

# Look Beyond the Label

Reframing, Reimagining, and Reinvesting in CTE



BY JOHN H. JACKSON AND JONATHAN HASAK

Over the last several years, government and philanthropic studies have been drawing attention to declining postsecondary attainment in the United States. Whether it's President Obama's 2020 college completion goal or the Lumina Foundation's Goal 2025, the sad fact is that America's higher education system is failing to set students up to succeed in today's economy. With soaring college costs, many high school graduates are carefully weighing whether to attend college at all. And of those who do attend, only 42 percent graduate with degrees from two- or four-year institutions by their mid-20s.<sup>1</sup> With skills becoming the global currency of 21st-century economies,<sup>2</sup> changing labor markets won't be kind to countries that can't produce a high number of highly skilled workers.

At a micro level, high school students today face a pivotal decision: if they decide to enroll in college, they are likely to do so

without the guarantee of a job after graduation at a time when student loan debt has already surpassed a trillion dollars. On top of that, millions of jobs in the past decade have been eliminated while the demand for work skills changes every day. The prospect that future jobs will rely less on traditional bachelor's degrees has muddled the "college-for-all" message and the notion that educational attainment leads to successful careers.

**The Challenge:** Across the board, American students increasingly enter postsecondary education in need of academic remediation. Every year, nearly 60 percent of incoming college students discover they still need some form of remedial coursework in English or mathematics.<sup>3</sup> With the rising cost of higher education in the United States, it is morally indefensible to charge students to retake courses they should have already received. If we want strong academic institutions that can prepare students for gainful employment, states and the federal government must focus more diligently on integrating career readiness into the mainstream education reform debate.

**The Opportunity:** We can start by addressing what Education Secretary Arne Duncan has called the "neglected stepchild" of education reform: our career and technical education (CTE) system.<sup>4</sup> Part of the attraction in attending CTE programs is the opportunity to acquire specific skill sets that allow students to more seamlessly transition into the labor market. Although critics

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complain that too many CTE programs are outdated and not aligned to workforce needs, at its best, technical education helps students make the connection between their learning in the classroom and the skills they will need for success in the workplace. Thus, CTE offers a relatively cost-effective way for students to position themselves for successful futures.

Yet, the opportunity for students to take advantage of CTE is not accessible in its current state. First, after decades of poor course offerings and an image of vocational education as the second-rate program for students tracked out of a four-year college, reframing and rebranding is needed. Second, a clear gap has emerged between the academic skills students lack and the skills most CTE instructors have been trained to provide. Third, CTE must have stronger partnerships between the private and public sectors so that students who graduate from four-year colleges or CTE pathways can earn similar salaries regardless of the institution they attended. Finally, to attract students and meet labor market needs, we must reinvest in CTE to provide up-to-date course offerings, curricula, and campuses.

### International and Domestic Examples

Although the United States ranks second in baccalaureate education, it ranks 16th among industrialized nations in sub-baccalaureate education.<sup>5</sup> According to the Organization for Economic Cooperation and Development, over the past two decades, the number of associate's degrees has risen by roughly 9 percent in Canada, South Korea, and France, but it has risen by less than 3 percent in the United States.<sup>6</sup> America loses competitive ground by missing opportunities to diversify postsecondary options for its disengaged youth.

American education policymakers have been reluctant to follow successful international examples of vocational programs highlighted in the increasingly influential Program for International Student Assessment results. But in a globalized world that is more interconnected than ever, we should pay closer attention to what these high-performing countries are doing.

One of the more cited models abroad is the apprenticeship program used in Germany, which has students spending half of the school week getting paid by company training and the other half in related academic work. Another model used in many European countries is upper-secondary vocational education. This model, used in Finland and Singapore, for example, provides school-based programs that expose students to a wide variety of opportunities before they must decide which occupation to focus on. What is compelling about both international models is that they were not created as placeholders for non-college-bound youth. Instead, they are popular alternatives for postsecondary education and work preparedness.

Finland and Singapore's model in particular offers useful lessons to the United States. Both countries worked hard to transform the image of vocational education through investments in technical campuses equipped with high-tech facilities, new curricula, and workforce certification systems. In transferring from labor-intensive and export-oriented economies to skill-based economies, the Finnish and Singaporean governments approached reform by offering multiple pathways to students. These pathways became so popular that in Finland, 43 percent of high school students attend vocational school.<sup>7</sup> Similarly, in

Singapore, after acquiring a strong academic foundation in their early schooling experience, students are allowed to pursue one of three types of high schools: a traditional academic track that prepares students for postsecondary education; a polytechnic track that focuses on advanced occupational and technical training; and a technical institute that focuses on less-advanced occupational and technical training.<sup>8</sup>

The strong relationship between economic development and vocational systems, in turn, kept all educational investment as apolitical government priorities. This allowed policymakers to monitor changes in their respective economic and education conditions and more effectively update skills taught to students. Compare this approach with that of the United States, where every new administration feels compelled to add its own reform on top of reform.

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We do not mean to imply that the United States should be expected to achieve similar results by emulating a country (Singapore) the size of Minnesota that serves approximately 490,000 students,<sup>9</sup> or a country (Finland) that is much more homogenous in racial and socioeconomic diversity than ours. Unlike in America, where vocational education often faces the burden of racial and socioeconomic disparities, vocational education programs in these countries do enroll a more even distribution of students from diverse racial and economic backgrounds. Even so, these countries do show how vocational education can be transformed into popular alternative pathways where students can acquire high-quality academic and work skills.

However, there are already excellent domestic examples of successful technical education programs. Pathways in Technology Early College High School (P-Tech) in Brooklyn, New York, began in 2011 and offers students an associate's degree within six years as well as a position with IBM upon graduation. Through a unique grades 9–14 model, P-Tech is pioneering a new vision for college and career readiness. After only three semesters, 80 percent of the school's initial student cohort has met or exceeded state standards

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of proficiency in English and mathematics.<sup>10</sup> These trends were impressive enough that President Obama paid a visit in 2013 to offer his praise, and New York Governor Andrew Cuomo has already ordered 10 more schools to emulate programs like P-Tech's.

Another successful domestic model is High Tech High, a network of California schools spanning grades K–12 that integrates technical and academic education to prepare students for postsecondary education. Its mission is for students to develop academic, workplace, and citizenship skills through school-to-work strategies such as work-based learning and internships. Having started as a charter school in San Diego, High Tech High now comprises 12 schools and serves approximately 5,200 students. It has also invested in innovative ways to develop new human capital strategies and became the first California public school organization to have been authorized to operate its own teacher-credentialing program that trains educators to incorporate work-based learning in their instruction.

### The Road Map Forward

To reframe, reimagine, and reinvest in CTE for the 21st century, it must be incorporated into comprehensive education reform. Bor-

rowing from successful international and domestic examples, policymakers, in collaboration with business and education leaders, should create a more thoughtful system that provides students alternative pathways for academic continuation and workforce preparedness.

### 1. Reframe the Blueprint for Career and Technical Education

Achieving this blueprint requires using financial capital and political will that has been hard to come by in an environment that has largely abandoned spending on infrastructure reform. However, with Americans citing jobs and unemployment as the most important problems facing the nation,<sup>11</sup> there is already bipartisan support to reform CTE.

**Change the Name:** CTE programs should be rebranded as “innovation pathways” in a nod to what is most needed for the American economic recovery. Some of what plagues CTE is an image problem still tarnished by the perception of it as an education track for students who should not attend college. It is time to transform the notion of “shop class” into one of several worthwhile options available to students.

Calling career and technical programs “innovation pathways” is not a panacea for all that is wrong with CTE, but the cosmetic name change provides two clear advantages. First, many experts already believe that in the new global knowledge economy, only innovators and entrepreneurs will be immune to outsourcing and automation.<sup>12</sup> Replacing the cumbersome career and technical education name would indicate a shift from abstract occupations toward the innovative skills students need to succeed in the labor market. Second, reframing presents an opportunity to change the narrative for many of these failing programs and motivate students to take advantage of learning opportunities.

**Adopt an “Opportunity for All” Mantra:** Although the failure to prepare students to participate in a changing economy is not unique to CTE, American vocational programs, historically, have been ridiculed. The pejorative perception is that CTE is where low-income children and children of color, ill-equipped for college preparation, are consigned to a second-rate education.

For much of the 20th century, vocational education programs were a “track to nowhere”; coursework often failed to offer the concrete skills and knowledge needed for real industrial and agricultural jobs, leaving students unprepared for either college or career. Given this history, CTE must acknowledge and surmount the problems of its recent past in which vocational education in America was inextricably linked to racial, ethnic, and class-based discrimination and the denial of opportunity to millions of students.

Evidence indicating that tracking tends to exacerbate inequality is no longer seriously debated,<sup>13</sup> but the stigma attached to CTE—resulting from implications of segregation and years of inconsistent programmatic quality—still remains and must be shed. Many community leaders remain wary of any pathway other than what has been labeled college preparation. However, with a new era of rigorous CTE courses offering multiple pathways toward further education and employment qualifications, this aversion needs to be rethought. High-quality CTE programs offer real academic and financial opportunities to the students who need them most. At the same time, we must actively ensure that career-oriented education will never again be used as a dumping

ground that denies opportunity to poor children of color. And it will take extensive community involvement to guarantee that program quality is established and maintained.

For every excellent CTE program—and some are more effective than traditional academic institutions at preparing students for college, career, and citizenship—many have lacked rigor and simply perpetuate inequality of opportunity. Such variances in programs are rooted in a struggle to monitor changes in economic conditions, as CTE institutions have been slow to update courses, allowing students to make myopic decisions. In turn, the lack of a coherent program of study and the difficulty in transferring course credit often locks these young adults into professions before they have had an opportunity to properly evaluate the labor market or consider continuing their education.

Adopting an “opportunity for all” mantra does not mean students should not aspire to attend four-year colleges. Nor does it mean we believe in lower student expectations. Rather, it would define different pathways students can take toward earning post-secondary degrees and landing meaningful careers. Reformers must do everything in their power to demonstrate that educational attainment does lead to concrete employment opportunities and that completion of CTE leads to paid jobs.

## 2. Address the Student-Readiness and Teaching-Training Gaps

Despite being held accountable for student academic growth in reading and mathematics under the federal Carl D. Perkins Career and Technical Education Act, CTE teachers have limited time to work on academic concepts, since the majority of instructional time is spent delivering technical skills. To that extent, many certified teachers either have not been properly trained or are simply struggling to teach both technical expertise and academic skills.

**Link High Schools to CTE Programs:** Too many students attend CTE programs without basic academic content knowledge. The need for remediation for students, especially those whose skills will not qualify them for current high-quality CTE because of entrance exams, makes the job extremely difficult for teachers. To balance academic and technical experience in classrooms, one solution is to allow students to take remedial courses at nearby high schools for academic credit. With the majority of classroom time spent delivering technical skills that are relevant for specific jobs, more applied learning and time to support academic concepts such as quantitative reasoning and data collection are needed. By having one teacher who can cover technical content and another who can reteach basic academic skills, students would have a more balanced educational experience and an opportunity to become better professionals who are not dependent on one single technical skill set alone.

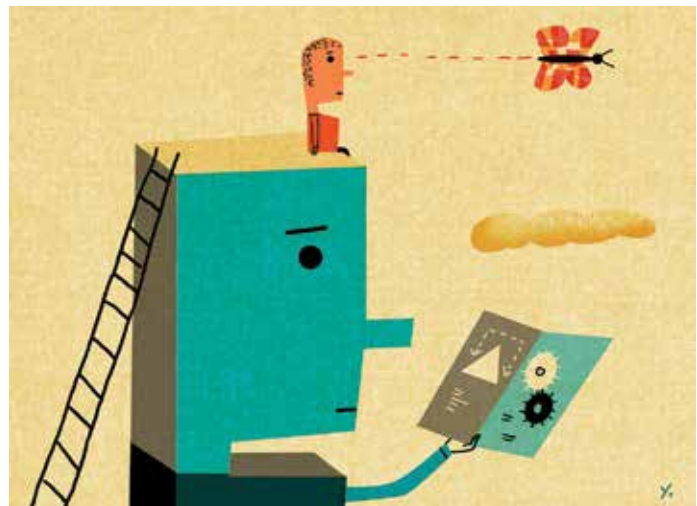
**Attract High-Achieving Students:** CTE programs must attract more than just students who prefer to circumvent four-year colleges. Framing these pathways around upward social mobility for all students would be more politically resonant than calls to rectify inequalities in CTE. By attracting high-achieving students, CTE programs would diversify the social capital of their student population and acquire more financial resources; ultimately, it would also lead to the mixed grouping of students, which has proven most effective in raising academic performance.<sup>14</sup> By signaling its dedication to making its students attractive to prospective

employers, turning them into good citizens, and providing an excellent education, these programs would offer a compelling message to any student eager for an employer-recognized credential that would lead to a meaningful job.

## 3. Involve the Business Community

With some 14 million students enrolled in CTE programs in nearly 1,300 public high schools and 1,700 two-year colleges, many of these students are being shortchanged in their career and college preparation. As such, an emerging productivity and skill gap has emerged, with 45 percent of American employers blaming entry-level vacancies on a skills shortage.<sup>15</sup> And while President Obama has asked for \$1.1 billion in his proposed 2015 budget to reauthorize the Perkins Act,<sup>16</sup> employers continue spending more than \$400 billion a year in formal and informal employee training.<sup>17</sup> Quite

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simply, most CTE programs have failed to translate the technical expertise of their training systems into jobs for students.

The stakeholders most integral to ensuring students' future employment are business leaders. We must engage the business community and help it see the untapped potential of millions of young men and women. While employers across the country are already collaborating with vocational programs, there is still need for more cross-sector collaboration on a larger scale. But employers must do more than just offer half measures and identify a skills shortage as a critical problem; they should actively help resolve the nation's skills problem through a more systemic approach.

In Michigan, for example, new legislation was recently proposed to give students and families more choice in substituting CTE courses for electives. Admirable as it is, the legislation does not attempt to build or integrate a clear route for students to pursue college or career; rather, it hopes that trading Algebra II for a CTE course will somehow improve career readiness. And even when the federal government announced in February 2014 that it would provide \$148 million for a manufacturing innovation institute in Detroit, it is difficult not to see the program stuck in the past when it is technical, not manufacturing, jobs that are growing fastest in Michigan.

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### **Help the Business Community Become Active Collaborators:**

Making the relationship between education and employment more transparent is indispensable in reimagining CTE; efforts to do so should integrate work and learning opportunities for students with clear occupational positions and salaries in mind. Educators can accomplish this by illuminating skills taught in classrooms as foundations for skills needed for employment, therein transcending abstract schooling experiences into something more personal—something that can ignite student curiosity, creativity, and imagination.

Convincing business leaders to see themselves not as charitable givers but as active partners in CTE requires helping them see that CTE programs could reduce their costs. As an example, the business community could lobby local and state governments to provide tax incentives for hiring CTE students. In turn, CTE programs would make hiring qualified employees easier since such programs could lead to a pipeline of talent through internships, apprenticeships, and summer jobs.

Connecting employers and career opportunities to CTE students would directly target a skills and productivity gap that, if not addressed, will continue to affect economic productivity for students and employers alike.

**Use Public-Private Partnerships as Tools to Engage Businesses:** To constantly update equipment and curricula, and to develop teachers who can incorporate new techniques in their training, we need more public-private partnerships (PPPs). With shrinking government budgets and limited financial resources, PPPs enable the private sector to improve learning outcomes for students by providing education services beyond public finance. Case studies conducted in Latin America have shown that some of the benefits from PPPs for schools are greater efficiency, increased student choice, and wider access to education.<sup>18</sup>

An example of the impact of PPPs can be found in Wisconsin, where the manufacturing companies Briggs & Stratton, Mercury Marine, and Kohler partnered with Moraine Park Technical College. Following the temporary closing of Moraine Park because of a \$3.1 million budget shortfall, leaders of these three manufacturing industries came together to fund the college and help redesign and restructure the curriculum. Receiving financial support for operational expenses and recommendations on its curriculum from local business leaders, Moraine Park could more effectively, quickly, and accurately improve its programs to prepare students for employment after graduation. The success of this partnership has not gone unnoticed: at Briggs & Stratton, for example, 54 percent of lab employees are graduates of Moraine Park.<sup>19</sup>

### **4. Reinvest in Innovative Pathways**

Vocational programs in the past have never attracted sustained investments. Maintaining and attracting funding for new equipment is especially difficult. Yet the only way for education leaders to prove they are serious about reframing CTE is by investing financial and human capital.

**Create High-Tech Facilities:** In reimagining a common untracked, comprehensive school experience, students and families—not schools—must be allowed to decide which kind of postsecondary pathway they want to pursue. To support them, we need new campuses with updated high-tech facilities. These facilities can be integrated into community college or university campuses or built anew if funds are available. International examples have shown how updating high-tech facilities can attract prospective students. By demonstrating to students that CTE schools can look like first-class universities, perhaps more students turned off from academic institutions will aspire to attend CTE programs housed in attractive buildings.

**Empower Intermediary Groups across Sectors to Monitor Economic Conditions:** Creating regional task forces staffed by leaders in education, health, finance, urban and environmental planning bodies, and housing and immigration authorities would allow for more-effective monitoring of economic changes. Strong intermediary organizations should convene these cross-sector actors and help mobilize funding and resources to make coordination between schools and work sites more cohesive. As an independent body, intermediaries, such as UNITE-LA, an affiliate of the Los Angeles Area Chamber of Commerce, or the Boston Private Industry Council, could overcome bureaucratic

hindrances, help scale successful training programs, and serve as a catalyst for systemic reform. These organizations, however, need funding to help facilitate the development of employability and academic skills that can be incorporated into CTE programs.

**R**eframing, reimagining, and reinvesting in career and technical education is fundamentally about providing equitable opportunities to all students. Efforts to more effectively define the benefits of educational attainment, invest in human and capital resources, and communicate different pathways students can pursue will help ensure CTE programs no longer discriminate and, instead, become sought-out postsecondary alternatives.

Rapid changes in today's economy provide a unique opportunity to rebuild a system that for too long has been designated as second rate. We believe that students and families will be willing to take another look at these programs if we are careful not to assign, implicitly or explicitly, pejorative labels. While alterations in governance structures and innovative approaches to funding are needed, CTE reform cannot wait for political action; immediate changes should be pursued at every level. Through a multi-pronged approach that aims for short- and long-term reforms, we are convinced that CTE can provide the high-quality degree needed to develop citizenship, career preparation, and lifelong learning for all students. □

## Endnotes

1. U.S. Department of Education, *The Condition of Education 2012* (Washington, DC: U.S. Department of Education, 2012), 114; and "Number of Persons Age 18 and Over, by Highest Level of Educational Attainment, Sex, Race/Ethnicity, and Age: 2011," in National Center for Education Statistics, *Digest of Education Statistics*, 2011, table 9.
2. Organization for Economic Cooperation and Development, *Better Skills, Better Jobs*,

*Better Lives: A Strategic Approach to Skills Policies* (Paris: OECD, 2012), 3.

3. National Center for Public Policy and Higher Education (NCPPE) and Southern Regional Education Board (SREB), *Beyond the Rhetoric: Improving College Readiness through Coherent State Policy* (San Jose, CA: National Center for Public Policy and Higher Education, 2010), 1–2.

4. Arne Duncan, "The New CTE" (speech, Harvard Graduate School of Education, Cambridge, MA, February 2, 2011), [www.ed.gov/news/speeches/new-cte-secretary-duncans-remarks-career-and-technical-education](http://www.ed.gov/news/speeches/new-cte-secretary-duncans-remarks-career-and-technical-education).

5. Anthony P. Carnevale, Tamara Jayasundera, and Andrew R. Hanson, *Career and Technical Education: Five Ways That Pay Along the Way to the B.A.* (Washington, DC: Georgetown University Center on Education and the Workforce, 2012), 11.

6. Carnevale, Jayasundera, and Hanson, *Career and Technical Education*, 29.

7. LynNell Hancock, "Why Are Finland's Schools Successful?," *Smithsonian*, September 2011, [www.smithsonianmag.com/innovation/why-are-finlands-schools-successful-49859555/?all](http://www.smithsonianmag.com/innovation/why-are-finlands-schools-successful-49859555/?all).

8. Vivien Stewart, "Singapore: A Journey to the Top, Step by Step," in *Surpassing Shanghai: An Agenda for American Education Built on the World's Leading Systems*, ed. Marc S. Tucker (Cambridge, MA: Harvard Education Press, 2011), 113–139.

9. Ministry of Education, Singapore, *Education Statistics Digest 2013* (Singapore: Ministry of Education, 2013), 3.

10. "Model of Success: Pathways in Technology Early College High School (P-TECH)," Aspen Institute, accessed June 9, 2014, [www.aspeninstitute.org/policy-work/economic-opportunities/skills-americas-future/models-success/lbm](http://www.aspeninstitute.org/policy-work/economic-opportunities/skills-americas-future/models-success/lbm).

11. "Americans Cite Jobs, Economy, Gov't as Top U.S. Problems," *Gallup Politics*, March 13, 2014, [www.gallup.com/poll/167873/americans-cite-jobs-economy-gov-top-problems.aspx](http://www.gallup.com/poll/167873/americans-cite-jobs-economy-gov-top-problems.aspx).

12. Tony Wagner, *Creating Innovators: The Making of Young People Who Will Change the World* (New York: Scribner, 2012), xiv.

13. Adam Gamoran, *Tracking and Inequality: New Directions for Research and Practice*, WCER Working Paper, no. 2009-6 (Madison: Wisconsin Center for Education Research, 2009).

14. Richard D. Kahlenberg, "From All Walks of Life: New Hope for School Integration," *American Educator* 36, no. 4 (Winter 2012–2013): 2–14, 40.

15. Mona Mourshed, Diana Farrell, and Dominic Barton, *Education to Employment: Designing a System That Works* (New York: McKinsey Center for Government, 2013), 18.

16. "Skills for the New Economy: Preparing Students for College and Careers," in "President's FY 2015 Budget Request for the U.S. Department of Education," U.S. Department of Education, last modified March 12, 2014, <http://www2.ed.gov/about/overview/budget/budget15/index.html>.

17. Carnevale, Jayasundera, and Hanson, *Career and Technical Education*, 7.

18. Felipe Barrera-Osorio, Harry Anthony Patrinos, and Quentin Wodon, eds., *Emerging Evidence on Vouchers and Faith-Based Providers in Education: Case Studies from Africa, Latin America, and Asia* (Washington, DC: World Bank, 2009).

19. Sheila Ruhland and Anne Killian, "Private-Public Partnerships: A Winning Solution," *Techniques*, November/December 2012, 32.

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