The Community College Research Center (CCRC), Teachers College, Columbia University, has been a leader in the field of community college research and reform for 25 years. Our work provides a foundation for innovations in policy and practice that help give every community college student the best chance of success.

These policy resources can also be found on our website at [ccrc.tc.columbia.edu/policy-resources.html](http://ccrc.tc.columbia.edu/policy-resources.html)

If you have questions, please contact us at [ccrc@columbia.edu](mailto:ccrc@columbia.edu)
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Community colleges serve about 10 million students per year, or roughly 44% of all undergraduates, depending on the definition used. The nation’s 1,000 community colleges are found in rural, suburban, and urban areas and are much more affordable than four-year colleges, providing access to higher education for nearly all Americans.

Community colleges play an essential role in higher education. They provide instruction in a wide variety of fields that lead to employment in sectors such as healthcare, public safety, information technology, business, and manufacturing. Community colleges prepare students for transfer to four-year colleges and universities, and allow high school students to earn college credits through dual enrollment. They teach adults who are preparing for GEDs or learning English. And community colleges partner with local employers to train or upskill workers needed for regionally important industries and occupations.

WHAT THE RESEARCH TELLS US

Community colleges are an entry point to higher education for many first-generation, low-income, Black, and Hispanic students, and they provide a second chance for older students and workers who need to retrain.

- In the 2018-19 academic year, enrollment at public two-year colleges was 6% Asian, 13% Black, 24% Latino, and 46% White. 
- Community colleges serve a large number of students who are historically underrepresented in higher education. In 2018, 41% of students enrolled in public two-year colleges were Black or Hispanic, compared to 30% of students enrolled in four-year colleges and universities.
- Nearly half of public two-year college students are 24 or older, and 28% have children or other dependents. About two thirds attend part-time.
- Nearly 60% of public two-year college students are financially independent. About 37% of students, dependent and independent, make less than $20,000 a year.
- More than 1.4 million high school students enroll in dual enrollment courses each year, with about two thirds participating through community colleges.

Data Definitions

Public two-year colleges: Federal data sources define public two-year colleges as colleges that offer associate degrees but not bachelor’s degrees. About 900 of these colleges enroll about 8 million students, 40% of undergraduates.

Community colleges: States have a wider definition of community colleges that includes public two-year colleges and another 100 or so colleges that primarily offer associate degrees but also offer some bachelor’s degrees. Together these 1,000 colleges enroll about 10 million students, 44% or undergraduates.
Community colleges are relatively affordable and accommodate large numbers of working students.

- In 2020-21, the average published tuition and fees for a full-time student at a public two-year college was $3,770, compared with $10,560 at a public four-year college.\textsuperscript{10}
- About 81\% of part-time and 47\% of full-time students at public two-year colleges work while enrolled.\textsuperscript{11}
- Community colleges offer three main types of credentials: associate degrees that prepare students for transfer to a bachelor’s degree program; applied associate degrees that prepare students for direct entry in a skilled occupation; and certificates (requiring less than two years and sometimes less than one year of full-time study) that focus on specific skills in a career/technical field to prepare students for immediate employment.
- A growing number of community colleges also offer bachelor’s degrees in high-demand, workforce-oriented fields.\textsuperscript{12}

Community college degrees boost the earning power of graduates, and the colleges contribute to local and national economies.

- Associate degree holders age 25 and older have lower unemployment rates and higher median weekly earnings than persons with a high school diploma or some college but no degree.\textsuperscript{13} This was true even during the worst months of the COVID-19 pandemic.\textsuperscript{14}
- Some community colleges play a major role in helping students from low-income backgrounds move into middle- and upper-income levels, making them potential engines of upward mobility.\textsuperscript{15}
- Beyond increasing wages, community college degrees contribute to economic activity, bolster government tax revenues, and reduce the demand for public services.\textsuperscript{16,17}

Community college students have lower graduation rates than students who start at four-year colleges, and there are equity gaps in success rates within community colleges.

- About 40\% of community college students earned a credential from a two- or four-year institution within six years. The rate for public four-year college students is 67\%.\textsuperscript{18}
- About 14\% of first-time community college students who started in 2013 earned a bachelor’s degree within six years (31\% transferred to four-year colleges, and 46\% of them completed a bachelor’s degree).\textsuperscript{19}
- There are substantial gaps by race and ethnicity in access to dual enrollment; in the pursuit of STEM credentials; in rates of remediation, dropout rates, graduation rates; and more.\textsuperscript{20,21,22,23,24}
- Several factors contribute to lower community college completion rates, including the fact that many students attend part-time. Institutional factors also contribute to poor outcomes, including the “cafeteria college” model on many campuses. Cafeteria colleges give students many options but provide little structure or support to students.\textsuperscript{25}
- Changes to college structures and practices have been shown to improve completion rates. The ASAP program, started at the City University of New York, combines full-time attendance, intensive advising, and financial and other supports and nearly doubles graduation rates.\textsuperscript{26} Guided pathways reforms, which restructure the college to focus on getting students on a path in a well-designed program of study, are also starting to show impacts on student success.\textsuperscript{27}

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The National Center for Education Statistics (NCES) excludes community colleges that offer any bachelor’s degrees from its definition of public two-year colleges; using this definition, community colleges enroll about 8 million students annually. See NCES (n.d.-a). Trend generator: Number of students enrolled in postsecondary institutions annually, by sector of institution and student level: 2018-19. https://nces.ed.gov/ipeds/TrendGenerator/app/build-table/2/2?rid=1&cid=9


NCES. (n.d.-c). Trend generator: Number of students enrolled in postsecondary institutions in the fall, by attendance status (full-time/part-time) and control of institution: 2019 (based on 938 institutions, limited by Sector of institution). https://nces.ed.gov/ipeds/TrendGenerator/app/build-table/2/3?f=1%3D4&rid=16&cid=4


Community Colleges and Student Debt

The growing reach of student debt has become a crisis for many borrowers. But the impact has been uneven, with Black borrowers and students at for-profit colleges hit the hardest. Students with lower balances also have higher default rates, because often they have not completed their degrees.¹

Though community college students borrow less often and generally have smaller balances than students in other sectors, they have their own struggles with debt. Community college students who do borrow default at somewhat higher rates than four-year college students, although this difference can be fully accounted for by differences in student background characteristics. Community college students are less likely than students in other sectors to resolve loan defaults, potentially keeping them from going back to school and damaging their finances overall. At the same time, in the absence of grants, loans provide an important way to finance college and can increase the chances that students graduate.

WHAT THE RESEARCH TELLS US

Community college students are less likely to borrow than other college students and accrue less debt overall. But the percentage who borrow is going up.

- About 48% of public two-year college students who started in 2003-04 borrowed within 12 years of college entry, fewer than students in other sectors even while community college students have greater unmet financial need. About 68% of public four-year students and 89% of students at for-profit colleges borrowed.²
- The percentage of students who borrow has increased at public two-year colleges (to 48% among 2003-04 entrants, from 40% for those who started in 1996).³ This increase is larger than for students at public or private four-year colleges, but much smaller than the increase at for-profit colleges.
- The cumulative amount owed after 12 years is an estimated $10,300 per student who started at public two-year college in 2003-04 (for all entrants, not just borrowers). For public four-year entrants it’s nearly $20,000. For those starting at for-profit colleges, it’s $13,000.⁴

Many community college students appear to benefit from access to student loans, though they are often discouraged from borrowing.

- While access to loans increases debt, research indicates it can also increase credits earned, GPA, degree completion, transfer to four-year colleges, and later-life earnings for community college students.⁵⁻⁶
- Colleges have discretion over whether to include loan offers in financial aid letters. Millions of community college students attend colleges that opt out of federal loan programs or do not include loan information in financial aid letters, even though most students would be eligible for loans.⁷
- While access to loans may be better than not having access, grants may help even more. Students at colleges that offer federal loans appear to borrow less if they receive a Pell Grant. They also appear to work less and take more credits.⁸
Community college students experience default at higher rates than four-year college students, but much less often than for-profit college students. There are disparities in default by race and income.

- Thirteen percent of all public two-year college students, or 26% of public two-year borrowers, who started in 2003-04 experienced a default within 12 years. This is compared to 47% of all for-profit students, or 52% of for-profit borrowers defaulting over the same time period.
- Default rates grew substantially between the cohort that entered in 1995 and the cohort that entered in 2003. Simulations suggest that twenty years out, more than 45% of the 2003 public two-year college entrants are predicted to experience a default, compared with just over 25% of the earlier entrants.
- Among all students who started at public two-year colleges in 2003-04, Black students had borrowed 66% more than White students by 12 years later ($12,300 versus $7,400) for their undergraduate studies; 25% of Black students had defaulted, compared with 10% of White students. Income, wealth, amounts borrowed, college attended, job status, and other characteristics account for only part of the difference in defaults.
- Low-income students who started at public two-year colleges in 2003-04 had borrowed $8,800 by 12 years later; high-income students had borrowed $6,000. Low-income students were much more likely to have defaulted (18% versus 7%).
- Defaults have risen most rapidly among students who never complete an associate or bachelor’s degree.

### Borrowing and Default Rates, and Undergraduate Loans for All Public Two-Year College Students Who Started in 2003-04

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<tr>
<th>% EVER BORROWED</th>
<th>TOTAL BORROWED</th>
<th>% EVER DEFAULTED</th>
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</thead>
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<tr>
<td>TOTAL</td>
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<td>WHITE</td>
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<td>LOW INCOME</td>
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<td>$8,841</td>
</tr>
<tr>
<td>HIGH INCOME</td>
<td>37</td>
<td>$5,968</td>
</tr>
</tbody>
</table>


### KEY CONSIDERATIONS FOR FEDERAL POLICY

- Student loan policies should avoid discouraging students from attending college to avoid debt. Instead, the federal government should increase support so students borrow less, and increase protections for those who do borrow, including for students who do not finish or struggle to repay their loans.
- The federal government could consider additional direct grant support for students, support to states, and other funding to lower the effective cost of college and decrease the loan burden on future students, especially at the start of their college experience.
- The federal government should consider debt relief to address the default crisis among those already in repayment.
- Borrowers need more support to increase utilization of existing income-contingent repayment plans, which offer significant protection against the worst outcomes of student loan debt.

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Endnotes


2 Federal data sources define public two-year colleges as colleges that offer associate degrees but not bachelor’s degrees. States have a wider definition of community colleges that includes public two-year colleges and another 100 or so colleges that primarily offer associate degrees but also offer some bachelor’s degrees.

3 Data for the 2003-04 cohort are the most recent available that include cumulative debt and repayment numbers.


9 Marx & Turner (2019).


12 Scott-Clayton (2018a).


15 National Center for Education Statistics (n.d.).

16 Scott-Clayton (2018a).
Participation in Federal Work-Study

The Federal Work-Study (FWS) program is one of the nation’s oldest federal policy tools intended to promote college access and persistence for low-income students. Since 1964, FWS has supported student employees who have applied for financial aid and have unmet need. These students work on campus for about 10 to 15 hours per week in roles ranging from clerical work at the library to research positions in a lab.\(^1\)\(^2\) In addition to providing financial assistance, the program may influence students’ academic and labor market outcomes by affecting their schedules, exposing them to new social and job networks, and offering relevant employment experience. But with well-designed, research-based reforms it could have a greater positive impact on students.

WHAT THE RESEARCH TELLS US

The FWS program is widespread across American higher education and supports a significant proportion of undergraduates each year.

• FWS provides roughly $1 billion annually to about 600,000 students on over 3,000 campuses nationwide.
• The program covers up to 75% of student participants’ on-campus wages.
• One out of every 10 full-time, first-year undergraduates receives FWS support, and more than 33 million students have benefitted from the program since its inception.

Though FWS does not fulfill its original mission to enable students to “work their way through college,” on-campus work experience may improve labor market outcomes in the longer term.

• Today’s typical FWS award is $2,340 per year, which covers only a fraction of average tuition and fees.\(^3\)
• Most college students work part-time even if they do not receive FWS, often in low-skill jobs with no connection to their major and potentially with little consideration for students’ academic schedules.\(^4\)\(^5\) By providing flexible, on-campus employment, FWS may increase campus integration and make it easier for students to juggle school and work, though many FWS jobs are also unrelated to students’ majors or career interests.
• In-school work experience may improve labor market outcomes in the longer term,\(^6\)\(^7\) in part because FWS students are more likely to have a job relating to their major than similar students who work in non-FWS jobs.\(^8\)
• FWS jobs may help level the playing field for students who cannot afford to take unpaid internships to gain experience.\(^9\)

The impact of FWS on students’ academic outcomes is mixed.

• An offer of FWS is likely to induce some students to work while enrolled, which may interfere with their studies by reducing studying time and causing scheduling challenges.
• CCRC researchers have found that FWS has a small negative effect on students’ first-year GPAs and, in some cases, credit accumulation and graduation. However, they also found that FWS participants have higher rates of persistence, degree completion, and post-college employment.

• FWS may add new links to students’ school-based networks, increase their job’s relevance to their academic work, and give them more reasons to come to campus, thereby increasing their likelihood of attending classes and participating in campus activities. Several studies have found that students with more campus connections are more likely to persist, and this may be particularly true for minoritized students.

• FWS has never been evaluated using a randomized controlled trial, though one such study is currently underway.

Students at public colleges, especially community colleges, have a much smaller chance of receiving FWS aid than students at private colleges, regardless of family income.

• Unlike other forms of federal student aid, which are awarded directly to students, FWS funds are granted in aggregate to institutions, based largely on historical allocations that tend to favor selective private colleges.

• Colleges have significant flexibility in implementing the FWS program—including determining which students receive awards, the size of awards, and how students are connected to jobs.

• Demand for FWS outstrips supply. Only 16% of institutions award FWS to every eligible student.

• A low-income student at a private four-year institution has nearly a 50% chance of receiving FWS, compared to just a 5% chance for a low-income student at a community college.

• A high-income student at a private four-year college is more likely to receive FWS than a low-income student at a public four-year college, despite evidence suggesting FWS recipients at public institutions derive substantially greater benefits from the program.

KEY CONSIDERATIONS FOR FEDERAL POLICY

• FWS allocation formulas should be updated so community colleges are no longer disadvantaged relative to selective private institutions. FWS allocations could be based on enrollment of Pell-eligible students, or student eligibility could be limited to those below a given income.

• Any reallocation or expansion of FWS funding should build in research studies to track the impacts of the program and inform later policy changes that improve the targeting and effectiveness of funding.

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ENDNOTES


3 CCRC tabulations using NCES QuickStats with NPSAS:2016, limited to those receiving FWS.


11 Scott-Clayton & Minaya (2016).


21 Scott-Clayton & Minaya (2016).
Developmental Education

Most broad-access two-and four-year colleges offer developmental coursework—often referred to as remediation—in math, writing, and reading. While developmental courses do not count toward a college degree, students must pay tuition or apply their financial aid to enroll in them. Traditionally, students are referred to these courses based on scores on standardized placement tests administered by their college, and referred students are required to complete these courses before taking college-level math and English.

States, systems, and institutions are experimenting with ways to better target developmental education, shorten the time students spend in developmental education, and improve curriculum and instruction. Early popular reforms to developmental education, such as learning communities and summer bridge programs, showed short-term improvements but did not result in longer-term effects on student outcomes. Recent rigorous research points to several promising approaches with more sustained effects.

WHAT THE RESEARCH TELLS US

Developmental education is widely used and may have detrimental effects on some students.

- Among those who first enrolled in college in 2013, almost two thirds of public two-year students and one third of public four-year students took at least one developmental course. Black, Latinx, and low-income students are placed into developmental education courses at higher rates than White and higher-income students.¹
- Many students referred to developmental education do not go on to complete college-level courses. The problem is most acute in mathematics; one study found that only 20% of community college students referred to developmental math enrolled in a developmental course and then went on to pass college-level mathematics.²
- Causal studies of remediation have shown that developmental education has negative impacts on college-level course completion and credit accrual for students near the cut-point used on standardized tests to assign students to developmental courses.³
- Placement practices and policies that assign too many students to developmental education have been shown to inhibit student success.⁴

States and institutions are reforming developmental education, but reforms have yet to fully take hold.

- Over half of states now mandate or recommend that broad-access colleges reform the way they assess students’ college readiness or change the sequencing and structure of developmental courses.⁵
- Among the most popular reforms are:
  - Multiple measures placement: using additional and alternative measures (e.g., high school GPA, previous academic coursework and performance) to place students into either developmental or college-level courses
- Corequisite remediation: instead of enrolling in prerequisite developmental courses, having students enroll in introductory college-level math or English courses coupled with a developmental class or other academic supports.
- Math pathways: using streamlined sequences of courses to increase access to college-level mathematics and teach students math skills relevant to their degree requirements and programs of study.
  - Scaling reformed approaches requires garnering stakeholder buy in, reconfiguring staffing and scheduling, and providing professional development for faculty and advisors.  
  - Without full-scale adoption, limited access to these reforms may exacerbate racial inequities.

Emerging rigorous evidence points to the promise of these approaches to improving student outcomes.
- A study of multiple measures placement in seven State University of New York community colleges found that it resulted in more students assigned to college-level courses. Most important, it led to an increase in the number of students passing college-level courses.
- An evaluation of corequisite English in five Texas community colleges found that being assigned to a corequisite course instead of a traditional prerequisite course increased the probability of passing Composition I and later English courses.
- A study of a corequisite course in statistics in the City University of New York found that students assigned to it had higher graduation rates.
- A study at four community colleges in Texas found that math pathways reforms helped students pass developmental and college-level math at higher rates.
- Research on Florida legislation that allows many students to bypass developmental education found that more students completed introductory college-level courses and that achievement gaps by race were narrowed.

KEY CONSIDERATIONS FOR FEDERAL POLICY

- Incentivizing the implementation of evidence-based practices. Federal programs administered through the Office of Postsecondary Education (OPE) and the Office of Career, Technical, and Adult Education (OCTAE) could provide funding for postsecondary institutions to adopt evidence-based developmental education reforms.
- Supporting information dissemination and technical assistance. States, accreditation agencies, and intermediaries provide incentives, policy directives, and training to institutions to implement developmental education reforms. Federal guidance and financial support to these entities may further accelerate the adoption of evidence-based practices at postsecondary institutions.

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Endnotes


Preparing students to transfer to a university and earn a bachelor’s degree has long been a primary mission of community colleges. Four of every five entering community college students seek to transfer and earn at least a bachelor’s degree—a credential that is increasingly needed to secure a good job with family-sustaining wages. Students may opt for this transfer pathway to a bachelor’s degree because community colleges are generally more affordable and closer to home than four-year colleges.

WHAT THE RESEARCH TELLS US

Only a small fraction of community college students who intend to transfer make it through to a bachelor’s degree.

- Of 100 entering, degree-seeking community college students, about 31 will transfer to a four-year institution, and only about 14 will complete a bachelor’s degree.1
- White students are twice as likely to transfer as Black and Latinx students. Similarly, higher-income students are twice as likely to transfer as lower-income students.2

The paths to successfully transfer in a chosen major are unclear, with the result that too many community college students who do transfer lose credits and risk running out of financial aid benefits before earning a degree.

- Despite the popular conception that transfer students spend two years at a community college plus two years at a four-year college, there is little uniformity in transfer patterns: Only 8% of successful community college transfer students follow the “2+2” sequence. Many students transfer multiple times, change colleges at varying points along their pathway, and complete after six years or longer.3
- Community colleges struggle to help students reach early academic milestones such as passing college-level English or math, completing 24 or more college credits, and earning an associate degree for transfer. Students who meet such milestones are substantially more likely to transfer and complete a bachelor’s degree, and this is especially the case for Black and Hispanic students.4
- Information on transfer websites is notoriously difficult to navigate,5 and articulation agreements with four-year colleges are often complex and hard to interpret.6
- Students are often surprised to discover that their community college credits are not accepted at their four-year transfer institution, or that the credits are accepted but not applied to the bachelor’s degree requirements in their chosen major. Students lose an estimated 43% of their credits when they transfer.7
Transfer credit loss decreases students’ chances of completing a bachelor’s degree, undercuts the benefits of financial aid, and adds extra time and cost for students who do complete a bachelor’s degree.\textsuperscript{8,}\textsuperscript{9}

A survey of 90,000 transfer-aspiring community college students found that half reported never utilizing transfer advising.\textsuperscript{10}

Transfer students may face unreceptive university policies and cultures, yet perform well academically after transferring.

- Community college students who transfer to four-year institutions may encounter unsupportive campus policies and norms and faculty/staff misperceptions of community colleges.\textsuperscript{11}
- Four-year colleges sometimes exclude transfer students from institutional aid.\textsuperscript{12}
- Unwelcoming transfer cultures can intersect with challenging campus racial climates, creating further barriers for transfer students of color.\textsuperscript{13}
- Despite these challenges, research shows that transfer students perform as well or better than freshman admits.\textsuperscript{14,}\textsuperscript{15}

Community colleges and universities with strong partnerships can improve transfer outcomes.

- Despite low outcomes nationally, some community college-university partnerships have achieved stronger transfer outcomes.\textsuperscript{16,}\textsuperscript{17}
- Strong community college-university transfer partnerships create major-specific program maps and have regular, reliable processes for updating and improving program maps across institutions.\textsuperscript{18}
- Another important element at the community college is student advising that clearly articulates students’ transfer options and helps them determine, as early as possible, their field of interest, major, and preferred transfer destination.
- Four-year colleges with stronger transfer outcomes commit dedicated personnel, structures, and resources for transfer students and clearly communicate essential information to prospective transfer students.\textsuperscript{19}

KEY CONSIDERATIONS FOR FEDERAL POLICY

- Federal policy should better reflect the highly mobile nature of student enrollment across multiple postsecondary institutions. Federal investments related to community colleges should prioritize incentives for postsecondary institutions and states to improve credit transfer and transfer student outcomes.
- To provide a fuller view of student outcomes as students transfer across institutions, policymakers should consider measures—such the recently reintroduced College Transparency Act\textsuperscript{20—to lift the ban on a federal student-level data system.}
Endnotes


18. Wyner et al. (2016).


Advising and Student Supports at Community Colleges

Good advising and support services can help community college students complete a credential or transfer to a four-year institution. Advisors play an important role in helping students explore and realize their education and career goals, while academic services—like tutoring or writing support—can help students work through academic challenges. Financial, basic needs, and other nonacademic supports enable students to manage circumstances that may hinder their academic progress. Supports that address students’ academic and nonacademic needs holistically are especially important for the success of underserved students, including Black, Latinx, low-income, and first-generation students.

WHAT THE RESEARCH TELLS US

Community college students receive limited advising due to a scarcity of resources, which slows progress toward a degree. Low-income, racially minoritized, and first-generation community college students are less likely than their higher-income, White, and continuing-generation peers to access support services.

- With advising caseloads as high as 1,200 students per advisor,1 many advisors do not have the capacity to proactively engage students and monitor their progress. The average community college student sees an advisor one or two times during the academic year.²
- Among entering community college students, just under half report that an advisor helped them set academic goals and create a plan for achieving those goals;³ about 40% of students report that their experiences at their college contributed very little or some to their development of clearer career goals.⁴
- Half of students in their second term or later who plan to transfer to a four-year college report that they never used the transfer advising services available at their college.⁵
- Low-income, racially minoritized, and first-generation community college students may have more financial and other support needs but are less likely than their peers to reach out to advisors and faculty,⁶⁷ seek help managing finances,⁸ and access other college-based support services.⁹

Innovative advising approaches and technologies can help provide targeted support at key moments in students’ progression through college.

- Effective advising provides: sustained support for students throughout their tenure in college; strategic delivery of services that are differentiated based on the students’ levels of need; integrated delivery of academic and nonacademic supports; proactive outreach to students; and personalized support.¹⁰
- Increasingly, colleges are turning to technologies to support career and course planning, alert staff when students are struggling, identify students who may need extra help, and schedule advising sessions.¹¹
• New technologies alone are unlikely to affect students unless they are leveraged to provide a more intensive and personalized advising experience.  

Evidence suggests that community college students who participate in targeted and intensive support programs experience improved outcomes.

• The Accelerated Study in Associate Programs, or ASAP, program at the City University of New York offers participants personal, financial, and academic supports, including tuition and fee waivers, MetroCards, personalized advising, and career counseling. A rigorous evaluation estimated that the program increases three-year graduation rates by 18 percentage points and six-year graduation rates by 10 percentage points.  

• The Stay the Course (STC) program in Texas assigns students a social service provider to help them develop an action plan and monitor their progress, and it also offers coaching, referrals to other services, and access to emergency financial aid. Participating in the program significantly increases persistence and three-year graduation rates among women.  

• InsideTrack, a national nonprofit student success organization, deploys coaches who regularly communicate with program participants via phone calls and targeted, personalized text messages. Coaches support students in setting short-term goals that are aligned with their longer-term objectives, learning how to self-advocate, managing their time, and refining their study skills. A rigorous evaluation found that coached students are 5 percentage points more likely to persist to the next semester six months after initial assignment.  

• The whole-college Guided Pathways reform model emphasizes early student support, particularly in terms of education and career planning, using a case management advising approach. Preliminary evidence suggests that Guided Pathways reforms can improve student outcomes in the first year of college. A causal evaluation of Guided Pathways in three states is underway and will be completed in late 2022.  

• A study of TRIO Student Support Services at a Georgia public college suggests that the program improves retention and completion among participants, who are often from underrepresented racial backgrounds and/or are first-generation students.

KEY CONSIDERATIONS FOR FEDERAL POLICY

• Incentivizing sustained, strategic, integrated, proactive, and personalized advising practice. Federal grants administered for student support services can support programs that align with these principles of advising.

• Allowing allocation of grant funds for personnel. Grant requirements that allow grantees to use funds for staff time to engage in advising redesign can help create short-term capacity to design and execute sustainable reforms.

• Supporting states in streamlining technology and data systems. System-level coordination of advising technologies and data platforms can make it easier for individual colleges to integrate technology tools into their practice and thus benefit from the efficiencies that these tools can provide.

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Endnotes


Investing in Student Success at Community Colleges

LESSONS FROM RESEARCH ON GUIDED PATHWAYS

Investing in community colleges is a central part of the Biden administration’s education agenda, with the goal of strengthening America’s middle class and opening the benefits of education to all Americans. CCRC has conducted 25 years of research on how community colleges can more effectively educate students and set them up to successfully transfer to a four-year college, launch a family-sustaining career, or upskill to get a better job. Our research has led to the conclusion that systemic, whole-college reform is needed to reach all students and to help many more of them reach their goals. Guided Pathways is a comprehensive reform approach whereby community colleges fundamentally redesign their programs and support services in ways that create clearer, more educationally coherent pathways to credentials with strong labor-market value. It is currently being implemented by hundreds of colleges across the country.

Guided Pathways is not an intervention but rather a framework that the federal government, states, and colleges can use to strengthen community colleges and improve student outcomes. In this brief, we explain what Guided Pathways is, why we think it has promise, what it costs, and how it can help improve student success on a large scale and thus grow a stronger, more prosperous, and more inclusive middle class.

1. What is Guided Pathways? Why is it needed?

Guided pathways is a whole-college reform model designed to help community college students explore, choose, plan, and complete—in a reasonable time and affordably—programs that enable them to secure a good job directly or successfully transfer to a bachelor’s program in a specific major. It is based on more than two decades of research by CCRC and others on how to improve student success in community colleges.

The education model evident in most community colleges today evolved in the 1960s and 1970s in response to our nation’s effort to dramatically increase access to higher education. What emerged is the “cafeteria college,” which offers a wide range of programs designed
to appeal to varied student interests. Unfortunately, the cafeteria college is not well suited
to helping students complete programs in a timely way or to prepare for family-supporting
jobs in today’s economy. This is because the sequence of courses that students need to take
to complete programs that lead to good jobs or to transfer to a four-year institution in a
particular major is often unclear and poorly defined. Academic and career advising and other
supports are available, but students have to seek them out, and the students who need these
services most are often the least likely to use them. Most students are required to take prereq-
quisite remediation in algebra and writing, which research by CCRC and others indicates fails
to prepare and motivate students to succeed in college-level coursework and sorts out too
many students from underserved groups. More generally, students’ progress is not monitored,
so many students meander or become discouraged and drop out. And instructional
innovation is focused on discrete courses, which neglects efforts to ensure that students are
building essential knowledge and skills across their programs.

It is not surprising, then, that 60% of degree-seeking community college students have
not completed any postsecondary credential after six years. Those who do complete often
waste time and money on courses that do not prepare them for a good job or count toward a
bachelor’s degree in their field of interest. Success rates are even lower for students of color,
those from low-income families, and older students, who are disproportionately represented at
community colleges. These students lack the outside guidance and resources of more privileged
students, exacerbating gaps between the educational haves and have-nots in our country.

Guided Pathways provides a framework for the wholesale restructuring of academic programs
and student supports to address the barriers to success created by the cafeteria college model.
Colleges implementing Guided Pathways redesign programs, practices, and systems to enrich
students’ experience from the time they first connect with the college in ways that research
indicates will help guide them into and through programs of study aligned with their goals.
Faculty work with advisors and others to rethink current practice with four key objectives:

1) **Clarify paths to student end goals** by organizing programs into broad fields (or
meta-majors) to facilitate student exploration and by “backward mapping” program
pathways to ensure that they prepare students to secure a good job in fields of economic
importance to their communities or to transfer with no excess credits to a four-year college
in a particular major.

2) **Help students get on a path** by redesigning the onboarding experience to help all students
explore interests and options, connect with an academic and career community, and
develop a full-program plan.

3) **Help students stay on path** by reorganizing advising to enable case management by field
and by using students’ plans to schedule classes and monitor progress.

4) **Ensure students are learning across programs** by enriching teaching in college-level
introductory program courses (not just math and English) to build students’ confidence
as college learners and by ensuring that students have opportunities for active and experi-
ential earning throughout.

The Guided Pathways model is based on research indicating that the implementation
of discrete interventions targeted to particular student groups or phases of the college
experience is not sufficient to substantially increase student success rates. Rather, colleges need to redesign and align programs, practices, and systems at scale using research-based principles. Guided Pathways does not eliminate the need for specific interventions designed for students who may benefit from targeted supports. However, Guided Pathways provides an overarching framework for serving all students while helping to identify students needing specific supports and aligning efforts to provide targeted supports.

2. How widespread are Guided Pathways reforms nationally?

Over the past decade, Guided Pathways has become a national community college reform movement, with approximately 400 colleges involved in formal Guided Pathways efforts led by state and national groups such as the American Association of Community Colleges (AACC). Many other colleges are attempting to implement Guided Pathways on their own.

Colleges Involved in Formal Guided Pathways Initiatives

There are statewide Guided Pathways reform efforts in 16 states, including the four with the largest community college enrollments—California, Texas, Florida, and New York. In many states, these efforts are being led by Student Success Centers, which are affiliated with state community college agencies or associations and were started with funding from private foundations. These Student Success Centers have sought to support adoption of Guided Pathways by hosting institutes, workshops, and other training along with coaching from practitioners who have experience implementing Guided Pathways at their colleges. This has proven to be an effective mechanism for spreading Guided Pathways, because these entities provide support for adoption to all colleges in their systems, including small rural colleges and others that have limited resources for training and outside technical assistance.

Even outside these states with statewide Guided Pathways initiatives, community college leaders—faced with declining enrollments, projected declines in high school graduating
classes, and increased competition from online for-profits and other providers—are recognizing that they need to fundamentally rethink their education and business models, and a growing number see Guided Pathways as a framework for that redesign.

3. What have we learned about Guided Pathways?

CCRC has been studying the implementation of Guided Pathways reforms at 116 colleges nationally and has published a series of reports about the practices colleges are employing and how they are managing the reform process. This research has shown that adopting Guided Pathways is a complicated process that requires dedicated leadership and four to five years to implement at scale. A key reason is that nearly every academic department and functional unit of a college—including admissions, student services, financial aid, institutional research, and the business office—needs to be involved in reviewing current practices and making changes.

Despite the challenges in undertaking such comprehensive reforms, a growing number of community colleges across the country are making the systemic changes that fundamentally alter the experience for their students. Some of the key insights that we have gained from our research on the implementation of Guided Pathways indicates that colleges should:

- **Organize program development and improvement, student recruitment, onboarding, and advising by field or “meta-major.”** Grouping programs of study by broad field or meta-major facilitates program exploration by students, helps colleges organize information, and creates academic and career communities with opportunities for networking, mentorship, and other engagement that research shows increase students’ likelihood of completing programs.

- **Redesign the new student onboarding process to help all students explore interests and choose and plan a program of study.** Students entering community colleges are generally not given help to explore career interests and academic options or to develop an education plan that shows a path to their goals. Instead, most are referred to remediation or advised to take general education courses. Without clear direction or connections, many students become discouraged and drop out. Colleges should enhance career and transfer information and advising for all entering students; connect entering students with faculty, students, and others in a meta-major from the start; and ensure that students take a well-taught course on a topic of interest in their first term.

- **Help every student develop an individualized full-program education plan by the end of their first term.** The plan should be clearly aligned to students’ goals for employment and further education, and students should be able to see their progress and what they need to do to complete their programs. Colleges should use students’ plans to create predictable class schedules that ensure the courses students need are available, and to monitor students’ progress.

- **Provide case management advising for all students within their field of study.** Community colleges typically have inadequate resources to provide advising for every student. Early adopter Guided Pathways colleges have shown that it is feasible for colleges to provide case management advising by field. One way they have done this is by embedding advisors in meta-majors. This enables advisors to become specialists in programs in their field as well as in transfer destinations and careers that their programs’ graduates are likely to pursue.
There is some evidence that Guided Pathways reforms are improving student outcomes. In colleges that have adopted Guided Pathways reforms, CCRC has observed increases in the rates at which students take college-level courses in their first year and in other “early momentum” metrics that research has shown are leading indicators of higher completion rates, with particularly strong effects for students of color and low-income students. Colleges that were early adopters of Guided Pathways have reported increased IPEDS retention and completion rates. Some have reported reductions in non-degree-applicable credits and gains from state performance funding as a result of Guided Pathways reforms.

Colleges that have reported improved student outcomes associated with Guided Pathways reforms have generally seen improvements for all student groups, including Black and Latinx students and those from low-income families. At the same time, outcomes for White and higher-income students have also improved, so that equity gaps in outcomes persist. This suggests that Guided Pathways is not sufficient to address equity gaps. Early adopter colleges that have seen improvements for students generally are now scrutinizing the reforms they have made through an “equity lens” to ensure that these practices do not reinforce tracking by race, income, gender, and other factors. Moreover, even with Guided Pathways, targeted efforts are still needed to support increased success by first-generation students, students of color, veterans, students with disabilities, older returning students, and other groups with special needs.

4. How will we know if Guided Pathways has a causal impact?

All of the evidence on the effects of Guided Pathways so far is observational. In collaboration with higher education agencies in Washington, Tennessee, and Ohio, CCRC is currently conducting a more rigorous evaluation funded by the National Science Foundation on whether Guided Pathways improves STEM outcomes for underrepresented students and students generally. In this research, CCRC is measuring the extent to which community colleges in all three states have adopted Guided Pathways reforms and is using student unit record data to see if adoption of Guided Pathways is associated with better outcomes for students. The quasi-experimental design will assess changes in student enrollment, academic progress, and persistence over a 10-year period, capturing the period before and after Guided Pathways was implemented. Results from the evaluation will be available in late 2022.

Because Guided Pathways is a whole-college redesign model that is scaled to all students, it is difficult to construct randomized controlled trials that prove its efficacy. Yet Guided Pathways is inclusive of interventions, such as student coaching, that are supported by studies that meet What Works Clearinghouse (WWC) standards without reservations. Notably, the Accelerated Study in Associate Programs (ASAP)—which to date has shown the largest effects of any intervention on college completion—shares many features with Guided Pathways, including intensive academic support and an emphasis on graduating in a timely fashion. A key difference is that ASAP targets students who agree to attend college full-time and meet other criteria, whereas Guided Pathways is intended to improve outcomes for everyone served by a college, including the large numbers of community college students who attend part-time.
5. What does Guided Pathways cost?

CCRC recently conducted a cost analysis on 12 community colleges that were early Guided Pathways adopters and that are similar in makeup and funding as community colleges nationally.\(^{12}\) We created an “average” community college in this analysis, one with a full-time-equivalent enrollment of 4,000 and an annual operating budget of $60 million. For this “average” college, we estimate that implementing Guided Pathways reforms costs $7.15 million over four years, which is typically the time it takes for colleges to implement core Guided Pathways practices at scale. This works out to about $450 per full-time-equivalent student per year of added costs, or an additional 3% of annual operating costs.

The largest start-up cost is hiring additional advisors to allow individualized case management of students by field or meta-major. Other substantial start-up costs include providing faculty and staff release time to engage in program mapping, as well as purchasing or upgrading information technology systems to support websites, online catalogs, individualized advising, academic planning, progress monitoring, and class scheduling.

The estimated cost of sustaining Guided Pathways reforms after the initial implementation phase is somewhat lower: about $350 per full-time-equivalent student per year. Here again, the largest ongoing cost is maintaining enough advisors to allow case management of students by field. So the evidence suggests that while Guided Pathways increases costs, the expense is not prohibitive.

In a companion case study analysis on how colleges funded Guided Pathways, we found that most colleges raised at least some grant funds (including awards from Title III and Title V) to support start-up activities around Guided Pathways.\(^ {13}\) Yet the colleges tended to rely as much on reorganization, reassignment, and reallocation of staff and resources as on raising new income to cover the ongoing costs of the reforms. The leaders of the colleges indicated that, in the face of an increasingly challenging and competitive higher education environment, investing in whole-college reforms was necessary to attract and retain students and fulfill their educational missions.

6. How can the federal government support Guided Pathways reforms?

The federal government could support Guided Pathways reforms at least three ways:

1) **Grants or incentives to institutions.** Grants could be provided to community colleges and other institutions that serve disadvantaged students through existing grant programs such as Title III or Title V, or through a new grant program. In FY 2019, 33 of the grant awards to community colleges made under the U.S. Department of Education’s Title III Strengthening Institutions Program, its Title V Developing Hispanic-Serving Institutions Program, and the National Science Foundation’s Advanced Technological Education Program had “guided pathways” in the project title or abstract. So colleges and federal agencies have already recognized that Guided Pathways provides a useful framework for strengthening organizational support for student success in institutions that enroll many underserved students.

2) **Grants to state agencies or intermediaries.** Federal funding could be awarded to state agencies or intermediaries such as Student Success Centers that provide coordination,
technical assistance, and program monitoring to support statewide adoption of Guided Pathways. This approach has advantages in that it avoids having to fund individual institutions, promotes support of all institutions in a system (not just those that have the resources to successfully support grants), and takes advantage of infrastructure in a state to promote sharing of knowledge across colleges. Such a grant program could also be designed to encourage or require state matching funding of intermediary activities.

3) **Tighten financial aid and accreditation standards and design new legislation to require that colleges ensure every student has a full-program plan.** Research indicates that having clear learning goals and a learning plan is associated with sustained motivation, better coping in the face of challenges, and higher rates of completion among undergraduate students.¹⁸ Our research on Guided Pathways has shown the benefits for students of having a customized, full-program education plan. Given this, we suggest that the U.S. Department of Education explore reviewing financial aid eligibility rules and accreditation standards to create incentives for colleges to ensure that every certificate- or degree-seeking student has a customized education plan aligned with their career and further education goals by the end of the first term. This should be a requirement for institutions that accept federal funding for College Promise or similar programs that make two years of community college free for students.

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Endnotes


Investing in community college workforce training is a central part of the Biden administration’s agenda for improving the lives of American families. Now more than ever, as the nation’s economy enters a post-pandemic period of significant organizational and technological change, community colleges are well-situated to help millions of low-income Americans, particularly adults, get back into and advance in the labor market.

This brief highlights ways in which new federal funding can best support community college workforce training. We begin by describing the landscape of community college workforce education and by presenting evidence on the earnings and employment outcomes of students who earn workforce credentials. Next, we turn to current CCRC research on how innovative community colleges are responding to evolving skill demands from employers and to ongoing needs both for better integration of degree and non-degree programming and for more robust student support services. We conclude with suggestions on how a federal investment could encourage community colleges to expand and improve their workforce efforts by strengthening their capacity to deliver high-quality programs and by reducing inequities in access and outcomes by race and income.

1. What does community college workforce education look like?

Community colleges serve as the primary workforce training institution in the United States. In addition to offering academic associate degree programs for those who want to transfer to a bachelor’s program at a four-year institution, community colleges provide a broad range of education and training programs aimed at students—often adults—who seek direct entry into the labor market or an opportunity to improve their skills for a better job. These include programs for applied associate degrees; one-year-or-longer or shorter-duration occupational certificates; industry-recognized certifications that may or may not confer academic credit but are aimed at employment or job advancement, such as Cisco or Google IT certifications; customized training delivered for specific employers through not-for-credit workforce divisions; and additional noncredit professional development and occupational instruction offered through not-for-credit workforce divisions. In addition, some community colleges have begun to offer workforce-oriented bachelor’s degrees in select fields such as business and nursing, particularly in areas that are not served by four-year institutions.¹

Awarding more than a million credit-bearing occupational credentials each year, community colleges function as the nation’s primary workforce education institution.
Nearly 7 million students, with a median age of 24, enroll each fall in credit courses at community colleges.\footnote{8} A majority of credit students are in occupational programs (leading to applied associate degrees and certificates in fields as diverse as allied health, business, computer science and information technology, construction trades, law enforcement and firefighting, and multi-media communication and graphic technologies). An additional 5 million students enroll in noncredit courses, according to the American Association of Community Colleges. Although data is limited on this group, it is fair to presume that the majority are older students, enrolled part-time, who seek workforce skills and advancement.\footnote{8} In 2018-19, the nation’s community colleges awarded 878,900 associate degrees, 619,711 certificates, and 20,700 bachelor’s degrees.\footnote{4} Almost three out of five associate degrees (57%), nearly all certificates (94%), and all bachelor’s degrees earned at two-year colleges are in career-oriented fields in which direct employment is the student goal.\footnote{8}

As we discuss below, applied associate degrees generally provide greater labor market benefits than certificates. Yet there continues to be strong interest in certificates and noncredit workforce programs, especially among adult job seekers, who view them as an efficient, quick, low-cost option to learn new skills. A 2020 national survey taken in the midst of the pandemic found that workers who said they would change fields if they lost their jobs would prefer non-degree skills training to a college degree by 62% to 38%.\footnote{6}

2. Does workforce education pay off in the labor market?

Data from the U.S. Bureau of Labor Statistics consistently show that unemployment rates are lower and median weekly earnings are higher for adults with higher levels of educational attainment. In 2019—when the national economy was strong—workers age 25 and older with a bachelor’s degree or higher had the lowest levels of unemployment and the highest median weekly earnings, followed by workers with an associate degree and then by workers with some college but no degree. Workers with no more than a high school diploma fared the worst.\footnote{2} This pattern was amplified throughout the COVID-19 recession. For example, in December 2020, workers with a bachelor’s degree or higher had an unemployment rate of 3.8%, compared to 6.3% for workers with some college or higher, and 7.8% for high school graduates with no college.\footnote{8}

A growing body of research finds that earnings gains of community college students vary by degree, credential type, and field of study. According to the federally funded Center for Analysis of Postsecondary Education and Employment (CAPSEE), in which CCRC was a lead partner, associate degrees provide a significant boost to earnings on average (compared to entering college but not completing an award)—a 26% increase ($7,160) per year for women and an 18% increase ($4,640) per year for men. Importantly, certificates boost earnings as well, though by less on average than associate degrees ($2,960 for women and $2,120 per year for men) and primarily because of longer-term certificates of one year or more.\footnote{8}

In general, community college students who complete occupational programs have higher earnings than students who complete traditional academic programs. For example, research by the Georgetown University Center on Education and the Workforce shows that workers with associate degrees in the health and business fields have earnings about twice as high as workers with associate degrees in liberal arts and general studies. The potential value of an academically oriented associate degree comes with successful transfer to a four-year college and completion of a bachelor’s degree. There is wide variation in earnings across certificate
programs. For example, workers with certificates in engineering have median earnings equivalent to those of many bachelor’s degree holders. Conversely, certificates in education and cosmetology—though widely offered and popular with some students—do not generally provide family-sustaining wages.10

3. How are colleges responding to changes in the workplace?

In late 2019 and early 2020—just before the pandemic struck—CCRC examined how a group of innovative community colleges were adapting their workforce education programs to the changing demands of the workplace in three high-wage, high-demand fields—health care, information technology, and advanced manufacturing—with a particular focus on responsiveness to increasing automation. In another recent study, CCRC investigated college and state policies designed to align short-term credentials with community college degree programs. The findings highlight what select colleges and states are doing to make their training programs and career pathways more responsive to the needs of employers and participants, especially those job seekers who are more at risk of not gaining access to or completing programs that lead to employment with family-supporting wages.

Adapting to evolving skill demand. Artificial intelligence, digitalization, and other technological changes are making their way through the economy and are affecting employer skill demands and their expectations for workforce training providers. The disruption caused by the pandemic is likely to accelerate these changes, eliminating some types of lower-skill jobs but more often augmenting the skills workers need to be productive in technology-rich environments.

In entry- and technician-level labor markets, employer demand for skills is being altered by the introduction of new technologies, expectations of regular interaction with customers and data, and changing boundaries of disciplines and occupational roles. Mastering specific new technologies or equipment is not the sole training need among this segment of workers. Rather, our research suggests that employers seek employees with strong foundational skills (basic math, reading, and writing), non-technical human-centered skills (focused around communication, collaboration, critical thinking, and customer service), and generalized data literacy skills (so they are comfortable using a variety of software or platforms to input, find, evaluate, communicate, and interpret data).

The community colleges we visited strive to provide every student with a combination of general and technical skill instruction, inviting local employer input on in-demand skills and how they can be integrated into curricula. At Monroe Community College in Rochester, New York, for example, a heating, cooling, and ventilation (HVAC) degree program added a “soft skills” course because graduates were being asked to engage in more customer service and to explain increasingly complex home and business HVAC systems while doing repairs or installation work. Similarly, the building maintenance associate degree program at Oakland, California’s Laney College added significant computer and data content to its curriculum so that graduates will be ready to work in increasingly complex downtown office building environments.

Meeting adult needs for flexibility and support. Adult learners are typically also workers and parents. They want to get quickly into the labor market—either in the same or a different field—and focus on providing for their families. Student-centered colleges are finding ways to be more accessible to students who have limited time and resources. They may offer night and weekend class times; 8-week (instead of 15-week) semesters; credit for prior learning, particularly for...
veterans; and hybrid programs that combine online and in-person learning. The demand for shorter programs is clear, particularly in the aftermath of COVID-19. And many states have used federal CARES Act funding to encourage local colleges to create and expand short-term occupational programs, helping tens of thousands of adults learn new skills for rapid re-entry into employment. Some states have invested their own funds to promote quick re-training and re-employment on a large scale. Virginia’s FastForward initiative, for example, has subsidized the enrollment of more than 24,000 adults in 6–12 week community college training programs for high-demand occupations identified by the state workforce board."

Flexibility is important but not sufficient. Adults trying to get back into the labor market frequently need a range of supports and services to help them find their way and persist in school. These include college and career advising, tutoring and academic support, and nonacademic support such as childcare, transportation, and food and housing assistance (nonacademic supports are especially relevant to those hardest hit by the pandemic). Some colleges bundle and sequence these services to create a cohesive experience for students as they progress through college. These “wraparound” service models tend to be less readily available to workforce training participants than degree program students, but colleges are finding that providing such supports and making adult workforce training students feel a part of the college community can help promote persistence and completion. The importance of both flexibility and comprehensive supports is highlighted in a What Works Clearinghouse practice guide on career pathways interventions that have shown promising evidence of improved educational and labor market outcomes."

**Aligning shorter workforce programs with longer degree programs.** Many community colleges offer noncredit programs and workforce training certificates through a stand-alone division that does not coordinate with associate degree programs. This is beginning to change, as college leaders realize that students need an increasingly rich combination of general and technical skills for work in the 21st century economy. Moreover, employers tend to use an earned degree as a signal for possessing general skills and being job ready. Institutions such as Wake Technical Community College in North Carolina are moving toward a “one college” model that breaks down walls between credit and noncredit divisions by organizing programs and offerings by content and career area rather than by whether or not they are offered for credit. The goal is to help all students advance toward credentials with labor market value in their chosen field, no matter where they start. At Indian River State College in Florida, alignment and integration have become institutional policy: No new course can be approved unless it counts as a course in a related degree program.

To enable students to keep their options open for further learning and employment, some institutions and states are beginning to build out “stackable credentials” or to embed certifications or certificates in degree programs. This idea has been around for some time: Learners can move from an initial short-term credential through a sequence of one or more additional credentials that can be accumulated over time, perhaps starting in a noncredit program and then moving on to more advanced certificate and degree programs in their field. For example, a student might earn industry certifications in technical support, cloud technology, and data analysis on their way to an associate or bachelor’s degree in data management.

Studies suggest that few students nationally have earned stacked credentials and that short-term credentials alone generally fail to increase earnings sufficiently or equitably. The structure and implementation of such programs are key. Research from Ohio indicates that students will take advantage of stackable credentials to return for a second credential,
particularly in IT and health care. Ohio encouraged the development of stackable credential programs across all state postsecondary institutions—training centers, community colleges, and universities—and all played a role. Universities were key to helping students earn degrees.

**Partnering with high-wage, high-skill employers.** Improved outcomes for workforce training depend in part on strong partnerships with high-quality employers and industry leaders. The best partnerships go beyond periodic meetings of industry advisory committees; they emphasize deep interaction around program design, curriculum content, access to work experiences, and feedback on student performance. Leaders of Malcolm X College in Chicago, for example, developed a close strategic partnership with a large nearby hospital system, which led to the identification of an emerging need for a new job, that of medical assistant. The college and the hospital system designed a new training program and collaboratively built out the curriculum so that qualified graduates would be job ready. In Rochester, New York, Monroe Community College has worked closely with the highly specialized local optics industry to rebuild a pipeline into the industry for technicians after the decline of former giants Kodak and Xerox. Innovative colleges are also looking for opportunities to expand apprenticeship programs in high-wage occupations, offering related instruction at the college and focusing on diversifying the demographic composition of new apprentices.

4. **What challenges are community colleges facing?**

The examples above highlight the readiness and capacity of many community colleges to deliver high-quality training that meets the needs of students and employers. Nonetheless, our research also revealed institutional and systemic challenges.

**Using data systems to track the progress of noncredit students.** There is no national standard on data collection for noncredit students. State and institutional data systems use different definitions for counting credit and noncredit programs, and they differ in their noncredit education metrics (e.g., hours of training, unduplicated enrollments, types of programs, outcomes). Until better data systems are available and used, noncredit students remain a “hidden” population. Colleges collect fees for serving them, but they generally do not have reliable data that they can use to capture academic and employment outcomes over time. This limits colleges’ ability to determine whether students are well served by these programs and to make improvements. Students who complete noncredit programs often have to start over if they want to enroll in a for-credit certificate or degree program or begin taking classes at another institution, in part because data systems are not integrated or aligned.

**Securing high-value experiential learning opportunities.** Some workplace-related skills that employers want to see in new hires are best learned on the job, in real customer-service or team-based situations. But the infrastructure to generate sufficient hands-on work-based learning placements for workforce program participants is generally understaffed and underfunded. In health care programs, required clinical placements often constrain program scale, since they are difficult to establish. Some colleges are beginning to hire work-based learning liaisons to work with employers, but progress is slow and was derailed by the pandemic. Development and implementation of computer-based simulations of real work situations may be a technological innovation to help address this challenge.

**Assuring equity in access and success.** Available data indicate that community college workforce training programs struggle with achieving equity in both access and outcomes.
In most community colleges, for example, access to selective nursing and allied health programs tends to favor White applicants who have often benefitted from stronger educational preparation, while Black and Latinx students are overrepresented in programs that train for lower-paying jobs. Better data collection and tracking would help clarify the dynamics surrounding program participation and help colleges focus on strategies to narrow gaps, as many are doing more routinely in programs that grant associate degrees. More targeted outreach can also help: Florida’s Broward College created an initiative that delivers non-degree credential programs in neighborhood venues within the six local zip codes with the highest average unemployment and lowest education attainment levels. Nearly 2,500 primarily Black and Latinx adult residents have enrolled.

**Collaborating within regions and states.** If improvement in workforce training is to occur at large scale and across the nation’s community college sector, institutions cannot go it alone. Too many students, particularly adults, enroll in courses at several different colleges (two- and four-year) only to find that many credits are forfeited when they transfer to a new institution and try to enroll in a new program. States and clusters of colleges in a region can help more students maximize credit for courses taken and earn credentials more quickly and cheaply by strengthening pathways, standardizing requirements and expectations across institutions in the state, and simplifying course and credit transfer. State-level policy changes can encourage collaboration to articulate different credential programs with each other and reduce cost and complexity obstacles in transferring from one program to another. In CCRC’s recent research on short-term workforce credentials, we found that state-level leadership—essential, for example, in the Wisconsin Technical College System’s decade-long strategy to embed short-term technical diplomas into degree programs—has made a difference in program alignment, scale-up and take-up, and nimbleness in the delivery of in-demand training.

### 5. How can the federal government support improvements in community college workforce training?

While most funding for community college workforce training programs comes from state and local agencies, employer contracts, and student fees, there are several ways the federal government can leverage its authority and resources to strengthen programs and benefit students:

1) **Competitive grants to community colleges** to help institutions conduct outreach and make program improvements to better serve unemployed, underemployed, and low-income adults most affected by the pandemic. A recent example is the Trade Adjustment Assistance Community College and Career Training (TAACCCT) program, created in 2011 to help community colleges serve dislocated workers. TAACCCT grantees enrolled close to 300,000 adults (average age: 31) within the first four years of the program. Priority for new grant funding should go to training in sectors that are needed for economic recovery and to help colleges expand high-return occupational programs that tend to cost more to offer, such as nursing and advanced manufacturing. Priority should also go to programs that “stack” toward degrees, recognizing the long-term economic benefits that accrue to individuals who earn an associate or bachelor’s degree. Support for career advising and wraparound services—always important to low-income students—will be especially critical for adults whose lives were disrupted by the pandemic.

2) **Grants to state agencies or intermediaries such as Student Success Centers** to incentivize community colleges, employers, public workforce training systems, nonprofit
groups, and other entities to collaborate in the design and delivery of workforce training. Students often attend more than one institution, and yet structural or communication barriers prevent students from receiving full credit for courses and programs completed elsewhere. Improved articulation agreements and centralized record-keeping for student transcripts are some of the strategies states have implemented to facilitate transfer and help students advance more quickly. States and intermediaries may also provide leadership on addressing systemwide challenges: for example, how to expand the number and improve the quality of apprenticeships and other forms of experiential learning, and how to identify and close gaps in program access and student outcomes by race or income group. An advantage to supporting states and intermediaries is that they can offer targeted assistance to institutions that need to improve but do not win competitive grants.

3) **Supporting improved data systems** to collect data on and assess the progress of workforce training participants as they advance through college and into the labor market. Currently, states and colleges are not required to report on students in noncredit programs to the federal Integrated Postsecondary Education Data System (IPEDS), and not surprisingly, this is the group for whom there is the least information. Federal guidance, combined with grants or other incentives to states and institutions to strengthen data systems, can shed light on this sector. Many states and institutions also lack capacity to link postsecondary education and employment data. Consequently, policymakers and program operators do not have complete or timely information on the types of jobs students get or what students are earning after they enroll in workforce training (credit or noncredit). Policymakers and program operators need this information to decide what courses to offer and where to make improvements; likewise, students need this information to choose a program of study and plan their career path. The State Longitudinal Data Systems program run by the Institute of Education Sciences has provided grants to help states link education and employment data, but there is need for further investment to capitalize on technological advancements in systems design and to use data for program evaluation and decision-making.

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Endnotes

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