



THE INDISPENSABLE INSTITUTION

REIMAGINING COMMUNITY COLLEGE

Opportunity America Working Group on
Community College Workforce Education

JUNE 2020



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ABOUT THE ORGANIZATION

Opportunity America is a Washington-based nonprofit promoting economic mobility—work, skills, careers, ownership and entrepreneurship for poor and working Americans. The organization’s principal activities are research, policy development, dissemination of policy ideas and working to build consensus around policy proposals.

ACKNOWLEDGMENTS

Members of the Opportunity America working group on community college workforce education thank the guest presenters who traveled to Washington to brief our group about innovative practices being implemented by community colleges and state education authorities across the US. The members of the group gave generously of their time and insight, attending meetings, giving presentations, outlining chapters and offering thoughtful input on repeated drafts of this report. Opportunity America president Tamar Jacoby wrote the report on behalf of the group, drawing on outlines, presentations and transcripts of the group’s deliberations. Special thanks to the JPMorgan Chase Foundation and Lumina Foundation for their generous support of the project.

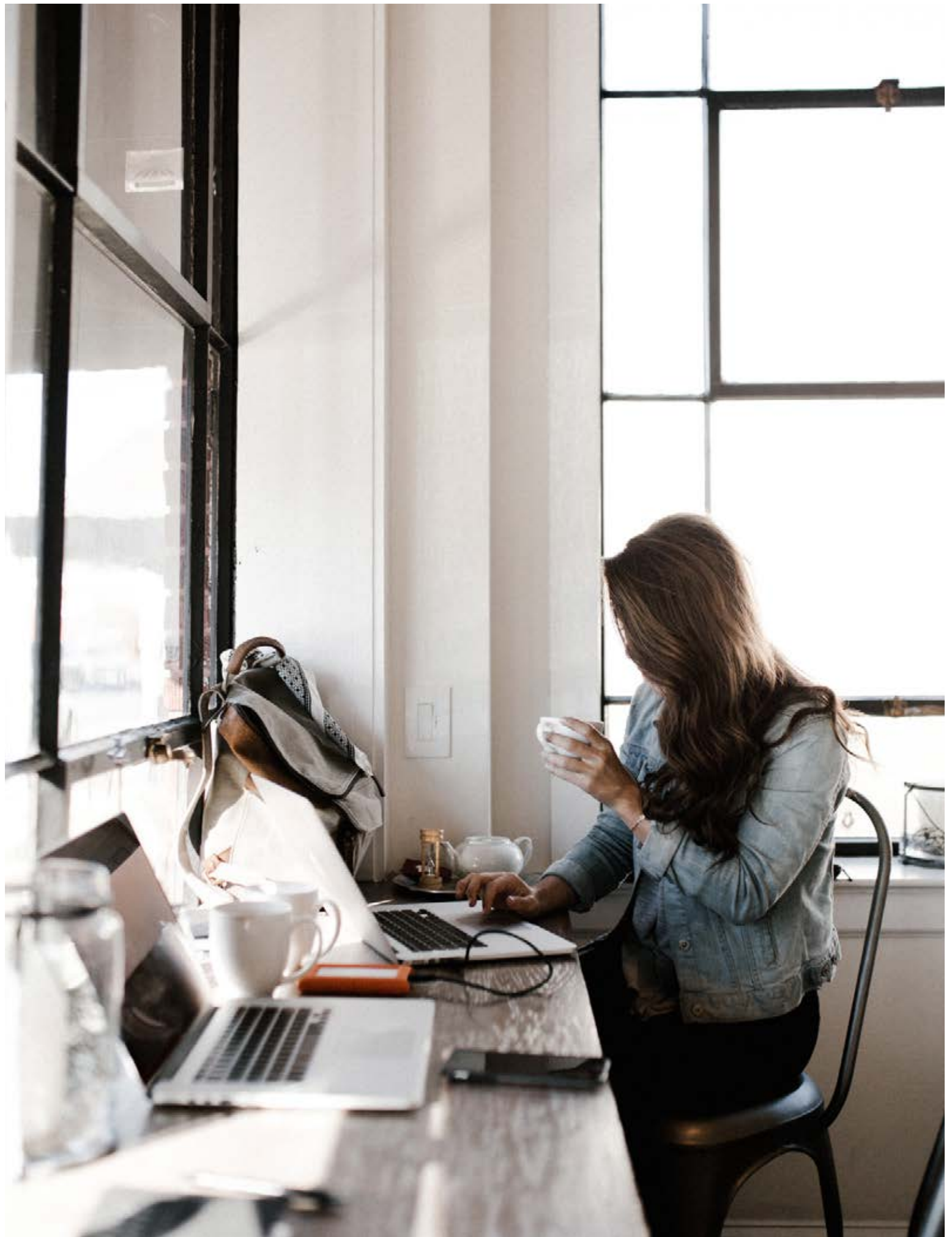
The views expressed in the pages that follow are those of members of the working group, not the institutions with which they are affiliated.

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EXECUTIVE SUMMARY

Galloping technological change combined with the pandemic of 2020 is transforming the global economy and posing a momentous choice for Americans.

Down one road lies a future in which income inequality grows ever more acute and it becomes harder and harder for Americans from less advantaged backgrounds to keep up or catch up with the better off—those with better educations and more sophisticated skills.

Down the other road, we as a nation come together to find answers for those at risk of being stranded permanently on the wrong side of the education divide—new ways to acquire skills and pick up the habits of lifelong learning necessary to succeed in the 21st-century economy.

It will take many decisions and a multitude of changes to get this choice right—no institution can do it alone. But few are poised to make as much difference as community colleges.

This was true before the pandemic, and it is even truer today. No one can predict exactly what the world will look like when the health risk ebbs and the nation starts to rebuild. But there can be little doubt that the economy will be different. Some sectors may never bounce back entirely. Others will grow. New technology and new ways of using technology are likely to change habits forever—and with them, labor market demand.

Among the most profound likely consequences of Covid-19: it will hasten the arrival of what we once called the “future of work.”

Americans at all education levels will need to adjust. But the burden is likely to weigh most heavily on workers with less education and fewer in-demand skills, and many thrown out of work in the devastation sparked by the virus will find it necessary to learn new skills before they can re-enter the labor market.

Many—perhaps millions—will need quick, job-focused upskilling and reskilling.

Technical workers in shrinking sectors will seek to retool, applying the skills they honed before the virus struck to new industries operating with new machines in new, transformed work environments.

Community colleges should accept and champion that they are the nation's primary provider of job-focused education and training.

Front-line managers used to motivating subordinates in traditional ways, in person, may need a new approach and new managerial techniques. Even workers who keep their jobs in sectors that bounce back relatively quickly may need refresher courses to keep up with rapidly changing technology.

Among the education and training providers best positioned to meet this challenge, reskilling workers and fueling economic recovery: the nation's 1,100 two-year community and technical colleges.

Community colleges come in all shapes and sizes: large and small, urban, rural and suburban.

Most serve an array of learners pursuing diverse goals: traditional college-age students looking for a gateway to higher education, midcareer adults seeking skills to help them succeed in the labor market, immigrants in need of English-language instruction and incumbent workers whose employers pay the college for specialized technical training, among others.

Limited data make it hard to account for all enrollments. But all told, before the pandemic, roughly as many learners attended two-year colleges as enrolled in four-year institutions.

reformers whose ideas we have appropriated. But we believe the change that's needed goes beyond new practices and piecemeal reforms.

Today more than ever, as the nation rebuilds after the pandemic, what's needed is a new vision.

Community colleges have an opportunity to embrace a new, more ambitious role—to accept and champion that they are the nation's primary provider of job-focused education and training.

Institutions should put workforce skills—career preparation and midcareer upskilling—more at the center of their mission and culture. They should shake off their dependence on four-year colleges and

Our proposals are even more relevant today as the nation faces the monumental challenge of rebuilding in the wake of Covid-19.

Two-year public colleges have always faced an array of challenges, and the sector has a mixed record of success. But recent years have brought a surge of innovation, much of it centered on new ways to prepare students for the workplace. Many colleges already put a premium on workforce education, and many have been making adjustments to meet the needs of midcareer adult students.

The working group that produced this report came together in early 2019—a diverse mix of educators, education reformers, researchers and policy experts united by a shared belief in the potential of community colleges.

The concern that brought us together centered on inequality—the heightened inequality we see coming as automation and artificial intelligence transform the world of work. We sought to build on the innovation under way on campuses nationwide, and we are indebted to the

universities—should move beyond a singular focus on preparing students to transfer to a four-year institution. And they should assume the broader responsibilities that come with their new role—including responsibility for the talent pipeline that will be needed for a national economic recovery.

This will require change in many quarters—at colleges, state education agencies, among employers, accreditors and federal policymakers.

Our group's principal recommendations are for community colleges and state education authorities. We also propose three critical changes to federal workforce policy and student financial aid.

Formulated in a time of full employment and economic vitality, our proposals are, we believe, even more relevant today as the nation faces the monumental challenge of rebuilding in the wake of Covid-19.



RECOMMENDATIONS



1 ROOTED IN THE LOCAL LABOR MARKET

Unlike traditional higher education, focused largely inward and guided by its own intrinsic, academic standards, community colleges must be outward-looking and responsive to the changing labor market.

In good times as well as bad, today and when the nation has pulled through the Covid crisis, community college planning and decisions should be shaped by trends in the local economy.

Programs, credentials and strategic initiatives should be geared to regional workforce needs. The primary goal for most learners: not credentials for credentials' sake, but employment and,

ultimately, economic mobility—learners leaving the college well prepared for high-demand, high-paying jobs.

In the years ahead, as the nation recovers from the pandemic, colleges must help displaced workers acquire the skills they need to find a footing in a radically altered labor market. Institutions that step up to meet this challenge will emerge as essential engines of economic growth, critical for learners, college-age and older, and for employers in search of talent to fill new roles and fuel a national resurgence.

2 ACADEMIC AND TECHNICAL SKILLS

Wherever learners are headed in the short term—straight to the world of work or onto further higher education—they need grounding in two crucial, complementary realms: foundational human skills and career-focused competencies.

Foundational human skills start with critical thinking, problem solving, communication, creativity and basic research techniques. Essential job-focused competencies—essential for all students—include workplace communication, applied math, teamwork, time management, data analytics and the rudiments of coding.

The best community college programs braid both kinds of skills, helping learners advance along both fronts. Today's increasingly automated workplace demands both kinds of learning, and the economic uncertainty created by the pandemic will make both even more critical.

Also essential as the labor market changes and more and more midcareer adults need reskilling: new education delivery models that take account of learners' circumstances.

Many students will want shorter courses, more focused on job-related skills. When in-person classes resume, learners struggling to make ends meet will need education and training offered at times and places that are more convenient for them. Instead of instruction that happens alongside work, a separate parallel

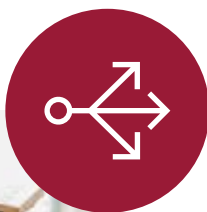


track, students will want college courses integrated with what they do on the job—designed to help them advance at work.

But even so, even in these circumstances, the best programs will teach both technical and human skills.

So too with online learning. There can be no turning back from the change triggered by the coronavirus. Conventional wisdom holds that community college students, often less well prepared academically than their peers at four-year institutions, will not take to online learning or complete online courses. Many career educators have traditionally assumed that the skills they teach—hands-on technical or professional skills—cannot be learned virtually.

The pandemic put the lie to both assumptions. Online learning, hybrid courses, virtual mentoring and other forms of remote access must now be harnessed on a new scale to teach both academic and technical skills.



3 NO OPTIONS FORECLOSED

A growing number of educators and education reformers argue that distinguishing career and technical education from traditional academic learning creates a false dichotomy. Our group agrees: no learners should be stuck irrevocably on one path or the other.

Different learners have different short-term goals—some seeking to transfer to four-year institutions,

others heading directly to the world of work. But unlike in the past, when most students attended college only once in a lifetime—today's students will need to continue learning throughout their careers.

What this means for community colleges: no options should be foreclosed. No degree should be terminal. No programs should be academic dead ends, and no community college student should be stranded on a path that cannot link back to college credit.



4 WORK-BASED LEARNING

All students, wherever they are headed, should experience the world of work.

Among the changes needed at the college to expand work-based learning: institutions need dedicated outreach staff. They need funding to subsidize interns' wages. Instructors need to align the topics they teach in class with what students are doing on the job.

Policymakers and philanthropic donors can help by providing additional resources and holding educators accountable for creating work-based learning opportunities.

Colleges also need to develop programs that recognize what working students learn in conventional entry-level jobs, coordinating the skills learners pick up at work with related college instruction.

5 JOB PLACEMENT

Unlike traditional academic educators for whom the finish line is graduation, community colleges should be held accountable for what happens after learners leave the college. The most important metric by which they should be judged is not completion but employment—high-value employment that results in upward mobility.

The change that's needed starts with policy: community college funding should be geared more closely to job placement and wages.

What's needed at the college: a dedicated employer outreach office, additional resources for placement staff, more robust career services, better coordination between curriculum and the labor needs of local employers.

6 ENGAGING EMPLOYERS

Most community colleges acknowledge the value of connecting with employers. Most maintain a roster of advisers from local companies. But all too often, 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. Employers may need help holding up their end of the partnership—assistance articulating their labor needs or structuring work-based learning. But ultimately the relationship must be a two-way street.

Employers need to offer honest, actionable feedback. Educators need to listen and act on it, and when they do—when they produce well-trained, job-ready graduates—local companies must be prepared to hire them.

The next frontier: blurring the lines between training provided at the college and the company.



7 INTEGRATING CREDIT AND NONCREDIT EDUCATION

Some of the most exciting innovation taking place at community colleges is in the noncredit continuing education division. Yet at many institutions, noncredit education is seen as second-tier—lacking in rigor and gravitas and not really “college.” This must change.

Our group’s goal is not to conflate the two divisions or grind down the differences between them. Both bring distinct advantages to preparing learners for success. The noncredit division is often more agile and responsive to the local labor market, offering just-in-time preparation for an in-demand job. Credit-bearing instruction is often broader or more comprehensive, and many learners want degrees—a ticket to better employment opportunities and further higher education.

The challenge for community colleges: how to take advantage of both divisions’ strengths and build bridges between them.

Better bridges for students start with credit for prior learning and “stackable” credentials that add up over time as learners move in and out of postsecondary education and training. At the institutional level, credit and noncredit divisions have much to learn from each other, and both stand to gain by sharing their assets more equitably.

Also critically important, we as a nation need more information about noncredit education—more research and better data on noncredit offerings, enrollments and employment outcomes. There can be no effective quality assurance without information of this kind.



8 CREDENTIALS OF VALUE

Every credential offered at a community college should have labor market value. But the obverse should also be true. Everything learned at a two-year institution should count—or should be convertible so that it counts—toward an academic certificate or degree.

Community colleges must do more to fulfill the oft-repeated promise of stackability, ensuring that all credentials are additive and all students can build on what they have learned in the past as they progress, often over many years, through college and career.

The key mechanism behind stackability—the articulation of credit—is a complex, technical process. But it can



and must be streamlined to get beyond case-by-case consideration. Then, once credit has been awarded, the allocation must be irreversible.

Among the most promising tools available to connect learners to the labor market, competency-based industry certifications should be better integrated into college programming.

State education authorities can help by determining which industry certifications have value for regional employers. And like all credentials earned at community college, industry awards should be convertible to college credit.

9 STUDENT NAVIGATION AND SUPPORTS

Students, traditional college-age and older, need better labor market information. They need career maps. They need data about the jobs available in their regions. And they need unvarnished facts about the likely outcomes of college programs, including the realistic likelihood of transfer and attaining a bachelor's degree.

Also crucial: advising. Learners need help making sense of labor market information. Some need assistance finding the right mix of technical training and academic instruction. Others need guidance that looks beyond graduation and helps them make choices about future careers.

The popular reform, “guided pathways”—a radical streamlining of course options combined with more intensive student supports—should be broadened to serve workforce students along with those on a conventional academic path.

The more cohesive college experience this creates should be integrated into “career pathways”—interconnected classroom instruction and work-based learning, bolstered by advising and other services—that stretch from high school into the world of work.

Midcareer adults, likely to turn to community colleges in greater and greater numbers as technology transforms the workplace, need special attention and supports—most importantly, readily available credit for prior learning. No working adult returning to the classroom should have to retake courses or relearn skills, and they should receive college credit for any relevant learning acquired on the job.





10 TOWARD A SINGLE PUBLIC WORKFORCE SYSTEM

A globally competitive United States cannot afford two overlapping, duplicative job training networks: community colleges and the public workforce system.

State and federal policymakers should encourage colleges and workforce boards to cooperate more closely, integrating and coordinating services. What's needed starts with small, practical steps: colocation, combining staff and sharing labor market information.

More ambitiously, community colleges and local workforce boards should join forces to steer regional economic development. A joint entity convened by the college can provide a single point of contact for employers seeking better trained workers. Together, the two institutions can create a single, integrated

talent pipeline to fuel economic growth across the region.

Also essential: the two networks should be held to the same standards—perhaps the performance indicators mandated for the workforce system by the Workforce Innovation and Opportunity Act (WIOA).

The federal government holds a powerful lever for change: the 15 percent set-aside carved out of every state's WIOA funding that goes directly to the governor for job training initiatives. This funding should be contingent on the governor's efforts to better integrate the state's community colleges and its public workforce system.

11 FUNDING

Policymakers need to rethink funding levels for higher education and workforce training. They should also reconsider *how* they fund community colleges—the metrics, incentives and allocation of resources.

First, instead of state support based on raw enrollment totals, states should ground community college funding in a vision of regional economic development, and programs that deliver value should be funded more generously.

One promising approach: tiered full-time-equivalent funding that rewards programs—including non-credit programs—that help learners acquire the skills they need to succeed in high-demand, high-paying industries.

Second, 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.

Outcomes metrics should be aligned with mission, and desirable outcomes should be defined differently depending on the nature of the program.

Job-focused programs should be rewarded for students' employment outcomes—post-graduation job placement and improved wages. Transfer-oriented



programs should be held accountable for transfer rates, but also—a new, higher standard—whether or not transfer fulfills its purpose. Do learners earn a four-year college degree?

Finally, our group proposes two reforms to federal financial aid. We believe 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.

We also encourage Congress to reconsider the lifetime cap that bars Pell funding for students who spend more than an accumulated six years in college. Learners moving in and out of lifelong higher education to advance their careers need more flexible funding options.

CONCLUSION

Can the nation keep its promise of equal opportunity for all? Today, that promise hinges more than ever on access to postsecondary education—including, for many, job-focused career and technical education. Few institutions are better positioned to provide what's needed than the nation's two-year community and technical colleges.

Will they succeed? Can they live up to their potential as the nation's indispensable institution? Our group is betting they can if only they set their sights high enough, clarifying and committing to the mission we as a nation need them to undertake.



INTRODUCTION

The economy is changing and with it America's need for higher education.

The pandemic of 2020 is sure to accelerate the digital revolution already transforming even the most traditional sectors of the economy. Automation and artificial intelligence will likely gather speed in years ahead as new technology and new ways of using technology reshape the world of work.

The technological change of recent decades left millions of Americans better off than before—a trend that will surely resume as the economy recovers. For many, innovation has translated into new wealth and a better quality of life. But millions of others are being left behind, often because they lack the skills to succeed in the 21st-century economy.

Income inequality is widening. Middle and upper-middle-class incomes have risen dramatically since the late 1970s. For the top 50 percent of earners, wage and salary income alone rose 51 percent between 1979 and 2016.¹ But the rest of Americans' earnings grew much more slowly or remained close to flat.²

Economic mobility is stalled. Nine in 10 Americans born in 1945 could look forward to earning more than their parents earned at the same age. Even before the pandemic, only half of those born in 1985 could expect to earn more than their parents.³

As technology changes and the workplace grows more complex, the divide between the haves and the have-nots is increasingly rooted in education.

The economy is changing and with it America's need for higher education.

Even before Covid-19, nearly two-thirds of all jobs required some postsecondary education or training.⁴ More than half of well-paying jobs required a four-year college degree.⁵ But many students who start out on the lower rungs of the income ladder never make it across this critical divide.

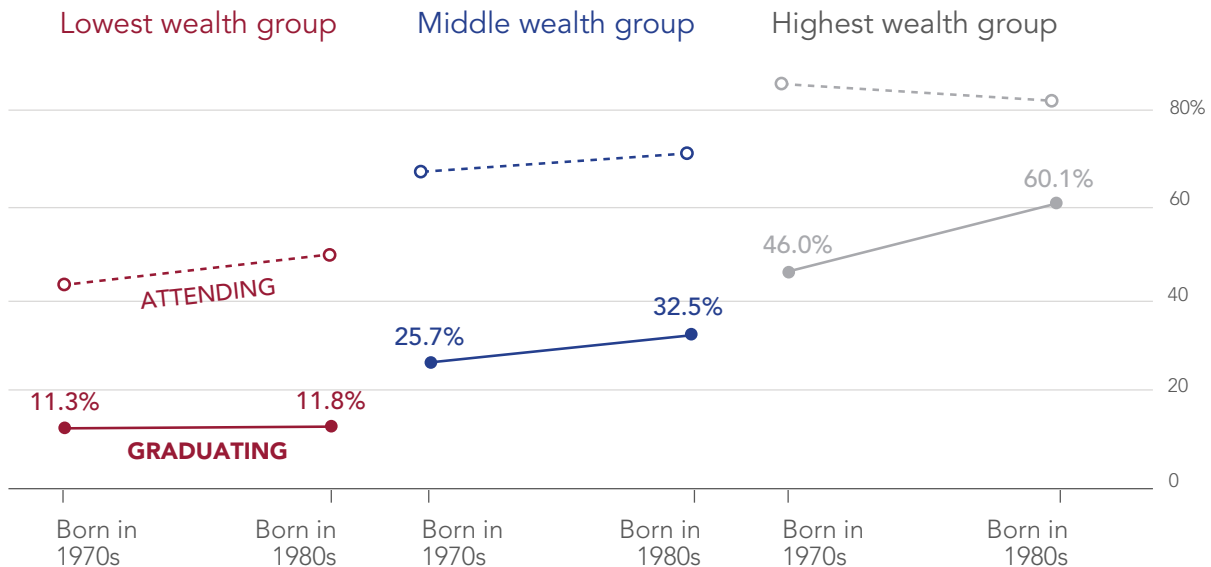
Though many more students from modest backgrounds now attend college, they are far less likely than their better-off peers to emerge with a degree. College attainment for young people from the top 20 percent of households rose dramatically in recent decades; for those born into families in the bottom 40 percent, it changed hardly at all. Just 11.3 percent of poorer students born in the 1970s earned a four-year degree—and just 11.8 percent of those born in the 1980s.⁶

Still another challenge looming and sure to grow more pressing in years ahead as the nation recovers from the effects of the virus: many workers are likely to find that their jobs have been radically transformed, if not eliminated, and they will need new skills to remain relevant and employable in a starkly altered economy.

Meanwhile, employers from a wide range of industries will need new types of workers with

FIGURE 1. Stubbornly poor four-year college graduation rates for students from poor families

College attendance and graduation rates by family wealth and birth cohort, 1970s and 1980s



Note: Lowest wealth group is the bottom 40 percent of households; middle wealth is the middle 40 percent; upper wealth is the top 20 percent. Source: David Leonhardt, "The Growing College Graduation Gap," The New York Times, March 25, 2018.

new, up-to-date skills—talent to fuel the recovery and position the nation for a new era ahead.

The working group that produced this report came together in early 2019 at a time when the US economy was firing on all cylinders and unemployment was at a historic low. Even then, too many Americans were being left behind by the rising economic tide. Today, as the nation looks ahead, the challenge has grown far more urgent.

Few institutions are better equipped to serve learners left behind by the social and economic shifts of recent decades.

Our working group included educators, education reformers, researchers and policy experts—roughly half analytic observers and half on-the-ground practitioners.

We agreed at the start on a set of shared assumptions about the remedy for growing inequality and stalled economic mobility.

- **Skills.** The solution starts with skills: technical skills, but also so-called “foundational” or “human” skills—critical thinking, problem solving, teamwork, communication and other nontechnical competencies—increasingly essential in today’s workplace.
- **Lifelong learning.** Unlike in the past, when education was designed primarily to prepare young people for what lay ahead, today’s students will need to continue

learning throughout their careers, and today's institutions must be equipped to serve working adults as effectively as they serve traditional college-age students.

- **Aligned with the world of work.** Also different from the past, no educator can ignore what's happening in the labor market. Education needs to change as fast as technology is changing. Institutions must be agile and outward-looking. And among the best ways to stay up to date is by collaborating with employers.
- **Accessible.** Stalled economic mobility is a national problem, but the solution is likely to be local: rooted in a regional economy and easily accessible for learners—physically and financially accessible.
- **Outcomes.** Finally, another sharp departure from the past, education and training providers must be held accountable for noneducational outcomes. What students need goes beyond learning for learning's sake. As important today, less-advantaged

learners and others look to education to equip them to succeed in the workplace, and institutions must expect to be judged on whether or not they help students get and keep high-demand, high-paying jobs.

Together, it's a tall order. No existing institution fits the bill—no educational sector consistently meets these requirements.

The institution that comes closest, with the most potential to meet the challenges ahead: two-year community and technical colleges.

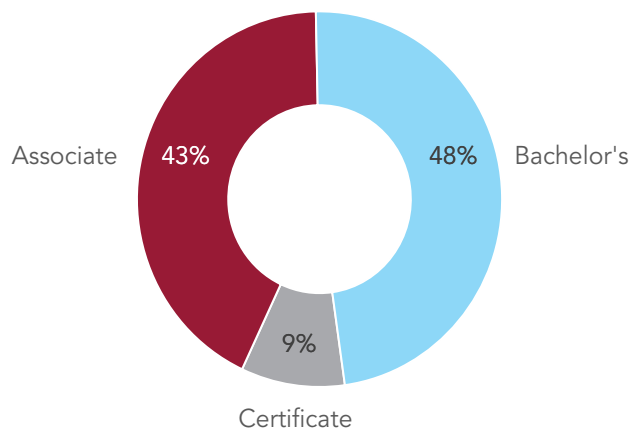
UNPARALLELED POTENTIAL

The nation's 1,100 two-year community and technical colleges come in all shapes and sizes: large and small, urban, rural and suburban, modest college prep academies and powerful engines of regional economic growth.

Miami Dade College, for example, the nation's largest two-year institution, maintains eight sprawling campuses across the southern Florida metro area.⁷ Together, they serve more than 80,000 degree-seeking students a year and

FIGURE 2. Roughly as many learners in certificate and associate degree programs as in bachelor's degree programs

Enrollments in certificate, associate degree and bachelor's degree programs, 2015–16



Source: National Postsecondary Student Aid Survey, 2015–16.

another estimated 40,000 learners enrolled in noncredit programs that do not lead to academic certificates or degrees—workforce education, English as a second language, personal interest courses and other nonacademic offerings.⁸ More than 30 percent of Miami Dade’s degree-seeking students are age 26 or older, and roughly 60 percent attend part time.⁹ Some 40 percent receive means-tested federal Pell Grants.¹⁰

Guttman Community College, in contrast, is among the nation’s smallest. Located in the heart of Manhattan, one of seven two-year public colleges in New York City, it serves fewer than 1,000 students a year, all of them recent high school graduates, all degree-seeking and all attending college full time.¹¹ Roughly 70 percent are eligible for Pell Grants.¹²

Most of the nation’s two-year public colleges fall somewhere in between. Most serve an array of learners pursuing diverse goals—traditional college-age students looking for a gateway to higher education, midcareer adults seeking skills to help them succeed in the labor market, immigrants in need of English-language instruction, incumbent workers whose employers pay the college for specialized technical training and others.

Some learners seek degrees, others do not, and many institutions keep scant data on those who attend part time without matriculating. But all told, across the US, roughly as many learners attend two-year colleges as enroll in four-year institutions.¹³

Community colleges struggle to fulfill the needs of these diverse students. Most institutions juggle multiple missions—traditional academic preparation, career and technical education and remedial instruction, among others—and many find it difficult to do everything well.

Recent years have brought a surge of innovation on a self-selected share of campuses, much of it centered on new ways to prepare students for the workplace. But quality varies widely—many colleges are still stuck in the past and performing poorly by any measure.

What brought our group together was our shared belief in the potential of community colleges. Judging by our five core criteria, no institution is better situated to create opportunity and enhance economic mobility for the millions of Americans who did not prosper even in a full-employment economy.

Whatever their primary mission, all community colleges exist to advance students’ social and economic mobility, and most have the capacity to teach both technical and foundational skills—often known on campuses as “liberal arts skills.”

Most two-year institutions have a long history of serving adult learners along with traditional college-age students.

Many have strong, time-tested relationships with local employers.

Few Americans live more than a short drive from the nearest community college campus, and tuition remains relatively affordable. The average annual cost in 2018 for a full-time student: \$3,660.¹⁴

Alongside these advantages, few institutions are better equipped to serve learners left behind by the social and economic shifts of recent decades. Many students seeking economic opportunity already look to community colleges. Nearly one in three learners is the first in their families to attend an institution of higher education. The two-year college student body is roughly half white, half African American, Latino, Asian American and Native American. Nearly two-thirds of learners attend part time—usually because they are also holding down a job.¹⁵

Few institutions are better positioned to adapt to the changing postindustrial economy. Most community colleges already focus to

Few Americans live more than a short drive from the nearest community college campus.

Middle-skill jobs currently account for roughly half of US employment.

some degree on preparing learners for so-called “middle-skill” jobs—technical positions in fields like health care, IT and advanced manufacturing that require more than a high school diploma but less than a four-year college degree. Middle-skill jobs currently account for roughly half of US employment.¹⁶ And although many positions are likely to disappear as technology replaces routine labor, other midlevel occupations will require increasingly sophisticated skills and offer expanding opportunity for qualified workers.¹⁷

Perhaps most important, community colleges are the only institution with the reach and scale to take on the national challenge of stalled economic mobility. No other education and training provider has the national infrastructure—campuses, classrooms, workshops, technical training labs and experienced faculty in virtually every corner of the US. And the fresh thinking about skills and skills training bubbling up on campuses across the country suggests a capacity for innovation largely missing at other institutions of higher education.

There remain many obstacles to be overcome: largely flat or declining public funding, low graduation rates, a weak record of preparing students to succeed at four-year institutions and, in many quarters, a reputation as second-tier—low-quality, low-prestige, second-choice institutions that try to be all things to all learners and struggle to meet students’ expectations.

Our group believes that the best way for community colleges to address these challenges and live up to their potential is to align their offerings—all their offerings, not just those traditionally earmarked as job-related—more closely with labor market demand.

This will require change—on some campuses, dramatic change.

But two-year community and technical colleges are positioned to emerge as the nation’s indispensable institution: the primary provider of job-focused education and training, at the forefront of a national economic recovery.

If community colleges do not rise to the occasion, a variety of other institutions can be expected to step in—for-profit colleges, online providers, employers providing in-house training and others are waiting in the wings. Few have the combined advantages of two-year public colleges; few are as well-suited to the task at hand. Community college educators face a historic opportunity. But like most opportunities, it’s fleeting, and the time to act is now.

A NEW DIRECTION

Our working group of educators, researchers and policy thinkers spent the better part of a year together developing a road map for community colleges seeking to fulfill their potential as the nation’s leading provider of job-focused education and training.

Some of the changes we recommend are dramatic and far-reaching.

- All two-year college students, including those who intend to transfer to a four-year college, should receive instruction in basic job skills, including workplace communication and applied math.
- All should have an opportunity for work-based learning and career exposure.
- Every credential earned at a community college, including the traditional, academic associate of arts degree, should be designed to have value in the labor market.

- Colleges should be held accountable for what happens after students graduate, with their performance measured against post-completion employment outcomes—job placement and earnings.
- As technology transforms the workplace and more midcareer adults seek reskilling, community colleges will need to restructure and repackage programs, offering more short-form, applied courses geared to industry needs and industry-recognized credentials.
- Educators should develop much closer, more meaningful relationships with employers and assume more responsibility for the economic prosperity of their regions.
- Equally important, within the college, institutions should work to shrink the traditional divide between academically oriented programs and job-focused workforce education and ensure that all students, whatever their backgrounds or the socioeconomic status of their families, have equal access across programs.

Our group is sympathetic to growing concern that American higher education is narrowing its purpose, ignoring the vital role of the liberal arts and humanities. We do not wish to see any institution, two-year or four-year, adopt a strictly vocational mission, and this paper does not recommend a shift of resources away from academic programs. Four-year college completion—increased four-year college completion—is too important, for students and for American competitiveness.

But we urge the nation's community colleges to put workforce skills—both career preparation and midcareer upskilling—more at the center of their mission and culture. We encourage two-year institutions to move out from under

Colleges should be held accountable for what happens after students graduate—job placement and earnings.

the shadow of four-year colleges and universities and recognize their unique role in preparing learners for the workplace.

With a targeted roster of reforms and a more focused sense of purpose, we believe community colleges can and will emerge as the nation's leading provider of career-focused education, addressing looming skills gaps and reigniting stalled economic mobility.

Many community colleges already put a premium on workforce preparation; many offer exemplary career and technical education. But even at the institutions most centered on this essential challenge, job-focused education is often a lagging priority—underfunded, undervalued, largely divorced from the rest of the college and often looked down upon by academic faculty and administrators. Our group believes this must change.

The manifesto that follows describes the steps we think are necessary for community colleges to live up to their full potential.

The first chapter of the paper is a picture of today's changing economy—the context in which community colleges operate and the challenge it poses for higher education. The second chapter describes the community college sector as it exists today—strengths, weaknesses and promising new directions.

Most of the remainder of the paper—five detailed and relatively technical chapters—outlines the reforms we think are needed. The first of these chapters proposes changes to how community colleges conceive and frame their mission. The second outlines our vision

for stronger ties between community colleges and the world of work—labor market demand, employers, work-based learning and post-graduation employment outcomes.

The third technical chapter offers reforms to better integrate the college’s credit and non-credit programs and create more navigable bridges between credentials. The fourth recommends streamlining and supporting the paths students pursue while at college. The final practical chapter proposes reforms to funding and accountability—the all-important performance metrics by which we think two-year institutions should be judged.

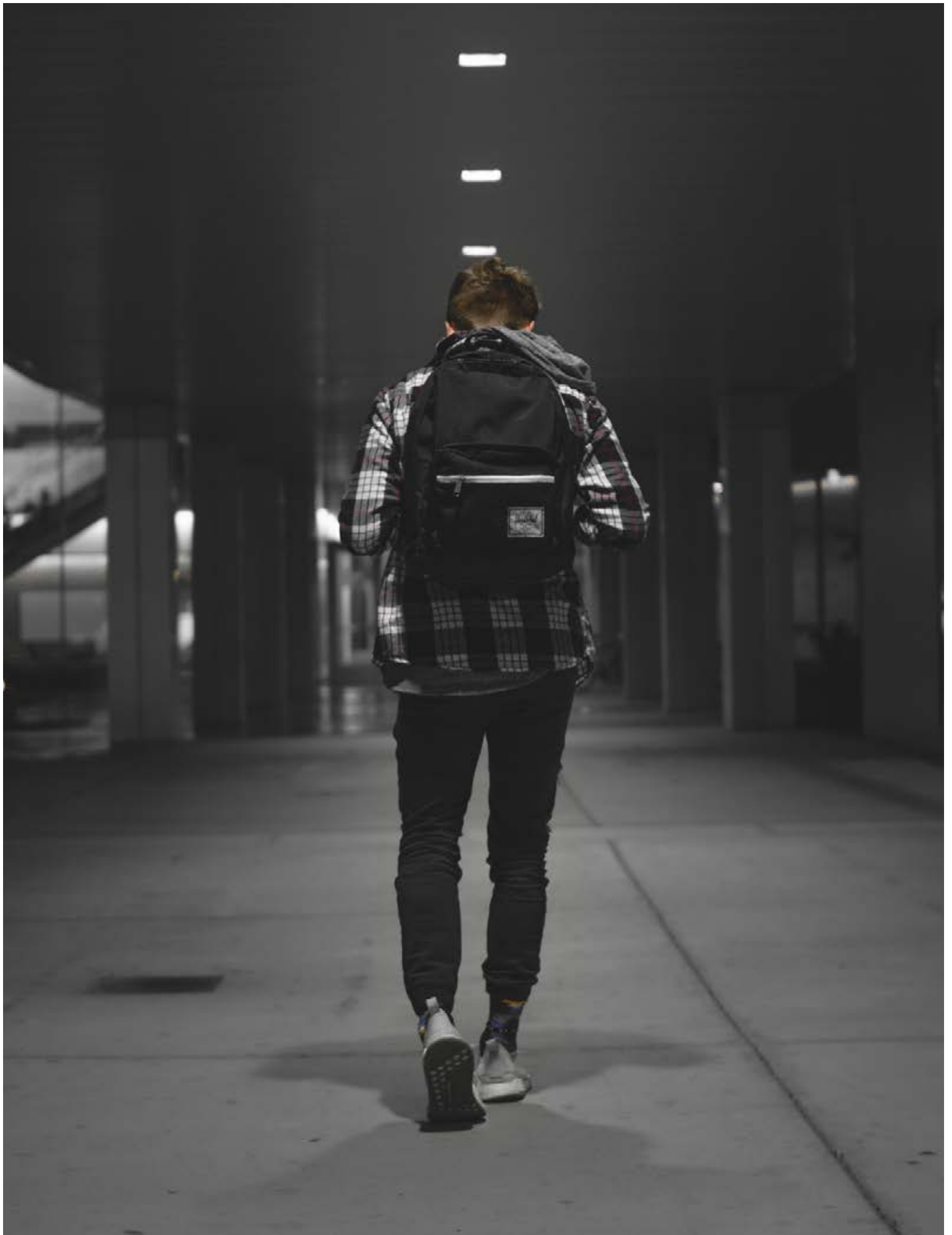
The last section of the paper compiles our principal recommendations—next steps for community college educators and state and federal policymakers.

Part I



THE CASE FOR CHANGE





A PRESSING CHALLENGE

Rapidly changing technology is transforming jobs across the economy, requiring greater skill and more sophistication—more education—from virtually all American workers. This was true before Covid-19, and the pandemic is accelerating the trend.

The lifetime return to a four-year college degree remains substantial. Those who hold a bachelor's degree or higher are significantly more likely to be employed. They earn more, often dramatically more, throughout their careers, and a growing share of the new jobs being created today call for extended higher education, including professional qualifications.¹⁸

But only 35 percent of American adults hold bachelor's degrees.

Nearly two-thirds of all adults 25 and older, 75 percent of African Americans and more than 80 percent of Latinos navigate the labor market without an imprimatur from a four-year college, and the nation cannot hope to reduce income inequality unless we can also equip these workers to command better pay.¹⁹

Less educated workers, too, face a changing job market. Traditional blue-collar jobs are giving way to more skilled, more technical positions. There are fewer and fewer well-paying jobs for workers with only a high school education.²⁰

But there is still robust demand for what some people call “middle-skill” workers with more than a high school diploma but less than a four-year college degree—electricians, dental hygienists, police officers, bookkeepers and IT support staff, among others.

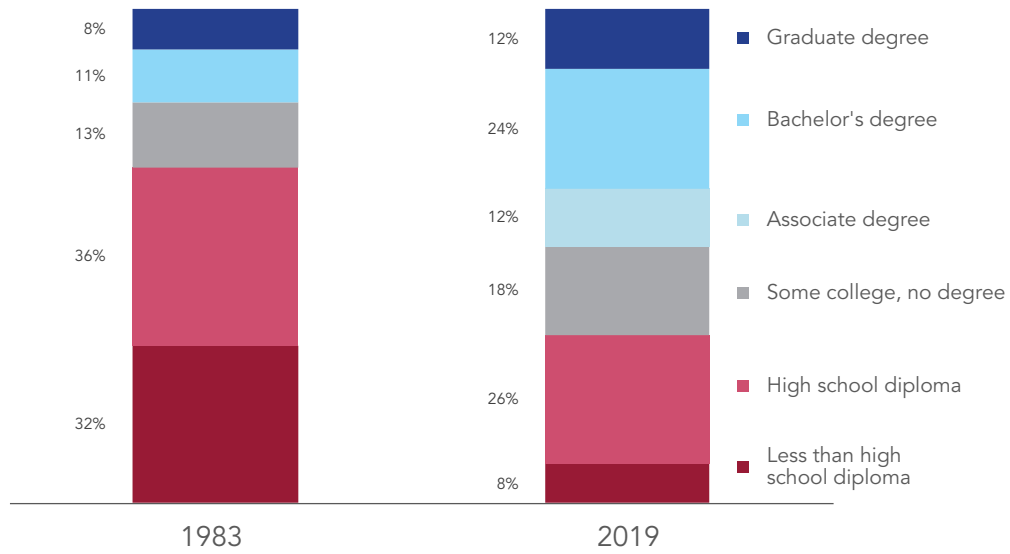
Today, middle-tier jobs account for more than half the labor force and roughly one-quarter of what some economists call “good jobs”—those paying at least \$35,000 and on average \$55,000 a year.²¹ Midlevel jobs will likely drive between one-third and one-half of demand in years ahead.²² In some regions of the country, they have been the fastest growing segment of the job market, and they vary dramatically, with some offering significantly more opportunity than others.²³

In the wake of the pandemic, some mid-level occupations will shrink, others will grow. Many if not most will be transformed by automation and artificial intelligence. Yet even as technology changes, workers with up-to-date skills can expect to face ample opportunities in health care, information technology, advanced manufacturing, some skilled trades and some services, including technical sales.²⁴

The challenge for the nation: how to provide the education and training these workers need to prepare them for well-paying jobs and the turbulent labor market predicted in years ahead?

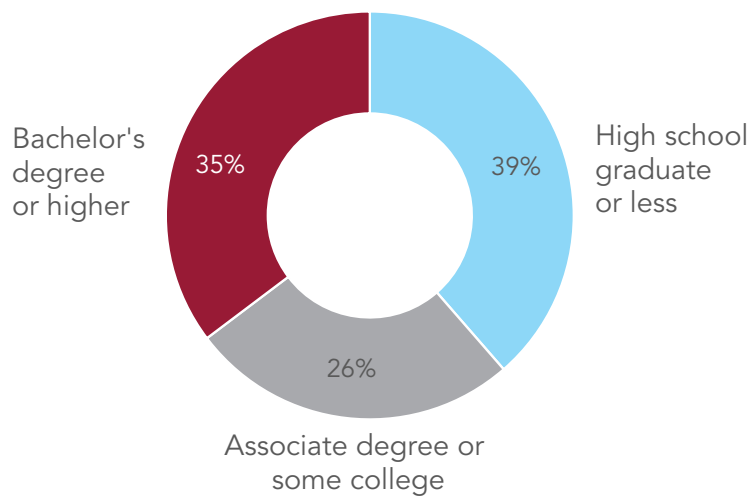
There are fewer and fewer well-paying jobs for workers with only a high school education.

FIGURE 3. Two-thirds of all jobs require some postsecondary education or training
Jobs by education requirement, 1983 and 2019



Source: Georgetown University Center on Education and the Workforce.

FIGURE 4. Only 35 percent of American adults have bachelor's degrees
Educational attainment, adults 25 and older, 2018



Source: 2018 Current Population Survey.

The 21st-century economy demands that we pay equal attention—and devote comparable resources—to educating midlevel workers.

One crucial answer is increased access and completion at four-year colleges. Educators and policymakers have been pursuing both for decades, and rates are improving—but not fast or dramatically enough to close inherited wealth and income gaps.

Just 58 percent of students who started college in fall 2012 had earned a degree six years later.²⁵ Those who finish are often saddled with debt. Average student loan debt per person in the class of 2018: \$29,800.²⁶ And the return to education varies widely by field of study—picking the wrong major can be almost as bad for your career as failing to finish college.²⁷

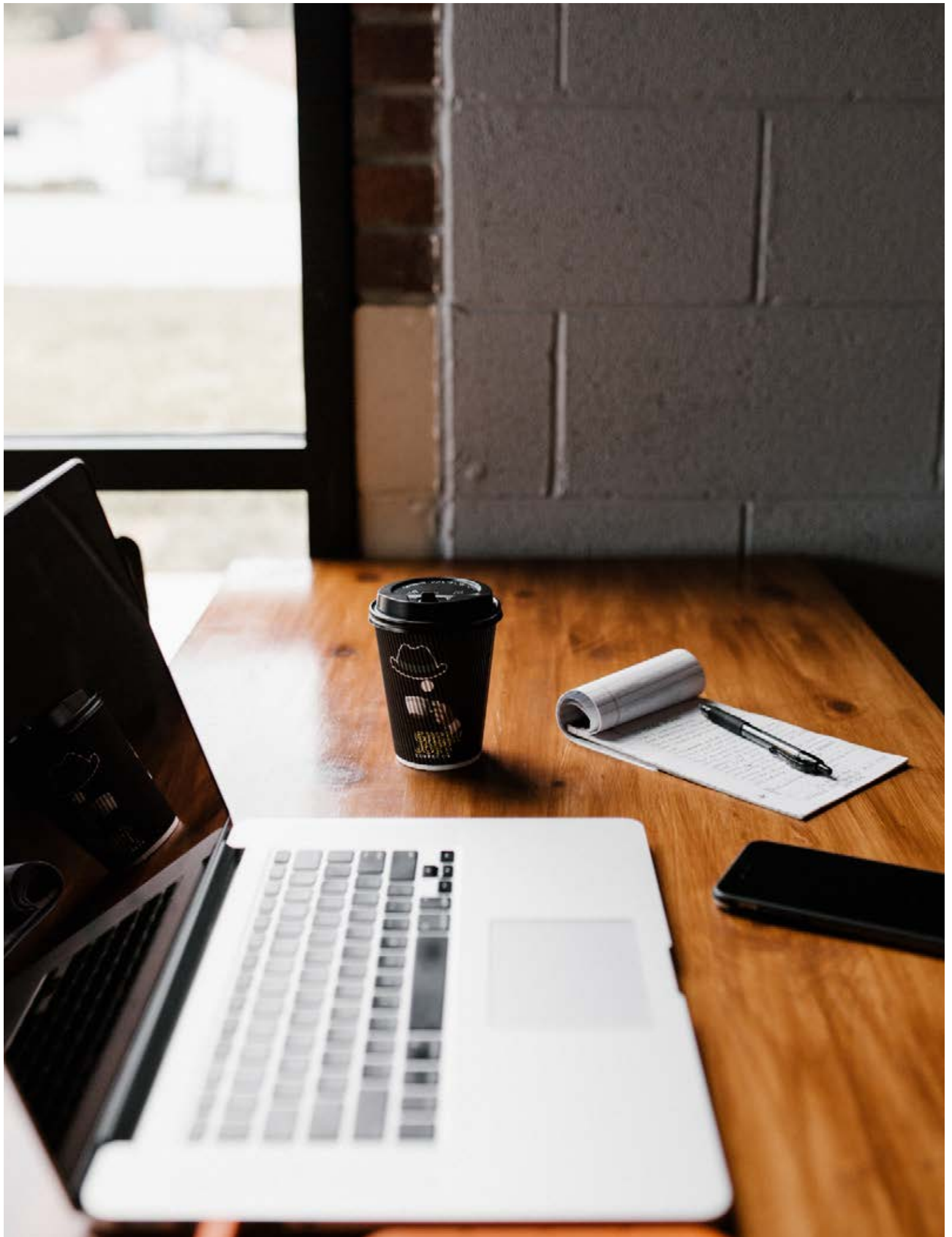
According to one estimate, more than 40 percent of recent four-year graduates—generally those who chose a major with less labor market value—find themselves working in a job for which they are overqualified, and many remain underemployed for years to come.²⁸

Among the steepest challenges ahead: providing education and training for midcareer adults displaced by the pandemic and the workplace changes sure to follow in its wake.

Some 63 million Americans—nearly 40 percent of all working-age adults—have no education beyond a high school diploma.²⁹ Another estimated 34 million have attended college but left without a degree.³⁰ As accelerating automation reshapes the workplace, less-skilled workers are far more likely to be at risk of displacement—a larger share of the tasks that make up their jobs are likely to be taken over by technology.³¹ And many will be in dire need of retraining to find their footing in a rapidly changing, skills-driven job market.

There has to be a better way. American colleges and universities remain the envy of the world; they produce a highly successful professional class. And the nation cannot give up on college access and completion—on the contrary, we need to redouble our efforts.

But we also need other answers and additional paths suited to a wider variety of learners. The 21st-century economy demands that we pay equal attention—and devote comparable resources—to educating midlevel workers. College age and older, workers heading into the labor market without a four-year degree also need postsecondary education and training to prepare them for well-paying jobs.



AN INSTITUTION AT A CROSSROADS

How will the nation provide postsecondary education and training to meet changing demand from workers who need more than a high school education but less than a four-year college degree?

No institution can do it alone. But among the best positioned providers are community colleges—arguably the only institution with the reach and scale to make the difference that’s needed, addressing existing skills gaps and those projected in the future.

MANY STRENGTHS TO DRAW ON

Just over a century old, rooted in the early years of the 20th century, community colleges bring many strengths to the challenge of equipping learners for careers, both middle-skill careers and those that demand more education.

Among community colleges’ greatest advantages: their reach. With some 1,100 institutions nationwide, distributed more or less evenly across the US, community colleges educate more people each year than coding boot camps, apprenticeship programs and government job training combined—more than 12 million students, compared to just 15,000 at boot camps, 226,000 in government training programs and close to a half million in civilian apprenticeship programs.³²

Rooted in their communities, attuned to local needs, two-year public colleges fulfill many purposes for the regions they serve. In some remote

rural communities, they are the only institution of higher education—the only gateway for aspiring learners.

Many also have a long history of providing technical instruction, often in partnership with local employers. Employer outreach varies widely from institution to institution, but in some areas where educators have worked to develop relationships, local companies regard the community college as a training provider of choice.

At a time when four-year college costs are soaring, community colleges remain relatively affordable: in 2018, the average annual cost for a full-time student was \$3,660.³³

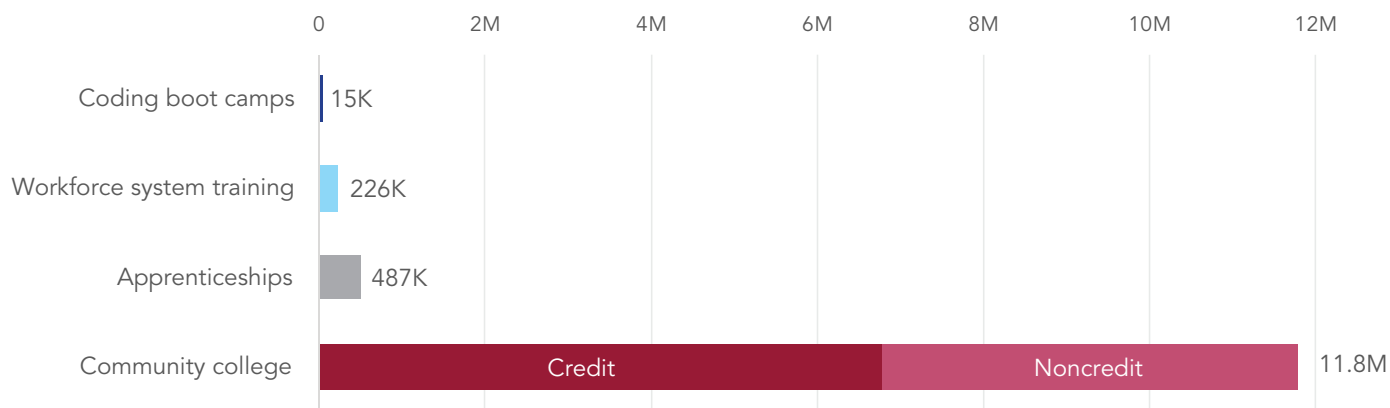
Perhaps most important, community colleges serve some of America’s least advantaged learners and those otherwise least likely to have access to higher education.

Nearly one-third of community college students are the first in their families to attend college.³⁴ Fewer than half are white. Fifteen percent are single parents. Nearly two-thirds attend part time, and even many full-time learners are employed while in college. According to one estimate, 80 percent of community college students hold down a job alongside their school work.³⁵

Among community colleges’ greatest advantages: their reach.

FIGURE 5. Where the career-focused learners are

Subbaccalaureate enrollment by type of education and training institution, 2018



Sources: Course Report, August 2019; US Department of Labor, Employment and Training Administration, March 2020; US Department of Labor, Employment and Training Administration, 2019; and American Association of Community Colleges, 2020.

Among the sharpest differences between community colleges and four-year institutions: the average age of the student body skews significantly older. Some learners—today, just over half of all students in credit-eligible programs—are young people right out of high school seeking a gateway to higher education.³⁶ The other half are adults, already working, who have returned to school to upgrade their skills or attain an additional credential that might help them move up on the job.

The differences between these two groups extend well beyond age. Imagine, on one hand, a newly minted high school graduate, 18 years old, used to the close supervision and supports of high school, with no work experience, still financially dependent on their parents, perhaps even still living at home.

Midcareer adults are more diverse; there is no typical learner. But imagine a recently laid-off worker, 34 years old, with a spouse, a child and a mortgage, currently receiving unemployment insurance, but only for a few more weeks.

In the past, these two groups—traditional college-age students and older learners—were more or less equally represented on community

college campuses. But even before the pandemic, many educators expected the share of older learners to expand sharply in coming years as technology transforms the workplace. And in the wake of Covid-19, this cohort is likely to swell dramatically—change sure to pose new challenges for two-year public colleges.

Few if any institutions make a formal distinction between these two kinds of learners, and few researchers have explored the differences between them. But what data exist along with anecdotal evidence suggest the two groups often choose different paths through postsecondary education and training.

Older students are more likely to choose job-focused offerings. They are more likely to gravitate to the noncredit, nondegree side of the college.³⁷ Most have more at stake than a typical 18-year-old—dependents and bills that cannot wait while they complete their education. And today, even more than in the past, they are in a hurry to return to the workforce and resume earning.

Along with their extensive experience teaching older students, community colleges also serve as a stepping-stone for high school

students seeking a first taste of higher education. Roughly one-third of US secondary students now take courses for college credit while in high school, the overwhelming majority of them at two-year colleges.³⁸ And for all of these learners, younger and older, the experience can be transformational.

“This isn’t just about college course work,” one community college educator told our working group. “It isn’t even just about getting someone a job. This is about breaking the cycle of poverty—and one person’s experience can span generations. Think of the middle school student in a bad neighborhood who sees her mother doing homework for her class at college. It’s the kind of thing that could transform that young girl’s life.”

A MIXED RECORD

Two-year public colleges also face many challenges, and the sector has a mixed record of success.

Community colleges have always had what some call a split personality—part junior college,

devoted to preparing students for further education, and part vocational school, focused on technical training for learners, college-age and older, headed directly into the labor market.³⁹

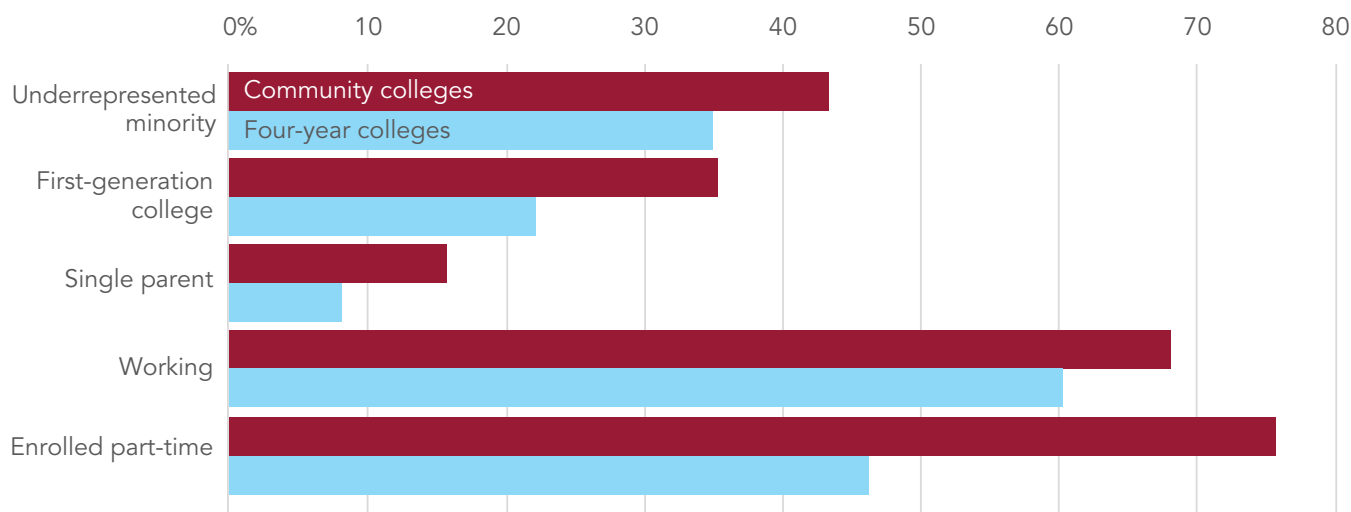
The balance between these two missions has shifted back and forth over the years.⁴⁰ In some decades and some regions of the country, traditional academic education was more important. In other eras and other places, particularly regions undergoing rapid economic development, workforce preparation came to the fore.⁴¹

This versatility can be an advantage, giving colleges more leeway to design programs that serve the needs of their communities. But many schools struggle to provide a menu of offerings—academic preparation, workforce training, remedial education and recreational courses—and end up doing nothing well.

Fewer than one-third of community college students graduate in a timely manner, defined as 150 percent of the “normal” two years.⁴² Only 40 percent obtain a degree within six years.⁴³ The least advantaged students and

FIGURE 6. The community college student body looks different than the four-year college student body

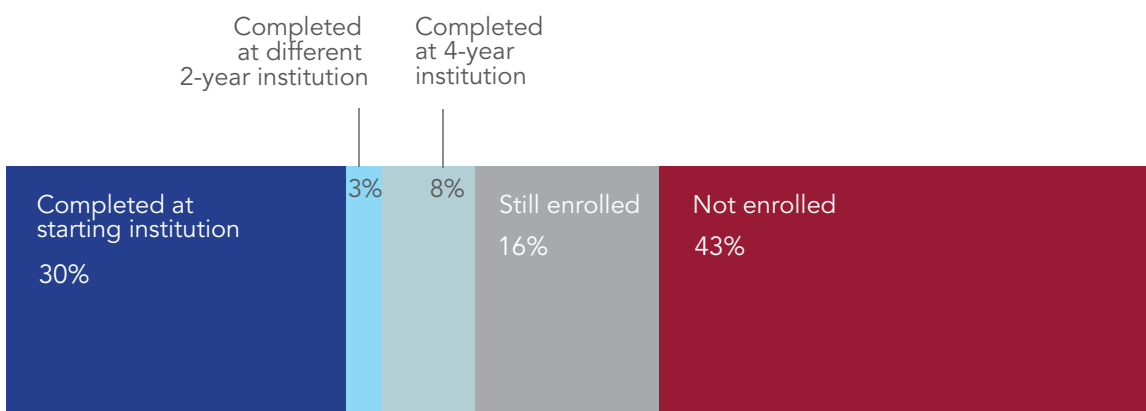
Characteristics of community college and four-year college students, 2015–16



Source: National Postsecondary Student Aid Survey, 2015–16.

FIGURE 7. Community college graduation rates remain stubbornly low

Community college six-year completion outcomes, fall 2013 cohort



Source: National Student Clearinghouse Research Center, December 2019.

those attending part time—nearly two-thirds of all enrollments—are far less likely than their peers to earn a credential.

According to one analysis, 67 percent of students from households earning less than \$30,000 obtain no credential of any kind within six years—not even a short-term certificate.⁴⁴ And part-time students are only half as likely to earn a credential as full-time students—fewer than two in 10 succeed.⁴⁵

Transfer rates are even more discouraging. Some 77 percent of traditional college-age students arrive at community college expecting to transfer to a four-year institution and earn a bachelor’s degree, but only 13 percent succeed.⁴⁶ And in this case, too, income and attendance patterns play a decisive role.

Just 9 percent of lower-income community college students obtain a four-year credential in six years, compared to some 20 percent of better-off students, and fewer than 1 percent of part-time learners manage to complete a bachelor’s degree in the “normal” time.⁴⁷

Community college workforce offerings are also uneven. States that historically looked

to two-year colleges primarily as providers of job training—often Southern or rural states scrambling to catch up with the industrial economy—tended to fund career offerings more generously and monitor their outcomes. In other states, job-focused programs were second-tier and often a dumping ground for disadvantaged students, particularly students of color.

Today, some of the most significant innovation in workforce education is taking place on community college campuses, but others are still offering the old “voc ed” with little if any relationship to labor market demand.

There are no doubt many reasons for these disappointing outcomes. By definition, most community college programs must admit any learners who apply, many in need of remedial

In-demand skills are changing faster than traditional academic program approval.

education, and making up for shortfalls in prior learning is notoriously difficult—many students never emerge from remedial courses or enroll in programs leading to a degree.

Many community colleges are starved for resources, especially in comparison to four-year institutions. And what looks like an advantage at some better-off schools—the ability to provide a rich array of programs in a wide variety of subject areas—can emerge as an obstacle for students if they do not receive adequate counseling and other essential supports.

The community college educators in our working group painted a distressing picture of how these factors can combine to conspire against even the most determined students. It's not unusual for high school graduates to arrive at community college with little sense of direction. Many declare themselves as liberal arts or general studies majors, and even those who have no need for remedial education often

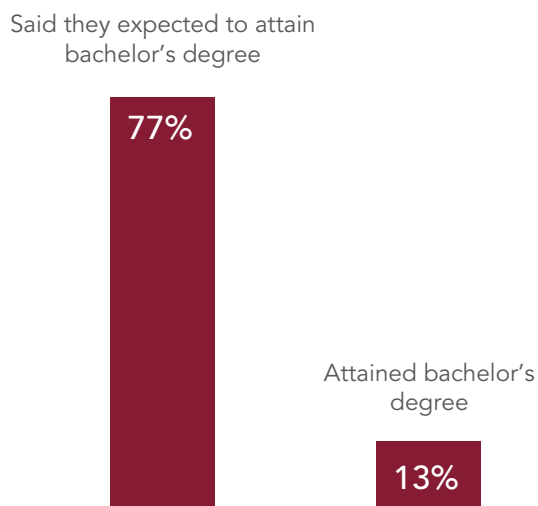
drift from course to course for a year or more, sampling from what one important study has called a “cafeteria-style” buffet.⁴⁸

For privileged students at four-year colleges, exploration of this kind can be among the richest payoffs to higher education—a chance to sample the world of learning before choosing a direction in life. For community college students receiving time-bound federal financial aid—no student may receive Pell Grants for more than six years over their lifetime—it can be a disastrous diversion, and many end up burning up their lifetime Pell allotment long before they finish college.

Still other students, particularly those juggling school, work and family, lose their way and give up before they find a sense of direction. And even those who choose a path are often derailed by life circumstances over which they have no control.

FIGURE 8. Most traditional college-age students aim to transfer, few succeed

Community college students' educational expectations and bachelor's degree attainment, 2011–12 and 2016–17



Source: US Department of Education, 2016; and US Department of Education, 2019.

ON THE FRONT LINES OF INNOVATION

The plusses and minuses can be dizzying—so much potential to serve students and boost economic competitiveness, yet so much of that potential unfulfilled.

The good news: community college educators across the US have long seen the challenges and opportunities ahead, and many have been responding creatively—a burst of innovation, much of it centered on new ways of preparing students for the workplace.

This innovation takes many forms. Even before Covid-19, many institutions were expanding online offerings to accommodate midcareer adults and others who want to learn on their own time, at home or on the go. Other colleges are focusing on competency-based programs, often offered online, that allow students to learn at their own pace. Still others are working to combine remedial instruction with workforce preparation—a combination found to be more effective than traditional, stand-alone remediation.

Two categories of experimentation that strike our group as particularly promising: educators revamping workforce programs to keep up with a faster pace of change in the workplace and those who see an opportunity to play an expanded role in their regional economy.

A new, faster pace. In recent years, full employment and accelerating technological change spurred both employers and learners to move at a faster pace—and this is likely to be even more true as the nation rebuilds after the pandemic.

Companies need to be more nimble to keep up with changing technology, and the skills they need workers to bring to the job change much more rapidly than in decades past.⁴⁹

Students, college-age and older, want to master the latest, up-to-date technology—not last year's coding or the automotive diagnostics of a decade ago. And many are in a hurry to get

through school and back into the labor force—to start earning or augment what they've been earning at a low-paying, part-time job.

All of this puts enormous pressure on community colleges. In-demand skills are changing faster than traditional academic program approval. Many long-time faculty are out of touch with the latest trends in the workplace, and many students feel they don't have time for the traditional academic offerings—English, math, humanities or social science courses—required to complete an associate degree.

Creative community college educators have been responding to these new needs for several years.⁵⁰ Many campuses have been working to develop closer relationships with employers—more regular, more intensive consultation designed to help educators keep up with changes in the workplace. More career-focused programs are being offered on the noncredit continuing education side of the college, where new courses don't need approval from a slow-moving faculty committee or regional accreditor.

Colleges have been chopping courses—credit and noncredit courses—into shorter modules. Many offer an array of short-term credentials: credit-bearing certificates, noncredit certificates and industry certifications, among others, some of which can be earned in a few months or even a few weeks. Other educators are working to build general skills—communications, teamwork, critical thinking, problem solving—into the short, otherwise technically focused programs increasingly popular with learners.

Some of these changes are controversial. Traditional educators worry about the quality of colleges' unaccredited continuing education divisions. Others are concerned that learners in a hurry to get back to the job market will neglect essential English, math and humanities skills. Like any innovation, what's happening on campus today may need adjustment and refinement—including better quality assurance.

But what's emerging on many campuses is

a new, more flexible, multifaceted vision of what colleges can contribute to their communities. Today, as in the past, two-year colleges see themselves as a gateway to higher education. The transfer function remains essential, and all students—those seeking to transfer and others—need more than technical skills.

But alongside this traditional goal, a new lodestar is emerging. What many learners, college-age and older, want from college is a fast track to a well-paying job—just-in-time career preparation or streamlined upskilling—and demand of this kind will likely soar with economic recovery.

The good news: colleges across the US have been finding ways to deliver short, job-focused education and training more effectively.

An engine of economic development. At other two-year institutions, the focus of innovation has been broader still—not just what the college can do to prepare students for the workforce, but how it can contribute to the dynamism of the local economy.

Like the growth of short-term job preparation, this trend is not entirely new. But the last decade brought an array of changes—tightening labor markets, intensifying regional competition, real-time labor market data—that focused educators' attention and spurred new activity.

What innovative educators discovered: their colleges can play a pivotal role in enhancing regional economic competitiveness. Institutions that design new training programs and bring them to scale quickly can help the region attract new private-sector investment. Community colleges can help companies tap into talent pipelines they might otherwise overlook: not just recent high school graduates, but adult learners, veterans and incumbent workers.

Many colleges also took on a new, more assertive leadership role—not just training provider, but regional convener.

Colleges worked to bring employers together to aggregate demand and develop sector-wide training solutions. Others connected companies with a spectrum of local institutions—elementary, secondary and postsecondary educators, nonprofits, for-profits, labor unions and social service providers—that could help with talent recruitment and job training.

Leadership of this kind will be even more important in the wake of the pandemic. Community colleges are positioned to take on an essential role as the driving force behind regional economic recovery, raising awareness of local skills needs and bringing stakeholders together around solutions.

How extensive is the innovation taking place on community college campuses? Are these isolated pockets of change or emerging trends? In many cases, it's too soon to say.

The goal of our working group—the intent behind the recommendations that follow—is to draw on the best of this experimentation and build on it to develop a road map for educators.

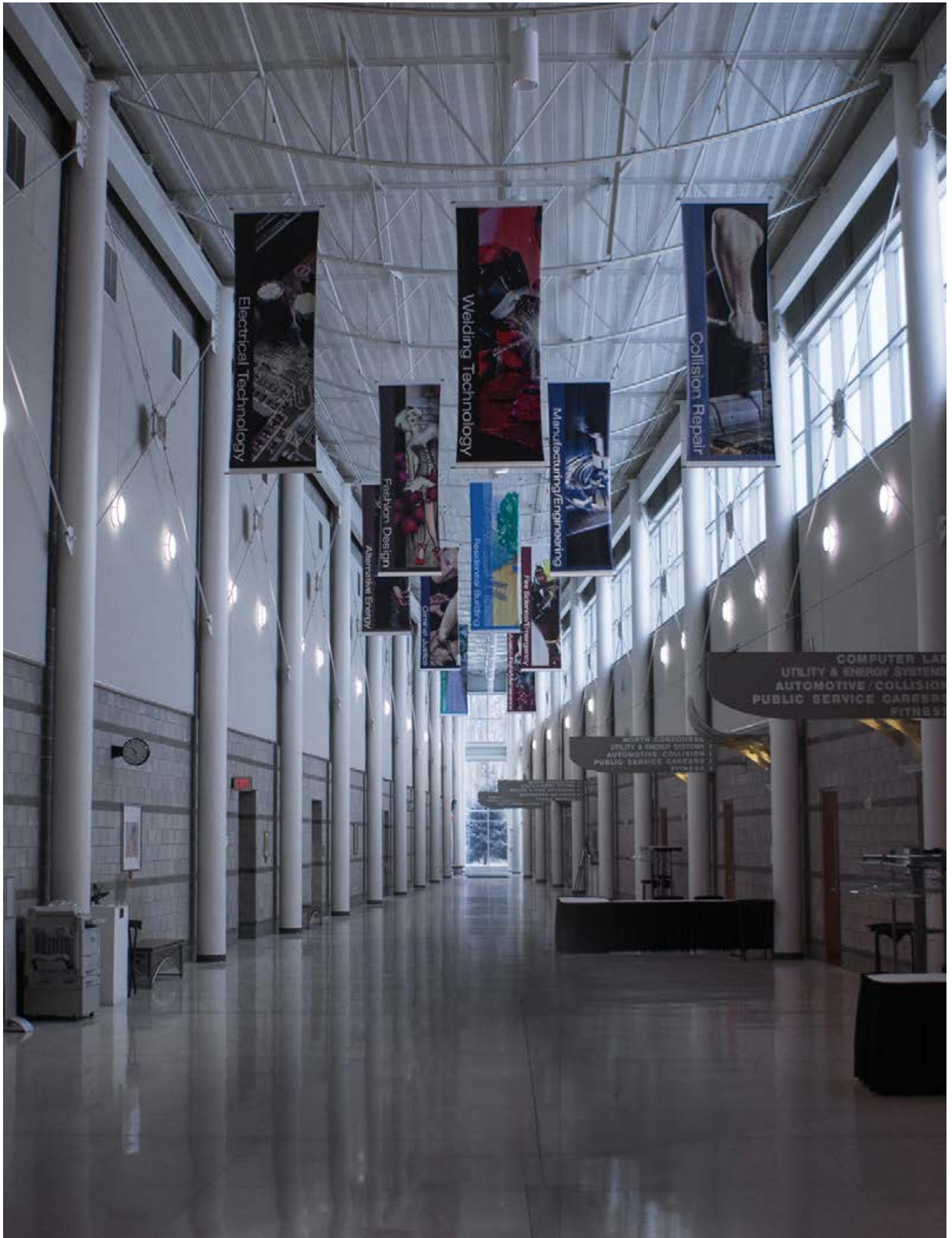
The change under way on many campuses is exhilarating—new thinking, new models, new leadership. It's a window on what community colleges can and should be. The challenge ahead: how to scale and institutionalize this innovation?

Are these isolated pockets of innovation or emerging trends?

Part II

A BLUEPRINT FOR CHANGE





Electrical Technology

Welding Technology

Collision Repair

Manufacturing/Engineering

Fashion Design

Automotive Energy

Residential Building

Fire Science/Emergency

Criminal Justice

COMPUTER LAB
UTILITY & ENERGY SYSTEMS
AUTOMOTIVE / COLLISION
PUBLIC SERVICE CAREERS
FITNESS

COMPUTER LAB
UTILITY & ENERGY SYSTEMS
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PUBLIC SERVICE CAREERS
FITNESS

COMPUTER LAB
UTILITY & ENERGY SYSTEMS
AUTOMOTIVE / COLLISION
PUBLIC SERVICE CAREERS
FITNESS

Photo: David Shane

UPDATING THE MISSION

A growing number of educators and education reformers argue that distinguishing career and technical education from traditional academic learning creates a false dichotomy, and in the broadest sense, our group agrees.⁵¹

Day to day, on campus, there are invariably tensions. One side of the institution takes its goals and values from the four-year colleges and universities to which it hopes its students will eventually transfer. The other side looks to employers—the hiring managers and production supervisors who it hopes will hire its graduates.

Nationwide, roughly half of credit-eligible community college programming centers on the liberal arts; the rest is job-focused.⁵² And the old divide—between junior college and vocational trade school—reasserts itself daily, not least in the way many institutions are organized, with the two functions sometimes housed in different divisions.

The core belief that brings our group together: not only is this rigid bifurcation misleading—many occupational programs eventually lead to transfer, and many transfer programs include an occupational dimension—but both sides need to do more to put a premium on career preparation.

All learners need a mix of academic instruction and career exposure. The first responsibility of all postsecondary education and training is to

teach students how to think and learn. But the promise of community college—the core commitment that distinguishes it from other institutions of higher education—should be to prepare all learners, whatever their major or program focus, to succeed in the world of work.

Just how the college does this may differ from division to division. Time horizons will be different: some students can be expected to reach or return to the workplace sooner than others.

But ultimately, our group believes, all offerings should be aligned with labor market demand. All programs should include opportunities for career exposure and work-based learning. Every credential earned at community college should have value in the labor market. And all programs—liberal arts and workforce-oriented—should be held accountable, directly or indirectly, for graduates' employment outcomes, including job placement and wages.

A shift of this kind will require change—in some cases, far-reaching change—on both sides of the college.

All learners need a mix of
academic instruction and
career exposure.

CAREER PREPARATION FOR TRANSFER STUDENTS

Liberal arts students would see the difference as soon as they arrive on campus.

- What's needed starts with more intensive career advising. Wherever they are headed—whatever their major or their plans for further higher education—by the time they get to college, students should be starting to formulate career goals, and the college should help them understand and think about their options.
- The next step: career exposure—job shadowing, internship, guided reflection on how a job the student currently holds or held in the past relates to what they are learning in school.
Work-based learning requirements for liberal arts majors may be somewhat less demanding than for workforce students seeking to practice technical skills in a real-world setting. But all learners, no matter where they are headed, need to learn how to handle themselves on a job.
- All degree-seeking students, liberal arts majors and job-focused learners, should be required to take courses in workplace communication—business writing, public speaking and how to present at a meeting, among other skills.
- General education requirements should be restructured: organized, like the most successful workforce programs, around competencies and project-based learning. What this would mean in

practice: more practical, applied learning and exposure to critical workplace competencies, including strategic planning, time management and project management.

- Every student, no matter what their major, should get a grounding in statistics—how to handle and interpret data—and learn enough about 21st-century technology, including coding, to prepare for the more advanced technical training they are likely to get on the job.

Community college transfer programs are not an island. Offerings and requirements are highly dependent on the expectations of cooperating four-year institutions, and community college administrators will need to collaborate with their four-year counterparts to make changes of the kind our group recommends.

But the payoff will be significant, for the community college and for students—especially those who choose a liberal arts or humanities major and hope to transfer to a four-year institution but fail to earn a bachelor's degree.

As is, these students—perhaps 40 percent of those who enroll in community college—leave school with little to show for their time and effort.⁵³ Research suggests that an associate of arts degree in liberal arts or general studies has only marginal value in the labor market—somewhat more than a high school diploma but significantly less than an associate degree in a technical field.⁵⁴ For students, teachers, parents, taxpayers, this is unacceptable—or should be.

The consensus of our group: workforce preparation is too important to be left to workforce educators. Transfer students, too, need to be preparing for careers, and they deserve to leave community college with a marketable credential.⁵⁵

ELEVATING AND INTEGRATING JOB-FOCUSED PROGRAMS

Much of the rest of this paper is devoted to recommendations for community college workforce programs—reforms our group is convinced would help them serve students more effectively and deliver added value for their regions.

Most community colleges offer a wide array of job-focused programs tucked here and there in different divisions of the institution. Some offerings are credit-bearing, designed for students seeking a career in an occupation like nursing or criminal justice that requires an academic credential. Others are offered on the non-credit continuing education side of the college for learners who don't feel they need a degree or certificate—they just want to learn the skills required to get a job or a better job. Still other workforce programs, almost always offered in the noncredit division, are tailored to meet a paying employer's specialized skills needs and generally offered only to that firm's employees.

Ultimately, our group believes, all offerings should be aligned with labor market demand.

Our group believes that most or all of these programs could benefit from rethinking the balance they offer students. Just as a purely academic approach with little or no concern for career outcomes is inadequate, so, we are convinced, is a purely vocational approach.

Virtually all employers, including those in technical fields, seek employees who can communicate with coworkers. Every functioning adult needs a basic understanding of math.

And the shelf life of technical skills is shrinking—according to one recent study, many skills in high demand in the workplace today are likely to become obsolete within five years.⁵⁶

Bottom line: workforce students, too, need general skills, and they need to learn how to learn—need to pick up the habits of lifelong learning essential for success in a changing, digital economy.

Technical students, college-age and older, may be reluctant to immerse themselves in the liberal arts as they are usually framed—a largely abstract world apart with little application in the workplace. But reading, writing, speaking and critical thinking can be expected to grow ever more essential, and marketable, as technology replaces routine jobs. Educators who neglect these basic skills do a disservice to their students.

The challenge for workforce educators: how to integrate so-called “liberal arts skills”—literacy, numeracy, analytic thinking, problem solving, basic research skills and tolerance for ambiguity, among others—into technical programs?

The answer starts with the applied skills our group recommends for liberal arts majors—business writing, public speaking, how to present at a meeting and the rudiments of statistics—but may not end there.

What's needed goes beyond renaming and resequencing the usual general education requirements. More exacting and labor-intensive, it will require reimagining essential general skills in the context of specific workforce subject areas. Many of the most effective workforce programs understand this and include a dimension of this kind, but there is much work to be done.

In the end, our group believes, this will confer new stature and independence on community college workforce programs, not because they become more like liberal arts education, but because of what it offers students, college-age and older—a more reliable foundation to build on as they head into the workplace.



CUNY'S ACADEMIC APPROACH TO THE WORLD OF WORK

When the City University of New York began planning what it hoped would be a break-the-mold community college—reinventing the model for the 21st century—it put learning about the world of work near the top of its priorities.

Guttman Community College, opened in 2012, would be different in many ways. First-year students are required to attend full-time. All programs are rooted in a common core curriculum. All courses are credit-eligible, and campus culture puts a heavy emphasis on transferring to a four-year institution. But the founders also wanted students to learn how to handle themselves in the workplace.

The result is a mandatory freshman social science course, the ethnographies of work (EOW).

The course has two key components. One is traditional academic learning: students read Karl Marx and Max Weber and a variety of contemporary authors. The other component is experiential: students visit worksites not as interns or employees, but as observers, applying a critical, social science lens to how other people behave on the job.

The first semester focuses on ethnographic methods: research design, observation and interview skills. Students also make several visits to a workplace they're interested in exploring.

The second semester is more theoretical. Students use statistical labor market information to put the job they've chosen to study in perspective. They are also encouraged to reflect on the personal meaning of their experience. How does what they've seen in the workplace influence their career aspirations?

All in all, students make five trips to worksites they've been invited to observe. They also visit several "public workplaces"—Starbucks and McDonald's, among others—and watch workers there.



Alongside this reading and fieldwork, there's a how-to component. A weekly session with a "student success advocate" focuses on employability skills, including time management and written and verbal communication. Students learn to give elevator pitches, prepare resumes and handle themselves in a job interview.

What's most important about EOW in the eyes of those who created it: the way it combines theoretical and applied learning—academic skills and workplace exposure treated not as realms apart but as a single, integrated, personally meaningful experience.

For learners interviewed after they have completed the course, the takeaways tend to be practical. Set down in a strange environment, often far from the world they grew up in, students say they learn self-

confidence and self-awareness. The fieldwork "took me out of my shell," one recalled, "let me speak out and not be scared." Others report learning to read nonverbal cues—body language and unspoken attitudes—and how to communicate better about themselves.

Guttman prides itself on its graduation rate—more than twice the national average for community colleges. But the EOW experience teaches students that graduation is as much a beginning as an end. "It's not just that you get your degree," one student explained, "you learn a set of skills [and] career dynamics [for] navigating through the stages" that lie ahead.

Members of our group would like to see community colleges shake off the demeaning belief that their only or primary role is to prepare students to transfer to another, more sophisticated institution. And the best way to do so, in our view, is to provide a more well-rounded education.

NO OPTIONS FORECLOSED

The last step in updating the mission, our group is convinced: colleges need to build bridges—much better bridges—between job-focused programs and those that prepare students for transfer.

Bridges of this kind exist today, both formal and informal. Many job-focused programs lead to transfer; many transfer programs teach practical skills. Virtually all workforce degrees include general education requirements. A growing number of transfer students take technical courses—in health care, IT, project management and other subjects—that lead to industry certifications learners hope will add value to their resumes. Students also change their minds as they learn, and some eventually change course.

Some workforce students who discover new interests or new abilities at a two-year college may go directly to a four-year institution, as many do now. Others who come to community college for a first round of fast, job-focused training may return later in life for further education.

Thoughtful community college administrators anticipate and encourage this crossover. But there is more to be done.

Bridges of the kind our group envisions go both ways, from workforce to transfer and transfer to workforce. But they are particularly important, we believe, for learners who start in a job-focused program.

What's needed starts with the institution. Community colleges that put workforce education more at the center of their mission need not give up their important role as a first rung on the ladder of higher education. On the contrary.

So too at the program level. Programs must be carefully designed to permit unexpected transitions. No degree should be “terminal.” Credentials must be truly stackable so that students who wish to continue their education, whether sooner or later, do not have to repeat courses and relearn skills. And no paths should be off limits—no student should be relegated to a road that ends at community college.

Education is a lifelong endeavor. There should be no need to choose. Community college can be both the nation's go-to source for job-focused training and a gateway to the top reaches of higher education.

Colleges need to build better bridges between job-focused programs and those that prepare students for transfer.



THE WORLD OF WORK

For community colleges seeking to help students improve their career outcomes, all roads lead eventually to the world of work.

Most students and employers understand this implicitly. According to one survey, 86 percent of college freshman, including those pursuing a traditional academic education, say getting a better job was a critical factor in their decision to attend college.⁵⁷

Study after study shows that employers value prior work experience—internship or employment—far more than they care about a job applicant’s college major or grade point average.⁵⁸ Employers also put a premium on educational offerings that integrate classroom instruction and work experience.⁵⁹

Yet colleges are not always adept at aligning their offerings with the labor market.

Virtually all community colleges seek to collaborate with employers, and most maintain a long list of private-sector advisers. But employers can be reluctant partners, and many colleges find it challenging to build relationships with companies. All too often, their collaboration is

perfunctory. The employer partner rarely if ever hires out of the college, or programs prepare students for jobs that are not in fact available in the region.

What’s needed is not just better, more intensive employer partnerships—although they are critical. In our view, all community college planning and decisions should be driven by trends in the local economy.

In the eyes of our working group, few reforms could be more significant—few could make more of a difference for students or for regional economic growth.

All programs, all credentials, all strategic initiatives should be geared to the region’s workforce needs. Every student should spend time in the workplace; their work experience should be closely coordinated with what they learn in class. And community colleges should be shouldering more responsibility—far more responsibility—for both regional economic planning and graduates’ employment outcomes.

For many institutions, this will require dramatic realignment—a fundamental rethinking of their purpose and identity. If the default now is junior college, feeding students to and taking cues from a dominant four-year institution, the new norm should be talent supply pipeline—community college as engine of regional economic growth.

All community college planning and decisions should be driven by trends in the local economy.

PARTNERING WITH EMPLOYERS

It's a fundamental tenet of the new approach to workforce education emerging at community colleges: there can be no effective job training except in partnership with employers.

Without employer partners, it's all but impossible for educators to identify the skills in demand in the workplace. It's also difficult, once students complete career programs, to assess the value of what they've learned—have graduates acquired the skills they need to succeed on the job?

Employers, too, bear a responsibility to build stronger relationships—to partner with community colleges and other education and training providers and to play a more active role in developing talent pipelines for their regions.

But employers' choices and behavior were beyond the remit of our working group. We focused on what community colleges can do to collaborate more effectively with companies and developed an inventory of best practices for educators.⁶⁰

Shrewd educators do their homework before sitting down with business and industry. The place to start is with granular, real-time data on the supply and demand of middle-tier workers in the region. New, sophisticated data collection and analysis, often by private firms, puts labor market information of this kind—sector by sector and job by job—within reach of any community college. It sometimes comes at a steep price, but innovative educators are finding ways to get access—sometimes partnering with a state agency or the public workforce system, sometimes raising dedicated funds to pay for the information.

Statistical labor market information provides a bird's-eye view of the regional economy. Local employers, in contrast, see trends emerging on the ground, in real time, and colleges seeking to paint a three-dimensional picture of the local

labor market should combine the two perspectives—not just once a year or every quarter, but with constant monitoring and consultation.

The next, critical step is recruiting employer partners. Employer partnerships serve many purposes, and they come in all shapes and sizes. In some instances, what the college needs is reliable information about local labor market trends—a relatively easy ask for many employers. In other cases, at the opposite end of the spectrum, the college hopes to cooperate closely with a company to design and implement a training program—intensive day-to-day collaboration, often with the employer in the lead.

There can be no effective job training except in partnership with employers.

Both kinds of partnerships—and others along the spectrum—can be valuable. There are countless ways to structure and sustain the collaboration. Even so, many colleges find it difficult to engage employers. The two sectors—educators and industry—often speak different languages and approach problems in contrasting, even conflicting ways. Simply getting in the door at a company can be challenging for many educators.

Yet members of our group offered stern advice: college administrators should be selective. Not every employer wants what's best for students. Not all can offer well-paying jobs or opportunities for promotion. No institution wants to put itself in the position of subsidizing an unscrupulous employer or teaching students skills in demand at only a single company.

One promising approach recommended by many around the table: recruiting an employer collective. Colleges often find themselves in an

intensive one-on-one partnership with a large local company, and that can pay off for both parties. But sometimes it can be more effective to convene several firms—perhaps several small or medium-sized firms from the same industry.

Among the advantages of this approach: colleges can aggregate demand to fill a class or place a cohort of apprentices, and educators can be sure they're training for jobs across an industry, not just at one company—teaching portable skills learners can take with them as they move from job to job.

Members of our group recommended that colleges create a dedicated team devoted to reaching out to employers. It's a full-time job that requires experience and expertise: ideally, administrators who know the targeted industry and have long-standing connections with local employers—executives, but also hiring managers and production personnel.

At many community colleges, the noncredit continuing education division maintains a business outreach arm of this kind, but faculty on the credit-conferring side don't know about or make use of its services. Our group's advice: this is among the most productive ways for credit and noncredit divisions to collaborate to the benefit of students.

Members of our group also urged college administrators to remember what they bring to the table in conversations with employers. Educators need industry partners, but industry also needs educators.

Community colleges often have significant advantages over other local training providers: ample classroom space, well-equipped training facilities and experienced faculty, among other assets. Sometimes most important to the company, it's often the college that provides trainees. High school graduates, midcareer adults, unemployed workers and others seeking new or better jobs often look to the local community college first—a talent pipeline otherwise unavailable to the company.

Other employers need guidance—need the college to help them understand what's possible in a relationship. Many companies don't know how to describe the skills they need new hires to bring to the job. Others don't know how to structure an internship or other work-based learning experience—don't know how to mentor a college student or put them to work productively.

Employers too bear a responsibility to build stronger relationships.

Members of our group encourage college administrators to be responsive to their industry partners. In one sense, after all, the employer is a customer for what the college produces—qualified workers—and the firm is unlikely to hire graduates if they don't come to work with appropriate skills. But sometimes, members of our group urged, the college needs to take a more assertive role—informing, instructing and guiding the company.

What does an ideal partnership look like? The best collaboration is day to day, with no detail too small for company and college to consider together. Both employer and educator have input in designing the program—outlining essential content and crafting curriculum. Work-based learning is a critical component. Perhaps most important, employers need to feel empowered to give honest, actionable feedback—and educators need to listen.

The hallmark of the best relationships: the company hires students who complete the program, not occasionally, but every year—a satisfied repeat customer. One administrator in our group goes so far as to sever ties



GE APPLIANCES COUNTS ON TWO COMMUNITY COLLEGES

Scores of workers come and go every month in the state-of-the-art training center at Appliance Park, GE Appliances' legendary 1,000-acre manufacturing complex on the south side of Louisville, Kentucky.

Some are new production workers learning how to handle themselves on an assembly line. Others are managers being briefed about new technology at the plant. A few days a week, the center fills up with high school students—local kids the company hopes to interest in manufacturing careers.

Several different kinds of training are offered in partnership with community colleges—options range from full-scale apprenticeship to short instructional modules focused on a single type of equipment or specialized trade.

Jefferson Community and Technical College collaborates with the company to offer short modules and train apprentices on its main campus just a few miles away in downtown Louisville.

Other short modules are taught by instructors from an Ivy Tech Community College just across the river in Indiana who come to Appliance Park to upskill workers in the center's cutting-edge technician training lab.

All in all in any given month, GE Appliances and its community college partners might be training between 25 and 50 workers.

All are employed by the company. Some are new hires, straight out of high school, earning a training wage while they complete a four-year apprenticeship program. A second apprenticeship program is for seasoned production workers, mostly in their 30s and 40s, who the company wants to promote to industrial maintenance technician.

The classroom components of both apprenticeship programs are taught by community college instructors



hired with input from the company. Classes are credit-bearing, and apprentices earn associate degrees along with industry certifications and apprenticeship certificates from the state of Kentucky.

The Ivy Tech program is open to any technical worker at Appliance Park. Modules are compact—16 hours of instruction taught over four days. Among the most popular topics: mechanical drives, electric motors and programmable logic controllers.

Workers sign up on a first-come, first-served basis. Some come during their shift, others before or after, and all employees are paid for the time they spend in class. The instruction is noncredit, and trainees learn fully portable skills but earn no credential other than a company certificate.

Different as these four programs are, GE Appliances senior technical manufacturing trainer James Atkinson says the secret of effective collaboration is the same across the board: a close working relationship with the community college personnel running the program.

The collaboration with Ivy Tech starts with an intensive planning process—four formal meetings a year. GE Appliances asks most of the questions. The college provides answers: has the curriculum been updated, who will the instructor be, have they taught this course before in a workplace setting? “We’re the customer, they’re the vendors,” Atkinson says, “and they customize their modules to meet our needs.”

In between planning sessions, Atkinson and college personnel communicate at least once a week, tweaking curriculum, evaluating instructors and sharing thoughts about struggling students, among other adjustments.

“Sometimes, they’re difficult conversations,” Atkinson says. “But that’s the only way it works. And ultimately, the relationship is a two-way street. The company lays out the vision, and we rely on the college to deliver it.”

with employers who don't hire his college's graduates.

Beyond these tried-and-true standard practices, our group also had ideas about the next frontier—how innovative community colleges can take their employer partnerships to a next level.

Blurring the lines. Several proposals—some already driving experimentation at vanguard community colleges—seek to blur the line between training provided at the college and at the company.

Colleges can start by learning more about the in-house instruction their employer partners offer after workers are hired, then work to integrate that company training with college programming.

Another option: current law allows institutions to outsource up to 50 percent of instruction in a workforce program to a third-party trainer, including potentially an employer. Why not 100 percent—an idea that has been endorsed by both Democrats and Republicans in Washington?⁶¹

A third possibility: colleges across the country are experimenting with granting college credit for company training—mapping employer-provided onboarding or upskilling onto college courses and establishing equivalencies that allow midcareer workers who return to college later in life to earn credit for what they learned on the job.

Job placement. Among our group's most far-reaching and dramatic proposals: we believe community colleges should be held accountable for ensuring that learners, college-age and older, make the transition to the labor market—that what every student learns at community college pays off in a high-demand, high-paying job in their field of study.

It's a challenging assignment, well outside the norm at most community colleges. As is, in almost every state, postsecondary educators are rewarded primarily for what happens at the college—how many students enroll and how many graduate in a timely manner—and many administrators find even that a daunting challenge.

Every signal in an educator's world tells them their job ends when students graduate from college.

Taking on responsibility for learners' job placement would require additional resources and new capabilities: a dedicated outreach office with full-time staff, entrepreneurial personnel with ties to local employers, an infusion of financial capital to seed the operation. And colleges will need to compete with the new generation of for-profit training providers promising to help students bridge the gap between school and work, often by hiring college graduates themselves and placing them first as temporary employees.

Yet several colleges represented in our group said they already assume responsibility for job placement after graduation.

How their institutions have risen to the challenge: it starts with robust career services—helping learners get to know what jobs are available in the region, advising them as they make career choices, teaching job-search skills early on and giving students practice in navigating the labor market, perhaps securing their own internships or other work-based learning experiences.

A second key step: identifying precisely what local employers need from new hires and designing programs strategically to ensure that graduates are prepared.

One example offered in our group: a college with a heavy focus on information technology noticed that its IT graduates weren't being hired by a large local employer. "It turned out all they needed was just one additional certification," an administrator from the college explained. "We didn't need to reinvent or redesign our IT offerings—just make some relatively small adjustments to ensure a better fit."

As important as tactics, members of our group agreed, what's needed is a new mindset among community college administrators. Their professional formation and experience, student and parent expectations, state and federal metrics and incentives: every signal in an educator's world tells them their job ends when students graduate from college. What's needed, our group suggests: a new set of signals and expectations.

Community college administrators need to shoulder more responsibility—significantly more responsibility—for making sure their graduates get jobs.

WORK-BASED LEARNING

Employers, educators, students, policymakers: the consensus is all but universal—students preparing for careers need experience on the job.

Students who spend time in the workplace have an opportunity to apply what they learn in class, reinforcing theoretical instruction with practical experience. They learn how to handle themselves on a job, absorbing the norms and habits of more mature, adult workers.

Some find a mentor who challenges and inspires them in a new way. For others, the most important takeaway is motivational: their experience on the job helps them understand why

Every community college student should have an opportunity for work-based learning.

what they're learning in class matters and gives them a reason to apply themselves.⁶²

For employers, work-based learning—internship, apprenticeship and cooperative jobs, among other models—is a chance to try before they buy. The company has an opportunity to bring aspiring employees into the workplace for an extended period and get a close-up look at what the learner is made of—not just their technical skills, but their attitude and character.

Probably the best-known exemplar of work-based learning is apprenticeship. Apprentices combine classroom learning with paid on-the-job experience, often over several years, acquiring the skills they need to succeed not just at one job, but anywhere in the industry.

Apprenticeship is the gold standard—the high-water mark of what's possible when students combine classroom learning with on-the-job experience. But not every student has time for a full-fledged apprenticeship. Not every job requires the extensive training offered to apprentices. Not every employer is prepared to commit the necessary resources. And together, employers and educators have developed a spectrum of less demanding work-based learning experiences—paid and unpaid internships, co-op jobs, simulated job experience and job shadowing, among other options.

Members of our working group agreed: every community college student should have an opportunity for work-based learning—the more robust and intensive, the better.

But we wrestled with two challenges—challenges we believe confront many community colleges. The first: how to scale work-based learning opportunities so they are available

Policymakers can help by holding educators accountable for creating work-based learning opportunities.

to all students. And second: many community college students already have a job, part-time or full-time, that they cannot afford to quit for a temporary or unpaid internship, no matter how advantageous. What can the college do for them—how to extend the benefits of more structured work-based learning?

Bringing paid internship to scale

Several community college educators in our group explained the challenge they face of bringing worked-based learning to scale.

“We know how to create opportunities,” one administrator explained. “We know how to prepare students for the experience, how to advise employers, how to persuade firms to pay interns—and we work hard at it. But the numbers just don’t add up. Out of 63,000 students, we placed 800 paid interns last year.” Not every college’s numbers are as discouraging, but the problem is all too common.

Members of the group compiled a list of best practices for colleges seeking to scale work-based learning opportunities.

As with all employer outreach, it helps to have dedicated staff—people familiar with the relevant industry and known to local firms. The most successful way to approach employers is often with a series of graduated requests: first small steps like visiting the college and giving a talk to students, then low-intensity work-based learning—a day or two of job shadowing—culminating eventually in a paid internship.

Employers often need help structuring the work-based learning experience: what tasks are appropriate for college students, what mentoring and other guidance they’re likely to need, how to work with a college instructor to align what interns do on the job with what they’re learning in class.

None of this comes cheap, and colleges seeking to offer more extensive work experience need to be prepared to devote resources—for college staff, labor market reconnaissance and, in many cases, student stipends.

Most colleges prefer that employers offer paid internships, and some institutions insist—no pay, no intern. But this can limit the number of interns placed, sometimes severely, and many schools look to private donors to provide funding for stipends.

Still another option, also costly, but often the best answer for a community college unable to devote staff time to developing opportunities for on-the-job learning: a third-party intermediary, for-profit or nonprofit, with the personnel and expertise to recruit and coordinate with employers.

Policymakers and philanthropic donors can help by providing additional resources and holding educators accountable for creating work-based learning opportunities.

Yet even with these stratagems, college administrators in our group explained, it can be difficult to place a robust number of paid interns. There is no magic bullet, and there remains much work to be done.

Making the most of student jobs

Nearly two-thirds of community college students attend part time, and three-quarters work—usually juggling relatively low-paid jobs to support themselves and their families. An internship at a brand-name company or prestigious nonprofit may sound appealing and hold out promise of a better job with more opportunity down the

road. But many working students can't afford it—can't absorb the pay cut or the risk of eventual unemployment. After all, even the longest internships rarely last more than a few months.

Members of our group struggled with this problem. Outreach staff can insist more forcefully that employers provide paid internships. Additional resources surely help—for more robust outreach and student subsidies. But ultimately, we believe, colleges need to do a better job of recognizing the skills working students learn on the job and incorporating conventional work into structured college offerings.

Consider retail. At many community colleges, particularly in urban areas, the retail industry is a top employer for students working their way through college. Pay is generally low; the skills required seem elementary, and it can be difficult to imagine recognizing the work as part of a college program.

Yet many researchers and other workforce experts view retail as a promising launching pad for a relatively well-paying career.

Basic business practices and customer service are the building blocks of a wide array of jobs—in retail, hospitality, supply chain management, accounting and the tech industry, among other fields.⁶³ One influential study of middle-skill employment identified technical sales and sales management as one of the hardest-to-fill mid-level jobs and among those likely to pay off best—for job-holders and for the economy.⁶⁴

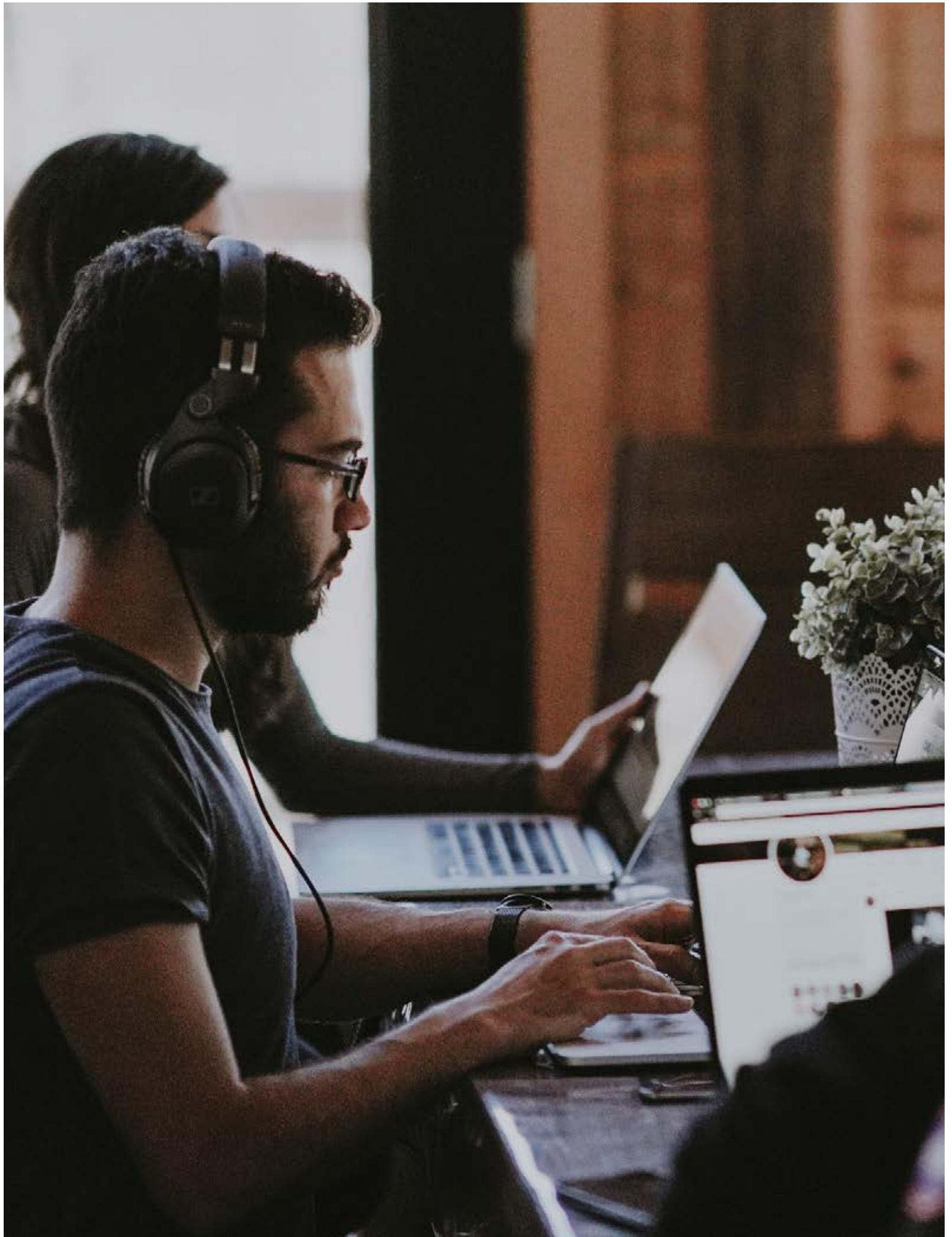
The challenge for educators: how to incorporate a student's entry-level retail experience

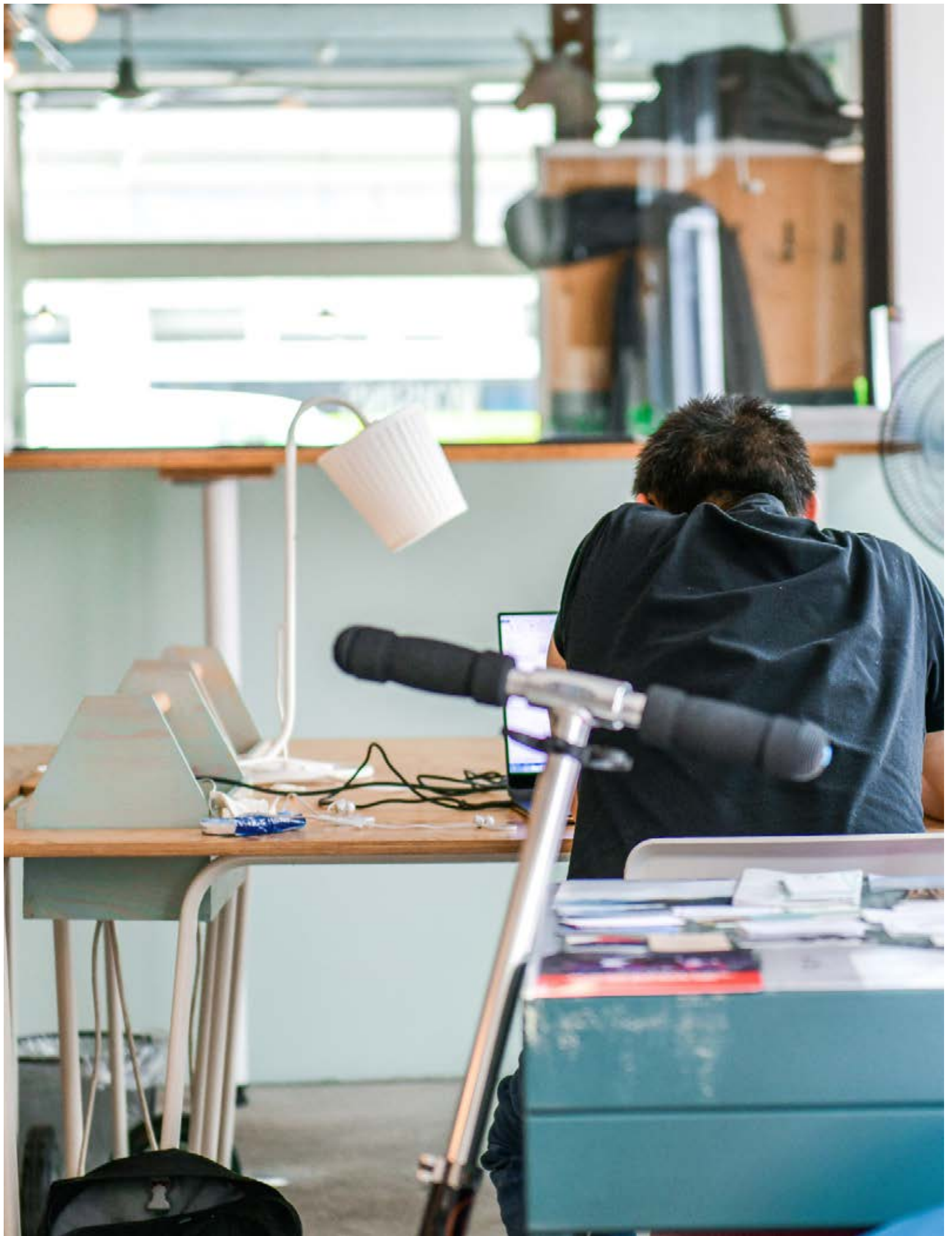
into college programming, whether for college credit or simply as a recognized opportunity for work-based learning?

Among the ideas that surfaced in our group: students might sit for a competency-based third-party exam to assess the skills they acquired in a retail job. The college might integrate an industry-recognized retail certification into its course offerings, perhaps in several fields. Or educators could develop short, non-credit course modules to help retail workers reflect on what they do on the job and how it relates to what they are learning in class.

Retail is just one example, and it may or may not prove amenable to broader recognition by college faculty. But members of our group are convinced: community college educators need to go further in integrating work—not just work-based learning, but parallel work—into college offerings. Colleges need to find new ways to recognize the value of work—all work. And they need to do more—need to take bolder steps—to blur the conventional boundaries between school and work.

Colleges need to do more to
blur the conventional boundaries
between school and work.





CREDIT AND CREDENTIALS

Few student bodies are more diverse than a community college. Recent high school graduates, midcareer adults, those in search of an onramp to higher education and those seeking a quick path into the labor market mingle on the same campus, sometimes distinguishable from each other, sometimes not.

Ultimately, they are all looking for much the same thing: to acquire skills that will help them succeed in the workplace. But when they get to college, they're routed in many different directions: credit-eligible programs, noncredit offerings, course sequences leading to three different types of associate degrees and a hodgepodge of other credentials, including academic certificates and industry certifications.

The question our group faced: does this routing system work? Does the welter of options make sense? Are the paths clear to students? Or should community colleges be rethinking the system—redesigning the options and the connections between them?

A conversation about these issues can often seem arcane and technical. Many students don't understand or care about the distinctions between credentials. What matters to them is what skills they learn at college and their employment outcomes. Most employers care even less—few understand the difference between, say, an associate of science degree and an associate of applied science.

But like any routing system, the ways learners move through community college are critically

important, and the design matters—does it pay off for students?

Our group's bottom line: many if not most of the options available to community college students serve a purpose. Most have a comparative advantage that meets the needs of some learners.

Does the welter of options make sense? Are the paths clear to students?

Where more work is needed: students need clearer road maps. They need guidance about their options. And the system needs better bridges—much better bridges—so that no choice is irreversible and no path a dead end for learners.

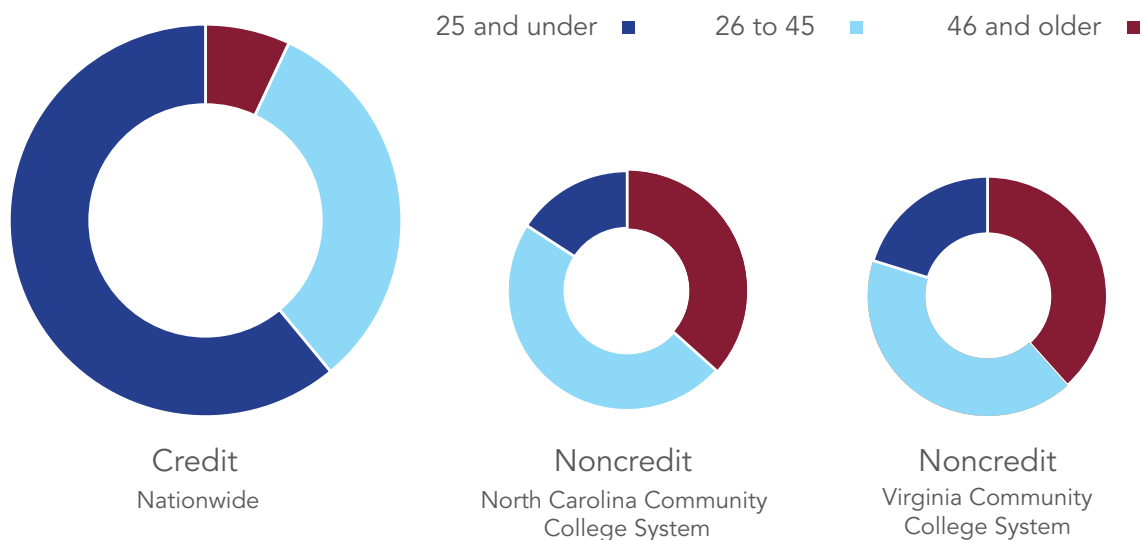
CREDIT AND NONCREDIT

Some of the most exciting innovation taking place at community colleges today is in the noncredit continuing education division—a stand-alone realm sometimes called the “hidden college,” and with good reason.

Noncredit continuing education is usually administered separately from the rest of

FIGURE 9. Noncredit students skew older than students seeking degrees

Age of community college students, credit and noncredit, 2013–14 and 2015–16



Sources: National Postsecondary Student Aid Survey, 2015–16; and Anthony Carnevale, Tamara Jayasundera, Michael Quinn, Megan Fasules and Artem Gulish, “Five-State Study of Noncredit Education,” Georgetown University Center on Education and the Workforce (unpublished manuscript).

the college.⁶⁵ Courses are offered à la carte and outside the usual semester schedule. Students need not matriculate at the college; they simply sign up for the class or classes that interest them.

The mix of courses varies widely from college to college. At some institutions, the noncredit division houses the college’s remedial programming. At other schools, it includes classes that cater to learners’ personal interests—so-called “hobby courses,” like photography or French cooking. Of growing importance in recent decades: customized job training that colleges provide on contract to local employers. But at many colleges, the focus is occupational programs open to any students seeking to learn a career or technical skill without meeting the academic requirements of the college’s credit division.⁶⁶

Noncredit programs have some disadvantages for students. Learners are not typically eligible for federal financial aid. Their time spent

in class does not count toward a credit-bearing certificate or degree. Programs are not subject to oversight by postsecondary accreditation agencies, raising questions about quality assurance. And as the name implies, much remains unknown about the hidden college.

Many states do not require colleges to report noncredit enrollments; the federal government keeps no noncredit data. The American Association of Community Colleges estimates that five million students—more than 45 percent of those who attend two-year institutions—are enrolled in noncredit programs.⁶⁷ But this estimate is a decade old, and the truth is very little is known about the extent or quality of noncredit offerings.

Still, along with these downsides, the noncredit division has significant advantages, particularly for students who come to college seeking career education or upskilling.



CREDIT AND NONCREDIT UNDER ONE ROOF

In 2019, Monroe Community College (MCC) discovered that the local economy—the aging industrial city of Rochester, New York, and the scenic Finger Lakes Region that surrounds it—faced a shortage of HVAC technicians.

Labor market data and input from employers revealed a multifaceted need—for entry-level helpers, mid-level technicians and supervisors who could be promoted to management.

For MCC, this could mean only one thing: the college needed to develop a range of HVAC offerings—from short-cycle noncredit programs for students in a hurry to land entry-level jobs all the way through an associate of applied science degree for learners who had their sights set on management.

Before the end of the year, MCC was on the way to producing all three types of graduates—thanks to the college’s division of Economic Development and Innovative Workforce Services (EDIWS), which combines credit and noncredit workforce offerings under one roof to respond more quickly and nimbly to the region’s changing workforce needs.

Before the launch of EDIWS in 2010, the credit and noncredit divisions at MCC—as at many community colleges—might as well have been on different planets. Located in the heart of Rochester, home to photo industry giant Eastman Kodak and a large Xerox Corporation manufacturing plant, MCC had always offered an array of credit and noncredit workforce courses. But college personnel remember a stark divide.

“The noncredit side got no money from the college and no respect from faculty,” recalls vice president for economic and workforce development and career technical education Todd Oldham. “The credit division had no plan to meet or keep up with regional economic demand.”



The beating heart of the new division is a state-of-the-art research team that combines statistical labor market information with input from employers to keep tabs on local skills gaps. Credit and noncredit personnel at EDIWS use this information to develop comprehensive solutions—what Oldham calls a “single strategy.”

It isn’t always easy to bring credit and noncredit educators together. Academic faculty still answer to their own department chairs and must be persuaded to cooperate in building a combined credit-noncredit suite of programs like the HVAC package.

But the noncredit side of the house brings a lot to the table: better relationships with employers, an independent revenue stream and a proactive career services arm that takes responsibility for placing graduates, credit and noncredit, in local jobs.

A common pattern: noncredit educators work with a local employer to incubate a program that eventually

morphs and migrates to the credit side of the college.

The payoff for students: much more easily navigable paths from entry-level noncredit learning to associate degrees and beyond.

The same kind of labor market information that tells EDIWS what to teach helps the division package offerings in short, bite-sized modules, each one likely to correspond to a bump in earnings. The options for HVAC students: one noncredit semester, a one-year academic certificate or a full associate degree—and everything they learn along the way is stackable.

After nearly 10 years at the helm of EDIWS, Oldham’s focus is on scaling the division’s novel approach. The count so far: combined credit-noncredit pathways that prepare learners for 108 occupations in 23 industry clusters.

Some of the most exciting innovation taking place at community colleges today is in the noncredit continuing education division.

In contrast to other college personnel, who often see workforce training as a second-tier objective, for many noncredit educators, it's a priority—their core mission.

Noncredit administrators often have strong relationships with local employers. They have been working with them for years, often as customers for contractual job training.

Perhaps most important, the noncredit division can move quickly and nimbly—usually much more quickly than the credit division. Administrators don't have to answer to faculty governance committees or regional accreditors. When they see demand for job training, whether from students or employers, they can launch it immediately, standing up a new program in a matter of weeks or months—a process that often takes up to two years on the credit side of the college.⁶⁸

This speed and agility is highly prized by employers, who often need to respond quickly to a changing market or new technology, and a growing number of companies nationwide are looking to a community college noncredit division as their training partner of choice.⁶⁹

The noncredit division's speed and nimbleness is also important to learners. Some students, particularly from less advantaged backgrounds, don't feel they have time for a traditional academic education—they're in a hurry to get a job or a better job. Many see no reason to study subjects or acquire skills other than the ones they need to move up in the workplace. Others are put off by the placement tests

required to enroll in most community colleges. What they want: short-format, narrowly focused, just-in-time job preparation.

Older workers whose jobs are transformed or eliminated by new technology have even less interest in a full four-year college experience. Their number-one objective: to get back to the labor market as quickly as possible.

The challenge we wrestled with in the working group: how to reap the advantages of noncredit workforce programs while solving for the disadvantages?

Unlike some traditional academic educators who see continuing education as second-tier—lacking in rigor and gravitas and ultimately not really “college”—our group believes the noncredit division is sometimes a better option, more appropriate for the student and the circumstances.

For many learners, college-age and older, who aren't otherwise likely to attend college, it can be the difference between a low-paying, dead-end job and a promising career. For others, it's a gateway to higher education: a first experience on a college campus that gives them a taste for more—a pathway, eventually, to an associate or bachelor's degree.

Three challenges stand in the way—prevent the hidden college from living up to its full potential.

Quality assurance

Among the most significant challenges is quality assurance. Few noncredit programs are subject to oversight by independent third parties—regional academic accreditors or other bodies. Many report little if any data to authorities, state or federal. Some are hard pressed to count or track their own students. And quality can suffer as a result.

Some noncredit administrators argue that their programs are subject to “market discipline.”⁷⁰ Because they receive scant institutional support or per-student subsidies, noncredit

departments must attract paying customers—students and employers—and programs would not survive if they did not deliver value.

Our group sees some merit in this argument, but it isn't always a guarantor of quality. Higher education is not a true free market. Neither students nor employers have perfect information, and they don't always make good choices about which options are best, or best for them.

Better, more reliable quality assurance would start with better data: information about who enrolls in noncredit programs, what they study, what percentage of those who enroll complete a course of study and what effect this has on their post-graduation employment outcomes.

Do learners get jobs in their fields of study? Do they perform well on the job—well enough to stay with the company for an extended period? Do they command higher wages than before they enrolled in a noncredit program?

Our group is open to experiments with alternative accreditation of noncredit offerings—by professional associations or employer groups—as long as it does not negate the division's core advantages, particularly its quick response times and the agility of its programming.

We also support a new approach being pioneered at colleges across the country: using attainment of in-demand industry certifications to assess career programs on both sides of the college, credit and noncredit.

Cross pollination

A second factor holding back many if not most noncredit divisions: they are cut off from the rest of the college. Most answer to different leadership than credit-bearing programs. They are held accountable to different rules—different state and federal law. And they generally depend on a separate, smaller funding stream.

Both credit and noncredit divisions would benefit from better connections. The two sides of the house have much to learn from each

other, and both stand to gain by sharing their assets more equitably.

The credit side of the college generally offers better student services—from library and gym access to advising and other student supports. The noncredit division often has better relationships with employers and sometimes better equipment—technology loaned or donated by employer partners.

At some institutions, the credit division is better funded; in other instances, noncredit programs are a profit center.

Both state and federal government provide support for the credit side of the college. Most states grant formula-based, per-student subsidies to learners pursuing academic degrees. Relatively few states provide formula funding for noncredit students, and very few noncredit workforce programs receive federal financial aid.⁷¹

How can colleges reap the advantages of noncredit workforce programs while solving for the disadvantages?

Noncredit offerings generate revenue—often substantial revenue—from students and employers who reach into their own pockets for tuition or to cover contract training. This funding can be erratic—noncredit administrators work hard to develop attractive programming and pitch it to their customers. But the revenue can also be more flexible than formula funding, with fewer strings attached.

Many administrators on both sides of the divide complain about the way their institutions share revenue. And noncredit educators often

feel left out of important decisions about their colleges' governance and direction.

Better communication and collaboration would have advantages for both sides of the house.

One noncredit administrator in our group offered an example of what can be done. "Noncredit is the quick action," he explained, "the troops who storm the beachhead. Most employers come to us first, or we get to them. But once the conversation starts, my team brings in the credit folks as soon as possible. They need employer partners too, and everybody gains—employers, educators and students—when learners who start out in noncredit go on to earn a certificate or degree."

Better bridges for students

Convinced as our group is of the benefits of noncredit offerings, we also agreed unanimously: colleges must build better bridges for students who later seek recognition for what they learned in job-focused noncredit courses.

We don't want to negate the comparative advantages of the noncredit division—its speed and nimbleness—by submitting programs to lengthy faculty review or regional accreditation. We think it would be a mistake to simply merge the two sides of the house, eliminating noncredit offerings. But no community college programs should be academic dead ends, and no community college student should be stranded on a path that cannot link back to college credit.

Our bottom line: just as all community college credentials should have value in the labor market, so too everything learned at a community college should count—or should be convertible so that it counts—toward an academic certificate or degree.

Who this would help: noncredit completers who go directly to work but later decide to pursue a college credential. Perhaps the first in their family to attend college, they started with a small step—one short technical course

No community college programs should be academic dead ends, and no community college student should be stranded on a path that cannot link back to college credit.

or a noncredit certificate. Later, after months or maybe years on the job, they decide they want more—could do more and earn more if they had more education. The student who started with medical coding wants to advance to nursing; a certified IT technician wants a degree in project management.

These learners know the community college from their time as noncredit students. Although perhaps awkward at first, many grew comfortable on campus and are confident they can succeed there. If they have to repeat courses they took as noncredit students—most likely at a significant cost in time and money—many may be reluctant to return to college. But if their prior learning can be counted toward college credit, many more will likely come back and persist through graduation, some eventually earning bachelor's degrees.

What this means for the college: even learners seeking a fast path to a first job should be counseled about the additional opportunities that would be open to them if they decide later in life to pursue a degree—associate, bachelor's or higher. No students who returns to college should have to retake courses they've completed or relearn skills they mastered in the past. All awards, credit-bearing and noncredit, should be stackable.

Even small things can help. One member of our group emphasized the importance of

treating noncredit learners like other college students—calling their experience “college,” celebrating it as an academic achievement, staging graduation ceremonies even for short technical courses.

Ultimately, our group is convinced, learners need options. What community college should offer: an array of alternatives—programs that pay off in the short term in a well-paying job, but also a navigable path to the top rungs of higher education.

STACKABLE CREDENTIALS

If credit and noncredit are the domains linked by the community college routing system, credentials are the signals and switches—the moving parts that have to function efficiently and predictably if learners are to navigate the system successfully.

Community college credentials come in all shapes and sizes: two-year associate degrees, credit-bearing and noncredit certificates usually earned with a year of study or less, competency-based industry certifications and a welter of newer, still shorter credentials—microcredentials and badges. A growing number of community colleges also grant bachelor’s degrees.

Adding to the confusion, these credentials vary widely in value. Many associate of applied science (AAS) degrees have high value in the labor market, but very few count toward transfer to a four-year institution—even though they are credit-bearing. Associate of arts (AA) degrees, in contrast, are an essential path to transfer, but many have little to no value in the labor market.

Still another twist: it can be difficult to generalize about a single type of credential. As important as the award—often more important—is the student’s field of study. According to one analysis, an associate of science (AS) degree in technical sales or business management is worth almost 25 percent more annual

compensation—\$10,000 a year—than an AS in a human resources field.⁷²

Community colleges across the US are experimenting with new, alternative credentialing. Many are working creatively to systemize the awards they offer and create better, more workable links between and among them. This ferment is exciting—it’s among the most important front lines of innovation in higher education.

No student who returns to college should have to retake courses or relearn skills they mastered in the past.

Still, even as educators explore new territory and add options, few areas are more in need of rationalization and reform. The current system is confusing at best and often dangerously misleading for students who don’t understand the differences between credentials or their value in the labor market.

Our group singled out three areas where we feel new thinking could be most productive: labor market value, industry certifications and articulation of credit.

Labor market value

The educators in our group came from colleges across the country—different states, different labor markets, different political environments—and they brought widely varied views about which credentials are most valuable.

Some argued, for example, for encouraging more students to earn applied AAS degrees; others recommended phasing out the AAS. Many championed the promise of competency-based industry certifications; others pointed to research suggesting that only a fraction of industry certifications have currency with employers.⁷³

The breakthrough that helped us get beyond these differences: when we put ourselves in the shoes of students and employers, we realized that credentials are a lagging indicator—not the milestone or metric that should be driving the conversation.

What matters are the skills learners need to be successful in the labor market—industry by industry and job by job.

What this means for community college educators designing programs or culling credentials: the place to start is not by weighing one degree against another. It's by doing essential due diligence in the regional labor market: first, establishing which jobs are hardest to fill, then working with employers and experienced workers to determine what skills are essential to succeed in these occupations.

The priority for the college should be developing programs that teach in-demand skills. What credentials learners earn is secondary—far less important to students or employers.

The other conclusion our group came to early on: as with credit and noncredit, it may be that all the options are valuable—or most of them. Different students on different paths need different credentials, and what a learner needs now to take the next step may be very different from what they need in two or five or 10 years when their circumstances change.

In this case, too, perhaps the abundance of options is not a bad thing—students need alternatives. AA, AS and AAS degrees, certificates and certifications, microcredentials: no category should be abolished. What needs winnowing: educators need to comb through these large categories and retire or put on ice specific credentials—it could be an AA in one field of study or an AAS in another—that have no value in the local labor market.

Just how that value is defined may vary from college to college and state to state. And an AA with little immediate return may prove its worth over time if students who earn it have a high probability of transferring to a four-year

institution and earning a bachelor's degree that pays off well in the labor market.⁷⁴

But however value is determined, for our group, the bottom line remains the same: we believe that every credential issued by a community college should pay its way and then some in the labor market.

Industry certifications

Among the most enduring trends in the two-year college sector has been the emergence of shorter and shorter, more job-focused credentials.

The trend has roots over a century old. First came associate degrees, then applied associate degrees meant to connect students directly to the labor market. The next step was credit-bearing certificates, commonly awarded after a year of study or less. Between 1984 and 2009, the number of students earning certificates grew by 800 percent, and nearly as many learners now earn certificates as associate degrees.⁷⁵

What industry certifications
promise students: a better bridge
between what they learn in
class and the skills they need to
succeed on the job.

The latest twist: recent years have brought a burst of new credentialing issued by noncollege education and training providers. Among the awards catching on fastest are industry certifications, in most cases issued by a nonprofit group representing employers in a single economic sector.

Unlike traditional academic awards, which signal that students have attended and completed



EARNING COLLEGE CREDIT FOR INDUSTRY CERTIFICATIONS

Lawmakers in Florida recognized the value of industry certifications long before their peers in many other states. A series of statutes going back nearly 15 years incentivizes educators and employers to work together to determine which certifications have currency in the labor market, signaling that job applicants have the skills they need to succeed in the workplace. Another, parallel set of incentives encourages Florida high schools and colleges to ramp up programs that prepare students to earn these credentials.

The policy has been wildly successful. In 2007–8, just 954 Floridians earned state-approved certifications. Ten years later, the annual total was 123,839.

But the state didn't stop there. The next step: granting college credit for certifications.

Conferred by independent third parties, usually industry associations, on the basis of competency-based tests, industry certifications are designed to signal employability, not advance students academically. Learners prepare for the tests in many settings—at a high school or college, but also on the job, at for-profit or nonprofit training centers or by studying on the internet—and many see the credential primarily as a ticket to employment.

But some certification holders eventually want to enroll in college, earning academic credentials that can boost their careers. And colleges that recognize these students' prior learning help them save time and money, eliminating the need to repeat courses and remaster familiar skills.

Long a leader in statewide articulation policies—the first statewide agreements, on transferring from two-year to four-year colleges, go back to 1971—Florida began thinking about conferring credit for nontraditional learning in 2007.



The first industry certification it considered—the canary in the coal mine—was the Manufacturing Skills Standards Council's certified production technician (MSSC CPT) award. A faculty committee drawn from colleges across the state reviewed the knowledge and skills assessed by the CPT test to determine if they aligned with statewide standards for related associate of science degrees.

It was a detailed, painstaking process. The first step: determining if the certification was worthy of academic credit. Then the committee reviewed related courses to assess which aligned most closely with the CPT assessment. Last step: negotiating how many credits the state should recommend colleges grant for the credential.

Today, an MSSC CPT earns learners a running start in three associate degree programs offered at colleges across Florida: electronics engineering technology (six hours of credit), manufacturing technology (nine

hours) and engineering technology (15 hours).

All told, 144 industry certifications are recognized by the state for the purposes of awarding college credit.

Certifications must align with industry sectors identified by state and local government as priorities for economic development. The list is reviewed annually and must be approved by the state workforce investment board. State education officials and college faculty committees revisit articulation agreements on a regular basis, and although the state's recommendations are not mandatory, they are honored by colleges across the state.

The payoff for learners starts with one to three college credits for an entry-level industry credential. Other awards are worth far more: a Federal Aviation Administration airframe technician certification clocks in at 36 college credits—and can save as much as \$3,847 in tuition.

a course of study, industry certifications signal what learners know and what job-related tasks they can perform—occupation-specific knowledge and skills measured by a competency-based test.

The key element is the tests. Developed by industry groups, often working with education and testing experts, some are written, others performance-based. A growing number of high school and college programs prepare students to sit for these assessments. But the tests themselves are usually administered by someone other than the instructor, and the credential is issued by the industry group, not the academic institution.

A well-developed certification widely used in the industry it serves is a proxy for employability.

What industry certifications promise students: to provide a better bridge between what they learn in class and the skills they need to succeed on the job. Instead of traditional academic subjects that may or may not be relevant in the workplace, students study topics and sharpen skills specified by potential employers.

The promise to employers: that certifications will take the guesswork out of hiring. It doesn't matter where students learned—high school, college, on the job or elsewhere. All are held to the same standard and, in theory, come to work equipped with the skills they need to succeed at the job.

The potential payoff for higher education: not only do certifications create new options for students—credentials that can be earned separately or along with academic awards—they also create a benchmark for institutions.

A well-developed certification widely used in the industry it serves is a proxy for employability, and college programs that succeed in preparing

students to earn that award can be confident they are preparing learners for the labor market.

The challenge for educators—institutions and government education agencies—is determining which certifications have value. Some industry credentialing bodies are broadly representative of the sectors they serve, others less so. Some approach the task of developing assessments with the highest academic standards; others not so much.

Only a small percentage of credentialing bodies—most estimates suggest no more than 10 percent—are assessed or accredited by third parties.⁷⁶ And although many certifications are developed and issued by industry groups, many are not widely known to rank-and-file employers.

According to an important study by Burning Glass Technologies, online want ads posted over a recent 12-month period mentioned some 2,500 certifications, but two-thirds of the requests named the same top 50 credentials.⁷⁷

Our group solicited input from several states wrestling with this challenge—working to develop lists of certifications worthy of state recognition and investment. And we compiled our own short checklist of guiding principles for educators working to make broader use of industry certifications.⁷⁸

- **Determining value.** The most important criteria for any industry award: it must have value in the workplace—be aligned with the local labor market and well-regarded by regional employers. Also essential: it must be portable—useful to workers seeking a job or a better job anywhere in the industry, not just at one company or a handful of firms. It should help learners get jobs that pay family-sustaining wages. And it should conform to emerging standards for all nondegree credentials—most importantly, it should be competency-based and validated by an independent third party.

- **Equity.** As important as labor-market value, members of our group are concerned about who is earning certifications. Are the opportunities they create available equally to all types of learners, including the least-advantaged and those least well-prepared academically? Our group's solution for this problem starts with data: states and institutions should monitor who earns industry credentials and be on the lookout for imbalances, particularly demographic imbalances.
- **College credit.** In and of themselves, industry credentials have no academic value. Like noncredit course offerings, they're a parallel universe, created to pay off in the labor market, not necessarily in a school setting. But a growing number of educators—institutions and state education authorities—are recognizing certifications as credit-worthy.

Many community college educators are working to embed industry credentialing in workforce programs. In some cases, instructors adopt the industry assessment as a final exam. In other instances, they align curriculum so students who succeed in the course are also likely to pass the industry test.

Significantly, as more credit and noncredit programs incorporate certifications, industry awards are emerging as a common currency, allowing educators to compare programs and grant recognition for noncredit learning without cumbersome individualized evaluations—prior learning assessments, portfolios, competency-based performance tests or other means.

The next step: scaling and standardizing this streamlined conversion. A handful of states are working to establish formal equivalencies—statewide standards

for translating certifications into college credit.⁷⁹ But there is still much work to be done.

As with noncredit workforce programs, no path through community college should be an academic dead end. Students who want to continue their education, in the short term or later in life, should not have to repeat courses or relearn skills. We must build better, more navigable bridges between job-focused learning and college credit, and all credentials should be stackable.

Articulation of credit

Educators, employers and policymakers advancing workforce education agree all but unanimously on a core tenet: stackability—the idea that today's learners will move in and out of postsecondary education throughout their adult lives, “stacking” learning and credentials earned in a variety of educational institutions and on the job.

Yet all too often, stackability is an empty promise. Learners are told their noncredit learning is irrelevant, or the certification they earned at work has no value in the eyes of college faculty. Instead of stacking credits and moving smoothly through postsecondary education and training, students are forced to retake courses and relearn skills, often at a significant cost in time and money.⁸⁰

Few subjects are more esoteric than the nuts and bolts of articulation of credit—the process by which faculty agree to grant recognition for learning acquired at another institution, in a noncredit college course or outside the classroom, in an employer-provided training program or on the job. But as noncredit workforce offerings and industry certifications become more widespread and appealing, these conversions are becoming more and more important—the essential connective tissue of higher education.

The current system can be dangerously misleading for students who don't understand the differences between credentials.

Establishing the equivalencies between programs can be a time-consuming, laborious process. Educators break course content down into the smallest possible units—the knowledge, skills and competencies students are required to master—then compare programs to determine if the competencies align. One popular term is “crosswalking”—mapping the knowledge taught in one course onto the curriculum of another and deciding if they correspond closely enough to grant a student college credit.

Two additional factors add to the difficulty. In many cases, traditional academic faculty are reluctant to grant college credit for courses taught at another institution or, even more of a stretch, in a noncredit setting or on the job. Some educators worry about the quality of instruction offered elsewhere; others are reluctant to sacrifice tuition revenue. And all too often, decisions are made on a case-by-case basis. Instead of establishing an enduring equivalency that would apply to most or all students, faculty repeat and reconsider the mapping process for every learner who applies.

Community college educators across the US are grappling with these challenges, and change is afoot on many campuses.

Our group compiled a list of considerations for institutions and state education agencies seeking to streamline articulation and help students bridge from one program to another.

Beyond case by case. The key to meaningful reform: states and institutions must find ways to go beyond traditional case-by-case consideration by college faculty.

Potential innovations: new streamlined procedures for faculty review, establishing program-to-program correspondences that reduce the need for faculty review, state standardization of curriculum to guide and facilitate review and preparing for the review process with automated mapping—using artificial intelligence to compare curriculum.

The sanctity of the transcript. Standalone articulation agreements between one college and another or one program and another are a step forward, but ultimately what's needed is more than a single bridge here and there.

Articulation agreements should connect multiple institutions across the state or region. And state education agencies should develop mechanisms to ensure that articulation agreements implemented at one stage of a learner's life are recognized and honored at later stages—so that, for example, credit for prior learning granted by a community college is honored if the recipient later seeks to transfer to a four-year institution.

Enduring agreements. The skills learners need to succeed in the workplace are changing more quickly every year. Faculty come and go. And even the best articulation agreements are perishable—few last more than four or five years.

States and institutions should incentivize partnerships and establish procedures to ensure that agreements remain effective over time as institutions revise curriculum and revamp programs.

A metric. What gets measured gets improved. Articulation of credit is an institutional prerogative—college by college, faculty by faculty. And state education authorities cannot require institutions to develop or accept articulation agreements. But states can and should devise metrics

to assess whether institutions are successful in making credit transfer easier and more available.

One possible yardstick: the ratio of student requests to credits transferred. States could require institutions to report the number of appropriate credit transfers—those in a similar or related subject—requested by students and the number granted by the institution.

Students. Articulation agreements create a framework—a new set of possibilities for students. But they have little value if learners do not know about and make use of them.

What's needed: better advising, stronger student supports, navigational aids, encouragement by faculty and administrators for students who hesitate to cross the bridges available. Also essential: robust outreach to students and potential students explaining and marketing the new, more flexible pathways.

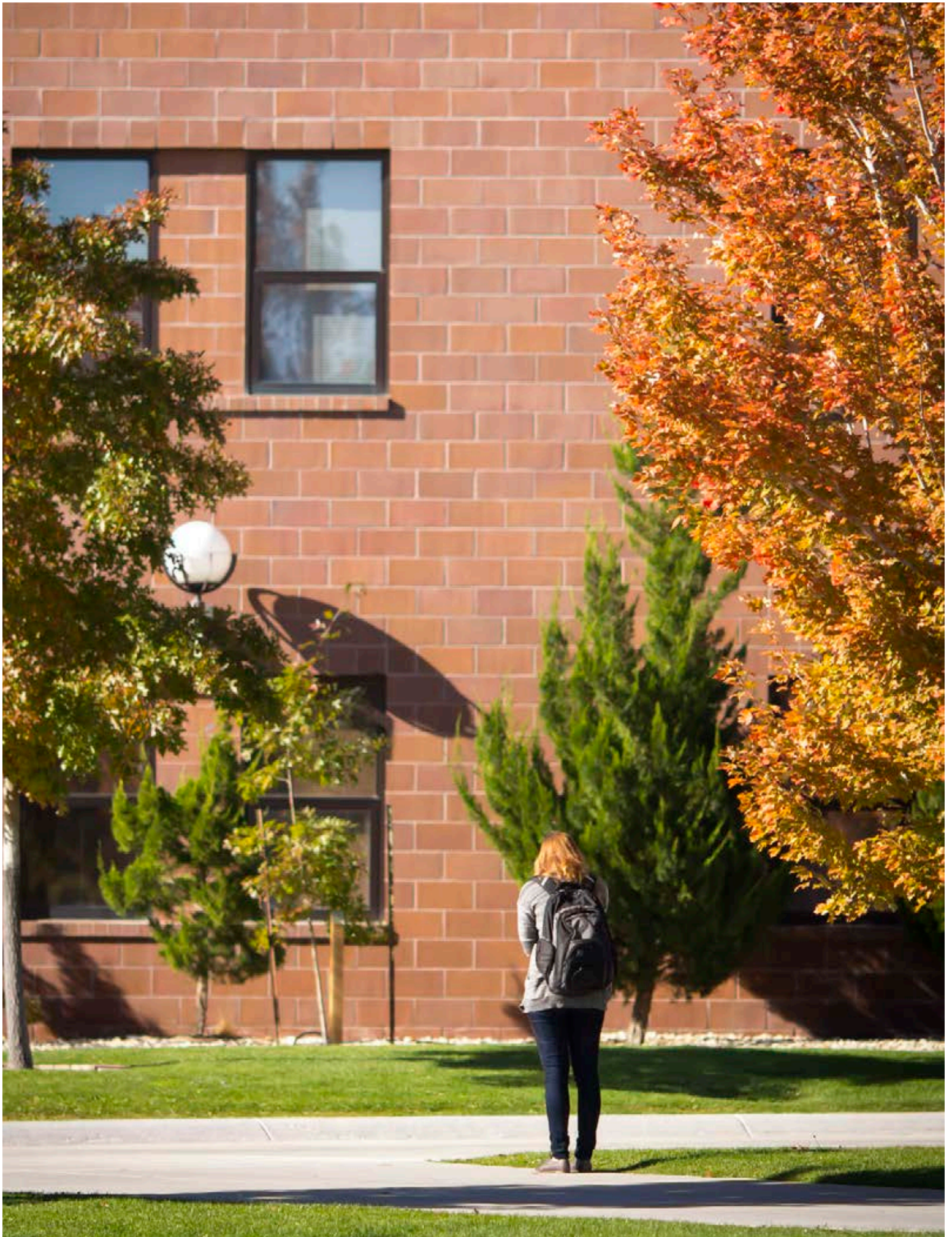


Photo: Truckee Meadows

DESIGNED FOR LEARNERS

The symptoms are commonplace at two-year colleges: poor graduation rates, weak transfer rates, seemingly intractable attrition and stop-out rates. Many researchers and reformers confronting these symptoms have come to the same conclusion: one of the principal causes is inadequate advising. Most community college students, often the first in their families to set foot on a campus, don't get the support they need to chart a successful course through the institution.

Recent years have brought a burst of attention to this problem: not just diagnoses, but remedies, including the influential reform known as "guided pathways," now being widely implemented at colleges across the US.

What hasn't received much attention: the navigational and other needs of job-focused learners.

Traditional college-age students, midcareer adults, those enrolled in credit-eligible programs and those who choose a noncredit option: if they're more interested in workforce skills than academic credentials, they get significantly less support than other community college students. And few, if any, recent innovations—guided pathways or others—are available to workforce

students. Most new thinking about navigation and supports is focused on degree attainment.

Our group believes this must change. Job-focused learners need advising and supports as much as traditional students do—perhaps even more, given the increasing complexity of today's rapidly changing labor market.

LEARNERS OF ALL AGES

Job-focused students are a large, diverse group—college-age and midcareer, full-time and part-time, non-degree-seeking and focused on credentials—and different kinds of learners have different needs.

Some older students are savvy shoppers. Well-informed and focused, they know exactly what skills they need to move up in the workplace, and they go back to college to attain just those skills, as quickly as possible.⁸¹ Others have little or no idea how to find their way back to the labor market.

Those recently laid off from a dying industry may know little about how the economy is changing—what jobs are in demand in their area or likely to be in demand two or five or 10 years down the road. Even those with their eye on a high-demand, high-paying job may not know what competencies or credentials will be attractive to employers. Losing a job can be traumatic, especially for older workers, and many may have lost the confidence to move ahead decisively.

Learners need up-to-date labor market information.

Younger workforce students also face challenges. Most know even less about the labor market than their older classmates. Often the first in their families to attend college, many get no guidance at home.

The best incentive for workforce students: a job waiting for them at the end of the program.

At many institutions, they will be steered toward a transfer pathway, whether or not that's what they want from college. And in many cases, like older learners, they don't know what they don't know—don't even know what questions to ask when they encounter an adviser.

Both types of students need more help—help tailored to their age and circumstances.

Demand for alternative advising is likely to grow in years ahead. The number of nonconventional community college students—those older or younger than the norm and looking for something other than a traditional academic path—is all but sure to increase, perhaps significantly, as the economy changes.

Dual enrollment—high school students taking college courses—has skyrocketed in recent decades. The first dual-enrollment programs were initiated in the 1990s. By 2009 to 2013, one-third of US high school students were enrolled in courses that conferred college credit.⁸²

Today's dual-enrollment students are far more likely than their peers to be white and to come from relatively educated families—parents who attended college themselves.⁸³ The college courses they take are almost exclusively universally transfer-focused—academic rather than technical.

But dual enrollment is all but certain to continue growing in years ahead and to include

more diverse students. Also likely, it will include learners who seek a broader array of course offerings—who could get excited about attending college and make the often difficult transition from secondary to postsecondary learning if it meant access to more sophisticated equipment and technical instruction.

The number of midcareer adults attending community college is sure to grow in years ahead. Even before the global pandemic, most economists believed that less skilled workers were more at risk than other employees of being displaced by automation and artificial intelligence—a larger share of the tasks that make up their jobs are likely to be taken over by technology.

According to the Organisation for Economic Co-operation and Development, food preparation assistants face twice as much displacement task risk as teaching professionals. Even skilled craftsman—metal, machinery and related trades workers—face more than a 50 percent risk.⁸⁴

Covid-19 dramatically increased these troubling odds, and many midlevel workers displaced by the pandemic may find it harder than their peers to get a foothold in the new economy.

Not all of these workers will find their way to a community college, but many will, and they will need help—new, more abundant and different kinds of navigational assistance than is currently on offer at most two-year institutions.

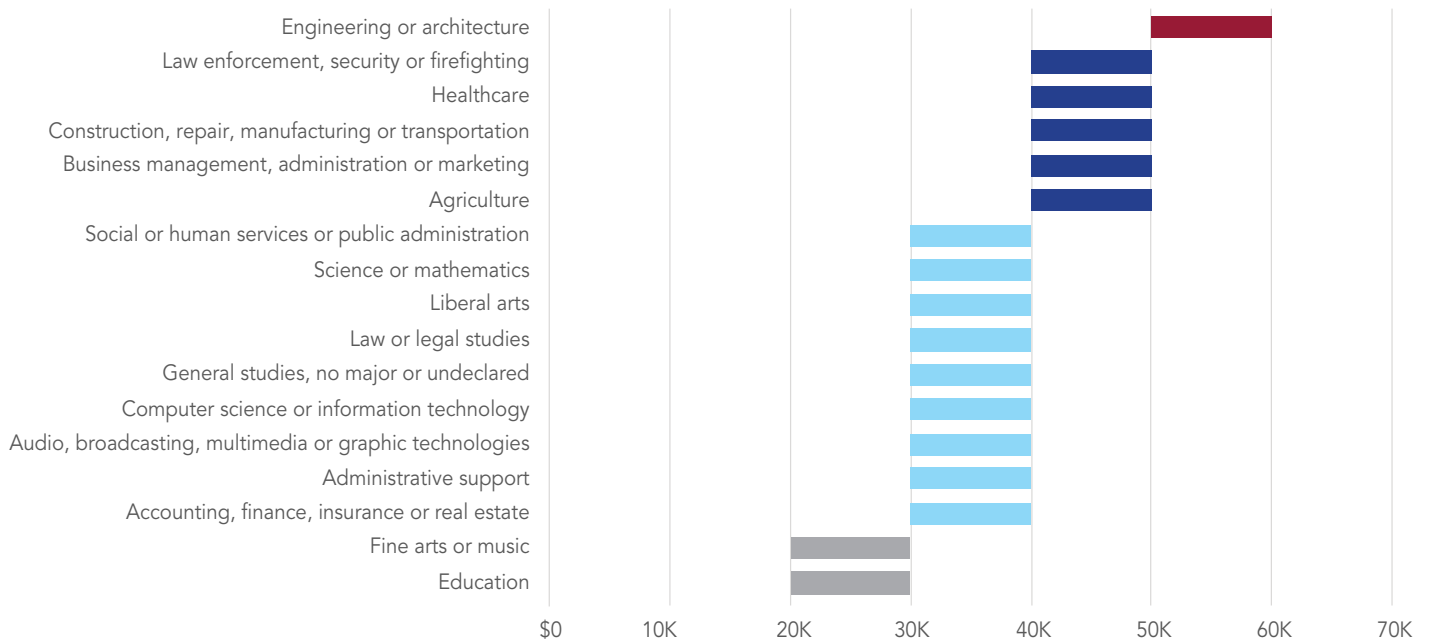
STUDENT NAVIGATION AND SUPPORTS

It's a commonly heard refrain among career educators: the most effective navigational tool for workforce students is a clearly visible, realistically attainable job waiting for them at the end of the program.⁸⁵

The effect is most pronounced in apprenticeship programs, formal and informal. Most

FIGURE 10. Your major matters

Median earnings for associate degree holders by field of study, 2016



Source: Georgetown University Center on Education and the Workforce analysis of data from the Adult Training and Education Survey, 2016.

apprentices spend half or more of their time on the job at a company, and many have an expectation of being hired by that firm when their training is over. In other cases, an employer will guarantee interviews to graduates of a course the company helped develop or deliver. In still other cases, faculty and administrators help learners visualize the waiting job with a narrowly tailored, targeted curriculum and ample information about the work students are preparing for.

Either way, the job acts as a beacon and an incentive for completion—a reason to keep going and a road map for how to get there.

But not all programs lead directly to a visible, realistically attainable job, and community college workforce educators need an array of tools—a variety of services and supports tailored to different kinds of learners.

Our working group compiled a list of best practices for institutions seeking to help job-focused students prepare most effectively for the labor market.

Some of our recommendations apply to all workforce students, college-age and older.

- **Beyond graduation.** Current student advising focuses all but exclusively on degree attainment. But many workforce students, credit and noncredit, are less interested in credentials than in learning the skills they need to succeed in a job.

In addition to academic advising, they need counseling about job prospects: career advisers who can think beyond completion—well-informed about the local labor market and sympathetic to learners whose immediate goal is timely

employment. A career counselor of this kind can help each learner craft a plan that includes credential attainment and job placement, then work with the student to help them stay on course and carry out their plan.

One suggestion offered in our group: career advisers hired out of industry, familiar with current workforce trends and changing labor market demand, who would work exclusively with learners who want to find a job in that sector.

- **Better information.** It's never too soon, workforce educators agree, for learners to start thinking about career goals. Career exposure—workplace visits, job shadowing, internship and more—should begin well before students arrive at college, ideally in middle school, if not before.

Still more intensive career advising should begin the day learners set foot on campus.

The most important component of this advising: information. Learners need up-to-date labor market information about jobs on offer in their region. They need maps of the career paths open to learners who earn the credentials they are aiming for. And they need unvarnished facts about the likely outcomes of college programs, including the realistic likelihood of transfer and attaining a bachelor's degree.

- **Holistic student supports.** A commonly heard complaint about existing student services: that the help on offer, never enough, is scattered and fragmented. Students visit one office for academic advising, a different address for career counseling, still someplace else for help with nonacademic barriers like lack of access to child care or transportation, then yet a fourth location for mental health supports.

Even the savviest students find it hard to navigate this obstacle course. For many job-focused learners, often intimidated by campus life and in a hurry to get back to the workplace, it's impassable.

The solution: holistic supports, if not offered by a single office, then closely coordinated by a single adviser. Also essential: individually tailored services customized for each student and each individual set of circumstances.

- **Noncredit students.** Few if any community colleges offer student supports to noncredit learners. These students come and go on their own schedules, select their own courses from the college catalogue, rely on their own anecdotal labor market information and all too often fail to plan beyond the immediate next step—an apparently enticing first job rather than a sustainable career.

Our group believes this must change. Noncredit learners, too, need help making the most of their time at college and preparing effectively for the labor market.

Even more important for the long term, they need advice—information, options, guidance, encouragement—about how they might eventually bridge to a credit-eligible pathway.

Midcareer adults

Midcareer adult learners need the same things younger students need, but also some additional services and supports.

Colleges seeking to attract older learners should rethink course schedules, offering more classes, credit and noncredit, in the evenings and on weekends. Many midcareer adults pressed for time will gravitate to online instruction and hybrid offerings.

Even more than younger students, working learners need short-form, applied course offerings



A CAREER PATHWAY FROM HIGH SCHOOL THROUGH COLLEGE

In Broward County, Florida, just north of Miami, as in many school districts across the US, high school students on the middle rungs of academic achievement were at a disadvantage.

The system was providing an array of services for students in the bottom 10 percent of their class, and those in the top 10 percent could choose from a long list of enrichment programs. But midlevel achievers got little help or attention, and as a result many were leaving school at the end of high school.

In 2015, an administrator in the county school system had an idea: why not develop a partnership with a nearby two-year institution, Broward College, to help these midlevel students bridge the often perilous gap between high school and college?

The new initiative built on work already in progress at Broward College—a “pathways” program based on a model developed by the American Association of Community Colleges. Its goal: to structure and streamline the paths students chart through the college’s vast catalogue of courses.

Incoming Broward freshman choose a “meta-major”—one of eight broad clusters of college programs geared to careers in demand in Florida. Within each meta-major, students then select among structured sequences of courses, each leading to a different occupation or set of occupations.

Each meta-major is color-coded: red for business, blue for STEM, teal for the skilled trades—industry, manufacturing, construction and transportation. The college helps students progress along these paths with robust career coaching, real and virtual job shadowing, easy-to-read career maps and other tools.

The Broward College pathways program was already well-established when the Broward County public



school system decided that it too wanted to chart simpler, more navigable paths for students, organizing high school career and technical education programs into career clusters.

County career, technical, adult and community education supervisor James Payne’s innovative idea: why not align the clusters being developed by the district so they mirrored those already in place at the college, providing a seamless transition for students?

Programs designed to bridge the gap from high school to college are not new. One-third of US secondary students now take college courses while in high school, accelerating their attainment of postsecondary credentials.

But the overwhelming majority of these dual-enrollment options focus on traditional academic learning—liberal arts and general studies. At Broward College, prior to 2015, the only dual-enrollment opportunities were general education classes.

The Broward County public school program, Career Launch, builds

bridges between high school and college for career and technical education students.

Color-coded pathways at Broward high schools line up with the similarly color-coded pathways at Broward College. Some of the most popular occupations: global logistics, marine engineering and aviation maintenance.

An easy-to-follow guide lays out potential paths, helping students and parents navigate high school options, industry certifications and college scholarships. The guide also points the way beyond community college, mapping potential careers and explaining options at nearby four-year institutions.

The biggest payoff for Broward County students and Broward College: Career Launch opened the way to career and technical education dual enrollment. In spring 2020, 51 students from local high schools were enrolled in career-oriented dual-enrollment programs. In fall 2020, the college anticipates, the number will rise to 80 students.

FIGURE 11. Meeting the needs of working learners

| | The college can do alone | Requires system-level change or partnership with employers and others |
|----------------------|--|---|
| Major transformation | <ul style="list-style-type: none"> ▪ All programs online or hybrid ▪ Noncredit skills training on a par with traditional academic courses ▪ More programs designed to enable midcareer job-to-job transitions ▪ Restructure career services on a recruitment agency model ▪ Annual program review to ensure curriculum is aligned with the job market | <ul style="list-style-type: none"> ▪ All credentials, credit and noncredit, should be stackable ▪ Align classroom instruction with what students learn in paying jobs ▪ Use investor-driven financing to provide financial aid for noncredit workforce programs |
| Minor change | <ul style="list-style-type: none"> ▪ Merge career and academic advising ▪ More classes at night and on weekends ▪ Extend hours of offices that provide student services | <ul style="list-style-type: none"> ▪ Partner with employers to provide a co-op or internship for every student who wants one ▪ Ramp up credit for prior learning ▪ Become the primary training provider for local employers upskilling incumbent workers ▪ Reformat all transcripts to reflect acquired skills as well as time spent in class |

Source: Burning Glass Technologies.

designed to help them get a job or a better job in the near term. Traditional semester-length programs can be pared back dramatically to teach just the skills learners need to be successful on the job. The best courses are offered in partnership with employers who help design the content and stand ready to hire successful graduates. Also essential, programs should culminate in credentials recognized by the college as well as by local employers—credentials learners can use in the short run to get jobs, but also trade in later for college credit if and when they decide to continue their education.

Educators should find ways to partner with employers to offer open-enrollment courses at the workplace. At shrinking or dying firms where workers are at risk of displacement, onsite instruction should be available well before employees are laid off.

Also essential for older students: mechanisms to confer credit for prior learning. What's needed starts with articulation of credit earned during an earlier stint at college. But it should also include credit for alternative credentials,

including licenses and industry certifications and, perhaps most important for working learners, competency-based assessments of the knowledge and skills they have acquired on the job.

Many midcareer adults will be discerning customers, careful with their time and money and prepared to shop around until they find what they want. Credit for prior learning—especially knowledge and skills acquired over a lifetime of work—is likely to be at the top of many older students' lists of criteria in choosing a college program.

Guided pathways for workforce students

Among the most popular reforms to sweep community colleges in recent years is the concept known as guided pathways. Instead of a confusing cafeteria-style buffet—too many options, too much freedom of choice, too little guidance and few student supports—a growing number of colleges are restricting the menu of

options they offer learners and adding services to help students stay on course to the end of a well-marked, streamlined path.

More than 250 institutions nationwide are implementing this approach and, by all accounts, finding it effective in helping students make their way through community college.⁸⁶ But more often than not, the goal of these programs is degree attainment and transfer to a four-year institution.⁸⁷

Our group would like to see the concept of guided pathways broadened to serve workforce students along with those on a conventional academic path. Much would remain the same—the streamlining of options, the more intensive support. But instead of a path to degree attainment, workforce educators would help learners find and stay on a more direct route to employment.

Educators seeking to develop guided pathways for job-focused students should start the conventional way—by slimming down the course catalogue. But unlike traditional faculty eliminating superfluous options, workforce instructors should base their choices on labor market information and input from employers.

As with degree-centered guided pathways, students might start by choosing meta-majors or broad foundational courses—an introduction to the health professions, say, or to manufacturing occupations. Learners would benefit from intensive, front-loaded advising as they select more targeted goals—a still more focused cluster of occupational skills.

The next step would be a carefully curated sequence of courses that combine technical instruction with nontechnical general skills like problem solving and teamwork. Along with routes designed by educators and employers, these pathways should include trails blazed by previous cohorts of students—those who earned credentials with labor market value, but also, perhaps, those who left college without a credential and leveraged what they learned in class to move up on the job.⁸⁸

Pathways should lead students to credentials with labor market value.

Learners should move along these pathways in cohorts—another layer of supports, in this case from similarly situated peers navigating the same challenges. And there should be ample guidance all along the way from an array of faculty and advisers.

Next step: the more cohesive college experience this creates should be integrated into “career pathways”—interconnected classroom instruction and work-based learning bolstered by robust advising and other services—that stretch from high school into the world of work.

What this could mean for learners: a well-charted, integrated, streamlined path all the way from one’s early teens to a high-demand, high-paying career.

PARTNERING WITH THE PUBLIC WORKFORCE SYSTEM

As confusing as a community college can be for a less-educated midcareer adult, still another critical choice confronts them even before they get near a campus: postsecondary education and training—a community college—or the public workforce system.

The public workforce system is a vast, federally funded network of federal, state and local offices that provide, among other supports, career services and job training for disadvantaged youth and adults—out-of-school youth, dislocated workers, those enrolled in government benefit programs and others below a certain income threshold seeking help to get a job or a better job.

Funded most recently by the 2014 Workforce Innovation and Opportunity Act (WIOA), the nearly six-decade-old system provides a wide array of services offered at neighborhood job centers. Easily accessible, walk-in offices, often located in storefronts or government office buildings, these centers are overseen by state and local workforce development boards comprised of employers, educators, labor leaders and government officials.

Job training is among the services offered, usually in partnership with local education and training providers, including community colleges, that receive vouchers from the workforce board. But historically, training has been a small part of the mission—accounting, according to some analyses, for only a few million dollars of the system’s overall \$8.7 billion annual budget.⁸⁹

The two institutions—community colleges and the workforce system—are different in many ways. But the existence of the two tracks, side by side, can be perplexing, to both learners and employers.

Both are taxpayer-funded, nationwide institutions that exist in large part to prepare learners for the workplace. Yet they remain distinct networks held accountable to different metrics and sustained by separate funding streams.

Our group believes this should change, and we recommend far-reaching reforms to integrate the two institutions and coordinate services. A globally competitive United States cannot afford two overlapping, duplicative systems, complementary in many ways, but often hesitant to cooperate.

Our proposal does not merge the two networks. Many workforce system programs—unemployment insurance and youth services, among others—are outside the purview of community colleges.

But we believe both could benefit from closer cooperation—much closer cooperation—that draws on their comparative advantages to create a whole greater than the sum of the parts.

Job centers could be located on community college campuses.

The payoff for taxpayers: greater efficiency. The payoff for employers and learners: a single, coherent, transparent system.

Our group compiled a long list of ways in which the two institutions could cooperate more closely on a day-to-day basis.

Job centers could be located on community college campuses, combining the job center’s ability to evaluate midcareer adults—their skills and training needs—with the college’s capacity to provide instruction. Workforce system staff adept at career services and job placement might be delegated to work for the community college.

Many midcareer adults already find their way to community college through the workforce system, but the pipeline should be expanded, especially in the wake of Covid-19. Instead of viewing the college as one vendor among many local education and training providers, the board should look to it first and use tuition prices to benchmark the cost of other services.

A better coordinated joint effort would avoid redundant outreach to community-based organizations that provide support services for workers and learners. And the two institutions should share labor market information—costly data, essential for both, that the taxpayer should not have to purchase twice.

But even more important than tactical cooperation of this kind, the two networks should come together around a common mission—regional economic recovery—and common performance metrics.

Regional economic planning. As is, in most regions, community colleges and workforce boards compete to build relationships with local employers. Both institutions need companies to provide information about in-demand skills. Both look to firms to collaborate in offering essential services. Both hope to place workers in similar jobs, and they often besiege the same employers with requests for cooperation.

This competition is confusing for employers and frustrating for outreach staff at both institutions. It's also an inefficient use of public dollars.

A better approach would combine outreach efforts and coordinate regional planning under a single umbrella. A joint entity convened by the community college would bring together employers, educators—elementary, secondary and postsecondary—workforce system staff, for-profit and nonprofit service providers, faith-based organizations, local government and other regional bodies.

These partners would collaborate to build a single regional talent pipeline. Local employers seeking workers or offering input about industry trends would know to look to a single address.

Most important, participants in the joint entity would come together to make essential decisions about regional economic development—how to rebuild in the wake of the virus and, in future years, keep the region competitive by creating and retaining jobs.

Performance metrics. Among the most senseless discrepancies between community colleges and the workforce system: even in cases where they offer overlapping or identical services, they are held accountable to two different sets of performance metrics.

A better approach would hold both institutions to the same standards. This would encourage cooperation between the two networks. In other instances, where the two institutions

compete, it would provide a means for determining the most effective regional approach.

One place to start in crafting a common set of metrics would be the six primary performance indicators mandated by WIOA: credential attainment, measurable skills gains, job placement after completing training or receiving services, employment one year after completing training or receiving services, median earnings six months out and effectiveness in serving employers.⁹⁰

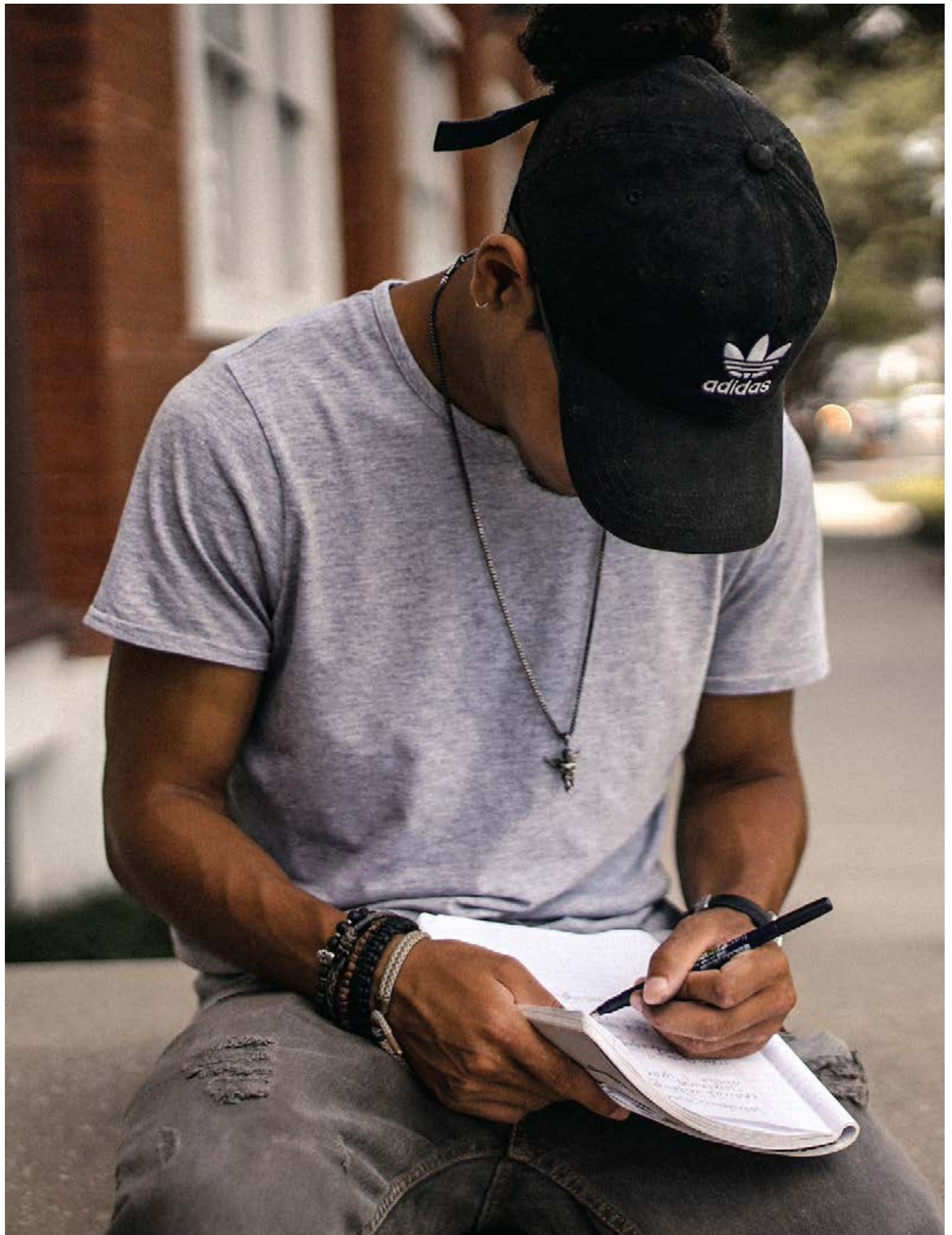
Our group had no illusions. Even mutually beneficial cooperation of this kind will likely meet with resistance from staff at both institutions, and both will need incentives to collaborate more closely.

State government can play an important role. Governors should restructure state agencies—labor, education, higher education, economic planning and other authorities—to eliminate discrepancies and combine unnecessary, parallel services.

But ultimately the federal government holds the most powerful lever for change: a 15 percent set-aside carved out of every state's WIOA funding that goes directly to the governor to spend as he or she sees fit on job training initiatives.

Our group's recommendation: this funding should be contingent on the governor's efforts to better integrate the state's community colleges with its public workforce system.

Community colleges and local workforce boards would collaborate to build a single regional talent pipeline.



FUNDING AND ACCOUNTABILITY

The change our group envisions—a radical rethinking of the purpose of community college and a retooling of programs across the institution—will not come cheap.

Some of what we propose can be paid for by reallocating revenue and funding that already flows to two-year colleges. As public institutions rarely held accountable for outcomes, not all community colleges approach budgeting with maximum efficiency. Institutions don't always get a good return on what they pay for. And every college's annual financial statement probably includes what one member of our group called "stranded assets"—resources that could be better spent.

But these modest savings will not be enough to pay for the changes our group believes are necessary. State spending for higher education has not recovered from deep cuts during the Great Recession.⁹¹ Job-focused education is expensive—often considerably more expensive than traditional academic programs.

Maintaining up-to-date equipment, hiring instructors out of industry, keeping teacher-student ratios low enough to provide the hands-on instruction needed in, say, nursing or welding classes—all of this requires extra funding.

Adding to the challenge, a substantial share of job-focused programs is offered by the noncredit division of the college. Yet only a handful of states fund noncredit education on a par

with credit-eligible programs, and many states allocate no funding for noncredit offerings.⁹²

Our group is convinced that policymakers—state and federal—need to rethink funding levels for higher education generally and workforce programs in particular.

But as important as funding levels, we urge lawmakers to reconsider *how* they fund community colleges—the metrics, incentives and allocation of resources.

Legislators, state and federal, have ample opportunities to make adjustments. Federal funding for higher education and workforce preparation comes up frequently in Congress: the Higher Education Act, the Carl D. Perkins Career and Technical Education Act, the Workforce Innovation and Opportunity Act, Temporary Assistance for Needy Families and other benefit programs, all reauthorized on a regular basis, along with yearly appropriations bills. State lawmakers have still other tools at their disposal: not just annual state education and workforce spending, but also competitive grant programs and funding for regional economic development.

Also essential, even as policymakers rethink spending and incentives, our group believes college administrators should reexamine their assumptions about funding, exploring new sources of revenue, tapping into new markets and developing new financing models to supplement public dollars.

A CHANGING NEED

Today's college students are more diverse and on average older than in the past. They gravitate to different institutions, enroll in different kinds of programs and require different services. Many are also on a faster timetable.

Yet community college funding formulas and tuition assistance policies have changed little over the years to take account of older learners, non-credit students, those enrolled in courses shorter than a semester, successful noncompleters or even, in some states, part-time students.

Today, as decades ago, policymakers reward primarily enrollment—how many students can the institution attract. States that look to performance metrics to determine some share of funding prize primarily completion and degree attainment. Workforce-related outcomes—post-graduation employment, wages or even proxies like industry certifications—rarely figure in the mix.⁹³

Among the most common errors, in our group's view: formulas weighted to reward completion at the expense of all other criteria.

Many learners don't remain at community college long enough to earn even a certificate. Some are hired away by employers who care more about their skills than their credentials. Still another group—one researcher calls them "skills builders"—are midcareer adults who return to college for a semester or two, take a few highly specialized courses they believe will help them move up on the job, then leave without a credential of any kind, certificate or degree.⁹⁴

Their brief stint at college pays off well for many of these learners, but the institution where they studied must write them down as failures—noncompleters.

The change our group envisions will not come cheap.

Our group proposes a fundamental rethinking of how community colleges are evaluated and funded.

Our thinking about funding rests on three bedrock principles.

First, we believe that state funding for workforce education should be grounded in a broader vision of regional economic development. What industries are likely to drive economic growth in the state in years ahead, and what kind of workforce is needed to attract and retain those industries?

Second, we believe programs that produce desirable outcomes should receive more funding than those that produce poor outcomes.

Third, we believe outcomes metrics should be aligned with mission, and we define desirable outcomes differently depending on the nature of the program. Job-focused programs should be judged and rewarded differently than those designed to prepare students for transfer to a four-year institution.

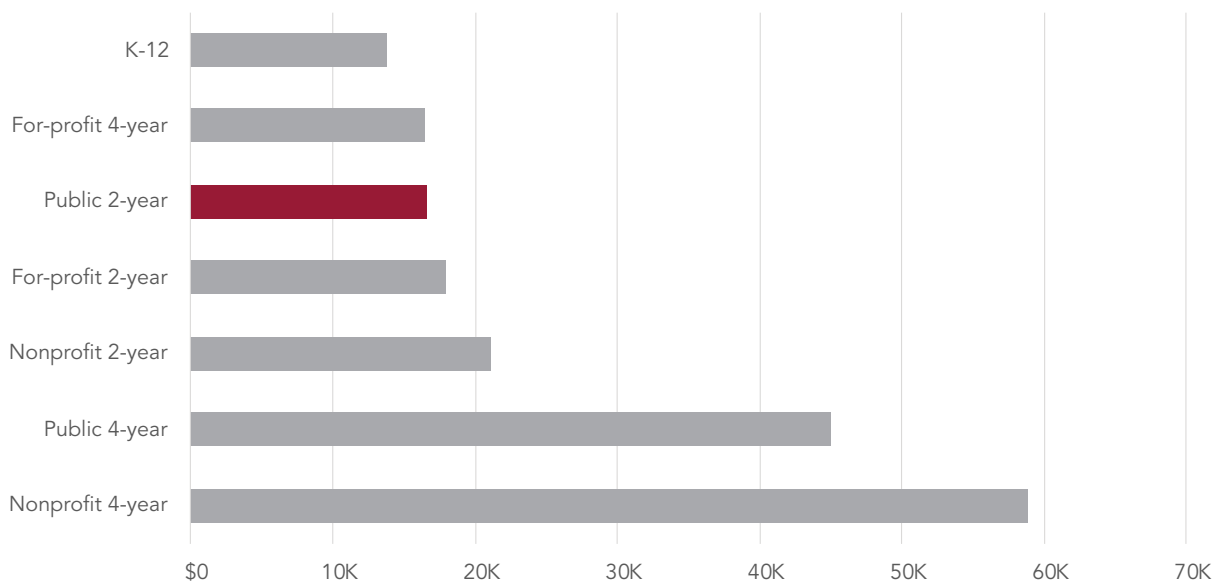
A NEW APPROACH TO FORMULA FUNDING

Federal, state and local governments fund institutions of higher education in a wide variety of ways: financial aid for students, institutional support, dedicated appropriations for capital expenditures, purpose-driven grants, performance-based funding and—among the most significant streams—per-student subsidies.

Individual student subsidies are often determined by a formula—most commonly, a formula based on college enrollments. The decades-old rationale is simple: the larger the student body, the higher the institution's costs are likely to be.⁹⁵ The standard unit for many enrollment-based formulas is full-time equivalency (FTE)—a complex calculation based on actual full-time enrollments and aggregated part-time attendance. The amount allocated annually for a nominal

FIGURE 12. Community colleges have less money to spend on students

Expenditures per full-time student, 2016–17



Sources: US Department of Education, August 2019; US Department of Education, National Center for Education Statistics, December 2018; US Department of Education, January 2019; and US Department of Education, January 2019.

full-time student varies significantly from state to state—in 2016, from \$2,960 in New Hampshire to \$16,400 in Alaska.⁹⁶ But until recently, virtually no FTE-based formulas took account of the value of college programs.

North Carolina and Kansas are experimenting with a different approach: one that bases FTE allocations on the perceived economic value of the instruction offered.⁹⁷ Our group endorses this fresh thinking and would like to see more widespread experimentation.

Job-focused programs and others vary widely in the value they produce—for learners and for regional economic competitiveness. Courses in cosmetology and veterinary medicine, for example, are often popular with students. But demand for cosmetologists and veterinary technicians doesn't always rise to the level of student interest, and a glut of unneeded workers in any field is likely to have adverse effects in many quarters, reducing wages for workers and raising regional unemployment rates.

On the other side of the equation, courses also vary in cost. Differential equipment costs, faculty salaries, teacher-student ratios and program length combine to produce a wide range of price tags that often have little to do with value.

Our group sees no merit in formula funding geared to costs. That would create no end of perverse incentives for institutions. But a mismatch between cost and value can also skew incentives, especially when resources are

Community colleges should be held accountable for outcomes—either jobs and wages or attainment of bachelor's degrees.

limited—encouraging institutions to offer cheaper programs that may or may not serve the public interest.

Our group favors an approach geared to perceived value, as determined by policymakers. Depending on the state, value might be based on any number of broad-brush criteria: in-demand industries, in-demand jobs, employability, economic and social mobility or a more traditional measure of abstract, academic value—for example, programs centered on science, technology, engineering and math.

In Kansas, tiered formula funding applies only to technical college programs. In North Carolina, academic offerings and job-focused community college courses are judged by the same criteria, and nothing in the formula favors credit-eligible instruction. Noncredit programs that lead to high-demand, high-paying jobs are funded on a par with similar credit-bearing courses and more generously than degree offerings deemed to have little value for the regional economy or for learners' upward mobility.

Tiered FTE formula funding is a relatively new idea. Both Kansas and North Carolina are still learning from their experiments—monitoring and adjusting their formulas. Our group recommends proceeding cautiously, but we would like to see more states exploring a value-based approach of this kind.

FUNDING FOR OUTCOMES

Funding that rewards colleges for student outcomes has been gaining traction for several decades. More than 30 states now use performance criteria of some kind for some percentage of higher education funding—it ranges from 1 percent in Illinois to 80 to 90 percent in Ohio and Tennessee. Every state relies on a different mix of metrics, usually some combination of enrollments, completion, transfer, degrees and, in just a handful of states, employment-related outcomes.⁹⁸

The academic research on outcomes-based funding is mixed, and critics abound. Their primary arguments: they see little evidence that performance funding works—few instances of improved outcomes—and they're concerned that it creates incentives for "creaming," admitting only high-performing students to programs assessed by the formula.⁹⁹

Our group is deeply concerned about equity—do all students have equal access to the most effective college programs?—and we believe it is imperative to include equity metrics in any performance-based funding formula.

But as a group we strongly believe that colleges should be held accountable for outcomes. Colleges respond to financial incentives. Policymakers allocating scarce taxpayer dollars must be sure that public funding delivers results for students. Large-scale institutional change takes time, and results may not emerge overnight. Yet several educators in our group have seen firsthand how performance metrics are driving change at their colleges.¹⁰⁰

The question our group wrestled with was less *if* than *how*: what metrics, what data, what incentives?

What matters to our group is how each program performs, not the institution overall. Standard benchmarks like completion should figure in the mix. So should one or more measures of the special student populations served by any program—students from disadvantaged backgrounds, students with disabilities and other underserved learners, regardless of their gender, race or ethnicity.

More than 30 states now use performance criteria of some kind.



OUTCOMES-BASED FUNDING PAYS OFF FOR TEXAS STUDENTS

Outcomes-based funding that rewards colleges for meeting performance goals set by policymakers remains controversial across the US and, in many states, still little more than a half-hearted experiment. Not so in the Lone Star State, where Texas State Technical College (TSTC) is funded entirely on the basis of graduates' employment outcomes—job placement and starting salaries.

Separate from Texas' large traditional community college system, but also publicly funded, TSTC has always focused on career education. Some 12,000 students attend classes at 10 campuses spread across the state, earning primarily certificates and associate of applied science degrees. Much of the faculty is hired out of industry, and the system boasts an array of impressive up-to-date training facilities, including its own airport on the Waco campus.

Unlike at many institutions, where performance-based funding is imposed by mandate from above, TSTC leadership requested that the state legislature rethink the basis of its financial support. The result, passed in 2013 and known as "returned-value formula funding," makes 100 percent of TSTC's biennial appropriation dependent on graduates' earnings during their first five years in the workplace.

The formula has been in effect for nearly six years, and it has profoundly reshaped the education offered on TSTC campuses.

By and large, faculty and administrators welcomed the change. Economic development, career success, the imperative of responding quickly and nimbly to a shifting labor market had always been at the heart of TSTC culture. And many faculty viewed traditional college funding—money for enrollment totals and time spent in class—as inimical to their goals. The new mantra, adopted along with the formula: "Place More Texans in Great Paying Jobs."



The new approach has transformed virtually every aspect of life at TSTC. College leadership's first step: it began evaluating programs through the lens of student employment outcomes. The budgeting division established a business intelligence unit charged with generating data analytics for every program and department.

Programs that did not produce returns for students or the college were cut—13 popular programs closed as soon as existing students completed their coursework. Instructors were repositioned, and students who anticipated enrolling in those classes were offered incentives to switch majors.

Other changes were more gradual. Curriculums were standardized. Administrative functions were streamlined and consolidated. Virtually every decision—about instruction, but also advising and student supports—is now made with an eye to the new bottom line.

The college's relationships with employer partners are also different—at once closer and more exacting. "If they're not hiring our graduates, we're not interested," says vice chancellor Michael Bettersworth.

The payoff for students: between 2009 and 2017, TSTC's two-year graduation rate grew 71 percent, and graduates' real earnings increased 26 percent.

The payoff for the college as the formula kicked in and reflected the changes on campus: a 33 percent increase in state appropriations.

Today, TSTC is using these funds to increase capacity in high-demand program areas, pay more competitive faculty salaries and position the college for the changes to come in the wake of the coronavirus pandemic.

Policymakers should be wary of overly rigid outcomes metrics. Evaluating whether someone has benefitted from career education and training is a complex matter. Earnings are an essential yardstick but one that must be used carefully. What matters may be less how much a learner earns than whether their earnings have improved as a result of the training they received.

The bottom line for our group: we believe community college programs—all community college programs—should help learners advance up the ladder of social and economic mobility. And we're convinced that accountability metrics can help produce mobility for more students.

Aligned with the mission

Community colleges serve many purposes, and it would be a mistake to tie funding too narrowly to just one category of outcomes. But in line with our group's shared belief that community colleges should put career and technical education more at the center of their mission and culture, so we are convinced that community college programs—all community college programs—should be held accountable, directly or indirectly, for graduates' employment outcomes.

Many if not most services offered by the public workforce system are evaluated on the basis of post-completion employment and wages. Relatively few states use information of this kind to assess community college offerings.

Our group believes this must change. But acknowledging the range of offerings available at two-year institutions, we propose to use the yardstick differently for different types of learners.

For a midcareer adult who enrolls in a short, job-focused course and then heads out into the workforce, the metric should kick in immediately—do they land a better job as a result of the instruction they received at college? At the other end of the spectrum, a traditional

We're convinced that
accountability metrics can
produce mobility for
more students.

college-age student who sees a two-year institution as a stepping-stone to a bachelor's degree may not hold a job until three or four years after leaving community college.

Our group proposes that states take account of this difference with a two-track approach to performance funding—one set of metrics for community college workforce offerings and another for programs designed to prepare students for transfer to a four-year institution.

Job-focused programs. Crafting a performance-based formula for community college workforce programs is relatively straightforward. The appropriate measure is obvious: do graduates land well-paying jobs?

The challenge: there is no foolproof way to determine students' employment outcomes. Federal agencies that could be helpful—the Internal Revenue Service and the Census Bureau—are not generally permitted to share information for this purpose.¹⁰¹ State data are limited—state agencies can't track learners who move out of state—and sometimes flawed in other ways.¹⁰²

But all states collect payroll information from employers—employment and wage data designed to determine eligibility for unemployment benefits. And a growing number are able match it with student records to paint a detailed picture of where graduates work and how much they make.

Our group believes that any performance formula for job-focused programs should be based on metrics similar to those used to evaluate WIOA education and training—job placement,

job retention and wages. Do students land and keep in-demand jobs that pay a family-sustaining wage?

We see a case for recognizing attainment of in-demand industry credentials—a proxy for employment—and promotion, or the possibility of promotion, on the job. We want to encourage colleges to prepare students for jobs that lead to promising careers.

The formula for job-focused programs should not ignore traditional performance metrics, including completion. We don't want to create perverse incentives that limit students' later ability to continue their education.

One possibility: broadening the definition of completion. Along with completion of a two- or four-year degree, educators and state education authorities should consider ways to recognize completion of shorter modules increasingly popular among community college learners.

But even then, we believe, funding formulas should be designed in such a way that employment outcomes—landing a better job at a higher wage—can outweigh completion. After all, some learners—skills builders and others—benefit from attending community college without completing, and we do not want to penalize institutions that enroll learners of this kind.

So too with noncredit students. We see no reason to treat effective noncredit programs differently than effective credit-eligible programs. We want to incentivize institutions to help students acquire the skills they need to succeed in high-demand, high-paying jobs, whatever division of the college houses the program.

Transfer students. The challenge we faced in developing a metric for transfer students: many are unlikely to show robust employment outcomes during the years they're working toward a bachelor's degree. Then, by the time they join the workforce, community college may be many years in the past, and a host of other factors, including the choices they made at a four-year institution, may affect what kind of job they get.

We see no reason to treat effective noncredit programs differently than effective credit-eligible programs.

Our solution to this problem: we make the assumption that completing a bachelor's degree is an all but certain guarantor of better wages than the student could have earned before attending community college. And we propose to hold community colleges accountable not just for students' transfer rates, but also whether or not they earn bachelor's degrees.

This would represent a dramatic shift for two-year colleges. As is, in states with no performance funding, community college administrators are rarely held accountable even for transfer rates. Some performance formulas include transfer as a metric, but usually as one indicator among many and lightly weighted.

We find this unacceptable. A program that promises transfer should lead to transfer and fulfill the purpose of transfer—earning a four-year college degree.

Students who spend time at a four-year institution but leave without a degree rarely improve their employment prospects, and many would have been better off—would have landed better jobs and earned more—if they had used their time at community college to acquire skills in demand in the labor market.

Our group sees some merit in rewarding transfer programs that add workforce content—teach fundamental workplace skills, offer students opportunities for work-based learning or add capacity for career advising. We believe reform of this kind could dramatically improve prospects for transfer students who fail to transfer. And we can imagine a performance-based

funding formula that creates incentives for change along these lines.

But ultimately we believe the appropriate measure of a transfer program is whether or not students succeed in transferring, which to us means not just enrolling at a four-year school, but completing a bachelor's degree.

Do no harm. The community college educators in our group offered a useful warning about funding incentives. Many institutions will respond to inducements to add offerings, but relatively few are likely to take the next step—phasing out low-performing programs that do not meet funding criteria.

Our group wants to see change in both directions. Bloated course catalogues, a cafeteria-style buffet of options, the resulting surfeit of choices and scant student advising: these are among the primary obstacles to completion for many community college students. And an outcomes-based formula that rewards colleges for dropping ineffectual programs could do almost as much good as incentives to add better offerings.

Policymakers should proceed with caution. The first rule of higher education funding reform is do no harm. And our group is particularly concerned about incentives that would undermine equity for less-prepared learners. We don't want to see funding flow disproportionately to programs that attract few disadvantaged students, and even incentives to eliminate low-performing courses should be carefully tailored with an eye to equity.

Also important to many in our group: do new performance-based funding formulas affect how

community colleges balance the different missions of the institution? Every two-year college is different. The communities they serve vary widely, and different circumstances require different approaches. Our group is agnostic about the right balance of transfer and workforce offerings—it depends.

Our bottom line: if the funding formulas we propose lead schools to rethink the balance they offer, closing out low-performing programs in one division and adding high-performance offerings on the other side of the college, so be it. But nothing in our proposal should be seen as requiring a shift of this kind. Our North Star is economic opportunity, however colleges are able to achieve it.

At the college. Rethinking and reconfiguring community college funding will require change in many quarters, including among educators. As technology transforms the workplace and institutions step up to serve new constituencies, colleges should look for new funding sources, public and private.

Institutions can start by learning from their noncredit divisions. Continuing education programs often generate their own revenue, collecting payment from private and public-sector employers and learners who can afford to pay tuition. Many noncredit programs are also adept at combining public funding sources—not just education funding, but workforce dollars, safety net spending, adult education subsidies and corporate relocation incentives, among other streams, state and federal.

Beyond the public fisc and in line with growing trends across higher education, community colleges should begin to experiment with alternative financing models—investor-driven options, approaches geared to learners' future earnings and models that look to employers to shoulder more of the burden, if not immediately, then once workers have proved themselves on the job.

Our North Star is economic opportunity, however colleges are able to achieve it.

Community college educators often complain that employers are reluctant to assume their share of instructional costs. But our group believes this could change if institutions reconfigure their mission to put local labor market needs—job training and regional economic development—more clearly at the top of their agenda.

We're convinced employers would notice. We believe the new approach would generate new political support and, eventually, transform the politics of education funding. As community colleges rethink their role and step up to assume new responsibilities, we believe new dollars will flow, perhaps from unexpected sources.

FEDERAL FINANCIAL AID

Alongside formula funding, among many colleges' most important sources of support is needs-based financial aid—government grants and loans designed to subsidize tuition.

State and federal financial aid programs create powerful incentives for community colleges. The federal Pell Grant program alone provides some \$28 billion a year for some 7 million undergraduates, roughly one in three students enrolled in the nation's two- and four-year institutions.¹⁰³ State aid varies widely, but together in 2015 all 50 states disbursed an additional \$8 billion in needs-based financial aid.¹⁰⁴

Student aid is a tangled and much contested issue, mostly beyond the scope of our working group. But two federal provisions that limit subsidies for workforce students are too important to ignore.

Workforce Pell. Some of the most innovative and effective community college workforce programs are shorter than a semester—just long enough to learn the skills needed to get a job or a better job.

Many of these shorter offerings are developed by educators working with employers who know

the skills in demand in their industries. Training is often offered in the more flexible, fast-moving noncredit division of the college. Many if not most short-term programs prepare students to earn qualifications—industry certifications, technical certificates and licensure—highly valued in the labor market.

Yet under current law, students enrolled in shorter programs are ineligible for Pell Grants. As a practical matter, Pell funding is available only to students working to earn academic certificates or degrees, and it covers only programs that are at least a semester in length.

The upshot for students: those who can't pay their own way often have no access to the best job-focused education in their area.

Some of the most innovative and effective community college workforce programs are shorter than a semester.

Congress has considered several proposals to remedy this imbalance, some sponsored by Democrats, others by Republicans, still others on a bipartisan basis. Commonly known as "workforce Pell" or "short-term Pell," all would make Pell Grants 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.

Our group strongly endorses reform of this kind.

Lifetime Pell. The Pell Grant program is subject to constant tinkering by lawmakers. The total amount allotted to the program rises and falls. The maximum award creeps upward, albeit not fast enough to keep up with rising college costs. And lawmakers struggle to strike the

right balance between generosity—ample funding for less-advantaged learners—and fiscal responsibility.

One compromise limits students' lifetime eligibility for federal financial aid. No individual may receive Pell Grant funding for more than the equivalent of six years, no matter how they move in and out of higher education over the course of their careers.

Our group understands the need to limit Pell eligibility. In an era of runaway federal spending and ballooning deficits, we support constraints to ensure that federal funding produces results for students. The nation cannot afford an unlimited entitlement with no meaningful quality control.

But a blanket lifetime cap—one that takes no account of student outcomes, either at school or after graduation—is not a viable option in today's changing economy.

Accelerating technological change, increasingly rapid job turnover, the shrinking shelf life of technical skills all point in the same direction: all Americans, middle-tier and those with more education, need opportunities for lifelong learning.

A community college student may start with a short job-focused noncredit program, then spend a year or two in the workforce before

deciding to return to college. The next step might be an associate degree, but eventually, perhaps after another stint at work, the learner may decide they need more—need to complete a four-year credential. Still later in life, they may decide to specialize, coming back to college to earn a certification or pursue a professional degree.

Aimless students drifting from course to course with nothing to show for it should face a time limit on federal financial aid. But learners moving in and out of lifelong higher education to advance their careers need more flexible funding options, and our group urges lawmakers to rethink public policy to take account of this reality.

One place to start: reconsidering the lifetime limit on Pell eligibility. More dramatic change, something we hope lawmakers will consider in years ahead: some form of lifetime education voucher to be used as learners see fit over the course of their careers.

A blanket lifetime Pell Grant cap is not a viable option in today's changing economy.

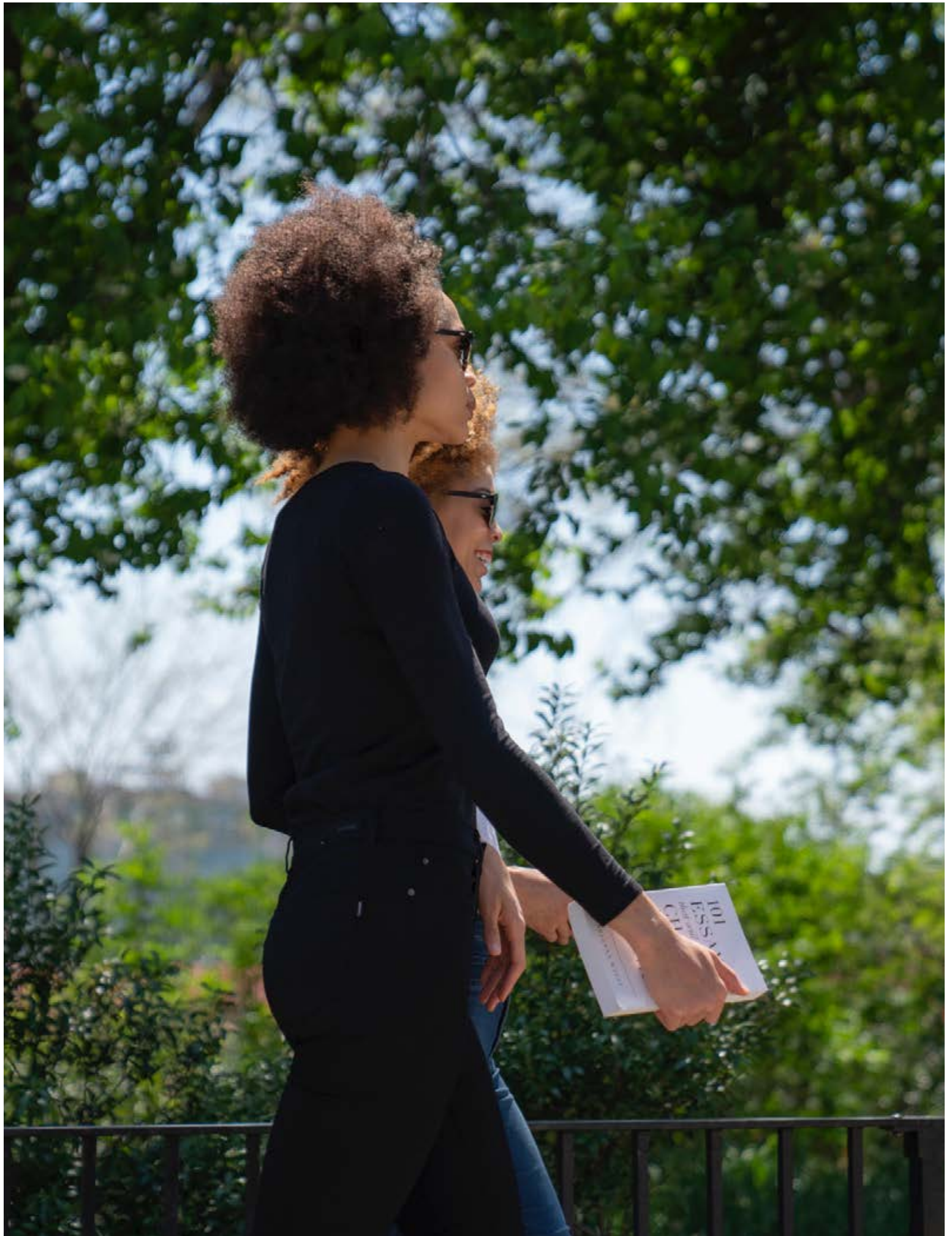


Part III



RECOMMENDATIONS AND CONCLUSION





A MOMENTOUS CHOICE

Galloping technological change and the transformation of the global economy pose a momentous choice for Americans.

Down one road lies a future in which income inequality grows ever more acute and it becomes harder and harder for Americans from less advantaged backgrounds to keep up or catch up with the better off—those with better educations and more sophisticated skills.

Down the other road, we as a nation come together to find answers for those at risk of being stranded permanently on the wrong side of the education divide—new ways to acquire skills and pick up the habits of lifelong learning necessary to succeed in the 21st-century economy.

It will take many decisions and a multitude of changes to get this choice right—no one institution can do it alone. But few institutions are poised to make as much difference as community colleges.

Change is already under way at the nation's two-year public colleges: a surge of innovation, much of it driving new ways to prepare learners for the workplace.

What isn't known: just how widespread this new thinking is or how deeply it's affecting even the institutions on the front lines of change. Are today's reformers a small vanguard—or increasingly typical of community college educators nationwide?

Our working group sought to build on the innovation under way on campuses across the country, and we are indebted to the reformers whose ideas we have appropriated.

But we believe the change that's needed goes beyond new practices and piecemeal reforms, no matter how thoughtful or creative.

What's needed, we're convinced, is a new vision.

Community colleges must embrace a new, more ambitious role—must accept and champion that they are the nation's primary provider of job-focused education and training.

Many colleges already put a premium on workforce education, and many are making adjustments to meet the needs of working adults. But by and large, the community college sector still shies away from acknowledging its position and power as the indispensable institution at the center of the nation's workforce system.

Down one road lies a future in which income inequality grows ever more acute.

Our group believes this must change—we as a nation need it to change.

Community colleges must put workforce skills—career preparation and midcareer upskilling—more at the center of their mission and culture. They must shake off their dependence on four-year colleges and universities—must move beyond a singular focus on preparing students to transfer to a four-year institution. And they must assume the broader responsibilities that come with their new role—including responsibility for

coordinating a talent pipeline to fuel regional economic development.

This will require change in many quarters—at colleges, state education agencies, among employers, accreditors and federal policymakers.

Our group's principal recommendations are for community colleges and state education authorities. We also propose three critical changes to federal workforce policy and student financial aid.

Rooted in the local labor market. Unlike traditional higher education, focused largely inward and guided by its own intrinsic, academic standards, community colleges must be outward-looking and responsive to the changing labor market.

All community college planning and decisions should be shaped by trends in the local economy. All programs, all credentials, all strategic initiatives should be geared to the surrounding region's workforce needs. Instructors should be approachable and agile, attuned to economic trends and ready to accommodate new technology. The college should work to stay connected to its community, particularly employers, and learn to adapt quickly as the local labor market changes.

The ultimate goal of all learning: not credentials for credentials' sake, but employment and, ultimately, economic mobility—learners leaving the college well prepared for high-demand, high-paying jobs.

Academic and technical skills. Wherever learners are headed in the short term—straight to the world of work or onto further higher education—they need grounding in two crucial, complementary realms: foundational human skills and career-focused competencies.

Foundational human skills start with critical thinking, problem solving, communication, creativity and basic research techniques—abilities often emphasized in liberal arts courses. Essential job-focused competencies—essential for all

students—include workplace communication, applied math, teamwork and time management, but also basic technical skills such as data analytics, the rudiments of coding and core business skills, including project management.¹⁰⁵

Integrating curriculum to include the full spectrum of skills may prove challenging for instructors used to focusing more narrowly on traditional liberal arts or technical workforce competencies. Course material will need to be customized, not merely combined. Job-focused programs might package English language arts as shop-floor presentations or redesign anatomical drawing to count as a fine arts elective. Liberal arts students may approach teamwork and time-management in a different way than learners who practice these skills in a hands-on workshop setting.

The challenge for educators: to ensure that no learners are short-changed. In today's increasingly complex, ever-changing labor market, all workers need both academic and technical skills.

No options foreclosed. A growing number of educators and education reformers argue that distinguishing career and technical education from traditional academic learning creates a false dichotomy, and in the broadest sense, our group agrees. No learners should be stuck irrevocably on one path or the other.

Different learners have different short-term goals—some seeking to transfer to four-year institutions, others heading directly to the world of work. But unlike in the past, when most students attended college only once in a lifetime, today's students will need to continue learning throughout their careers. Some will linger longer than others on their first pass through higher education, but many will come back to learning later in life—to acquire new skills, refresh old qualifications or explore additional career options, whether on a campus or elsewhere.

What this means for community colleges: no options should be foreclosed. No degree should

be terminal. No programs should be academic dead ends, and no community college student should be stranded on a path that cannot link back to college credit.

Work-based learning. All students, whether they are headed after community college, should experience the world of work.

Students who spend time in the workplace learn how to handle themselves in a professional setting. Many find mentors who challenge and inspire them in a way no classroom teacher has been able to. Others reinforce theoretical instruction with practical experience and come back to class with renewed interest in academic learning—now, for the first time, they understand why this or that difficult subject is important.

There is no better preparation for a job than holding down a job and no better gateway to the labor market than a relationship with an employer.

It can be difficult for colleges to create opportunities for work-based learning. There may be few employers in their remote rural region. Even in big cities, it can be hard to persuade local firms to bring college students into the workplace.

Older learners and others in a hurry to learn the skills they need to get back to full-time employment may feel they have no time for anything other than intensive instruction. Still other students, working to put themselves through college, may be reluctant to replace their paying jobs with unpaid work-based learning related to their field of study.

Community colleges must find ways to meet these challenges. Institutions need dedicated staff to engage local employers and help them structure meaningful work-based learning. Colleges need better advising and other student-focused resources to help learners find jobs that fit in their school schedules and complement their studies. Instructors across the college need to stay abreast of learners' work-based

There is no better preparation for a job than holding down a job.

learning and align the topics they teach in class with what students are doing on the job.

Policymakers and philanthropic donors can help. Institutions need funding to subsidize interns' wages when employers are not prepared to carry the full freight. And lawmakers should create incentives to hold colleges accountable for creating work-based learning opportunities.

Colleges also need to develop programs that recognize what working students learn in conventional entry-level jobs, coordinating the skills learners pick up at work with related college instruction.

Job placement. Unlike traditional academic educators for whom the finish line is graduation, two-year institutions must make it their mission to help every student land a high-demand, high-paying job.

Educators should be held accountable for what happens after learners leave the college. The primary metric by which community colleges should be judged is not completion but employment—high-value employment that results in upward mobility.

This is a challenging assignment, well outside the norm at most community colleges and rarely included in performance metrics or rewarded by state education funding.

The change that's needed starts with policy—state and federal policy. Expectations matter. What gets measured gets improved—and community college funding should be geared more closely to job placement and wages.

What's needed at the college: a dedicated employer outreach office, additional resources for placement staff, more robust career services,

more careful coordination between curriculum and the labor needs of local employers.

Most important, educators need a new mindset—a new understanding of their purpose. The mission of the college, the goal for every student, goes beyond graduation. Learners want high-paying, high-demand jobs in their field of study.

Engaging employers. There can be no effective workforce education without employers—robust employer input and collaboration.

Most community colleges acknowledge the value of connecting with employers. Most maintain a roster of advisers from local companies. But all too often, the collaboration between company and college is perfunctory.

Many employers shy away from tough conversations about weak programs. Many educators treat employer input as an afterthought—nice to have, but not essential. Other companies complain about labor shortages but do not hire from the college. Halfhearted, casual connections of this kind are not enough.

Effective employer partnerships serve many purposes. In some cases, what the college needs is reliable information about local labor market trends. In other cases, at the opposite end of the spectrum, company and college may cooperate closely to design and implement a training program.

The first step for a college seeking more meaningful employer engagement: to distinguish among different kinds of partners—different levels of employer involvement. Educators should set clear goals appropriate to each level and work to make all collaboration, no matter what the purpose, as intensive and mutually responsive as possible.

Colleges need dedicated staff to reach out to and communicate with local companies. They need to be selective in choosing firms to collaborate with. Not every employer wants what's best for students. Not every job offers students the potential for upward mobility. Not

all employer engagement is worth the effort—not if the industry is shrinking or offers mostly low-paying, dead-end jobs.

Educators may need to help employers hold up their end of the partnership—assistance articulating their labor needs or structuring meaningful work-based learning. But ultimately the relationship must be a two-way street.

Many educators treat employer input as an afterthought—nice to have, but not essential.

Employers need to offer honest, actionable feedback. Educators need to listen and act on it, and when they do—when they produce well-trained, job-ready graduates—local companies need to be prepared to hire them.

The next frontier: blurring the lines between training provided at the college and the company.

Among the forms this might take: aligning college courses more closely with employer-provided training, providing better bridges from college programs to company training or fully integrating the instruction offered in the two different settings and granting college credit for what workers learn on the job.

Integrating credit and noncredit education.

Some of the most exciting innovation taking place at community colleges is in the noncredit continuing education division. Yet at many institutions, noncredit education is seen as second-tier—lacking in rigor and gravitas and not really “college.” This must change.

Our group's goal is not to conflate the two divisions or grind down the differences between them. Both bring distinct advantages

to preparing learners for success. The noncredit division is often more agile and responsive to the local labor market. Instruction is more likely to be fast and focused—just-in-time preparation for an in-demand job. Credit-bearing instruction, in contrast, is often broader or more comprehensive. And many learners want degrees—a ticket to better employment opportunities and further higher education.

The challenge for community colleges: how to take advantage of both divisions' strengths and build bridges between them.

Better bridges for students start with stackable credentials and credit for prior learning.

No learner who starts college in a noncredit program and returns later in life to pursue a certificate or degree should have to retake courses or relearn skills they have mastered in the past. Students' relevant noncredit learning should be recognized by instructors and ultimately convertible to college credit. Noncredit learners also need better counseling and encouragement from faculty—information about related credit-bearing instruction and its potential long-time payoff for their careers.

At the institutional level, credit and noncredit divisions have much to learn from each other, and both stand to gain by sharing their assets more equitably.

Noncredit instructors are generally closer to the labor market and better positioned to engage employers. The credit-eligible side of

the house is often more adept at providing student supports. The two divisions tap into different funding streams—some more flexible than others or earmarked for particular purposes. Closer collaboration and cross pollination would be a win for both divisions and for students.

Also critically important, we as a nation need more information about noncredit education. Often the fastest growing part of the college and the division most open to innovation, the noncredit side of the house can be invisible to learners and lawmakers and beyond the reach of quality control.

Many states collect little data on noncredit programs, and few noncredit divisions are subject to oversight by independent third parties—regional academic accreditors or other bodies.

What's needed: more research and better data on noncredit community college offerings, enrollments and employment outcomes. There can be no effective quality assurance without better information of this kind.

Credentials of value. Every credential offered at a community college should have labor market value. Whatever a learner studied in whatever division of the college, whether or not they intend eventually to seek further higher education, the credential they earn at a two-year college should boost their chances of getting a job or a better job in the short term.

But the obverse should also be true. Just as all community college credentials should have value in the labor market, so too everything learned at a two-year institution should count—or should be convertible so that it counts—toward an academic certificate or degree.

This is a tall order for colleges. It will require reorienting a wide array of programs: paying closer attention to local labor market trends, infusing workplace competencies in academic curriculum and ensuring that workforce programs too teach core foundational skills like critical thinking and problem solving.

What's needed: more research and better data on noncredit community college offerings, enrollments and employment outcomes.

Students need unvarnished facts about the likely outcomes of college programs.

Different students on different paths need different credentials, and an abundance of options is not necessarily a bad thing. AA, AS and AAS degrees, certificates and certifications, micro-credentials: no category need be abolished. But most probably need winnowing to assess what skills they signal and eliminate awards with no market value.

Among the most promising, relatively new tools available to educators seeking to connect learners to the labor market, competency-based industry certifications should be better integrated into college programming.

State education authorities can help by determining which industry certifications have value for regional employers. Educators must ensure that all learners, whatever their backgrounds or educational preparation, have access to programs that lead to certifications. And like all credentials earned at community college, industry awards should be convertible to college credit.

Few challenges facing community college educators are more daunting or important: ensuring that credentials are stackable—that all learning is recognized and all credentials are additive, allowing students to build on what they have learned in the past as they progress, often over many years, through college and career.

The key mechanism behind stackability—the articulation of credit—is a complex, technical process. It requires comparing curriculum, unit by unit, and establishing equivalencies or correspondences. But the process can and must be streamlined to get beyond time-consuming, often arbitrary case-by-case consideration. And

once credit has been awarded, the allocation must be irreversible, including when a learner moves from one institution to another—colleges must guarantee the sanctity of the transcript.

Ensuring stackability and the sanctity of the transcript is primarily a job for educators. It's difficult if not impossible for policymakers to impose equivalencies on institutions of higher education. But state and federal education authorities can help by creating model pathways and monitoring whether students are successful in earning and applying credit.

Student navigation and supports. Much work has been done in recent years to improve the supports that help learners chart a course through the vast and sometimes chaotic menu of offerings at most community colleges. But by and large, these reforms are designed to help students on a traditional academic path leading toward a bachelor's degree.

Much less thought has gone into helping workforce students, and there remains much to be done.

The popular reform, “guided pathways,” should be broadened to serve workforce students along with those on a conventional academic path. The core pillars of the guided pathways model would remain intact—a radical streamlining of course options and more intensive student supports. But instead of a path to degree attainment, workforce educators would help learners find and stay on a more direct route to employment.

Next step: the more cohesive college experience this creates should be integrated into “career pathways”—interconnected classroom instruction and work-based learning, bolstered by robust advising and other services—that stretch from high school into the world of work.

Not all community college students see themselves on an extended path of this kind. Many have dropped in briefly at a two-year institution

to pick up a discrete set of skills they hope will help them in their current job. But with the right supports, educators can point the way, helping students see the options available if and when they are ready to take advantage of them.

Still another essential support: better information. Students, college-age and older, need up-to-date labor market information about jobs on offer in their region. They need maps of the career paths open to learners who earn the credentials they are aiming for. And they need unvarnished facts about the likely outcomes of college programs, including the realistic likelihood of transfer and attaining a bachelor's degree.

In addition to advising and information, many students, college-age and older, need more tangible, practical services: affordable child care and transportation that enable them to get to class.

Finally and increasingly essential, midcareer adults need special attention and supports. Most important will be readily available credit for prior learning. No working adult returning to the classroom should have to retake courses or relearn skills, and they should receive college credit for any relevant learning—technical or human skills—they acquired on the job.

Many community colleges struggle to award credit for prior learning. The tools exist: granting credit for alternative credentials, including licenses and industry certifications; gauging prior learning with nationally recognized standardized exams; recognizing military credit; and individualized assessment of portfolios and performance tests, among other means. But faculty are often reluctant to move in this direction.

Colleges that fail to develop options for students seeking credit for nontraditional learning do so at their own peril. Few attributes of the college will be more important to midcareer adults choosing among potential education and training providers.

Toward a single public workforce system.

A globally competitive United States cannot afford two overlapping, duplicative job training networks, complementary in many ways, but often hesitant to cooperate: community colleges and the public workforce system.

State and federal policymakers should encourage colleges and workforce boards to cooperate more closely, integrating and coordinating services to avoid redundant effort and simplify the surfeit of choices that now confront students and employers.

Community colleges and the public workforce system should be held to the same standards.

Both networks—community colleges and the public workforce system—are highly decentralized. Both sets of administrators are rooted in their regions, and the most effective place to spur reform is likely at the local level. What's needed starts with small, practical steps: collocation, combining staff and sharing labor market information. But that's only the beginning of what can be done.

The next step, a more ambitious reform: community colleges and local workforce boards should join forces to steer regional economic development. A joint entity convened by the community college can provide a single point of contact for employers seeking better trained workers. Together, the two institutions can create a single, integrated talent pipeline to fuel economic growth across the region.

Also essential: the two networks should be held to the same standards. One place to start: the performance indicators mandated for the

workforce system by the Workforce Innovation and Opportunity Act—credential attainment, skills gains, job placement, earnings and effectiveness in serving employers.

Spurring cooperation of this kind will not be easy—it's sure to meet reluctance and resistance at both institutions. But the federal government holds a powerful lever for change: the 15 percent set-aside carved out of every state's WIOA funding that goes directly to the governor to spend as he or she sees fit on job training initiatives. Going forward, this funding should be contingent on the governor's efforts to better integrate the state's community colleges and its public workforce system.

Funding. Policymakers—state and federal policymakers—need to rethink funding levels for higher education generally and workforce programs in particular. But as important as funding levels, lawmakers should reconsider *how* they fund community colleges—the metrics, incentives and allocation of resources.

What's needed starts with a rethinking of goals—the mission of community colleges and purpose of workforce education.

Instead of state support based on raw enrollment totals—the number of students the college attracts to any program, for any purpose—states should ground community college funding in a vision of regional economic development. What industries are likely to drive economic growth in the state in years ahead? What kind of workforce is needed to attract and retain these industries? And how are those needs likely to change as technology transforms the workplace?

Depending on the state, value might be based on any number of criteria: in-demand industries, in-demand jobs, employability, economic and social mobility or a more traditional measure of abstract, academic value—for example, programs centered on science, technology, engineering and math. But whatever the yardstick, programs that deliver value should be funded more generously than those that deliver less.

The promise of equal opportunity hinges more than ever on access to postsecondary education.

One promising approach: tiered full-time-equivalent funding that rewards programs—including noncredit programs—that help learners acquire the skills they need to succeed in high-demand, high-paying industries.

Second, 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.

Academic research on outcomes-based funding is mixed, and critics abound. But the question our group wrestled with was less *if* than *how*: what metrics, what data, what incentives?

States should take care to avoid perverse incentives, jumpstarting programs that offer access only to high-performing students at the expense of learners with limited academic preparation.

Outcomes metrics should be aligned with mission, and desirable outcomes should be defined differently depending on the nature of the program.

Job-focused programs should be rewarded for students' employment outcomes—post-graduation job placement and improved wages.

Transfer-oriented programs should be held accountable for transfer rates, but also—a new, higher standard—whether or not transfer fulfills its purpose. Do learners earn a four-year college degree?

Federal student aid is a tangled and much contested issue, mostly beyond the scope of our working group. But two federal provisions that limit subsidies for workforce students are too important to ignore.

A first essential reform, popular with Democrats and Republicans in Washington: “workforce Pell” would make means-tested Pell Grants, now typically limited to learners in credit-bearing courses at least a semester in length, 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.

Second, Congress should reconsider the blanket lifetime cap that bars Pell funding for learners who spend more than an accumulated six years in college, no matter when in their lives they were enrolled or what goals they were pursuing.

Our group understands the need to restrict Pell eligibility. Aimless students drifting from course to course with nothing to show for it should face a time limit on federal financial aid. But learners moving in and out of lifelong higher education to advance their careers need more flexible funding options.

Conclusion

Can community colleges step up to fill the role our group envisions, providing the essential hub and infrastructure of an agile, adaptable,

market-driven 21st-century workforce system? It’s a tall order for a modest institution, and change of the scope and scale we outline in this paper will not be easy.

What gives us hope: the innovation already taking off on community college campuses. The seeds have been planted; they’re starting to flower. And taken together, we believe, the reforms we propose can extend and accelerate this innovation.

The stakes could hardly be higher.

Can the nation keep its promise of equal opportunity for all? Today, that promise hinges more than ever on access to postsecondary education—including, for many, job-focused career and technical education. Few institutions are better positioned to provide what’s needed than the nation’s two-year community and technical colleges.

Will they succeed? Can they live up to their potential as the nation’s indispensable institution?

Our group is betting they can if only they set their sights high enough, clarifying and committing to the mission we as a nation need them to undertake.

Appendix I

METHODOLOGY

This report was a collective effort—a product shaped by many hands and many hours of discussion.

The 22 members of the working group were chosen to represent two complementary constituencies: community college educators on the front lines of innovation and education experts—researchers and policy thinkers—with broad national perspective.

What brought them together: a shared belief in the potential of community college workforce education and a commitment to far-reaching reform that would unlock that potential.

The group met seven times over the course of 10 months—intensive half-day sessions in Washington, DC.

Among the first steps we took together: establishing an agenda—a set of topics to be explored. Members of the group volunteered to frame these core issues and surface questions to be discussed. Meetings were structured around presentations—sometimes by members of the group, in other instances, by invited guests. (See Appendix III for a list of guest presenters.)

Presentations were followed by discussion—sometimes sharply contentious discussion. The goal at every meeting: to advance toward a set of recommendations—an agreed-upon reform agenda.

All meetings were recorded electronically and transcribed. About halfway through the group’s time together, members volunteered to outline recommendations to be included in the final report. Others around the table provided sources and data to inform the paper.

Opportunity America president Tamar Jacoby wrote the first draft of the report based on the meeting transcripts, 12 sets of presentation slides, the outlines prepared by members of the group and her own detailed meeting notes.

The better part of the last three half-day sessions was devoted to reviewing and revising iterative drafts.

Opportunity America was responsible for producing the final report.

Appendix II

WORKING GROUP MEMBERS

Kenneth Adams is dean of workforce and economic development at Bronx Community College. Before joining BCC, he was acting commissioner of the New York State Department of Taxation and Finance and, before that, president and CEO of Empire State Development and commissioner of the New York State Department of Economic Development.

Julian L. Alssid, chief marketplace engagement officer at Social Tech, Inc., recently stepped down as vice president of workforce development at the Community College of Rhode Island. Before joining CCRI, he was chief workforce strategist for College for America at Southern New Hampshire University.

Peter Riley Bahr is an associate professor at the Center for the Study of Higher and Postsecondary Education at the University of Michigan. He previously held a faculty appointment at Wayne State University and research appointments in the chancellor's office of the California Community Colleges and the California Department of Education.

Michael Bettersworth is vice chancellor and chief innovation officer at Texas State Technical College. Founder of SkillsEngine, a TSTC affiliate that works to align curricula with industry needs, he was previously the executive director of TSTC Forecasting.

Earl Buford is CEO of Partner4Work, the workforce development board for Allegheny County and Pittsburgh, Pennsylvania. He was previously president and CEO of the Milwaukee workforce development board, Employ Milwaukee, and executive director of the Wisconsin Regional Training Partnership/BIG STEP. In 2014, he served on Vice President Joe Biden's workforce development advisory taskforce.

Ryan Craig is cofounder and managing director of University Ventures, an investment firm focused on new approaches to postsecondary education. He previously led the education and training team at Warburg Pincus, where he was the founding director of Bridgepoint Education. He is the author of *A New U: Faster + Cheaper Alternatives to College* (2018), among other books.

Amy Ellen Duke-Benfield is a senior fellow at the National Skills Coalition, where her work focuses on state postsecondary policy, among other issues. She was previously a senior policy analyst at the Center for Law and Social Policy.

Aaron Fichtner is president of the New Jersey Council of County Colleges. He has served as commissioner, deputy commissioner and assistant commissioner for planning and analysis at the New Jersey Department of Labor and Workforce Development and as director of research and evaluation at the Heldrich Center for Workforce Development at Rutgers University.

Joseph Fuller is professor of management practice at the Harvard Business School, where he co-leads the Managing the Future of Work Initiative. He holds a distinguished fellowship at the Strada Institute on the Future of Work and a visiting fellowship at the American Enterprise Institute.

Sean Gallagher is executive director of the Center for the Future of Higher Education and Talent Strategy at Northeastern University, where he is also an executive professor of educational policy. He is the author of *The Future of University Credentials: New Developments at the Intersection of Higher Education and Hiring* (2016).

Kimberly Green is executive director of Advance CTE.

Tamar Jacoby is president of Opportunity America. A former journalist and author, she was a senior writer and justice editor at *Newsweek* and, before that, the deputy editor of the *New York Times* op-ed page. She is the author of *Someone Else's House: America's Unfinished Struggle for Integration* (1998).

Kemi Jona is assistant vice chancellor for digital innovation and enterprise learning at Northeastern University. Previously, he was research professor of learning sciences and founding director of the Office of STEM Education Partnerships at Northwestern University.

Anne Kress is president of Northern Virginia Community College. Before coming to NOVA, she was president of Monroe Community College and, before that, provost and vice president for academic affairs at Santa Fe Community College.

Russell McCaffery is dean of transportation programs at Broward College and CEO of McCaffery Global Corporation, a transportation security consulting firm. Before joining Broward, he was deputy federal security director at the Transportation Security Administration.

Ajita Menon is interim president and CEO of Calbright College. Prior to joining Calbright, she served as senior adviser to the chancellor of the California Community Colleges and, before that, as special assistant to the president for higher education policy in the Obama White House.

Steven Partridge is vice president for strategic partnerships and workforce innovation at Northern Virginia Community College. Before joining NOVA, he was president and CEO of Charlotte Works, the workforce development board for Charlotte and Mecklenburg County, North Carolina.

Bill Pink is president of Grand Rapids Community College, where he was previously vice president and dean for workforce development. Before taking the helm in Grand Rapids, he was vice president for academic affairs at Oklahoma State University–Oklahoma City.

Robert Schwartz is a senior research fellow at the Harvard Graduate School of Education. Coauthor of the seminal 2011 report, *Pathways to Prosperity: Meeting the Challenge of Preparing Young Americans for the 21st Century* and co-founder of the national Pathways to Prosperity Network, he is currently a principal in Harvard's cross-university Project on Workforce.

Matt Sigelman is CEO of Burning Glass Technologies, a leading labor market analytics firm that uses artificial intelligence to analyze and predict hiring trends. He served previously with McKinsey & Company and Capital One.

Hanna Skandera is a member of the Colorado state board for community colleges and occupational education. From 2011 to 2017, she served as the secretary of education for the state of New Mexico. Before that, she was deputy chief of staff and senior policy adviser for US Secretary of Education Margaret Spellings.

Monty Sullivan is president of the Louisiana Community and Technical College System. His previous postsecondary leadership positions include chancellor of Delgado Community College and vice chancellor for academic services and research for the Virginia Community College System.

Appendix III

GUEST PRESENTATIONS

Mildred Coyne

Senior vice president, workforce education and innovation
Broward College
Florida's framework for articulation of credit

Lori Dwyer

Assistant vice chancellor for workforce policy
Virginia Community College System
Virginia's FastForward program

Todd Estes

Director, career education programs and workforce partnerships
Virginia Community College System
Determining the value of industry certifications in Virginia

Lauren Eyster

Senior fellow
Urban Institute
Partnering with the public workforce system

Jennifer Haygood

Executive vice president
North Carolina Community Colleges
North Carolina's tiered FTE model

James Jacobs

Research affiliate
Community College Research Center
Redefining college credit

Frances Villagran-Glover

Vice president of student services
Northern Virginia Community College
Innovative thinking about student navigation and supports

Joshua Wyner

Executive director, College Excellence Program
Aspen Institute
Engaging with employers – the Aspen Workforce Playbook

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MEMBERS

Opportunity America Working Group on Community College Workforce Education

Kenneth Adams, dean of workforce and economic development, Bronx Community College

Julian L. Alssid, former vice president of workforce development, Community College of Rhode Island

Peter Riley Bahr, associate professor, Center for the Study of Higher and Postsecondary Education, University of Michigan

Michael Bettersworth, vice chancellor, Texas State Technical College

Earl Buford, CEO, Partner4Work

Ryan Craig, cofounder and managing director, University Ventures

Amy Ellen Duke-Benfield, senior fellow, National Skills Coalition

Aaron Fichtner, president, New Jersey Council of County Colleges

Joseph Fuller, professor of management practice, Harvard Business School

Sean Gallagher, executive professor of educational policy, Northeastern University

Kimberly Green, executive director, Advance CTE

Tamar Jacoby, president, Opportunity America

Kemi Jona, assistant vice chancellor for digital innovation and enterprise learning, Northeastern University

Anne Kress, president, Northern Virginia Community College

Russell McCaffery, dean of transportation programs, Broward College

Ajita Menon, interim president and CEO, Calbright College

Steven Partridge, vice president for strategic partnerships and workforce innovation, Northern Virginia Community College

Bill Pink, president, Grand Rapids Community College

Robert Schwartz, senior research fellow, Harvard Graduate School of Education

Matt Sigelman, CEO, Burning Glass Technologies

Hanna Skandera, member, Colorado state board for community colleges and occupational education

Monty Sullivan, president, Louisiana Community and Technical College System