AMERICAN ASSOCIATION OF COMMUNITY COLLEGES

LEAD ADVOCATE ADVANCE

Resilient by Design: The Future of America's Community Colleges

Prepared by

NCHEMS

About this Report

Resilient by Design is the product of the leadership of the Board of Directors of the American Association of Community Colleges (AACC). The report was commissioned to investigate and identify the external influences that impact the nation's community colleges, with research conducted by the National Center for Higher Education Management Systems (NCHEMS). NCHEMS is a nonprofit, nonpartisan postsecondary education consulting organization specializing in research, development, and technical assistance that helps states, systems, and institutions adopt forward-looking/future-oriented policies and practices.

The report represents key voices in higher education and outlines the need to reimagine planning and develop strategies for leaders to become the architects of the future of the nation's largest sector of higher education.

Message from the President and CEO

The message of this report is clear: We must design our colleges for resilience, not react to change. Our colleges are being called to navigate seismic demographic shifts, economic realignments, political divides, and the accelerating influence of technology. In these challenges lies an extraordinary opportunity: to reimagine how community colleges serve students and society, and to lead transformation across the higher education landscape.

This report highlights several truths:

- Leadership capacity must expand. Presidents and leaders are now expected to be fundraisers, policy navigators, cultural change agents, and data-informed strategists. Leadership can no longer be about a single individual—it must be a team sport. AACC is charged with helping you and your teams build these capacities through leadership academies, peer learning communities, and practical toolkits.
- The strength of our network is our greatest asset. No college faces its challenges alone, because within our membership there are leaders who have already innovated, stumbled, and succeeded. *Resilient by Design* urges AACC to serve as the connector and amplifier of this collective wisdom, developing playbooks and scaling proven practices in areas from guided pathways to artificial intelligence to workforce partnerships.
- Innovation in models and tools is urgent. Budgets must be strategic, business models must be reimagined, and ROI must be proven—not only to funders and policymakers, but to the students and communities we serve. Community colleges must claim their role as engines of economic vitality and social mobility, advancing both immediate workforce

needs and long-term wealth-building for students.

- Policy engagement must be deepened. Federal advocacy remains essential, but the daily realities of our institutions are shaped by state and regional policy. AACC will increasingly support members with state-level resources, legislative templates, and partnerships that equip you to advocate effectively in your unique contexts.
- Employer engagement must become transformational. Students deserve not just degrees, but careers. The report challenges us to create career-connected colleges where employers co-design curricula, offer meaningful work-based learning, and help ensure graduates are not just prepared for today's jobs but resilient for tomorrow's.

These are not abstract ideas—they are imperatives. They call for presidents, faculty, trustees, and communities to step boldly into the future, guided by a shared belief that community colleges are the indispensable architects of access, fairness, and resilience. At its core, this report explicates the case for more effective work in understanding the workforce and higher education ecosystem and designing innovative solutions to a complexity never confronted. This report arms presidents with an environmental context and framework to use within their organizations and communities for redesign and transformation.

Resilient by Design is both vision and toolkit. It is a charge to innovate, a reminder of our collective strength, and a guide for the practical steps our institutions can take. As your association, AACC will walk alongside you—not only to advocate in Washington, but to connect you with each other, to provide actionable resources, and to help design a future in which our colleges do more than endure—they lead.

We are resilient because we choose to be. We are resilient by design. And together, we will build the future our students, our communities, and our country need.

With vision and resolve,

DeRionne P. Pollard, Ph.D.
President & CEO
American Association of Community Colleges

Foreword

A uniquely American invention, community colleges have played a leading role in democratizing postsecondary education in the U.S. and supercharging our world-leading economy. They have done this by providing widespread geographic and comparatively affordable access points to all types of students. Their capacity to teach the knowledge, skills, and abilities that are relevant in the workplace gives their graduates a leg up in the labor market, helping to ensure the presence of a productive and engaged citizenry and fueling economic and social mobility for generations of Americans. When they effectively meet students' needs and keep their programs aligned with the demands of employers, they disrupt the intergenerational poverty cycle and sustain the American middle class, an outcome central to the country's fulfilling its compact with its citizens.

Yet, community colleges endure their share of criticism when they fall short of these lofty aspirations[1]. In some cases, such criticism is well-founded. Community college students successfully complete their programs at unacceptably low rates, by the admission of college leaders themselves. Although community colleges pride themselves on their ability to meet workforce needs, it is a continual challenge to calibrate programs to changing employer demands, and programs are not always well-aligned with the expectations of the workplace. Nor are they consistently calibrated with the needs and expectations of students. It has been common for colleges to design their programs and services to meet the needs of recent high school graduates, but this often comes at the detriment of services to adult students who have very different needs and expectations.

Even when their efforts leave room for improvement, it is fair to say that community colleges have been among the most responsive postsecondary institutions to changes in the students, employers, and communities they serve. That attribute will be put under

[1] "Reclaiming the American Dream: A Report from the 21st- Century Commission on the Future of Community Colleges"; Community College Research Center at Teachers College, Columbia University; the Aspen Institute College Excellence Program; and the National Student Clearinghouse Research Center, "Tracking Transfer: Community College Effectiveness in Broadening Bachelor's Degree Attainment."

increasing strain in the future, however, as both the pace and the magnitude of changes in their external environment create new and mounting pressure for the sector. They are also approaching that future at a moment in time when uncertainty reigns—uncertainty driven by upheaval at the federal level in education oversight and program management, by state action focused on higher education, and by a steady drumbeat of claims and counterclaims about higher education's value and its proper role in civil society.

As AACC looks ahead to these new challenges, the AACC board sought an external, deeply informed scan of the likely future environment within which colleges will need to operate. The National Center for Higher Education Management Systems (NCHEMS), a nonprofit policy organization with decades of experience in bringing evidence to bear on decision-making in postsecondary education at the state, system, and institutional levels, and with an extensive background in the strategic finance and organization of community colleges, has provided the following report. To produce this report, NCHEMS scoured related literature and news articles anticipating the challenges ahead, conducted an extensive analysis of relevant data, and interviewed a wide range of experts to capture their perspectives about the future conditions community colleges will face and judgments about how they might most effectively respond.

This report is a call to action for AACC and its colleges. The coming years will see unprecedented change on several dimensions critical to community colleges' success in continuing to power American economic prosperity and societal health. The nation and its citizens need community colleges to fulfill their missions and promise.

Executive Summary

Community colleges are a characteristically American invention, one that has a long, proud history of creating access points for individuals from all backgrounds to improve their circumstances and, in the process, uplift their communities. In many ways, they are the fuel that powers economic mobility. Even if their performance in doing so is at times uneven and imperfect, they are typically the most affordable and accessible option for individuals to obtain the skills and knowledge they need to be economically productive and to achieve a family-sustaining wage. Beyond their value in supporting local economies, community colleges are vital in weaving a strong social fabric in their spaces.

Yet community colleges face an uncertain and rapidly changing future that will require resilience from both colleges and their students. This report, prepared by the National Center for Higher Education Management Systems (NCHEMS) on behalf of the American Association of Community Colleges (AACC), details future changes that community colleges and AACC will need to prepare for and suggests how they might best position themselves for that changing future.

It cannot go without comment that community colleges—and all of higher education—are caught up in a particularly fraught political moment. Indeed, the very premise of this paper—anticipating and beginning to plan for a future 5 or 10 years from now—seems almost quaint when there are fresh controversies to address on an almost daily basis. The upheaval is certainly fueling a climate of uncertainty in which planning and leadership can seem nearly impossible to exercise. But it cannot be lost in partisanship that some of the political forces creating chaos for higher education have their roots—at least partially—in growing concerns about the value of a college degree relative to its cost and against perceptions of its relevance.

As much as leaders may be finding themselves consumed by uncertainty over what new threat to their institutions may be emerging from Washington, DC, or their state capitol, it would be wise to reflect on the reality that many of the issues community colleges must confront are actually the reflections of long-term trends. These trends capture changes in our nation across varied dimensions, including social, technological, economic, environmental, and political shifts, all of which will impact community colleges.

At the top of any list of the most salient challenges colleges must address is an unsettled demographic future that follows a dozen or more years of enrollment decline in the sector. Nationally, 2-year colleges have lost over 2 million student enrollments from the peak around 2010, driven in part by falling college-going rates among direct-from-high-school students—the first such sustained decline in history. With fewer high school graduates forecast in the years ahead, colleges will have to attract and adapt to new student audiences. Notably, the required adaptations will be transformational rather than superficial.

These enrollment challenges contribute to financial pressures. The federal stimulus has run its course, other state obligations such as health care will likely lead to less state-directed funding, and tuition revenue is unlikely to recover.

Meanwhile, demands from employers are intensifying. More of them are moving toward skills-based hiring at the same time that the pace at which technology is altering those skills accelerates. Colleges will be expected to keep up with the speed of industry.

Technology is not just changing the content of education; it will also impact how teaching and learning occur, require costly maintenance and upgrades to keep programs relevant, and change the nature of instructional and administrative work. The spread of artificial intelligence will introduce a new core skill for students to master while creating new professional development requirements for the college's workforce and reshaping college operations.

At the same time, colleges will need to adapt to better accommodate a changing student population with their own shifting expectations for their college experience. Driven especially by adult learners, student demand is increasingly moving toward credentials that are highly workforce-connected and can be completed more quickly and at a lower cost than traditional degrees. Students will also come from a wider array of cultural and linguistic backgrounds, and their success will partly depend on colleges' ability to address their needs related to childcare, mental health, food, disability services, housing, and more.

All of higher education will wrestle with some mix of these confounding pressures. Already this difficult brew has contributed to the closure of a growing number of institutions, mostly private, as well as high-profile mergers in both the public and private sectors. It is not too much of a stretch to suggest that some community colleges may also face existential threats in the years ahead.

It is likely that no college, no matter how healthy it currently may be, can continue to operate with business as usual; all will be pressured to adapt or risk becoming irrelevant or insolvent. Even further, these changes will take place at a faster pace than what colleges are used to, requiring rapid and ongoing adaptation. This reality may seem daunting, but all of these factors also present an opportunity for community colleges to recommit themselves to rapid responsiveness in alignment with the public's ever-changing needs. In doing so, they can respond in a way that doubles down on the traditional mission of community colleges to propel economic mobility and growth for individuals and communities, and to help lay the foundation for civic society.

Colleges that thrive in this emerging future will do so by unabashedly demonstrating their value and adapting curricula to meet workforce needs with speed and through more systematic involvement from employers. They will prioritize the needs of the emerging student populations and adjust their approaches accordingly. And they will adopt new ways of teaching and learning and evolve their business models to embed these strategies in regular operations and institutional culture.

In the first place, colleges that thrive will embrace a growing obligation to "show their receipts"—to demonstrate, with quantitative data, that they generate a positive return on investment for individual students and taxpayers and that they improve their communities. This will require new ways of measuring student success, including post-graduation outcomes. It will also necessitate a more symbiotic relationship with employers that leads to hands-on workplace learning embedded in programs, better ensuring that graduates are able to find employment in their fields. Colleges can also add short-term credentials that are fitted for an economy that requires regular reskilling or upskilling while simultaneously eliminating barriers between noncredit and credit programs. A failure to effectively pivot in the direction of showing value will leave colleges vulnerable to intensifying competition from less well-established education and training providers.

At the same time, it is abundantly clear that individuals will not be adequately prepared for an economy that is rapidly shifting, where automation is regularly reshaping the relationship between technology and humans, if colleges train students too narrowly for skills that can become obsolete within a handful of years. This calls for reforms that embed general education skills into discipline-specific coursework and for better alignment between general education coursework and industry-valued skills. Above all, colleges must ensure that their graduates are resilient in the face of these changes.

Colleges can also reexamine assumptions about how best to serve a changing student body. Course scheduling and delivery modes will need to fit as snugly as possible into students' busy lives, lives that are likely to become more complex as colleges serve more student parents, incumbent workers, and other adults. Moreover, colleges cannot function simply as transmitters of knowledge; they must also be trusted certifiers of learning, significantly expanding credit recognition strategies such as competency-based education and prior learning assessment, which not only honor the knowledge and skills students have obtained through past experiences but also speed them toward their educational goals.

This work must be supported by business models that ensure colleges are adapted to this set of challenging tasks. Leaders will need to strategically budget; build analytic capacity; reenvision how they deploy talent and other resources—including by reimagining how to optimize the role of faculty, whose expected duties are becoming unreasonably expansive; implement and sustain new teaching and learning models; and find ways to collaborate with other institutions to provide needed programs and services. They will need to turn to technological solutions judiciously and with a clear purpose. All of this will strain long-held practices and tax the prevailing organizational culture.

As AACC looks ahead to this rapidly changing world, it has an array of options for tailoring how it serves its members. In considering those adjustments, it should not forsake those functions that its members uniformly find valuable. It also must be mindful of the great variety of institutions it serves. But with the landscape around higher education generally—and community colleges in particular—becoming so uncertain, AACC can carefully examine what adaptations will ensure its value to its member institutions and, by extension, to community college students and their communities.

Ultimately, one word kept reemerging in the many conversations that contributed to this report: resilience. It was used in reference to both institutions and students. Community colleges in this uncertain climate and rapidly changing landscape must be resilient, perhaps more than they have ever needed to be, just as students need to be equipped with the tools to be resilient throughout a career that will have many twists and turns as the economy evolves ever more rapidly. In both cases, resilience means strength, flexibility, and resourcefulness that fuel the ability to be nimble in the face of uncertainty and continual change. It also suggests the need to act decisively and with foresight of emerging needs, as well as the ability to respond speedily as new threats and opportunities emerge. Resilience enables adaptations as needed while drawing upon a core set of fundamental strengths. And resilient colleges will be characteristically entrepreneurial, seeking to diversify revenue sources and anticipating emerging opportunities to better address the evolving needs of the communities they serve.

Introduction

In 2012, the American Association of Community Colleges' (AACC) 21st-Century Commission on the Future of Community Colleges published *Reclaiming the American Dream*.[2] That report, which set the stage for many of AACC's subsequent initiatives and projects, proclaimed that "the American Dream is imperiled." The report identified weaknesses in how community colleges were meeting Americans', and the nation's, educational needs. It argued that institutional transformation was necessary so colleges could continue to effectively play their important role in shoring up the United States' global competitiveness, meeting the nation's future workforce demands, and assuring pathways to the middle class and beyond. That report spurred considerable reform as colleges wrestled with new ways of organizing developmental education, implementing guided pathways designed to keep students on a direct route to completion, and better measuring their results, among other challenges.

These efforts notwithstanding, community colleges continue to face persistent and emerging challenges that demand redoubled and wholly new responses. They are confronting these challenges under a very different set of conditions than were present a dozen years ago, conditions that leave many community colleges vulnerable in historically unfamiliar ways. The most acute pressures arise from sweeping demographic shifts in our society, the accelerating pace of change in the talent development needs of employers, the

[2] "Reclaiming the American Dream: A Report from the 21st- Century Commission on the Future of Community Colleges."

introduction of new technologies that will influence the content colleges need to deliver and force adjustments in how they operate, and persistent financial constraints.

Political and social dynamics are also creating headwinds. In recent years, the national consensus that a college education is worth its cost has fractured, and the value of a college credential is increasingly being called into question by potential students, taxpayers, and the political leaders who pay for higher education[3]. Moreover, the divided and hyperpartisan tone of today's politics has made higher education a focal point of partisan political debate rather than an area for finding common ground. Just about 9 months into its term of office, the administration has turned the federal education oversight and program management functions upside down, raising questions about how students will respond if the delivery (or servicing) of financial aid falters and creating news that requires fresh planning efforts almost daily. Even though community colleges are not generally the focus of this attention, these heightened tensions and climate of uncertainty add to the challenges of effectively addressing community needs while further stressing the agility of college leaders to manage the day-to-day tasks of their colleges, avoid controversy, and carry out the mission. Even if the political moment we find ourselves in is temporary, it will have lasting effects, complicating community colleges' responses to the broader social and economic challenges ahead, which are formidable enough on their own.

It is still true that education is the best way for an individual to secure a middle-class life[4], although for too many, that opportunity is still far out of reach. Despite the proliferation of free college programs and efforts to curb tuition costs, many would-be students still struggle with securing sufficient financial support to meet their costs of attendance. Others encounter barriers that make college attendance and their life commitments incompatible. Even if they find a way to enroll, too many students continue to leave college without earning a degree and realizing the benefits that would come with that accomplishment. These benefits include stepping directly into a living-wage job or successfully transferring to a four-year institution that accepts all of their previously earned credits. More than ever, community colleges are expected to take responsibility for their role in producing these benefits in increasingly complicated contexts. Yet community colleges often lack direct control over such outcomes— they cannot dictate economic conditions or employer demand or the credit acceptance policies of four-year institutions on their own. Still, community colleges are increasingly called to find ways to ensure that their students are successful after they leave the institution.

It is also true that the education and training requirements of jobs in our economy are still rising[5]; there remains a mismatch between the skills needed in the workplace and the skills workers possess. Those skills are changing quickly with the growth of artificial intelligence (AI), automation, and other emerging technologies. A changing student

[3] Jones, "U.S. Confidence in Higher Education Now Closely Divided."
[4] "Economic Well-Being of U.S. Households in 2023," 6.
[5] Strohl, Gulish, and Morris, "The Future of Good Jobs: Projections through 2031."

body increasingly comprised of adults and incumbent workers is seeking a different, more career-connected, no-frills experience that includes short (often noncredit-bearing) courses, certificates, and degrees that deliver specific workplace-oriented skills and only the most-essential student services required for students to be successful (e.g., tutoring, childcare but not those associated with the "coming-of-age" experience in traditional higher education settings). Community colleges will need to nimbly respond as workforce needs change and do so at an even faster pace than they have in the past. They will need to prepare their students with up-to-date, marketable skills as well as instill the ability to continuously learn and adapt as technology evolves rapidly and occupational requirements shift. College faculty and staff will also need to continually refresh their own knowledge and competencies and adjust their work to incorporate new technologies, learning science, and delivery methods.

Furthermore, the specific conditions to which community colleges must respond are widely varied based on their respective settings. Some colleges serve regions bursting with innovative industries that will test colleges' capabilities to keep up with constantly changing occupations and related educational requirements. Some are in places home to a mix of legacy employers and new enterprises, which together make for more gradually shifting occupational demands. Still other colleges are in small communities where they serve as anchor institutions—important employers in their own right, as well as critical resources for talent development and economic stimulation—but that may be contending with a shrinking population. All will remain vital points of access to educational programs for individuals of all backgrounds, especially adults in need of upskilling or reskilling, as well as those seeking an affordable way to begin their postsecondary journey. In light of these varied needs, colleges will need to work harder to stay relevant. They will also need to measure their success in part based on their ability to lift their students' economic fortunes while also creating impact on a community-wide scale.

Over and over again throughout the conversations we hosted during this project, one word kept reemerging: resilience. It was referenced by virtually all of the key informants with whom we spoke, whether they were leaders of community colleges, representatives of major employers, higher education researchers and analysts, advocates, philanthropic funders, or industry experts. Consistently in their descriptions, resilience did not mean being impervious to change. Rather, it entailed strength, flexibility, and resourcefulness that fuel the ability to be nimble in the face of uncertainty and continual change. It also suggests the need to act decisively and with foresight of emerging needs, as well as the ability to respond speedily as new threats and opportunities emerge. A resilient community college will adapt as needed while drawing upon a core set of fundamental strengths. Resilient colleges will be characteristically entrepreneurial, seeking to diversify revenue sources and anticipating emerging opportunities to better address the evolving needs of the communities they serve. A college that cannot (or does not) adapt to rapidly changing conditions risks placing priorities on things other than what students and the surrounding community need; such a college may find its student enrollment and public support dwindling.

In short, not only will they themselves need to become increasingly resilient, community colleges will have to produce graduates capable of adapting to the ever-shifting labor market and societal demands of the future. These graduates will require certain identifiable skills for jobs in the current economy, but they will also need to have reservoirs of their own resilience to weather the many changes they will encounter in their lives and careers. The combination of demographic changes, rapidly changing employer expectations reflecting their economic realities, and the impact of AI and other technologies means that community colleges will have to become very different kinds of institutions. Some colleges will have to adapt to this new environment very quickly. Others will have a little more time. But none will be immune from the wave of change happening around them. AACC, too, will need to become a resilient organization that can meet its members' new and changing needs regardless of what the future holds.

> Over and over again throughout our conversations… one word kept reemerging: resilience.

This report, prepared by the National Center for Higher Education Management Systems (NCHEMS) on behalf of AACC, details the future changes that community colleges and AACC will need to prepare for and suggests how they might best position themselves for that changing future. This report was produced by reviewing related literature and news articles anticipating the challenges ahead, conducting an extensive analysis of relevant data, and interviewing and surveying a wide range of experts to capture their perspectives about the future conditions community colleges will face and judgments about how they might most effectively respond.

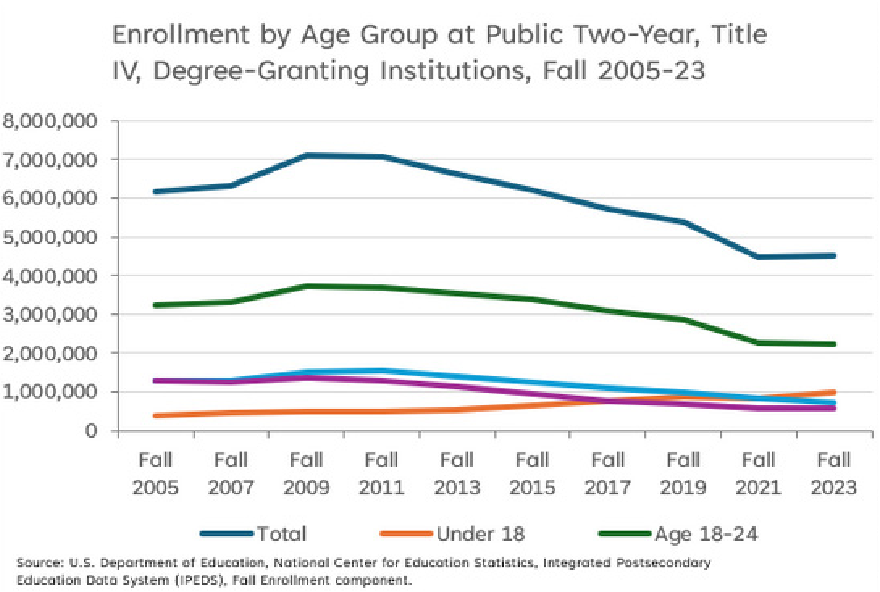
Social, technological, economic, environmental, and political changes will impact community colleges. At the same time, education itself is also continually evolving. These significant environmental changes will not allow community colleges to continue with business as usual; they will be pressured to adapt or risk becoming irrelevant or insolvent.

> Over and over again throughout our conversations…, one word kept reemerging: resilience.
>
> Jack Uldrich
> Author and Futurist

Forces Affecting Colleges

Enrollment decline is a major pressure that has already acutely impacted many institutions. Fall enrollment at public 2-year institutions peaked in the 2009-11 period at about 7.1 million students and declined to a low of 4.5 million in fall 2021. Post-pandemic recovery has been unremarkable, with a minimal increase across most age groups; the only exception has been the under-18—or dual enrollment—age group. This group has seen an impressive increase over time, almost doubling from 543,000 in fall 2013 to 981,000 in fall 2023. As of fall 2023, this age group accounts for 21.7% of the nation's total community college enrollment.

Although enrollment at community colleges will continue to be heavily influenced by the health of the economy, it will also be affected by the swift countercurrents from demographic decline among traditionally aged student populations that have long been predicted and which are starting to impact the entire higher education industry. For the first time in about three decades, high schools nationally have begun (or are about to begin) producing fewer graduates. The number of high school graduates in the United States is projected to peak in 2025, after which it will begin a long-term steady decline; the nation's class of 2041 will be nearly half a million students smaller than the current year's graduating class[6]. The bleak outlook is not uniform among all states: while some parts of the country have been wrestling with the impact of these changes for several years already, other parts are only just approaching the peak.

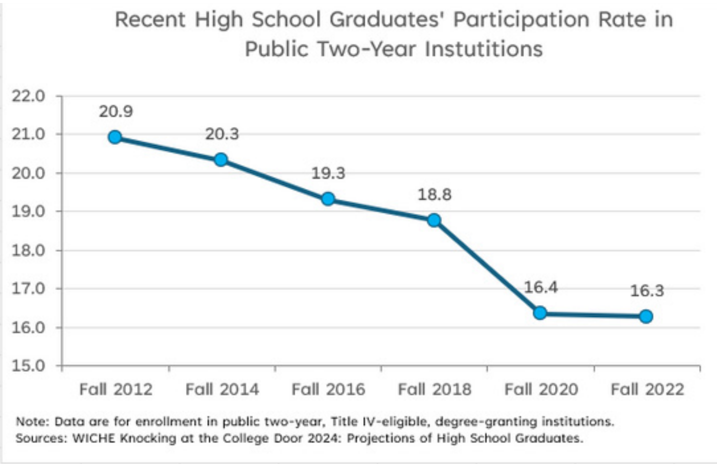


> Most of all, administrators and faculty members need to get real. Maybe the challenges … won't have as powerful an impact as we expect. But the underlying facts that drive them aren't imaginary.
>
> Goldie Blumenstyk
> Chronicle of Higher Education, 2024, "What Higher Ed Will Look Like in 10 Years"

[6] Lane, Falkenstern, and Bransberger, "Knocking at the College Door: Projections of High School Graduates."

At the same time, the racial/ethnic makeup of this group is expected to grow significantly more diverse; the number of Hispanic and multiracial students will increase while other racial/ethnic groups will shrink. And nearly everywhere, rural places are seeing their populations of young people decline more than other locales. Community colleges cannot simply ignore these trends, complacent in the notion that they serve different student audiences from four-year colleges and universities; those institutions, facing their own prospects of enrollment decline, may adjust to compete more directly for the students community colleges could historically count on.

Compounding the decrease in high school graduates is a decline in college-going rates. The percentage of high school graduates who enroll directly in college across all sectors has gradually eroded from 66% in 2012 to 62% in 2022, marking the first sustained reduction in college-going behaviors in decades[7].



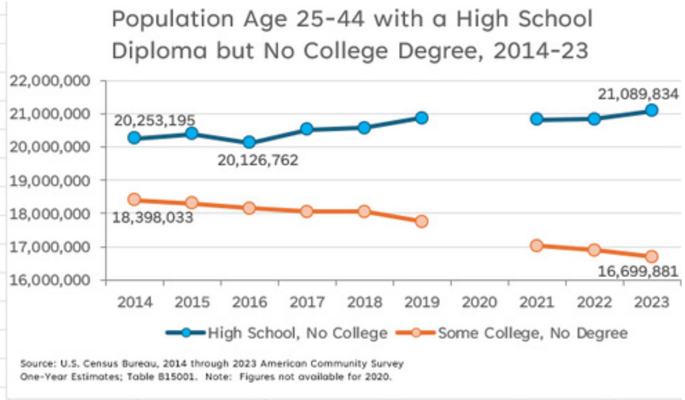
College-going rates specific to community colleges show even sharper declines. Participation rates of recent high school graduates in public 2-year institutions show a decrease of 4.6 points over the past 10 years from 20.9% to 16.3%. The number of high school graduates has increased slightly from 3.45 million to 3.75 million (+8.7%). In comparison, first-time undergraduates directly from high school have decreased from 722,000 to 611,000 (-15.4%), despite many of those students having earned community college credit during high school. As the direct-from-high-school population serves as the most predictable source of enrollment for most colleges, community colleges included, these changes will significantly impact how community colleges recruit and serve students. Colleges will have to either shrink or find new student audiences, most notably adults and more dual-enrollment students.

The number of U.S. adults who would benefit from additional education is substantial. The number of people age 25 to 44 who possess a high school diploma but no college credit has increased from a low of 20.1 million to 21.1 million. Those with some college experience but no degree has decreased over time, but remains large at 16.7 million.

The needs of these potential students are dissimilar to those of traditionally aged students in many important respects. Even though community colleges have typically served larger proportions of adult learners and incumbent workers than other higher education

[7] National Center for Education Statistics, U.S. Department of Education, Institute of Education Sciences., "Immediate College Enrollment Rate."

institutions, adjusting services to better identify and meet their needs will be challenging and not without costs. Indeed, few community colleges have managed to consistently attract a growing number of these students, tailor programs and services to their needs, ensure their success at scale, and pay for the relatively more expensive workforce-oriented programs that they are seeking.



For community colleges in the hardest-hit parts of the country, especially those which are relatively more dependent on student tuition dollars, the risk of going out of business is real.

Financial Pressures

Two-year institutions nationally collected 9.8% more revenue on a per-student basis in FY2023 than they did in FY2019. Yet this positive news for the sector comes with a major caveat: much of the additional money flowed through governmental sources, especially the federal stimulus support that followed the pandemic and, to a lesser degree, through free tuition dollars provided by states. Moreover, enrollment declines sharply depressed the denominator, allowing revenues to be spread over fewer students.

In reality, the enrollment declines over the past dozen or so years have contributed to precarious financial conditions in many community colleges as they look to a future with the potential of continued depressed demand. The federal stimulus has run its course, states may be unwilling to step up with offsetting funding increases, and tuition revenue is unlikely to recover. At the same time, a population that is aging beyond the traditional working years will demand greater public funding to support their health care, leaving fewer dollars to be spent on other state funding obligations and further stressing higher education budgets. If those same aging residents ramp up their demand for personal enrichment programming at community colleges, those colleges could face additional pressures to fulfill that often under-recognized part of their multi-faceted missions or risk alienating an important part of their local electorate.

Consequently, the funding pressures currently facing community colleges will not abate and, if anything, are more likely to grow. The changing volume and characteristics of community colleges' student bodies will threaten their ability to increase revenues derived from tuition and fees. With fewer students coming to community colleges directly from high school, the colleges will see an erosion in their most predictable source of enrollment demand. These students, as the most likely to enroll full-time, are also the most consistent sources of tuition revenue.

Full-time students directly from high school will be replaced by more dual-enrollment students—who typically pay less than full tuition and often bring in less state or local subsidy as well (sometimes the revenue they contribute may even amount to less than the costs of instructing them, depending on state policy)—and adults, who are likely to enroll part-time or in noncredit programs. If dually enrolled students provide less revenue per student than other students, they also present unique and compounding fiscal challenges to the degree that they disproportionately consume an institution's low-cost courses. This undermines the patterns of cross-subsidy within institutions that allow them to offer high-cost programs like nursing, welding, and other trades and technical subjects. And if these students subsequently enroll elsewhere, the college may net a financial loss in serving them.

Community colleges are also ramping up noncredit programming designed to be directly responsive to workforce needs and to meet the preferences of adult learners. Yet noncredit programming is an area plagued by gaps in available data, making it difficult for colleges to explain their contributions in meeting workforce needs to external audiences or to make data-informed decisions on key topics. For students, noncredit instruction is risky if their learning cannot be converted into credit to be used toward a degree, should they opt to continue their education[8]. In part for this reason, some colleges are offering short-term credit options that are explicitly linked to certificates or degrees. Noncredit instruction is also seldom recognized in state funding models, making such offerings solely reliant on revenues provided by students or employers.

Future students are also more likely to be first-generation or come from families with limited economic means[9]. For these students, affordability will be a primary factor. They will need more financial aid support and will be more affected by increases in tuition prices than students with access to more resources. For years, students have provided an increasing share of institutional revenues[10], however, they can no longer be expected to do so. These characteristics have helped make the argument for free community college, but even these initiatives are not a complete solution to assuring affordability. Most such programs do not consider the full cost of attendance; tuition and fees represent the

[8] Rutgers University Education and Employment Research Center, "Review of Recent Research on Noncredit Outcomes."
[9] Board of Governors of the Federal Reserve System, "The Fed - Distribution: Distribution of Household Wealth in the U.S. since 1989."
[10] "State Higher Education Finance: FY 2023."

smaller part of the costs experienced by students, and the other costs (particularly housing) continue to escalate. These programs may also be complicated for prospective students to navigate.

Similarly, funding from state and local government cannot be relied upon to provide increasing levels of support. Community colleges typically enjoy widespread support among legislators because of their close attention to workforce development programming. Still, this favored status has seldom translated into funding preferences in the face of competition from more publicly visible, politically powerful, and costlier universities.

Even more consequentially, all higher education will continue to be at a disadvantage in the competition for state funds that will inevitably come from demands for funding for health care. As states' populations age, the costs of providing health care will increase; pressure to fund these increasing costs will be hard to ignore. Meanwhile, any erosion of the federal government's commitment to pay its share of health care costs through Medicaid or other programs will exacerbate these pressures.

Apart from these dynamics, higher education is laboring to retain lawmakers' confidence in its central importance to the public interest. An increasing proportion of the population is questioning the value of getting a degree—perspectives driven by escalating costs to students and growing uncertainty over the link between job opportunities and degrees (at least in some fields). Erosion of the historic consensus about the value of education provides political cover for those who want to limit or cut higher education funding to balance the state budget, pay for other priorities (including tax cuts), or punish institutions for ideological reasons.

Local government funding, where it exists, will continue to be the most dependable source of community college funding. Local funds typically come from property taxes that the colleges themselves largely control, but their ability to raise taxes to support their operations faces rising constraints. In some cases, colleges must seek approval to raise tax rates through a vote of residents of their taxing district, an increasingly difficult process. In other cases, state governments limit the tax rates colleges can levy. Even when colleges are not restricted in these ways, public sentiment against tax increases makes colleges very leery of dipping into this well.

All of this means that few colleges will be able to rely on their ability to increase revenues from their most historically reliable sources to balance their budgets. New sources of enrollment can help bring in additional tuition dollars but may complicate traditional business models. As a result, colleges will have to more aggressively manage expenditures in the face of the rising costs of labor and other inputs. Further, they must cope with additional costs associated with meeting the needs of students facing food and housing insecurity, arriving on campus with weak preparation partially attributable to learning loss from the pandemic or without recent academic experience, or struggling with a variety of mental health issues.

> Deferred maintenance funding is often first to go during budget season, which leaves hard-working facilities teams with a tough challenge.
>
> Michael McShea Executive Vice President, CBRE Public Institutions & Education Solutions

Most community colleges are already heavily dependent on contingent faculty and other part-time employees. There are limits on how much farther they can go in relying on irregular faculty to manage expenditures without serious impact on the quality of instruction and the array of support services they can provide. Among the imaginative solutions deserving more consideration are those that involve multiple institutions delivering programs and services in collaboration. These solutions, which can yield enhanced levels of service and reduced costs, are conceptually sound, but many impediments to effective implementation exist.

Finally, a few of our interviewees also stressed the hidden cost of dealing with an ever increasing backlog of deferred maintenance. Community colleges, like the rest of higher education, have routinely underinvested in the renewal and replacement of their physical plants, consistently diverting funds to ensure that they could balance their operating budgets.

Workforce Needs

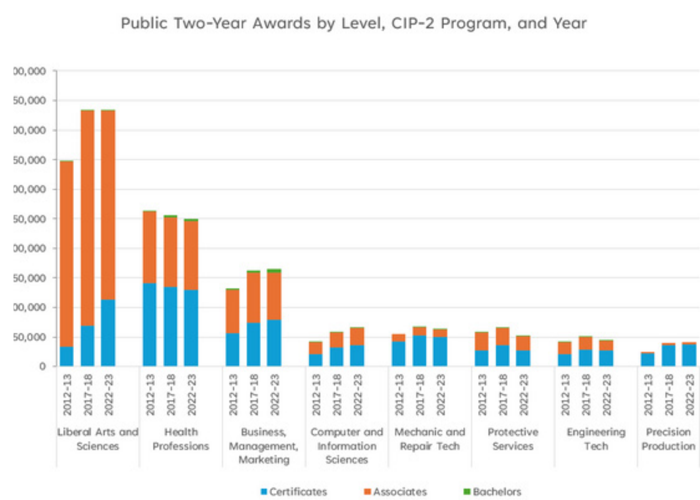
The weakening of the perceived value of higher education has further impacts beyond enrollment and funding. It is also leading to the erosion of the belief among students[11] and employers that earning a degree is an important milestone. More employers are moving toward skills-based hiring practices[12], which means accepting the premise that a degree is only one of several pathways to develop the requisite skills for many

[11] New America, "Varying Degrees 2024."
[12] "Transforming HR: The Rise of Skills-Based Hiring and Retention Strategies."

jobs. It also means that employers may no longer automatically assume that a degree is a reliable indicator of those skills. In addition to degrees, employers are looking to community colleges to produce employer-recognized workplace certifications as stand-alone credentials or as integral parts of degrees. Whatever the nature of the credential, it will be important that mastery of specific skills and acquisition of specific knowledge be assessed and documented. Focusing on shorter learning modules and documentation of competencies will become even more important as individuals truly become lifelong learners, seeking to learn new skills and acquire specific knowledge as their life and work circumstances make this learning necessary. In short, colleges will have to provide learning opportunities that serve to make students resilient.

There is evidence of a response to earlier trends in this kind of shift in the demand for talent, as community colleges have recorded a sharp increase in certificate awards relative to associate degrees. Although overall award production has increased by about 19% over the past 10 years, associate production has seen a slight decline over the past five years from 838,000 to 793,000 degrees. Most of the increase has been in certificate production. From 2012-13 to 2022-23, the proportion of certificates increased from 38.7% to 43.7%, while the proportion of associate degrees decreased to 55.3% from 60.7%. The top eight disciplines, displayed below, are the primary drivers of these changes.

Hiring is changing, and so is work itself. One interviewee for this project referred to our current era as "an industrial revolution moment." Technology, including but not limited to AI, is rapidly evolving, which means employers need new skills from their workforce. Some professions are changing, while others are disappearing or newly emerging.



[13] "Higher Ed Climate Action Plan."

A World Economic Forum survey found that "55% of [U.S.] employers highlight climate adaptation as a key trend expected to influence business models." Environmental impacts will significantly affect employers' operations, which will influence the ways that community colleges need to prepare students for new jobs. Environmental changes will also directly impact institutions, with the increasing frequency of hurricanes, fires, flooding, and other severe weather events. Even community colleges that are less likely to suffer an environmental disaster may feel fiscal impacts through increased insurance costs[13]. Despite the growing threat from such events and growing consciousness among employers of the changing climate's likely effects on their business, climate change was rarely mentioned in the survey or interviews conducted for this report. Yet, it contributes to the overall sense of uncertainty facing the community college sector and is becoming something to which college leaders will need to pay increasing attention.

> Over the past decade, community colleges have seen a clear move toward shorter, skills-based credentials—certificates now make up nearly 44% of all awards, while associate degrees have declined to just over 55%.

Student Needs and Expectations

As the public questions the value of degrees, student demand is also increasingly moving toward credentials that can be completed more quickly than traditional degrees[14]. This includes degrees that can be completed with fewer earned credits, year-round or self-paced programs, competency-based education options, prior learning assessment practices that award credit for appropriate life experience, and a proliferation of short-term certificate and noncredit training programs. These programs require a smaller investment of time and money, and students may also perceive them as more directly connected to their career goals.

The growth of online learning, so recently supercharged by the pandemic, means that students increasingly have access to a much wider array of offerings than what is available in person from their local community college. According to our interviewees, the students of the future will increasingly utilize this availability of educational sources by mixing

[14] National Student Clearinghouse Research Center, "Undergraduate Degree Earners Academic Year 2022-23."
[15] "The Hope Center 2023-2024 Student Basic Needs Survey Report."

credit with noncredit programming and consuming online content, often from multiple providers, for some portion of their learning. Their paths are also non-linear. College and high school are increasingly co-mingled via dual enrollment; many students enroll in both community college and university courses at the same time or transfer university courses back to community colleges, and mix employment with education through work-based learning such as internships, apprenticeships, and co-ops. A student's educational journey no longer proceeds directly from high school to a community college, then perhaps a university, culminating with a job. Instead, students compile learning from many sources simultaneously. Even further, the rapidly changing nature of work will require everyone to be lifelong learners; even those who possess bachelor's and graduate degrees will need additional education and upskilling from time to time throughout their careers.

As the student audience changes, so will their needs. Adult students, non-degree-seeking students, first-generation students, students from a wider array of cultural and linguistic backgrounds, students from low-income backgrounds, and single parents—among other groups—bring with them a broad array of needs and requirements that some community colleges may not be used to seeing in such large numbers.

More than ever, students arriving at the nation's community colleges, including "traditional" students and these new audiences, bring academic and non-academic needs that must be met as a prerequisite for learning and success. These start with basic human needs, such as food and housing. The Hope Center's Student Basic Needs Survey found that 73% of students (across all sectors, not just community colleges) experienced challenges with food, housing, mental health, transportation, internet and technology, or childcare in 2023-24 [15].

The 2021 Community College Survey of Student Engagement (CCSSE) found that 29% of community college students were food insecure and 14% were housing insecure[16]. Among those CCSSE respondents who reported they needed food assistance, 44% said they received food help from their college. Twenty-one percent of those who needed help obtaining or maintaining affordable housing said they received that help from their college. Colleges increasingly view meeting students' basic needs as part of their role in ensuring student success.

> Anything that gets in the way of our student is our responsibility.
>
> Mike Flores
> Chancellor, Alamo Colleges

Many community college leaders we interviewed specifically cited housing as a challenge for their students. Across the country, housing has become more expensive and difficult to obtain. The cost of housing combined with the growing cost of college leaves many students experiencing housing instability[17]. Some community college leaders are starting to view on-campus housing as a response to students' basic need for affordable shelter rather than as an amenity or a source of auxiliary revenue. At many institutions, public funding for student housing is limited or proscribed, which means that college leaders seeking to respond to this growing need often must find other ways to fund housing projects, such as philanthropy or partnerships with private entities. This is potentially risky, as housing projects also come with significant and sometimes underappreciated liabilities for the long-term financial position of the institution. Planning for occupancy rates decades into the future, however challenging that may be, is a vitally important consideration for college leaders today who are trying to respond to what they see as a real impediment to students' success.

Needs are equally acute in other areas. Students, especially those who have other unmet basic needs, are also struggling with mental health challenges[18]. Many are still catching up from the learning losses they experienced in middle or high school during the pandemic[19]. Increasing percentages of students require disability accommodations[20]. Moreover, the broader a college's audience is—and colleges will need to broaden their audiences—the more diverse its students' needs are. For example, serving more adults will mean more students needing childcare, and serving more new Americans will mean more students needing English-language instruction and translation services.

Intensifying Competition

Even as the hunt for students intensifies and as efforts to conform to new expectations for relevancy and convenience heat up, community colleges are facing a more competitive marketplace that will present additional complications. The increasing competition is coming from new types of educational providers outside of traditional institutions of higher education, including for-profit entities that offer their own certificates, microcredentials, and boot camps; corporations that are standing up training programs for their own employees; and an array of online sources that provide (often free) educational content. Community colleges also face increasing competition from large online colleges and universities such as Western Governor's University and Southern New Hampshire University, among

[16] "Mission Critical: The Role of Community Colleges in Meeting Students' Basic Needs."
[17] "Housing Insecurity and Homelessness Among College Students | Bipartisan Policy Center."
[18] Lipson et al., "Trends in College Student Mental Health and Help-Seeking by Race/Ethnicity."
[19] "NAEP Long-Term Trend Assessment Results: Reading and Mathematics."
[20] National Center for Education Statistics, "Number and Percentage Distribution of Degree-Granting Postsecondary Institutions with First-Year Undergraduates, by Control and Level of Institution and Percentage of Students with Disabilities: Selected Academic Years, 2010-11 through 2021-22."

others, that see the entire country as their service area. These institutions are able to take advantage of economies of scale to keep costs low, and many are better designed to meet adult students' needs than a typical community college. Designed to fill gaps in the educational marketplace for workforce-relevant programs delivered to adult students, some of these competitors are starting to successfully attract traditional aged students as well. Such inroads have led policymakers in some states to raise questions about how public institutions plan to respond to the competition or whether they should continue to support institutions if they cannot effectively shore up their own market shares.

The new entrants in the education and training market will force colleges to question longheld practices about how to attract and retain students, measure and certify learning, assure quality, and inspire fresh approaches to teaching and learning. Their growing presence, coupled with the formidable demographic and financial challenges, could also upend traditional methods of quality assurance, especially those based on inputs, in favor of new ones that measure outcomes. Among the outcomes that will gain most scrutiny will be those involving employment in occupations that pay a living wage. It is not impossible to imagine that these changes could undermine the monopoly on Title IV eligibility that traditional colleges and universities have enjoyed.

Supporting Communities

One great strength of community colleges is their local ties and their responsiveness to local needs. These needs, even beyond those of an evolving workforce, are changing and becoming more diverse. Communities are increasingly divided along political lines, and collaboration and dialogue across those divisions have become rarer, which makes community needs more difficult to diagnose and address than in the past.

The decisions that colleges make, even those that might previously have been considered apolitical, are increasingly viewed through a political lens. Colleges must adjust to wide policy swings that take place with court rulings and changing administrations that have opposite expectations on numerous issues. For example, the changing interpretation of Title IX over recent years has required

> “The longevity of our institutions will be wholly aligned to their ability to meet local demands and needs.
>
> Jee Hang Lee
>
> President and CEO, Association for Community College Trustees

multiple rounds of significant changes in institutional policy and practice. A meaningful portion of colleges' funding depends on their compliance with federal and state requirements, which are subject to more rapid change than in the past.

This environment puts community colleges in a difficult position and also presents a unique opportunity. While their decisions are scrutinized more than in the past, they also typically enjoy broader bipartisan and community support than most other types of public institutions, including universities. Their ability to listen and respond to what their communities need—which varies widely across states and between urban and rural areas—can be a source of strength regardless of the direction the political winds are blowing. Their mission to serve everyone also positions community colleges as places where people of different backgrounds can learn and work together and craft practical solutions to the workforce, technology, economic, and civic challenges of the future.

Advancing Technologies

Almost all interviewees mentioned artificial intelligence (AI) as either a threat or an opportunity (or both) for community colleges. While almost all informants identified AI as something that will have a sweeping impact on community colleges, its rapid recent expansion to become a major planning consideration for colleges means there is little deep understanding of how those impacts would be felt and even less on how community colleges needed to respond to those impacts [21][22].

AI is changing the workplace. According to the World Economic Forum's Future of Jobs Survey, "94% of firms in the United States expect AI and information processing technologies to transform their operations" in the five years from 2025 to 2030[23]. Our interviewees described the impact of AI as equal to or greater than the introduction of the internet.

This means that community colleges will need to prepare students with work-relevant AI skills. Early in the developmental stages of AI, colleges focused on creating separate

[21] Sebesta and Davis, "Supporting Instruction & Learning Through Artificial Intelligence: A Survey of Institutional Practices & Policies."
[22] Palmer, "How Will AI Influence Higher Ed in 2025?"

programs devoted to understanding the technology and its uses. Now, however, AI has evolved to the point where it has applications across all academic programs. For students, this means that the ability to appropriately deploy AI in discipline-specific ways is quickly becoming an essential skill. This enormous shift affords community colleges the opportunity to reach a much larger number of students: incumbent workers of all education levels will eventually need to learn basic AI skills, often in a short period of time. The challenge for community colleges will be to respond to this potential demand quickly enough to carry out their core mission of providing relevant instruction, as well as to establish a competitive advantage in the marketplace.

Even beyond AI-specific skills, the fast-moving and sweeping changes mean that colleges will need to prepare students for future workplaces that are different from the ones of today in unknown ways; students will need to enter the workplace with durable skills that allow them to adapt as their tasks change within a particular job, and as entire occupations disappear and new ones are created. As one survey response put it, "AI would never replace a person; empathy and real human interaction are out of its reach. Let's use humans to do humane work."

AI also has implications for pedagogy and learning. Institutional cultures will need to evolve from viewing AI primarily as an issue of academic integrity to one in which AI is a tool to be used beneficially in all academic programs. This will mean a change in focus from writing documents to effectively engineering AI prompts and improving AI-written documents. It will also mean a shift from teaching students computer coding to teaching them how to prompt AI to produce the code. Overall, instruction will need to put less emphasis on knowing specific content and more on teaching students how to find and validate content; the emphasis will move from the product to the process. As a subject, AI will infiltrate all corners of the collegiate curriculum, from operating machinery in advanced manufacturing to considering the ethical dimensions of AI's use in the humanities and social sciences to assisting with diagnoses in clinical settings.

AI literacy is becoming a core skill across every program. Community colleges have the chance to lead in workforce AI training.

[23] "Future of Jobs Report 2025."

AI will also impose changes on operations; for example:

- Providing help in addressing unconscious bias in matriculation processes.
- Providing personalized assistance in career and academic planning and tutoring.
- Easing the burdens on faculty of assessing learning and competencies and awarding credit for prior learning assessment.
- Delivering tailored learning experiences that adapt in real-time.
- Determining course equivalencies to aid transfer of credit between colleges.
- Providing assessment of learning that can support competency-based education delivery modalities.
- Improving the accuracy and speed of degree auditing.
- Synthesizing information that leads to an improved ability to target advising.
- Improving the effectiveness and efficiency of a variety of routine administrative functions.

The potential impacts of AI on community colleges are so great that they call into question the ability of traditional college organizational structures to cope effectively with the introduction of this rapidly expanding technology into the full array of institutional functions. Successful incorporation of AI-driven tools and AI-enhanced processes and procedures may require creating a senior staff position responsible for ensuring that AI is appropriately incorporated into all facets of institutional operations, both academic and administrative. This integration will also require massive professional development for all institutional employees, including faculty and staff.

As with other significant paradigm shifts, colleges will need to pay attention to the ethical dimensions of AI-related changes. First, they will need to rethink what academic integrity means in this new environment and ensure that AI is applied responsibly by both students and employees. They will also need to attend to the question of who is learning AI skills to avoid contributing to another form of the digital divide in which advantaged students acquire the necessary skills while others do not, further compounding their economic disadvantages. This same concern applies not just to students but to entire colleges. Colleges with fewer resources may fall behind in adopting this important technology, which could negatively impact their enrollments, the quality of their services, and the relevance of their curriculum.

While getting far less attention than AI, virtual and augmented reality technologies also have the potential to affect the operations of community colleges. Financial pressures will force colleges to seek new ways of providing students with hands-on experiences. Virtual reality tools have proven effective as alternatives to clinical experiences in some fields[24]. Similarly, augmented reality can provide students with experiences that would be otherwise impractical, unaffordable, or unsafe. Colleges will have little choice but to seek to utilize these tools. The challenge will be how to implement their use in cost-effective ways.

In addition to AI, numerous other technological advances will impact community colleges, either by affecting the material to be taught, the tools available to better serve students or the ways that institutions go about their business. As technology has advanced, new program opportunities have emerged in fields such as cybersecurity, advanced manufacturing, robotics, and biotech. It is important to note that demand for these programs can vary widely by region, making it essential for community college leaders to use evidence-based decision-making to align offerings with local workforce needs and student enrollment preferences. The technologies used in industry are changing rapidly—not only AI but quantum computing, robotics, and other advanced manufacturing technologies. If colleges are to prepare students to work in this evolving landscape, they will have to ensure that these students have access to, and experience with, the technologies they'll encounter when they enter the workforce. The fiscal situation facing most colleges will mean that they cannot acquire all the specialized equipment that effective training will require; they will have to make other arrangements for making up-todate equipment available to students. There are multiple options available: securing donations from corporate partners, arranging for organized instruction to occur at the work site using employers' equipment, and placing students in internships where they can use employers' equipment in a real-world setting. All these arrangements put a premium on building strong relationships with the employers that will be hiring program graduates.

New technologies will also affect how administrative functions are performed. Particularly important (other than applications of AI) will be advances in abilities to access data crucial to planning and accountability. This includes labor market information systems that give institutions much more accurate information about workforce needs in their service areas. Additionally, it will include longitudinal student data systems that will allow more sophisticated enrollment analyses and provide information on students' employment and earnings outcomes after leaving the institution.

Institutions also will have to adapt to the growing importance of Learning and Employment Records (LERs), which are record systems that provide a portfolio of a student's learning and work experience and are under the control of the student rather than the institution[25]. These records reflect the reality that students gain knowledge and skills in multiple settings and allow students to fully document what they know and can do. Such record systems are an addition to the records normally kept (or updated) by institutions and will become increasingly common and important to students as they become lifelong learners.

[24] Tene et al., "Virtual Reality and Augmented Reality in Medical Education."
[25] U.S. Chamber of Commerce Foundation, "Introducing the LER Hub – The Next Phase in the Development of Learning and Employment Records."

While colleges will be under pressure to adopt new technology, they will need to be judicious. New technology is expensive; it typically includes substantial up-front implementation costs in both time and money, as well as annual subscription costs. These subscription costs often increase over time, sometimes at a greater rate than college revenues, which strains budgets. The Governmental Accounting Standards Board (GASB), whose accounting standards are used by most public colleges, recognized this burden by requiring institutions to report future technology subscription cost obligations as liabilities in their financial statements starting in 2022 [26]. It can be difficult for colleges to identify which technological innovations will be important and worth these substantial investments and which are prone to fade into memory quickly. In response, community colleges will need to curate their technology portfolios to balance a need to stay relevant and competitive with thoughtful financial planning and careful discernment of substance from hype. It will be crucial that they put the student experience first, being both responsive to students' demand for services and intentional about how changes to platforms and software can most effectively satisfy that demand, and only then acquire the necessary technology. Too often, this sequence is reversed, and colleges get caught chasing the newest technological innovations, forcing students to adapt and ultimately yielding a costly but underutilized infrastructure that negatively affects the college culture and obstructs student success.

[26] Governmental Accounting Standards Board, "Summary - Statement

Measuring Success and Demonstrating Value

> There's a growing societal shift in attitudes towards the value of higher education, with increasing skepticism about the return on investment for college degrees. Community colleges must learn how to message their value proposition.

Community colleges, in collaboration with policymakers and accreditors, must determine how they should measure their success. Typical success metrics are based on a linear pathway that is more relevant for residential four-year institutions and are widely known to distort the view of performance for the 2-year sector. Even so, expectations from students and political leaders are different than they once were, and success metrics have not caught up. This reality will require innovative ways to measure success and new and better data and metrics that are published and accessible. It will also require community colleges to embrace a firmer commitment to the post-community college outcomes of the students they serve. It will be increasingly untenable for community colleges to evade some meaningful responsibility for students' post-college outcomes, including—depending on student goals—immediate employment, university transfer, and post-baccalaureate success. Even though community colleges cannot guarantee that students will enter a strong economy when they graduate, they will have an obligation to make effective use of workforce outcome metrics in adjusting curricula, pedagogy, and student supports, at a minimum. Similarly, they will increasingly owe it to their students to ensure that their programs, including transferoriented programs, lead directly to living-wage employment or successful transfer to a baccalaureate program.

Colleges will need to prove their worth. There is no longer a baseline assumption that colleges are worth public investment and students' time and money. Community colleges need to be able to demonstrate, with quantitative data, that they generate a positive return on investment for both individual students and taxpayers and that they improve their communities.

The traditional quantitative measures of community college success are similar to those of 4-year university success: retention and graduation rates, plus transfer rates for some colleges, usually as measured by IPEDS. These metrics track meaningful student outcomes, but they are incomplete. They exclude many students from their cohorts, students that community colleges serve in abundance (e.g., part-time enrollees, those who do not begin in a fall term), which means those measures simply cannot consider the full range of "successful" outcomes for a large number of the students who seek out a community college. Moreover, as such measures' horizon halts at graduation, they stop short of incorporating the meaningful outcomes related to postgraduate employment and wages or successful transfer and baccalaureate completion. These metrics are therefore insufficient for prospective students, political leaders, and taxpayers who increasingly expect to see such measures to determine whether their community college is a good investment. They also fail to provide college leaders with data for benchmarking purposes or for strategic decision-making.

> We need to be less bashful about how important we are to the success and the livelihood of our communities.
> No more playing timid ... we need to be unafraid and direct and let folks know just how valuable we are.
>
> Survey Respondent

Yet, while these deficiencies are widely known, there is often equal reluctance to embrace the use of new alternative metrics that capture a fuller picture of institutional impact and performance. There are good reasons for college leaders to be cautious with new metrics, especially in times of scarcity when any misunderstanding can lead to questions about spending. Much like the adage that, in a court proceeding, a wise lawyer never asks a question to which they do not already know the answer, college leaders can be excused if they are not enthusiastic about new metrics; they are uncertain about what new information they will yield. New metrics may also impose additional, as-yet-unknown burdens related to the data collection process, as well as how much delicate communicating may be necessary to help data users interpret results appropriately. Moreover, college leaders are right to argue that conditions beyond their control can substantially influence performance measures that incorporate employment outcomes and other similar approaches. For instance, the rate at which graduates are placed in their field will depend on broader economic conditions. And, there is a non-zero risk of unintended consequences associated with new performance measures, as we have sometimes seen in the introduction and application of performance funding models in recent years[27].

With so many questioning the value of a college education, there is a need for new ways of measuring student success, specific to community colleges, that consider the great variety of student goals and starting points. AACC has long recognized this need, so it created the Voluntary Framework for Accountability (VFA) as part of its 21st-Century Center initiatives. (The VFA has since been replaced by a partnership with the National Student Clearinghouse's Postsecondary Data Partnership, which has the same goal: "to gain a fuller picture of student progress and outcomes."[28]) Another recent example is the Federal Reserve Bank of Richmond's "Survey of Community College Outcomes."[29] Compared to the traditional metrics in IPEDS, the Richmond Fed's cohort is based on a much larger group of students that includes transfer-in students, students who start in spring semesters, and both full- and part-time students. It also counts a wider variety of outcomes as success—not just graduation but also transfer, continuous enrollment while making progress, or completion of an industry-recognized credential. The survey also collects data on dual-enrollment and noncredit students, which are seldom incorporated into measures of community college outcomes. Even more than in the past, participating in these types of surveys and publishing their results will be imperative for community colleges.

There is also an urgent need to measure students' workforce outcomes. The majority of community college students enroll to advance their career opportunities, make more money, and gain work-relevant skills, but too few students report that their education helped them achieve these goals[30]. There is demand for a program-by-program accounting of how a community college education impacts students' careers and wages. Unfortunately, most current data are not entirely up to the task, and many data sources are difficult for colleges to access.

Unemployment insurance (UI) records have the potential to provide indicators of students' and graduates' post-college employment and wages. A state labor department typically maintains these data and, although access to these data by colleges has been uneven, they are increasingly accessible at some level in some states. However, there are important gaps in the coverage of UI data that can affect the results. For example, they are usually not available for former students who find employment in another state. For community colleges that are located close to a state's border, this is a significant issue. Also, most states' UI wage records do not include occupation information. Still, these data are typically a powerful first choice for gathering employment outcomes and tend to be the most readily available for public institutions. The federal College Scorecard data also have limitations; they only include students who received federal aid and graduated. It provides no information about variation around median wages, non-federal loan debt, or other worthwhile measures. This makes interpreting the results sometimes challenging, especially for community colleges.

[27] Ortagus et al., "Performance-Based Funding in American Higher Education."
[28] "Postsecondary Data Partnership (PDP) - National Student Clearinghouse."
[29] "The 2024 Survey of Community College Outcomes."
[30] "The Value of Community Colleges."

Proprietary data sources also exist but they too have weaknesses in addition to being costly to access.

Additionally, most workforce outcome metrics are based only on graduates. Some students come to community colleges to make progress in their careers but without seeking a degree, and their workforce outcomes also matter. So do the outcomes of students who intend to graduate but do not; the impact of partially completing a program should also be examined.

As a sector, the nation's community colleges must figure out how to measure whether students achieve their goals; institutions may have to play a bigger role in tracking their students after leaving their institutions to get real answers to these important questions. It is critical to recognize that these data are not simply useful for accountability purposes; their value can be much greater if community colleges figure out how to put them to use in reviewing and revising their programs, driving conversations with faculty members about pedagogy and student supports, and advancing conversations with local employers about their talent development needs.

Community colleges' concerns about the degree to which such data on expanded student outcomes reflect not just their own impact on student learning, but also conditions in the labor market, are valid. However, those concerns do not justify failure to gather and use data that could be vitally important. Colleges will need to become adept at communicating not just about how the data portray their effectiveness but also how they are shaping their offerings to boost the relevance of their programs and how the data are helping them to better understand how they are helping their students reach their very diverse educational goals.

Community-Scale Impacts

Impacts will need to be community-wide. In their communications materials, community colleges often present themselves through individual students' stories. These stories can be helpful in illustrating the deep impacts that community colleges have on their students. However, community colleges need to create these significant impacts more consistently for more students. Given the forces shaping higher education, the demands on community colleges, and the demographic shifts roiling our industry, only success at scale is truly worthy of the term. Community colleges need ways to demonstrate that student success is the rule, not the exception, and that they are having a meaningful impact on their communities at large.

Prioritizing community-level impacts will require a data-informed approach. It will involve identifying which people are being left out of higher education, determining which jobs are going unfilled, noticing which groups of people are struggling to find or retain employment, and using labor market data to track how the community's workforce needs are changing. Equipped with such information, colleges will need to respond dynamically to serve each pocket of need. This impact will also require partnering with regional and state economic development agencies in building the workforce needed to attract new businesses and industries. They will need to see themselves as part of an ecosystem where they collaborate to identify and solve community challenges with businesses, local governments, other postsecondary institutions, K-12 systems, and nonprofit organizations.

A pilot for such an approach is underway, organized and led by Achieving the Dream[31]. It supplements traditional measures of student success with community-based indicators related to economic development, community impact, and long-term societal gains. This shift in focus is not only a smart repositioning; it also offers a much more comprehensive reflection of the mission of community colleges and the value they bring to the places they serve.

Meeting Employer Needs and Expectations

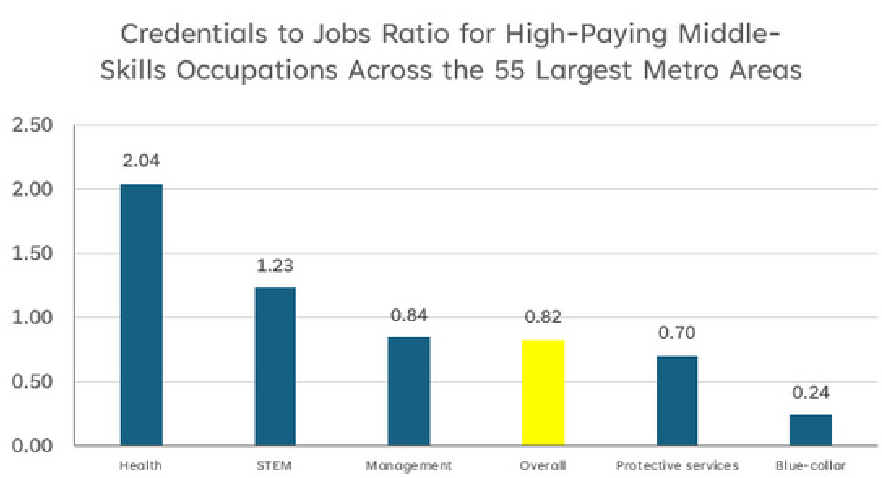
Responsiveness at speed will be essential. Community colleges have always prided themselves on their focus on meeting local needs, but as the pace of change accelerates for the skills that are in demand, it is becoming more difficult for them to respond quickly enough to satisfy stakeholders. Funding challenges plus multiple levels of approvals from local curriculum committees, system and state agencies, accreditors, and the federal government mean that new credit-bearing, financial-aid-eligible programs can be slow to launch and even slower to produce graduates. These challenges are quite real, yet it is nevertheless clear that curricula will have to change at the pace of industry. This means that colleges will need to work (sometimes with their states) to speed up funding and curriculum approval processes. Such efforts will likely include finding ways to leverage noncredit programs at a greater volume. If so, it will be doubly important to ensure that states recognize the workforce-oriented noncredit component of the community college mission as an element that should be incorporated into the state's funding model.

[31] Hudson, "Community Colleges Test New Model Linking Student Success to Community Impact."

It may be inevitable that this accelerated pace will stress the current workforce at our nation’s community colleges, who are accustomed to responding to more slowly evolving demands. While this experience provides a foundation for navigating the emerging environment, colleges will need to both invest in the continuous professional development of their staff and faculty and regularly use specialized outside expertise such as “practice faculty.” It also means that institutions will need to exercise more strategic budgeting—a core principle of which is to set aside some funding each year for strategic investment, even if doing so requires some selective pruning of units’ historic budget allocations—to ensure that sufficient resources are available to become more speedily adaptable to shifting expectations.

> Provide faculty and staff with the tools and resources to effectively navigate the most significant change management initiative in the history of organizations.
>
> Survey Respondent

Not only are the demands changing, but they are also large. Across the nation’s 55 largest Metropolitan Statistical Areas, there is an overall shortage of credential production across middle-skill occupations, including those requiring a postsecondary certificate or associate degree. Credential production exceeds need in health and STEM occupations but falls short in management and protective services and particularly short in blue-collar occupations.



Source: Georgetown Univeresity Center on Education and the Workforce analysis of data from the U.S. Department of Labor, Employment Projections, 2023; the U.S. Census Bureau, American Community Survey (ACS), 2010-22; and the U.S. Department of Education, Integrated Postsecondary Education Data System (IPEDS), 2019-21

Students will need to learn both short-term and long-term work-relevant skills. Workforce development through education is at the core of what community colleges are expected to do, and they must do it well. To build the nation's workforce for an uncertain future, community colleges must equip students with skills that enable them to meet immediate workforce needs and ensure their long-term resilience as skills and jobs evolve. In other words, colleges must prepare students to step into a good job immediately upon graduation and equip them with foundational skills such as teamwork, communication, problem-solving, and entrepreneurial thinking that will serve them well even as technology shifts and they change careers.

This will entail a redefinition of what "workforce readiness" means to include both equally important skill sets. One of our interviewees invoked the saying, "The soft skills of the past are the hard skills of our future." It serves no one's interest for colleges to educate students to function effectively in economic roles that will momentarily disappear without supporting their resilience in navigating such change. This means that colleges will be wise to examine how they are integrating relevant work skills throughout the curriculum, not just in courses and programs that are aimed at specific occupations. Likewise, it will be crucial to ensure that durable skills that foster resilience are not swept away by the obligation to train students enrolled in more vocationally oriented programs in specific technologies currently in vogue.

The marketplace value of community college credits and awards is not assured. If employers grow less likely to put their faith in the value of community college degrees, credentials, and credits, then they will have diminishing value. With increasing competition from other educational providers and the move toward skills-based hiring, the shape of the postsecondary education and training market will not be as friendly to traditional higher education as it has been in the past. Against this backdrop, the nation's community colleges must ensure that their credits and awards continue to have meaningful value in the workplace, or there will be no reason for them to exist.

> My greatest fear is the one thing that we do have, which is credit, becomes a commodity that's offered through Amazon, or Netflix, or LinkedIn, in a way that employers find credible.
>
> Michael Baston
> Chancellor, Cuyahoga Community College

Community colleges must clearly articulate how credits translate into work-relevant skills.

A more explicit link between credits and skills also opens the possibility of translating in the opposite direction—from skills into credits. Although community colleges will need to make a strong argument for the workplace value of their offerings, they will not be able to credibly argue that their credits and degrees are the only way to gain workforce skills. They will have to greatly expand their prior learning assessment (PLA) programs and make it easy to convert noncredit experiences into credit. This focus on skills may call for more competency-based education, especially in cases where colleges struggle to translate traditional course outcomes into employer-recognized skills and external credentials into credit. Competencies, rather than credits, simplify those translation processes.

> The word 'apprenticeship' has been co-opted by everyone. So, why would you go to a community college for an apprenticeship? Extend that to 'internships,' 'certificates,' 'certifications,' and so forth. As skills become more important to employers, the credentials granted by community colleges may mean less.
>
> Survey Respondent

These changes may require new business models. Traditional approaches have focused on producing student credit hours that lead to degrees. With a greater emphasis on noncredit and competency-based programs, the credit hour may no longer be the best unit to attach to tuition prices. Alternatives might include subscription pricing or a fixed price for shortterm credentials. At the very least, state funding models need to be changed to provide funding for work-related noncredit instructional programs.

Meeting Student Needs and Expectations

Students will expect a positive return on their investment of time and money. The evident concern among the public that colleges demonstrate a clear return on investment is not going away, and no longer is it taken for granted that a college degree (of any kind) will be sufficient on its own to guarantee a rewarding career and a fulfilling life. The attainment agenda that has animated higher education priorities for a couple of decades is shifting

[32] Lumina Foundation, "Goal 2040."

accordingly, as is clear in Lumina Foundation's new 2040 goal that more adults should have a credential of value leading to economic prosperity [32].

As this expectation takes hold, colleges have an obligation to improve the rates at which students reach their educational and career goals. This implies that students who seek degrees and credentials are able to obtain them and that students leave the institution (with or without a degree) only after they have acquired knowledge and skills that lead to a leg up in the labor market.

It also means colleges can no longer evade questions and concerns about what happens after students leave or graduate by simply asserting that such outcomes are beyond their control. Institutions must partner with employers to ensure all students secure jobs that pay reasonable wages after graduation. "Reasonable" may have various definitions, but it probably means a wage higher than the student would earn without going to college[33] [34], and a higher-than-poverty-level wage while the student works in their field of study.

Community colleges will also have to help students find jobs proactively. Career services offices do not exist at every community college, and their role has typically been limited to coaching and guidance intended to support students' job searches. The students of the future will need colleges to offer something much more akin to guaranteed placement in a job. Colleges can respond by creating closer partnerships with employers and opportunities for students to build relationships with those employers long before graduation. They can also ensure that all faculty and staff have a clear awareness of what constitutes a livable wage level in their particular area so that that understanding permeates their efforts to advise students, develop curricula, and forge pathways into careers.

At the same time, it is worth acknowledging that there are socially important professions for which expected wages are unusually low, even with postsecondary education. These include, for example, entry-level healthcare work and early childhood education. Those wages are not within the control of colleges, but they are an important factor for both students and institutions to consider

> I really think that there's going to be this increasingly ruthless focus on ROI, both by individuals, but also by public bodies.
>
> Michael Carney
> President, U.S. Chamber of Commerce Foundation

[33] Postsecondary Value Commission.
[34] Lumina Foundation, "Credentials of Value." The Lumina Foundation defines a "credential of value" as one that leads to 15% more than the national median wage for a high school graduate.
[35] Ma, Pender, and Oster, "Trends in College Pricing and Student Aid 2024."
[36] Gallup and Lumina Foundation, "Cost of College: The Price Tag of Higher Education and Its Effect on Enrollment."

when investing in these programs. Even in these cases, it is possible for colleges to collaborate with employers and legislatures on finding solutions to low wages in these fields; some colleges are already doing this. Colleges must also create clear pathways for students in those disciplines that lead all the way to a living wage. Often, this means transferring and earning a bachelor's degree, and when that is the case, the pathways the community colleges must create should take the need to successfully transfer credits into account.

Part of ensuring a return on investment for students is making sure that programs are affordable. Over time, published tuition and fee rates have risen faster than inflation[35]. This pattern contributes to the belief among many that college is just too expensive[36], in spite of the fact that net prices after grant aid have fallen in recent years. One contributing factor to improved affordability is the free college programs that local governments, some states, and individual community colleges have implemented in recent years[37]. The simple yet powerful message of "free" cuts through much of the confusion over the actual price that students are expected to pay to attend college, even though as primarily last dollar funds applicable only to tuition costs, free college programs do not help students from low-income backgrounds the most, nor do they help eligible students pay for the costs of living that other grant programs generally cover.

Time is also a component of affordability; for many students, the length of time they need to complete a degree can be far too long, especially in an economy in which jobs are relatively plentiful[38]. Consequently, community colleges will need to focus on speeding up the time it takes students to earn a credential of value. Strategies include discontinuing prerequisite developmental courses in favor of co-requisite supports attached to creditbearing college-level classes, more frequent program/course start dates, shorter terms, year-round offerings, and broader adoption of prior learning assessment policies that award credit for learning acquired through employment, outside training, and other life experiences.

Institutions will need to find ways to track labor market and return-on-investment outcomes as well as make them transparent to students. We have highlighted a number of considerations related to results and data in a separate "Measuring Community College Success" section of this report.

The student audience will change, and so will their needs. The traditional college structure was not built to meet the needs of adult students, who, with changing demographics, will be an increasingly large part of the college student population. Many of these individuals have some college credits[39], and will likely need something different than their previous college experience in order to return and successfully complete a credential.

[37] Ma, Pender, and Oster, "Trends in College Pricing and Student Aid 2024."
[38] Unemployment 4.5 Percent for High School Grads with No College in January 2025."
[39] "Some College, No Credential Student Outcomes: 2024 Report for the Nation and the States."
[40] Marcus, "More People with Bachelor's Degrees Go Back to School to Learn Skilled Trades."
[41] "Future of Jobs Report 2025."

Another primary audience for community colleges will be incumbent workers looking for additional skills. Job skills are rapidly changing with technology, and a single—even sustained—exposure to formal postsecondary education immediately after high school will not be sufficient education to equip individuals for the twists and turns their career path will take. Periodic additional education and training will be necessary. This is already evident in the growing number of individuals with bachelor's and graduate degrees who find it necessary to return to college after an absence following their initial award[40], and many of them will look to community colleges for that purpose. The World Economic Forum estimates that 61% of U.S. workers will require some upskilling or reskilling between 2025 and 2030, whether in their current role or a new career[41]. Community colleges are well-positioned to provide workers with needed new skills on an on-demand basis, but these students will require a different set of processes and services than direct-from-high-school students who may seek a full degree via a traditional college experience.

The recent boom in dual enrollment also changes the community college audience. A large number of high school students now earn college credits. Community colleges can capitalize on that growth and ensure that dual-credit students have pathways through college that optimize the credits they earn while in high school. Many dual-enrollment students continue their education at institutions other than the one in which they enroll while in high school, which has two implications for community colleges. First, it is critical that articulation arrangements be in place to guarantee that credits earned through dual enrollment are accepted at the subsequent institution and do, as advertised, reduce the time and money it takes for students to earn a degree. Second, community colleges have the opportunity to address a portion of their enrollment challenges by converting a greater percentage of dual-enrollment students into credential-seeking students after high school. To do this, colleges will need to ensure that dual enrollment students see a clear path to their desired degree and career through the community college and understand the cost savings associated with that path compared to direct enrollment in a university. Additionally, dual-enrollment must be widely available to all types of students; its power and utility diminish when it is concentrated among students who are already college-bound. Indeed, rather than using it to shorten their path to a degree, it provides college-bound students with signals that they merit admission to the most selective institutions.

Institutional practices will need to be more responsive to student needs. In an environment where students have many different educational options and institutions are eager to retain or boost enrollment, colleges will have to be more responsive to this changing and increasingly wide-ranging set of student needs than in the past. Those colleges that insist on conducting business as usual may find themselves with fewer and fewer students. This responsiveness will mean many things. Institutions will need to rethink course schedules and modalities to meet student preferences. In particular, if colleges are to serve more adult learners effectively, they will need to offer programs at times and in formats that dovetail with these students' work and life commitments. This means more offerings at night and on weekends, using hybrid and other formats that require on-campus attendance less frequently.

> [In the past,] the institution had all the power, and the student, if they wanted to get the piece of paper, had to comply. Not today.
>
> Michael Carney
> President, U.S. Chamber of Commerce Foundation

Colleges will also need to ensure that their curricula—especially in general education—are relevant to student goals, especially those of adult learners. They will need to offer more short-term credentials and courses in compressed formats (less than 16-week semesters) or other forms that ensure students can fulfill their objectives of acquiring workplace skills in the shortest time possible. And they will need to have excellent pedagogy and customer service, including flexing their operating hours to accommodate students' work and life schedules.

> Organizational structures need to be revised. The colleges are structured in the most traditional way possible and have not changed… The consumer has changed drastically and how they consume has also changed; Blockbuster, Motorola, and taxis are there as constant reminders of it.
>
> Survey Respondent

Supporting students' basic needs will continue to be important. To prove their value, community colleges will have to ensure that students are meeting their goals. This means colleges will have to address all of the barriers, even those outside the traditional college mission, that prevent students from reaching those goals. It is not likely, however, that colleges will have the resources and expertise to do this work on their own, especially as student needs are varied and likely to expand further as colleges broaden their audience. Community colleges will need to work closely with community partners to orchestrate a tightly-knit system of student support.

Recognizing that they are only one educational provider in an ecosystem, colleges will need to both compete with other providers and allow their transcripts to reflect learning students have acquired elsewhere. The trend of Learning and Employment Records (LERs) exemplifies this centering of student needs. This alternative form of a transcript centers on the student rather than the institution or the degree and incorporates learning and skills from all sources.

Transfer must be straightforward, penalty-free, and guaranteed. For those students seeking to complete a bachelor's degree before entering the workforce, community colleges will need to collaborate with universities to guarantee a smooth and easy transfer experience. Transfer has long been plagued by barriers in the form of administrative hurdles, lost credits, credits not counting toward degree requirements, and requirements to re-take similar coursework. All of these problems wind up costing students additional andunnecessary time and money. According to the National Student Clearinghouse's Research Center, just 15.3% of students who began at a community college in Fall 2016 earned a bachelor's degree within 6 years[42].

Too often, conversations about fixing transfer devolve into discipline-specific turf wars over the curriculum between community colleges and their university partners. As painful as the process can be, community colleges must pursue articulation arrangements that guarantee the transferability of entire certificates, degrees, and blocks of coursework among multiple institutions rather than course-specific articulations negotiated on a bilateral basis. Because this work requires cooperation and compromise from both community colleges and universities, it may require state- or system-level leaders to mandate change and insist on accountability from all institutions. Community colleges may need to request state-level support.

In part to address these challenges directly, there is a growing movement among community colleges seeking to expand their mission to offer baccalaureate degrees. This can be an effective option, but states, localities, and institutions should take care that the underlying priorities of the institutions retain a focus on workforce programs, that they continue to contain instructional costs per student, and that there is a compelling and transparent basis of evidence for the baccalaureate programs they do offer.

Much of the work of ensuring that students achieve their career or transfer goals and receive a positive return on their investment is a continuation of the movement toward "guided pathways." AACC has been a leader in advocating for guided pathways and helping colleges implement them. Colleges using the guided pathways model plan with students' end goals in mind and create structures that keep students on track to reach those goals.

The strategy has been shown to improve student retention, graduation, and transfer outcomes, yet work remains to be done[43]. Despite evidence that guided pathways are effective, many colleges and systems have still not implemented them at scale; doing so is a time-consuming effort that requires significant reform to colleges' ways of doing business. Further, the pathways typically cannot end at graduation or transfer because most students' end goals are career related.

> I am still dismayed by how few institutions in our sector have truly embraced institutional transformation to improve student success and outcomes based on research. More work is still needed at implementing guided pathways at scale.
>
> Survey Respondent

Data indicate that the baccalaureate degree remains a significant milestone for upward mobility. Ideally, then, faculty and advisers across program areas will be cognizant of the livable wage in the college service area and will assume responsibility for ensuring that every student has a map for the pathway to well-paying jobs and careers related to their chosen program of study, leading to whatever level of educational attainment may be required to meet that goal. Colleges will need to encourage students to follow the map from beginning to end and will work with students to monitor their progress.

Teaching and Learning

Institutions will need to offer more short-term credentials and remove artificial barriers between credit and noncredit programs. If community colleges are to meet the needs of the adult students they will serve in greater proportions than they currently do, they can expand efforts to offer content in smaller segments, including short-term stackable certificates that lead to economic benefits for students. Demand will likely escalate for noncredit programs and courses that teach specific skills adult learners will be seeking, together with expectations that the learning acquired in such programs will be recognized for credit and be considered as legitimate components of certificate and degree programs.

[42] "Tracking Transfer | National Student Clearinghouse Research Center."
[43] Jenkins et al., More Essential than Ever.

> As we move forward, community colleges, and education in general, are going to have to figure out how to fight the things that make the system rigid.
>
> Jeff Strohl,
> Director, Georgetown University Center on Education and the Workforce

The net effect of these converging realities is that noncredit instruction must be more fully integrated into the academic programming of the colleges, and students who enroll only in noncredit programs deserve to be treated more like their degree-seeking counterparts. This can be accomplished in numerous ways—through departmental arrangements, prior learning assessment, or competency-based education. These students could be continuing learners at the institution and should be supported by student services that help them maximize the value of their experience with the institution. As noted elsewhere in this report, noncredit activities should be recognized in state funding models.

Colleges will need to embrace prior learning assessment and competency-based education. Meeting the needs of the student bodies of the future will also require colleges to recognize that students will come to their institutions with knowledge and skills acquired in other settings—the military, the workplace, or other postsecondary education institutions. These students will strongly resist requirements to take (and pay for) classes that cover material they already know; colleges will have to substantially increase their investments in prior learning assessment (PLA). A promising practice would be to assess all incoming students as part of the process of appropriately advising and placing them in courses. Giving students credit for material they can demonstrate to have mastered must become common practice. These students will also expect that credits they have earned elsewhere will transfer to their new institutions fully and without the necessity of repeating work. Articulation with other institutions in the region will become increasingly important.

The market conditions previously discussed will also push community colleges to become more committed to using competency-based education (CBE) approaches to education. These approaches have the benefit of making explicit the learning outcomes to be produced by the course or program. CBE methods typically require faculty to become more transparent about learning objectives out of necessity related to assessing those competencies for credit. Students will come to better understand the knowledge and skills they will be acquiring and how those link up with other courses in their programs and with their ultimate career goals as faculty become more transparent about these learning objectives. This also entails the creation (or selection) of assessments that can rigorously confirm that students have acquired the intended knowledge and skills. CBE students will be able to present themselves to employers armed with evidence about the specific knowledge and skills they have acquired. This may also remove barriers to transfer—certification of learning is more persuasive than evidence that a course without specific measured outcomes has been completed. CBE is a proven educational strategy that has only slowly gained adherents—largely because it represents a significant departure from business as usual.

> “Students have not always climbed the career ladders that colleges think they’re providing. There needs to be advising, auto-enrollment, clear pathways with information about what jobs and wages are available… so that students are actively encouraged and expected to continue advancing through the ladder to the point where they have achieved their goals and can earn family-sustaining wages.
>
> Kay McClenney, Advisor to the President & CEO, AACC; Former Founding Executive Director, CCCSE

Institutions and employers will need to integrate the classroom and the workplace. The speed of change in the workplace will also have profound impacts on how community colleges deliver academic programs if they are to remain relevant and competitive. Colleges can respond by making engagement with employers much more systematic and routine. Employers' input in the specification of learning outcomes associated with different programs is more critical as their practices and the technologies they rely on shift. It will also be important to engage them in exercises designed to ensure that programs deliver those outcomes.

All of this leads to a new, more symbiotic relationship between employers and community colleges than has been common—or even necessary—in the past. Employers will increasingly become co-producers of the education outcomes they prize. For students to see how classes connect to their career goals and to apply the skills they are learning (including durable people skills such as teamwork, communicating in ways appropriate to the context, and defining and resolving problems), they will need to have hands-on experiences with real-world problems. These experiences are difficult to simulate in the classroom; thoughtfully structured workplace-based learning activities can more deeply connect students with the realities they will face in their careers. This learning can be fostered in numerous ways—through internships, externships, apprenticeships, cooperative education, or post-graduate residency-like experiences. This means employers will have to participate more heavily in curriculum development and make more commitments to offering work-based learning and job opportunities to students. They may also have to contribute instructors.

Instructional quality must be high. Several interviewees noted that community colleges have not demonstrated sufficient urgency around using learning science to improve their pedagogical practices. That urgency will need to increase in light of all the pressures around enrollment, competition, and student and employer expectations that community colleges are expected to face.

Using a science-based approach to student learning will allow institutions to improve their teaching of skills in ways that lead to improved learning for students and greater employer satisfaction. This is especially relevant to online coursework. The pandemic spurred institutions to greatly expand their online course offerings. Although they continue to prove popular with students, the overnight switch to online instruction meant that many courses simply became poor approximations of a preexisting in-person version. Even though many classes have returned to face-to-face formats, the redesign of any online variants to incorporate the best pedagogy continues to be a work in progress. As a result, many colleges find that students are less successful in online courses compared to their face-to-face versions. With no end in sight to the demand for online and hybrid options, institutions will need to systematically study and improve these courses to ensure student learning and success. The difficulties in adapting online and technology-mediated courses to actually improve student learning remains a barrier to addressing other challenges facing community colleges, including being able to partner with other colleges in the state, as well as employers, community-based organizations, and others to deliver courses and programs in efficient and effective ways.

Colleges will also need to pay particular attention to the quality of noncredit programs and credentials, which have the advantage of being fast to launch but are not subject to external quality assurance mechanisms. If noncredit programming and credentials, which sometimes cost students more than credit programs due to their ineligibility for federal financial aid, do not uniformly improve students' workforce outcomes, they undermine the community college mission.

This also applies to credit-bearing certificates. There has been significant momentum toward "stackable credentials" in recent years, but often, students do not stack the credentials in the way institutions imagine. Stackability remains important—certificates should apply to a larger degree rather than becoming educational dead-ends—but they should also be demonstrably valuable on their own.

Institutions will have to collaborate. Institutions will have to collaborate with employers to ensure that students are prepared for the workforce and to ensure that students get jobs. They will have to collaborate with community partners to ensure students' non-academic needs are met. Institutions will also have to collaborate with one another. In an age of rising

expectations but constrained budgets, community colleges need to find efficiencies where they can, and forging partnerships with other colleges and universities is one way to do just that. Instead of starting costly new academic programs, colleges may be able to meet student and workforce demand for those programs by importing them from other institutions or by launching them jointly with partners. Small colleges that lack economies of scale may be able to reduce expenses by sharing administrative functions. If community colleges do not make these kinds of changes on their own, they may be forced to do so by system or state leaders.

> I personally think that we're going to see some level of deconstruction of general education. I see it happening more and more now, where students coming out of high school are questioning, 'Why do I need to take a history class? Where's the relevance of this psychology class to what I want to do with my career?
>
> Vicki Karolewics
> President, Wallace State Community College

General education will need to work differently. General education skills, such as critical thinking, problem-solving, teamwork, and communication, are the skills employers prize most highly and the skills that will serve students well over time as technology and technical knowledge requirements shift, ensuring that they are resilient in the face of change to the day-to-day duties of their constantly shifting jobs. At the same time, students increasingly view general education coursework as irrelevant[44], and employers find that graduates are not fully prepared for the workforce[45]. The pressure on institutions to shorten students' time-to-degree can also lead to a reduction in general education requirements.

One solution to this conundrum is to embed general education skills into program-specific and career-technical coursework. Communication offers a useful example. To the degree that the ability to communicate in writing and orally is an intended learning outcome of a standalone liberal arts course, it is not consistently translating as career-relevant communication skills to either students or employers. However, communication skills as outcomes in a discipline-specific course setting enable students to see the relevance of those skills and practice them in applied, practical contexts that more directly prepare them for the workplace.

[44] McMurtrie, "Repairing Gen Ed."
[45] Finley, "The Career-Ready Graduate."

At the same time, transfer-oriented general education coursework will also need to intentionally teach workforce readiness skills and be directly connected to students' workforce goals. Faculty in the liberal arts and sciences, like those in career-technical education, will need to align their course outcomes with industry-valued skills and make more explicit connections between their curriculum and students' career goals.

> [We will need a] greater emphasis on authentic, project-based assessments and performance evaluations tied to real-world skills.
>
> Survey Respondent

The faculty role will have to adapt. Much of the burden of responding to the waves of change that will buffet community colleges will fall on faculty. They will need to continually reassess their practices to ensure that career-relevant skills are embedded throughout their courses and programs and in ways evident to students and employers. They will have to learn how to incorporate AI in their approach to teaching appropriately. Many may have to change their approaches to teaching—focusing more on teaching short courses that impart specific skills and less on traditional courses leading to a degree. Both the times they teach and the modalities they use will have to be modified to meet the needs of the new students. And, they will have to attend more explicitly to the documentation of mastery of knowledge and skills. Even if they don't formally adopt a competency-based model, they will have to adjust their teaching to emulate that model—being explicit about learning objectives and evaluating learning against those objectives.

It may be that not all the responsive changes required can be fully accommodated by colleges' full-time faculty alone. Because of the demand that students have "real-world" learning experiences, colleges would benefit from the involvement of more "practice faculty"—faculty who work full-time in industry and can bring the realities of the workplace directly to their teaching.

In addition, some faculty may find themselves spending less time in a traditional classroom. To the extent that the challenges of achieving scale in small places will require colleges to collaborate, there may be new models for the faculty role. These new roles could be aimed less at being the instructor-of-record for a course section. Instead, faculty members might be provided additional training and professional development to leverage their abilities to be critical shepherds for students enrolled in a course taught by a colleague, even one who may be employed at a partner institution. Such arrangements may be the best and most financially feasible way to ensure that students—especially place-bound students—have access to high-quality programs they will need for their future without sacrificing the effective supports they will need to progress to completion.

In fact, many of the changes outlined in this report suggest ways that the faculty role may be unpacked to meet the needs of students and communities better. This unpacking may prove worthwhile because the role of faculty members has radically expanded in recent years. At the risk of oversimplifying to make a point, a full-time faculty member at a community college used to spend their time primarily developing the content for a course, keeping updated on (relatively less chaotic) changes in the learning objectives required for competency in their subject area, standing at the front of the classroom delivering lectures to students (who were substantially more homogenous in their backgrounds, even at a community college, than they are now and likely to be in the future), and assessing the students' work on assignments to determine how well they had mastered the content. Faculty were also involved in many additional important activities: they served as academic advisors, counseled students facing life challenges, and served on institutional committees, among other duties.

Today, the role of a faculty member must still encompass all of these things. In addition, they must be an expert at skills assessment; a facile designer of online tools to support fully online, hybrid, or in-person courses that they teach; a connector to employers to facilitate student placements and to understand and adapt course content to shifting needs; a collaborator with other faculty, sometimes in other institutions, to ensure program delivery and to boost section sizes. Even some of the traditional roles have become substantially more complicated. For example, academic advising, tutoring, overseeing the work of an army of contingent colleagues (including an increasing number of high school teachers) and responding to student complaints about them. Faculty also provide students with the support they need to be effectively engaged in both physical and virtual classrooms.

It is important to acknowledge that students routinely point to individual faculty members as playing a—often the—critical role in spurring their success. And there are, of course, examples of heroic faculty members who seem to be exceptional at everything they do. However, the expansion of the faculty role makes it increasingly less reasonable to expect them to be able to complete all of these duties well at the same time. Even if it were possible for colleges to achieve the best possible outcomes by entrusting so many difficult tasks to full-time faculty, their business models would be stretched thin by such practices. It is time for colleges to apply lessons from the age-old concept of specialization of labor—using faculty members for the tasks they are best and most suited to carry out and working with other specifically trained resources to round out the experiences of students in order to best equip them for success.

As colleges look to adapt the business models that underlie all of the critical work—and the rapid changes—they need to do to achieve their mission, it will continue to be the case that human resources will consume the large bulk of institutional budgets. As they consider new ways of engaging with existing and prospective students in credit-bearing programs, noncredit programs, dual-enrollment students, employers, communities, and all of the other audiences this report has identified, college leaders will need to reckon with how best to deploy human resources in ways that might be both more efficient and yield better outcomes. Faculty will always be at the center of such considerations; they cannot be anything other than the essential core of colleges' labor forces. But how their work is supported in ways that put the students' needs, and those of the community, at the center may need to be updated.

The Business Model

Many of the implications discussed above—new approaches to methods for measuring institutional performance, new ways of meeting changing student needs, new forms of educational delivery and alterations to academic schedules, new partnerships, and, above all, new ways of deploying human resources—all hint at changes in the traditional business models that community colleges have relied on for years. How this plays out for individual institutions will depend on their specific context and circumstances. Differences in governance—whether the college is locally controlled or locally funded or exists as part of a larger system—will also matter. But the resources that colleges will require and the way those resources are deployed will need to be reviewed and reassessed continually with respect to the audiences that the institution is serving and in what partnership arrangements help to support the college's mission.

Among the considerations community colleges will need to take include the array of programs and services they offer. As is obvious from the discussion so far, colleges will need to bring new programs to market where there is clear demand, as well as to modify existing programs to ensure their continued relevance. Colleges will also need to adapt services for students, employers, and the community to match their respective needs. Less obvious but equally critical is that colleges will need to make difficult decisions about what programs and services to discontinue. A shrinking number of colleges will be able to remain comprehensive in nature. Instead, colleges will need to become clearer and more disciplined about what it is that they do. In so doing, colleges can take a hard look at programs that are not generating positive outcomes, especially in terms of living-wage employment. They can also streamline student services, using data and evidence to ensure that all their investments are paying off and at scale. It will soon be time, if not already, for colleges to discard those activities that generate expenses without producing student outcomes at a requisite level. That said, it is important to recognize that these hard choices are not always binary—either retain or close a program. Innovative colleges will help ensure that students remain able to access programs and services they themselves can no longer offer through partnerships with other institutions, community-based organizations, employers, or other entities. Finally, colleges can explore ways that they may be able to diversify their revenue sources wherever possible and, as they do so, consider how those sources may be tapped to help support workforce-relevant and student success programming and related strategic investments.

Conclusion

Demographic and enrollment changes are creating financial challenges for community colleges that show no signs of abating. The forces shaping communities and their colleges currently and in the near and intermediate future—not only demographic but employer expectations and the advent of powerful new technologies—will force colleges to deviate from current and even some time-tested practices if they are to continue effectively fulfilling their missions. Although community colleges have always been about advancing economic mobility, the requirements of the future will pile on pressure for them to demonstrate exactly how and to what extent they are successful at doing so.

As a result of these converging trends, community colleges will have no choice but to become very different kinds of institutions. For some, immediate change will be imperative. Others will have a little more time to adjust to new conditions. But none will escape the need to implement new strategies that reinforce their resiliency. Instability and constant change define the landscape, and to meet the moment, community colleges will have to find ways to strengthen their own resilience while fostering it in the students and communities they serve.

Yet, even in the face of these headwinds, the work of community colleges is more important than ever. The vision expressed in *Reclaiming the American Dream* a little more than a dozen years ago is still unfinished; more to the point, its mandates have grown in urgency as students, employers, and communities face rapid change and rising complexity in an uncertain future. No other institution may be as well positioned as community colleges are to help students and communities develop the resilience needed to manage in this tumultuous environment, and there is little doubt that community colleges can only fulfill this role if they, too, are resilient and capable of adapting to uncertainty and change.

Appendix: Methods

Our primary source of information for this report was a series of 48 interviews with 57 individuals. Interviews were conducted with community college leaders, business leaders from multiple industries that employ community college graduates, researchers, journalists, and representatives from community-college-related organizations; see Table 1 for a complete list. Questions were asked about future trends impacting community colleges and areas of concern/opportunity for the future designed to elicit information on all aspects of the STEEEP framework. The interviews started with a protocol of questions, but apart from the occasional redirection to subjects of critical importance, allowing each conversation to follow its own unique direction depending on the key issues each interviewee was most eager to discuss and best informed to provide opinions. In nearly all conversations, two NCHEMS staff members jointly conducted the interview for the purposes of careful listening and notetaking. Trends were tracked across multiple conversations and organized them into themes, which form the backbone of this report.

At the beginning of our work, a virtual focus group was conducted involving current and immediate past members of the AACC executive committee on Nov. 5, 2024. The purpose of this conversation was to gather initial insights into the purpose of the study and to begin identifying key themes that the committee members viewed as important for the work. On Nov. 14-15, 2024, NCHEMS and project team leaders met in person with the executive committee and full board during their respective meetings in Arlington, Virginia to further explore these topics. Together, these conversations informed the early framing of the project, brought important voices into the discussion, and identified potential interviewees.

We also conducted a written survey. Researchers drafted the original survey instrument and obtained input and feedback on it prior to its administration from members of the AACC Executive Committee and Kay McClenney, senior advisor to the AACC President/CEO. (The final version of the survey is provided below.) These same individuals also assisted in the identification of key informants in community college leadership who would receive the survey. Those invited to respond represented all current and immediate past board members, staff members, and representatives of AACC's commissions and affiliated councils. The survey received 55 responses; the number of respondents by role is included in Table 2. NCHEMS managed the survey via Qualtrics and received all responses directly. The survey was in the field for 4 weeks in December 2024, well in advance of any of the interviews, as part of the survey's intent was to identify potential interviewees and refine questions to be asked of those interviewees.

For context and background, we also drew upon a variety of existing research, reporting, white papers, and other relevant documents. Those sources are included as footnotes throughout this report as well as in the references section at the end for those readers interested in digging deeper into particular topics.

Finally, we collected and analyzed data on relevant trends. We examined data on enrollment and graduation trends from the U.S. Department of Education's IPEDS survey, underlying population dynamics from the U.S. Census Bureau, high school graduate projections from the Western Interstate Compact of Higher Education (WICHE), and gaps between employer demand and degree/certificate production from the Georgetown University Center on Education and the Workforce.

Table 1. Individuals Interviewed

Associations/Centers/Nonprofits		
Tom	Brock	Community College Research Center, Teachers College, Columbia University
Michael	Collins	Jobs for the Future
Rufus	Glasper	League for Innovation in the Community College
Davis	Jenkins	Community College Research Center, Teachers College, Columbia University
Rob	Johnstone	National Center for Inquiry & Improvement (NCII)
Shalin	Jyotishi	New America
Hana	Lahr	Community College Research Center, Teachers College, Columbia University
Jee Hang	Lee	Association of Community College Trustees
Ray	Martinez III	Texas Association of Community Colleges
Jonathan	Moore	Council of Chief State School Officers
Mac	Powell	Accrediting Commission for Community and Junior Colleges (ACCJC)
Karen	Stout	Achieving the Dream
Jeff	Strohl	Georgetown University Center on Education and the Workforce
Michelle	Van Noy	Rutgers University - Education & Employment Research Center
Josh	Wyner	The Aspen Institute
Community College Leaders		
Juliana	Barnes	South Orange CC District (CA)
Michael	Baston	Cuyahoga Community College (OH)
Keith	Curry	Compton College (CA)
Pam	Eddinger	Bunker Hill Community College (MA)
Mike	Flores	Alamo Colleges (TX)
Vicki	Karolewics	Wallace State Community College (AL)
Valerie	Lundy-Wagner	Public Policy Institute of California
John	Maduko	Connecticut State Community College
Joseph (Joe)	Schaffer	Laramie County Community College (WY)
Future Focus		
Marina	Gorbis	Institute for the Future
Lisa	Larson	Education Design Lab
Jack	Uldrich	Author & Speaker

K-12 Education		
John	Whittler	Vilas School District (CO)
Media		
Paul	Fain	Work Shift
Doug	Lederman	Inside Higher Ed
Philanthropic		
Sarah	Belnick	ECMC Foundation
Jacob	Fraire	ECMC Foundation
Heather	McKay	Strada Foundation
Patrick	Methvin	Bill & Melinda Gates Foundation
Eloy	Ortiz Oakley	College Futures Foundation
Political/State Leaders		
Wynn	Rosser	Texas Higher Education Commission
Workforce		
Peter	Beard	US Chamber of Commerce Foundation
Michael	Carney	US Chamber of Commerce Foundation
Celeste	Carter	NSF ATE Program Director, Multiple Sector
Suzanne	Clark	U.S. Chamber of Commerce
Laura	Dawson Ullrich	Federal Reserve Bank of Richmond
Jamie	Francis	US Chamber of Commerce Foundation
Michael	McShea	CBRE-Public Institutions & Education Solutions
Kevin	McShea	CBRE-Public Institutions & Education Solutions
Chris	Nielsen	Levatas
Barbara	Price	Scripps Health
Susan	Szathmary	Open Biopharma Research and Training Institute; Sterogene
Van	Ton-Quinlivan	Futuro Health
Jason	Tyszko	US Chamber of Commerce Foundation
Amanda	Willard	Amazon

Table 2. Count of Survey Respondent by Role

Role	Count
Current Member of AACC Board of Directors	13
Community College CEO (President/Chancellor)	16
AACC Leadership Team Member	2
Community College State Director	3
Current AACC Council or Commission Leader	17
Blank	4
Total	*55*

Appendix: Survey Instrument

AACC Survey: Future Challenges and Opportunities for Community Colleges

Introduction

AACC has engaged the National Center for Higher Education Management Systems (NCHEMS) to conduct an environmental scan to identify the factors that will impact community colleges in a major way in the future—and, by extension, will shape the array of activities and services provided by AACC to its members. The intent is to look at least 10 years into the future to identify the significant changes that will most affect the students served, the programs and services that will be most important, and the ways in which those programs and services will be offered.

To ensure that wide array of perspectives is gathered, a select group of community college leaders and other farsighted individuals are asked to respond to this brief survey with several straightforward questions. The answers will contribute to how NCHEMS subsequently organizes and conducts focus groups and interviews with key stakeholders including community college leadership, employers, student groups, and other thought leaders, as well as informing NCHEMS' final analysis.

What are the three external forces that you foresee as having the greatest influence on community college education broadly? (Note: In providing your answers, please be as specific as possible. For example, not just "financial challenges" or "demographic change," but what aspects of these factors? If you include financing and demographic changes among your answers, then please expand your response to include a total of four or five key external forces.)

1. What are three emerging content learning areas that you anticipate will most impact the curricula that should be offered by community colleges in the coming decades?
2. What audiences (potential student groups, employers, or others) are likely to merit a greater focus of community college attention in ten years relative to today? In your response, please be as specific as possible about characteristics of the audiences you name, as well as the reason you expect this audience to grow in importance.
3. What are three strategies for teaching and learning (e.g., in-person lectures, integrated work-based experiences, flipped classrooms) that you expect will be most important to community college effectiveness in the coming decades?
4. What three major changes in student services will be required by the external forces and the changes in content areas, audiences, and teaching and learning strategies that you have identified?

5. What three major changes in how student learning is measured (e.g., new credentials, competency-based education) are likely to affect how community colleges work?
6. What three major changes in how educational delivery is organized (e.g., organizational structures, blurred boundaries between sectors, cooperative programs with other institutions) are likely to affect the work of community colleges?
7. In what three ways do you anticipate that the rise of artificial intelligence will most impact community colleges, whether it is in the way they deliver instruction, evaluate learning, provide student supports, manage the institution, or any other aspect of their effectiveness?
8. What three kinds of initiatives will continue to be high priorities in meeting community college students' and employers' needs ten years from now? (Note: "Initiatives" here refers to efforts aimed at changing current policies or practices, scaling effective practices, aligning resources to better meet state or local needs, etc., reforming developmental education, redesigning funding models, etc. They are typically—though not exclusively—driven by external requirements, receive substantial funding from external sources, or are substantially informed by research or guidance from external sources.)
9. What three articles or reports have you found to be particularly persuasive regarding the transformative changes that will confront community colleges?
10. What individuals, inside or outside postsecondary education, would you commend to us as being particularly insightful regarding future challenges and opportunities for community colleges?
11. Are there other important and specific ways that community colleges need to be preparing themselves (both institutions and individuals) to meet the challenges and opportunities of the future?
12. Are there questions this survey should have asked, but didn't? Please also use this space for any additional comments you may have.
13. Optional Please identify which survey respondent category you are part of. (Select all that apply.)
    - Current Member, AACC Board of Directors
    - Community College CEO (President/Chancellor)
    - AACC Leadership Team Member
    - Community College State Director
    - Current AACC Council or Commission Leader

Appendix: STEEEP Framework

The STEEEP Framework served as a behind-the-scenes framework for this report. It served as our organizing structure of the forces impacting higher education. It shaped the questions asked and the ways we organized the information gathered across all the methods listed above. For reference, we list that framework here:

Social Factors

Technological Factors

Economic Factors

Environmental Factors

Educational Factors

Political Factors

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