The nation’s long, fitful recovery from the Great Recession holds essential lessons for the months and years ahead.

In midsummer 2010, the New York Times sent a reporter to the Rust Belt to talk to manufacturing employers. Had the picture brightened in their sector? Were they adding jobs? How many of the 2 million manufacturing workers laid off since the crash in 2007 were being rehired?

The answer was unexpected and bittersweet. Manufacturing was slowly coming back, and plants were starting to rehire. But even with a vast pool of unemployed workers to draw on, employers were having trouble filling jobs. “The people that are out of work don’t match the jobs that are open and growing,” one Midwesterner explained.

Midwest manufacturers had retooled as they came out of the downturn, making a quantum leap of automation that made many of their old workers obsolete. An array of new jobs was available for people who could operate computerized machinery and do the math now required to solve even routine problems in the plant. These new jobs often paid better than the jobs that had been eliminated, but employers couldn’t find qualified workers.

Today, a similar threat is looming as businesses reopen in the wake of the COVID-19 lockdown. Millions of Americans are going to need fast, job-focused upskilling and reskilling to get back to work. The challenge for the nation: can we supply this essential instruction, whether safety training, technical training, IT training, or other upskilling?

Among the institutions being called on to provide training are the nation’s 1,100 two-year community and technical colleges. Many community colleges already put a premium on career-focused education. They have a long track record of innovating quickly and nimbly to meet the needs of learners and employers. Perhaps most important, only community colleges have the infrastructure—the size, reach, and training resources—to offer upskilling on the scale that will be needed as the nation recovers from the pandemic.
But the challenges ahead are as great as the opportunities, and providing the necessary training will require profound adjustments by community college educators and state and federal policymakers.

The future of work
COVID-19 is driving a new wave of automation and restructuring. The shift is still too new to be discernible in quantitative labor market information, but anecdotal evidence abounds.

The trend first emerged at the height of the pandemic in sectors that had to ramp up fast to cope with the initial wave of infections and lockdowns. Hospitals used 3D printers to produce personal protective equipment. Agencies processing unemployment claims automated the handling of applications and benefits. Warehouses overwhelmed with a flood of e-commerce introduced robots to track orders and inventory.²

In some cases, the technology was new. More often, there was an uptick in adoption of existing technology. In late April, just weeks into the lockdown, Zoom Video Communications reported that use of its teleconferencing app had soared to 300 million daily participants, up from just 10 million in December 2019.³

The trend spread and accelerated as the economy reopened. McDonald’s began testing robot fryers and voice-activated drive-throughs.⁴ The telehealth market exploded.⁵ Even meat processing, one of the industries that had in the past been most resistant to automation, began investing heavily in the development of deboning robots.⁶

The pattern is apparent across the economy. Automation doesn’t unfold at a steady pace. It happens in bursts, often when company revenues plummet and workers become relatively more expensive. Employers shed less-skilled workers and replace them with technology that can be operated by a smaller number of more highly skilled employees.⁷ COVID-19 may produce a faster pace of change than we’ve seen in past downturns; more machines and fewer people mean less risk of infection.

The instability ahead could be particularly unsettling for so-called “middle-skill” workers—those with more than a high school diploma but less than a four-year college degree.

The middle-skill labor market has been under pressure for decades as the digital revolution has swept across the economy. Demand for workers with a bachelor’s degree or higher surged from 19 percent of jobs in 1983 to 36 percent in 2019.⁸ Jobs for workers with a high school diploma or less fell precipitously during the same period, from 68 percent to just 34 percent. According to one estimate, mid-level jobs still account for up to half of labor market demand.⁹ But they vary widely, some offering significantly more opportunity than others.¹⁰

Some middle-tier sectors are growing while others are shrinking. Traditional blue-collar jobs are giving way to service-sector work and more highly skilled, technical positions. According to one analysis, nearly half of all mid-level jobs are “good jobs”—positions that pay at least $35,000 a year and pay on average $55,000 a year—compared to roughly three-quarters of jobs that require a bachelor’s degree or higher and just one-third of jobs open to workers with a high school diploma or less.¹¹ But as technology advances, middle-skill workers seeking good jobs will require more education to develop both technical skills and soft skills like analytical thinking and problem solving.
The bottom line is that the new, post-pandemic economy will call for more education at every level. But demand could be particularly acute in the middle tier, where surging automation is most likely to cut the number of workers needed at many firms and require an assortment of new, higher-order skills.

Workers across a range of industries will require safety training just to return to the workplace. Those who were once employed in sectors unlikely to rebound in the medium term—hospitality, retail, and commercial aviation, for example—will need to reskill quickly for alternative industries, whether as a stopgap measure or a longer-term solution.

The need for new upskilling options will be both immediate and sustained. The automation unleashed by COVID-19 is likely to ripple through the economy for years to come. What’s needed now is not just a temporary solution. More sophisticated, lifelong postsecondary education and training, particularly for workers without bachelor’s degrees, is likely to be a permanent feature of the future of work.

**The promise of community colleges**

Community colleges come in all shapes and sizes. Some of the largest touch more than 80,000 credit and noncredit students a year. At the other end of the spectrum, some serve fewer than 2,000 or 3,000 learners. Many maintain large noncredit, nondegree divisions, sometimes as large or larger than the credit-eligible side of the college. Others serve relatively few nondegree learners. Most are financed in large part by state government. Different states impose different priorities, usually preparing students for transfer to four-year institutions or preparing them for the workplace. And many institutions tailor their offerings to meet the needs of their local labor market, whether urban, rural, or suburban.

Adding to this complexity, most two-year public colleges serve several different types of learners pursuing widely diverse learning goals. These include traditional college-age students looking for a gateway to higher education, midcareer adults seeking skills to help them succeed in the labor market, immigrants needing English-language instruction, and better-heeled, better-educated adults looking for recreational courses, among others.

There is no settled way to sort traditional academic programs from those designed to prepare learners for the workplace. Many states collect scant information on noncredit programs, limiting what is known about their reach and content.

But all told, before the pandemic, roughly as many learners attended two-year colleges as enrolled in four-year institutions. According to the National Center for Education Statistics, nearly 65 percent of public two-year college students seeking associate degrees in 2015–16 were enrolled in “occupational” rather than “academic” programs, as were 89 percent of learners seeking to obtain certificates, usually earned in a year or less. The best nationwide estimate of noncredit education, which is now more than 10 years old, suggests that 53 percent of community college students are enrolled in programs that lead to a certificate or degree, compared to 47 percent enrolled in noncredit programs.

Two-year public colleges face an array of challenges. Graduation rates from associate degree programs are consistently low. Fewer than one-third of community college students graduate within three years. Fewer than 40 percent obtain a degree within six years. Seventy-seven percent of college-age students arrive on campus expecting to transfer to a four-year institution and earn a bachelor’s degree, but only 13 percent succeed. Many, if not most, community colleges are starved for resources, a predicament that may grow in coming years as states tighten their belts to deal with the COVID-19 economic shock.
Many schools struggle to define their mission. Determined to provide a varied menu of offerings including academic education, workforce training, remedial education, and more, some end up spread so thin that they have difficulty meeting their goals.

Still, community colleges bring several key advantages to the challenge of upskilling unemployed adults. Recent years have seen a surge of innovation, much of it centered on new ways to prepare learners for the workplace. Many community colleges have traditionally put a premium on workforce education and have a history of working with local employers to provide customized contract training for incumbent workers.

Community colleges are rooted in their communities and are attuned to the local labor market. Eager to serve the learning needs of a wide variety of students, many two-year institutions put a premium on nimbleness and innovation. The hidden asset that allows them to respond more quickly to the labor market is the noncredit continuing education division, which can establish timely workforce training without approval from faculty or regional accreditors.

Perhaps most important, only community colleges have the reach and scale to provide the upskilling that will be needed for an economic resurgence. With some 1,100 institutions distributed more or less evenly across the United States, two-year public colleges educate more people each year than coding boot camps and apprenticeship programs combined—nearly 12 million students, compared to just 15,000 at boot camps and close to a half million in civilian apprenticeship programs.¹⁶

Community colleges can draw on these assets to provide the fast, job-focused upskilling and reskilling that will be needed as the economy recovers in coming years. But they must also address the challenges that hold them back, starting with the uncertainty about their mission that drives many to try to be all things to all people. This will require change, including, at some institutions, dramatic change. But disruptive times often produce disruptive shifts, and community colleges across the country are looking for ways to meet the challenge ahead.

A blueprint for change
The decade or so before the pandemic was a time of rich experimentation and innovation on community college campuses. Some institutions focused on work-and-learn models, like internship and apprenticeship programs. Others looked to new credentials that students could earn in less than a year, including academic certificates and industry certifications that have immediate value in the labor market and can also serve as stepping stones to a degree for those who continue their studies. Other schools augmented or enhanced noncredit programs, a separate and often neglected division of the college ideally suited for partnering with employers to develop courses for midcareer adults.¹⁷

No one knows exactly how widespread this ferment is; there have been no exhaustive studies. All these innovations should be adopted more widely. But the change that’s needed as the nation wrestles with the pandemic and looks ahead to the future of work goes beyond a few new practices and piecemeal reforms.

What’s needed is a new vision—a new mission and identity. Community colleges have an opportunity to embrace a broader, more ambitious role: to accept and champion that they are the nation’s primary provider of job-focused education and training.
Two-year colleges should not abandon their traditional academic mission of preparing students to transfer to a four-year college or university. The future of work will likely increase the already robust return to bachelor’s degrees, and a degree in a high-demand field will remain a ticket to the middle class. But as the nation emerges from the COVID-19 crisis and accelerating automation transforms the economy, community colleges have an opportunity to put workforce skills more at the center of their mission and culture. It’s also an opportunity to assume responsibility for coordinating the regional talent pipelines that will be needed as industries rebuild in the wake of the pandemic.

Community colleges seeking to move in this direction will need to make an array of adjustments.

**Respond to the needs of the local labor market.** Unlike traditional higher education that is focused largely inward and is guided by academic standards, community colleges can and should be outward-looking and responsive to the labor market.

This will require more extensive and sophisticated use of labor market information. A handful of pioneering institutions show how this can be done. The best rely on in-house labor market information research centers to produce granular, real-time data to guide decisions about launching and shutting down programs.¹⁸

Also essential is creating much closer, more intensive partnerships with employers. Most community colleges maintain rosters of local companies and consult them about course offerings. All too often, though, these partnerships are more perfunctory than meaningful.

The best collaboration is day to day, with no detail too small for college and company to consider together.¹⁹ Ultimately, the relationship must be a two-way street. Employers should offer honest, actionable feedback. Educators should listen and act on it, and when they do—when they produce qualified graduates—companies should be prepared to hire them.

**Reengineer programs for midcareer adults.** Many learners seeking job training in the wake of the pandemic will be older, midcareer adults with little interest in schooling for schooling’s sake.

Few will have time for two-year associate degrees. Many will want shorter, applied courses that teach just the skills they need to succeed on the job. The most appealing programs will be geared directly to specific job openings, offering instruction in partnership with employers seeking to hire workers immediately.

Community colleges seeking to attract older learners should offer more classes, credit and noncredit, in the evenings and on weekends. Many working learners will prefer online instruction. They will arrive at college with knowledge and skills acquired on the job and elsewhere and expect institutions to recognize that learning. It is also essential to revamp student services to meet the needs of working adults. Needed services include providing free laptops and convenient child care, along with helping students identify high-wage, high-growth job opportunities.

**Provide hard and soft skills training for lifelong learning.** The best-paying jobs of the future are all but certain to require not just technical skills but also higher-order workplace competences, including critical thinking, problem solving, teamwork, and communication. Among community colleges’ advantages over many other occupational education and training providers, they have experience teaching fundamental skills on the traditional academic side of the college.
What’s needed is more cooperation between academic and workforce programs and better bridges between credit and noncredit education.

Many adults reskilling for a new job will need grounding in academic skills. Others may return to college later in life to pursue academic degrees, and they should be able to leverage what they learned in fast, job-focused programs to earn college credit. No one should have to retake courses or relearn skills they’ve mastered in the past.

Yet academic credentials, particularly associate degrees and the short-term certificates that have soared in popularity in recent decades, should also be designed to have value in the labor market. Community colleges should be held accountable for what happens after students graduate. Performance metrics and funding should be geared to employment outcomes, most importantly job placement and earnings.

**Policy recommendations**

Community colleges rely heavily on state policymakers for institutional support, and nearly half of two-year college students look to federal financial aid to help cover the cost of tuition. But little state or federal funding is designed to support the kinds of programs many learners will be looking for in the years ahead, including nondegree offerings and courses shorter than a semester.

Policymakers can start with five pivotal reforms, some at the state level and some federal.

**Regional economic value.** Instead of support based on raw enrollment totals, states should ground community college funding in a vision of regional economic development. Programs that deliver value by preparing learners for high-demand jobs and high-growth industries should be funded more generously through the state appropriations process.

Several states are moving to implement this idea, usually by revamping full-time-equivalent funding formulas to reward programs that create talent pipelines for growing industries. This promising approach should be enacted more widely.

**Pay for performance.** Whatever their regional economic payoff, programs that achieve their objectives and hit their performance goals should receive more funding than programs that produce poor outcomes.

After decades of experimentation and debate, more than 30 states now disburse some or all higher education funding based on student outcomes. Most look primarily to academic outcomes like completion and degrees. Workforce outcomes such as job placement and earnings should play a more significant role in state funding formulas.

**Short-term and workforce-focused Pell Grants.** Federal Pell Grants should be available to students enrolled in short, job-focused community college programs that lead to industry-recognized credentials and skills in demand in the labor market.

Congress has considered several workforce Pell proposals in recent years, some sponsored by one party or the other, others bipartisan. Reform of this kind is more essential than ever now as the nation recovers from the pandemic and looks ahead to the future of work.
Lifetime Pell Grants. Congress should reconsider the lifetime cap that bars Pell Grant funding for students who spend more than an accumulated six years in college. A blanket spending limit, one that takes no account of student outcomes either at school or after graduation, is not a viable option in today’s changing economy. Learners moving in and out of lifelong higher education need more flexible funding choices.

A single public workforce system. Community colleges and the public workforce system are two overlapping, duplicative job training networks. A globally competitive United States cannot afford both.

Both networks are administered primarily at the state level. But the federal government holds a powerful lever for change: the 15 percent set-aside carved out of every state’s Workforce Innovation and Opportunity Act allocation that goes directly to the governor to spend as he or she sees fit on job training programs. This funding should be contingent on the governor’s efforts to better integrate the state’s community colleges and its public workforce system.

Any post-COVID-19 stimulus funding that flows through the public workforce system should also come with incentives for closer cooperation between government job training programs and community colleges.

Conclusion
As the nation recovers from the pandemic, we must create a more equitable economy, one that offers good jobs and rewarding work for all Americans. One way to begin is by providing education and skills that create pathways to more demanding, better-paying jobs.

If they set their sights high enough and commit to a new mission, community colleges can emerge as the nation’s premier providers of workforce training and education.

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11 Carnevale, Anthony P., et al. (2018). *Three Educational Pathways to Good Jobs: High School, Middle Skills, and Bachelor’s Degree.* Georgetown University Center on Education and the Workforce.


14 The American Association of Community Colleges’ estimate of noncredit learners is based on a question included in a survey conducted in 2010. The association’s estimated ratio of credit to noncredit students varies slightly from year to year as credit enrollments rise and fall, but the estimate of noncredit students has not been updated.

15 Opportunity America Working Group on Community College Workforce Education. *The Indispensable Institution.*

16 Ibid.


18 Opportunity America Working Group on Community College Workforce Education, the Monroe Community College Case Study. *The Indispensable Institution.*

19 Opportunity America Working Group on Community College Workforce Education, the General Electric Case Study. *The Indispensable Institution.*