- 4) **Comprehensive Career Counseling.** The best systems make career counseling a high priority, including scheduling career guidance into the school day. Comprehensive career guidance educates students about the broad labor market and then helps them make informed choices about the careers for which they are best suited. In our current system, most students receive little or no career guidance. One reason is that there are few school counselors. Nationally, the ratio of high school students to counselors is about 500 to 1. And these school counselors typically spend much of their time dealing with the psychological and social challenges faced by teens, rather than offering career guidance. Many of these counselors don't have a comprehensive understanding of labor market opportunities and consequently steer students toward only a limited range of options. Often, they offer little advice beyond "go to college," even if students don't have a clear reason for going to college or the means to pay for it. This is a major reason why the U.S. now has the highest college dropout rates in the advanced world. Given these challenges, we should move toward considering career guidance as a separate profession from psychological and social counseling. Career guidance professionals should be well trained and have access to a wide range of up-to-date materials on labor market opportunities.

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Youth, Families, Schools, Employers, and Policymakers Play Important Roles

Making multiple pathways known and available to youth requires a coordinated, concerted effort by all interested stakeholders. Youth, families, schools, employers, and policymakers all hold interacting roles and responsibilities in the process.

- **Youth** can be inspired to explore their options, and then set high educational and career goals. Youth should be encouraged to pursue education beyond high school. With guidance, youth can develop a realistic understanding of the career opportunities open to them, along with strategies on how to reach their career goals.
- **Families** are key to producing the human talent that businesses require to remain competitive and innovative. Human capital in today's knowledge-based economy requires hard and soft skills. Soft skills are shaped, to a large extent, by socialization that occurs early in family

Human capital in today's knowledge-based economy requires hard and soft skills, which are largely shaped by socialization that occurs early in family life and in early childhood programs.

life and in early childhood programs.^{11,12} Supporting families and high-quality early childhood programs are key economic development tools (see chapter by Timothy Bartik in this report). Families are also pivotal in helping youth determine their career choices. They often advise youth about potential career paths and provide support for them to pursue postsecondary training. Having fewer family resources and less exposure to a variety of career choices may limit economic mobility for youth.

- **Schools**, particularly at the middle and high school levels, must inform students about the different roads to success. Schools can introduce students to career opportunities and lay out the pathways necessary to get there. They should offer rigorous, work-linked learning alternatives to traditional education that are relevant and challenging. Also, efforts should be made to enhance career guidance and counseling.
- **Employers** can contribute to these efforts in new and innovative ways. For starters, businesses can encourage employees to serve as career guides and mentors to students. Also, employers are in the best position to define occupational qualifications and identify skills gaps that exist locally and for their industry. They should play a prominent role in developing relevant and rigorous programs of study. They can also provide work-based learning opportunities, including internships and apprenticeships.
- **Policymakers** can support evidence-based education reforms that promote multiple pathways to success. For instance, policymakers can insist that schools make career planning an integral part of the educational experience, by requiring students to develop “pathway plans.” Policymakers also play an important role in setting education standards, establishing graduation requirements, and supporting work-based learning.

Through innovative partnerships between schools, employers, policymakers, and other organizations, states and communities can promote multiple pathways for youth to succeed in postsecondary education and employment. Broad-based collaborations that support multiple pathways can help shift the overall culture toward fully recognizing the importance of career training for youth. Such approaches might also elevate the image of technically-demanding careers that don't require four-year college degrees.

What States are Doing to Prepare Youth for the Workforce

Better preparing youth for success in the workforce does not require re-inventing the wheel. States are already implementing a number of promising approaches. (For further examples of Wisconsin's efforts in this area, see chapter by L. Allen Phelps in this report.)

Wisconsin. Communities across the state have expressed strong interest in better preparing youth for workforce success. Several Wisconsin communities have responded to the *Pathways to Prosperity* report and are working to implement the report's ideas. I have given more than a dozen presentations across Wisconsin, including Fond du Lac, the Fox River Valley, Madison, and the Milwaukee area. These presentations have been jointly hosted and sponsored by educational institutions and business associations. For example, Fond du Lac invited me to speak in response to a 2011 local study that found more than half of current employees plan to retire within the next 15 years. Yet the study found that many students are not aware or interested in the employment opportunities available, especially those in manufacturing – the dominant industry in Fond du Lac. The result is that Fond du Lac faces a looming skills gap that, if unmet, could have severe repercussions for the future of the community. At the December 2011 meetings I attended, community leaders resolved to use the strategies and recommendations laid out in the *Pathways* report to preemptively address this gap.

Several Wisconsin communities have expressed interest and are working to better prepare youth for workforce success.

Illinois. In direct response to the *Pathways* report, the State of Illinois has launched the *Illinois Pathways Initiative*, a comprehensive effort to improve career education for high school students in promising, high-growth career areas. Under the initiative, the state is encouraging the development of “learning exchanges.” These exchanges will bring together education, business, labor, and other organizations to develop high-quality programs of study, as well as opportunities for work-based learning. The Illinois effort was formally launched by Gov. Pat Quinn and other state leaders in February, 2012. And in September, the Governor announced the state would fund scale-up of learning exchanges in agriculture, health sciences, information technology, manufacturing, and research and development. *Illinois Pathways* focuses on: (1) better supporting local schools, postsecondary institutions, and programs to enable learners to explore their academic and career interests in Science, Technology, Engineering, and Math (STEM) fields; and (2) improving coordination of public and private investment in supporting the development of a competitive workforce.

The initiative is funded by several million dollars in Race to the Top funding and is overseen by a partnership between the State of Illinois' lead education and economic development agencies.

Programs of Study are organized around major career clusters, and will include high-quality curricula as well as opportunities for work-based learning experiences. The initiative establishes an infrastructure for the STEM Learning Exchanges which will coordinate planning and investment, aggregate and share resources, and identify training and skills gaps.¹³ This coordination at the statewide level better connects and serves local programs within similar career clusters. Ultimately, Illinois hopes that it will be able to bring other states into this partnership, which could be an opportunity for collaboration with Wisconsin.

Washington. In early 2012, the Washington State Legislature considered legislation called the *Career Pathways Act*, which aims to increase career exploration opportunities for students and promote multiple pathways for career success. The legislation intends to make career exploration a routine part of middle and high school instruction. It directs schools to include career and technical education as part of basic education and to offer programs of study in specific occupational cluster areas, which students can then select as a career goal or major. It facilitates increased opportunities for workplace learning and for business-school collaboration. It encourages businesses to offer internships for high school students and teachers, and to provide mentors in schools. The legislation also emphasizes the validity, dignity, and economic value of non-college career pathways equally with four-year college pathways. For instance, it would require all education and workforce agency materials to include information about multiple career pathways across all levels of postsecondary education and to emphasize the value of these pathways. Information about employment prospects and earnings would be broken down by type of degree and career major. Furthermore, the bill would amend the definition of “postsecondary education” to include apprenticeship, career training, community and technical college, or university education.¹⁴ While the legislation was not ultimately approved in 2012 (it passed the House, but not the Senate), leaders intend to bring it up again early in the 2013 session.

New York. In order to obtain a prestigious “Regents” high school diploma in New York State, students are required to pass statewide, standardized Regents Examinations in five subjects, including English, Math, Science, American History, and Global Studies. But in an era in which many argue students should be “college and career ready,” these academic tests are hardly a measure of career readiness. The state is thus evaluating a proposal to increase the number of pathways to graduation by allowing students to substitute a rigorous career assessment for one of the academic exams. The change would allow students to substitute a relevant, approved STEM or Career and Technical Education assessment for the traditional Geography and World History Regents exam. The Board of Regents is working with a national expert board to identify and approve technical assessments that would cover the wide range of careers while retaining the traditional level of rigor. The Pathways Project has been helping the Board to review the rigor of selected technical assessments and establish which assessments could be included on the approved list. The Board is also examining how student performance on selected technical assessments can be used for school accountability purposes.¹⁵

Indiana. Indiana has examined its educational approach in light of the evolving skill requirements for high wage and high demand industries in the state. An assessment commissioned by Indiana’s Education Roundtable demonstrated that the needs of Indiana’s economy and the output of its public education system were not well aligned. The Roundtable is working to increase alignment and strengthen technical training in the state. They are building on the state’s College and Career Pathways program, which provides an aligned sequence of secondary and postsecondary courses leading to industry-recognized credentials, certifications, or degrees for high wage, high demand careers in Indiana. High school students are offered dual credit opportunities that allow them to complete core high school

requirements early and enroll in postsecondary courses on a track that will lead to a meaningful postsecondary credential. The Roundtable is also working to create a network of regional partnerships that bring together leaders in business, workforce development, K-12 and higher education, and civic/youth-serving organizations. These partnerships are charged with promoting education-workforce quality and economic growth in a region, by strengthening academic foundations for high school students; bridging high school and postsecondary education; and connecting education with emerging economic growth and employment opportunities.^{16,17}

Oklahoma. Oklahoma's CareerTech system is often cited as a leading workforce development model throughout this country and the world. CareerTech provides rigorous, competency-based curriculum, education, and training in a variety of fields. Unlike many other states, these Oklahoma centers often mix high school students in classes with older adults. Programs are developed with the input of industry professionals and customized to incorporate the knowledge and abilities needed to master an occupation. Thus, students are learning the very skills employers are seeking in the workplace. The system is funded through a property tax. The business community strongly supports this tax because of the system's success in providing education and training that meets local business and industry needs. The system is accessible to almost every citizen in the state and boasts a high rate of success in job placement; over 90% of participants move into employment positions, continuing education, or the military.¹⁸

CareerTech integrates four broad service areas to address state workforce development needs:

- 1) *Technology Centers* operating throughout the state offer a variety of hands-on career and technical educational options to high school students and adults. Training is aligned with the needs of local business and industry partners. High school students who live in a technology center district can attend programs tuition-free and often can earn college credits in a variety of career majors through their training. Though adults must pay for courses, the cost is often very reasonable.
- 2) *Comprehensive Schools* serve students in grades 6-12 at 550 sites throughout the state. Nearly half of Oklahoma's high school students are enrolled in CareerTech classes ranging from broad career exploration programs to career-specific courses. Programs of study are organized around one of eight cluster areas and provide relevant, hands-on experiences that keep students engaged in school and help them develop skills for adult success.
- 3) *Skills Centers* offer specialized, occupational training to adult and juvenile offenders through 16 centers operating within state correctional institutions. Some centers also administer dropout recovery programs for disconnected high school students. Participants are trained in several industry clusters. After release, graduates are connected to employment

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and support services. Evaluations show that an impressive 75% of released program graduates have not been re-incarcerated five years later.

- 4) *Business and Industry Services* work to identify industry needs, provide resources, and offer training programs for local businesses. Services include instructional support to develop, publish, and administer assessments and other materials for CareerTech programs that are aligned with industry certifications and standards.

National Initiatives for Moving *Pathways to Prosperity* Forward

Given the immense interest and response to the *Pathways* report, we are working to move the conversation and action forward, through two main initiatives at the national level.

National Pathways to Prosperity Network. We are working closely with a network of states to build career pathways systems for high school students. We are collaborating with Jobs for the Future, an organization working to align education with today's high-demand careers. The network currently includes six states— Illinois, Missouri, Massachusetts, Maine, North Carolina, and Tennessee—who are committed to deeply engaging with employers and educators to build a statewide pathways system. State systems will convene and engage a coalition of key public and private sector leaders and will incorporate critical pathways elements:

- Employers committed to providing learning opportunities at the workplace and supporting the transition of young people into the labor market;
- Career pathways with clear structures, time lines, costs, and requirements, that integrate high school and community college curricula and align with labor market needs;
- An early and sustained career information and advising system strong enough to help students and families make informed choices about educational career paths; and
- Local or regional intermediary organizations to provide the infrastructure and support for the development of such pathways.

National Pathways to Prosperity Conference. The Pathways to Prosperity Project will host a national conference at Harvard in March 2013, which will bring together national leaders and state teams who are interested in the pathways ideas and want to work toward developing career pathways systems in their states.

William C. Symonds directs the Pathways to Prosperity Project, which is based at the Harvard Graduate School of Education. The Pathways Project released a major report in February, 2011, outlining promising solutions to our increasing national failure to prepare many young adults for success. To date, Symonds has

spoken on the report in over 30 states, and is working with several states that are currently implementing the Pathways vision for better preparing their young people for work. Symonds helped create the Pathways Project while he was a senior fellow at Harvard's John F. Kennedy School of Government in 2007-08. Prior to that, he spent nearly 25 years as a senior correspondent and bureau chief for "Business Week Magazine." During his career at Business Week, he covered business in the U.S. and abroad, and led bureaus in Pittsburgh, Denver, Boston, Toronto, and Rome, Italy. He also served as Business Week's chief education correspondent for many years, and wrote extensively about the role of U.S. business in school reform.

This chapter was adapted from the following publications:

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Glossary

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Apprenticeship (training)

Apprenticeship is an educational method featuring on-the-job training.

“Apprentices are employees at the firms and organizations where they are training, and combine productive work along with learning experiences that lead to demonstrated proficiency in a significant array of tasks. The programs usually...require students to complete course work that includes math, verbal, and occupation-specific content...The course work is generally equivalent of at least one year of community college. In completing apprenticeship training, workers earn a recognized and valued credential attesting to their mastery of skill required in the relevant occupation.”¹

Associate's Degree

A two-year program combining “technical skills with general education, such as math, communications, and social sciences.”²

Career and Technical Education (CTE)

Education focusing on job-specific technical skills related to a particular career pathway. CTE incorporates core academic skills with employability skills (such as critical thinking and responsibility), and the application of such skills within a work context.³

Dual Credit

Dual credit or dual enrollment allows a high school student to earn both high school and postsecondary credits for the same course.⁴

Hard Skills

Technical or academically-oriented skills, such as math, literacy, or science skills, often confirmed by standardized tests, assessments, or certifications.⁵

Industry Clusters

“Industry clusters are geographic concentrations of competing, complementary, or interdependent firms and industries that do business with each other and/or have common needs for talent, technology, and infrastructure.”⁶

Job Shadowing

An activity that “pairs a middle or high school student with an employee—often called a mentor—at the employee’s workplace...Students can see for themselves how the skills they are learning in school are applied to a career and ask their mentors specific questions about their jobs.”⁷

Postsecondary Education

Education that occurs after the completion of high school, generally leading to a degree, credential, or certification in an academic, career-oriented, or professional field.

Service-Learning

Service-learning “integrates meaningful community service with instruction and reflection to enrich the learning experience, teach civic responsibility, and strengthen communities.”⁸

Soft Skills

“Nontechnical skills, abilities, and traits required to function in a specific employment environment: delivering information or services to customers and co-workers; working effectively as a member of a team; learning or acquiring the skills necessary to perform a task; inspiring the confidence of supervisors and management; and understanding and adapting to the cultural norms of the workplace.”⁹

Vocational Education

Education designed to train people in job-specific skills. Vocational and Career and Technical Education are sometimes used interchangeably; however, Career and Technical Education tends to imply an extension of traditional vocational education

that incorporates cutting-edge technology and a broad range of skills important to the global economy.¹⁰

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