Success at Scale

Strategies to Improve Outcomes for Underserved Students

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BY MIKHAIL ZINSHTEYN

Executive Summary

If the recent history of higher education could be summarized in a sentence, it would go something like this: first there was the movement to have more students enroll in college, then in the past decade or so came the national push to help more of those students actually earn degrees and certificates.

Without question, the country has seen improvement in college access and outcomes. Also indisputable: the country's colleges and universities still have a long way to go, particularly on student success.

By one measure, the share of students who graduate from high school and immediately enter college has risen from 63 percent in 2000 to 68 percent in 2017. By that same measure, far more Hispanics have entered college after high school, rising from 49 to 67 percent in those years.

Yet even as more students are entering college—the share of 18- to 24-year-olds enrolled also jumped from 35 to 41 percent in around that time—just over half are earning their degrees in six years, according to the National Student Clearinghouse Research Center.

Over time, those waves of students who entered college but never finished have amounted to a midsize country's worth of adults in the U.S. with some college but no degree—totaling 35 million.

But while these data points help to diagnose a problem, they don't signal a solution to the nation's student completion struggles.

Inside Higher Ed's new report, *Success at Scale: Strategies to Improve Outcomes for Underserved Students*, now available for purchase, seeks to document the solutions in play to improve student outcomes. Some are well-known but little understood. Others are small in nature but show great promise.

The special report is almost entirely focused on community colleges and regional

public universities, which are the workhorses of higher education and whose share of the total student population pie is inversely proportional to the news media attention they typically receive.

As the country grapples with the millions of students who fall through the cracks, it's these institutions "that are really setting the new standards" for student success, said William F. L. Moses, managing director of the education program at the Kresge Foundation. "It's not the Ivy League; it's not often the public flagships or the elite liberal arts colleges," he added.

Not only are these workhorses zones of innovation, but they hold outsized power in propping up or knocking down the ambitions of the nation's underserved students. It's "worth noting that first-generation students,

low-income students and students of color are also more likely to go to community college," said Lorelle Espinosa, vice president for research at the American Council on Education and herself a former community college transfer student.

Still, she sees a "shift in attitudes" in which colleges view "students not as problems to fix" but as learners to cultivate. "And of course, some institutions are much farther along in that transformation than others, but it is encouraging that there's so much activity there."

Indeed, something has happened in higher education already that's led to a more educated polity. As ACE has shown, in 2017, about 45 percent of adults who were at least 25 years old had earned an associate degree or higher, up from 31 percent in 1997.

But progress is uneven, and the data tell different stories for different racial and ethnic groups. For example, ACE's analysis also shows that a quarter of black students who earn bachelor's degrees do so in 12 or more years—nearly double the national average and higher than the 15 percent for Hispanics.

This report trades in breadth for depth, recognizing that the postsecondary space is rich with reform but could benefit from a concerted look at programs of promise and the challenges other colleges may face in replicating these efforts. The project is meant to convey both hope that improving student outcomes is possible and a reality check on the considerable work and resources that are needed to bring these policies to bear.

The package is organized by chapters that explore in detail the major reforms galvanizing two-year colleges and the four-year

institutions that partner with them. The City University of New York's Accelerated Study in Associate Programs (ASAP), guided pathways, transfer solutions and finally a deep dive into California State University's effort to more than double its four-year graduation rate are the cornerstones of this special report.

With ASAP, the country has a model that's been steadily acquiring evidence to show its package of intensive student counseling, priority registration, tutoring and career development services coupled with the use of tuition waivers, free textbooks and public transportation passes lead to unparalleled student success improvement—a virtual doubling of the graduation rate for full-time community college students.

Guided pathways is arguably a more ambitious reform effort. The concept's pitch is simple enough, but its execution requires an intensive overhaul of how colleges teach all their students.

"There are two ways of thinking about improvement. One is rates for the students who are affected, and the other is rates for the college as a whole," said Josh Wyner, executive director of the College Excellence Program at the Aspen Institute and a vice president there. When colleges create new programs, he said, the question leaders should ask is "how many students can be served by this?"

The chapter on improving the lot of students who want to transfer from a community college to a four-year university explores regional efforts to ease their journey as well as national projects, including ones to award associate degrees to students who didn't realize they were eligible for them. The section begins with the observation that of the first-time

students who started community college in 2012, just 28 percent earned a certificate or associate degree, less than a third successfully transferred to pursue a bachelor's and an even smaller share—13 percent—actually graduated with a bachelor's degree within six years. (Though 44 percent of those who transferred earned a bachelor's degree within six years.)

It's our hope that this report will apprise readers of the hard work needed to follow promising reforms with fidelity rather than fall victim to their simpler, ersatz versions. College leaders may be familiar with strong reform models for improving student success, but they risk taking shortcuts without greater awareness of the complexities that lie ahead.

For example, at some institutions, the first-year student experience follows the model that was created originally at the University of South Carolina, Moses said. Yet elsewhere, the touted approach to a first-year experience is what happens in a student's first year, "which is not particularly strategic, or it doesn't have pedagogical goals or aspects… and yet they think they're doing the same thing."

Along the way, the special report highlights many of the hurdles that frustrate the degree aspirations of students and the emerging programs that could one day prove consequential in seeing more students pass the academic finish line. These describe, for instance, a university's effort to remove the need for students to purchase any textbooks in several majors, how an app may hold the key to distributing emergency financial aid to students and a community college's rationale for wanting to build student housing.

Also included is an exploration of the millions

of students who are parents and a small program at a community college that is sending underrepresented students into STEM majors at research universities using money from a federal research grant.

But relying on the largess of grants for such programs may be unsustainable, said Keith Harmon, director of the Meyerhoff Scholars Program at the University of Maryland, Baltimore County, which is a national model in providing research opportunities and generous scholarships to students who are pursuing STEM fields.

"Folks have good intentions, but without the institutional support, these programs are really difficult to sustain," Harmon said.

The stakes are high for creating financially sustainable reforms. Case in point: overlooking students who are parents results in a major blind spot for colleges that want to address stubborn equity gaps—nearly 40 percent of black women in college are single mothers. Rarely do colleges even know how many of their students are also parents to children under 18, even though colleges could look at their FAFSA data or add a question to their enrollment survey, said Barbara Gault, executive vice president of the Institute for Women's Policy Research.

"If we are thinking about improving college outcomes for communities of color, black women, Hispanic women, Native American women, if we're ignoring dependent care responsibilities, we're just completely going to miss the boat," she said. ▪

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CUNY's ASAP Program, at Scale

Rarely, if ever, does a promising policy proposal have the statistical goods to support the hype behind it. Cue the City University of New York's project to improve graduation rates for community college students seeking associate degrees.

Launched in 2007, Accelerated Study in Associate Programs has been steadily acquiring evidence that its package of intensive student counseling, priority registration, tutoring, career development services and use of tuition waivers, free textbooks and public transportation passes leads to unparalleled student improvement.

The latest evidence released in 2019, backed by the gold standard in research—the randomized-control trial—shows that ASAP caused three-year graduation rates to jump from 22 to 40 percent. MDRC, the research firm behind the study, calls ASAP's impact on three-year outcomes the biggest in any large-scale randomized experiment in higher education to date. Virtually all of the students studied required at least one remedial course,

and more than three-quarters were black or Hispanic—higher than the national trend for community colleges. ASAP's effect on black students was particularly large: black students enrolled in the program more than doubled their associate-degree attainment rate after three years, from 18 percent to 46 percent.

Improving graduation rates within three years has multiple benefits—from quickening the time students are out of the workforce to forgoing the costs and likely debt that come with being in college. It also serves as a guardrail against work or financial hardships that push many students out of higher education altogether. While it's true community colleges are a bargain compared to four-year programs, they still require substantial investments from students, especially for those who are enrolled for long periods but fail to earn a degree or transfer to another institution. According to the College Board, the annual total cost of attendance for community college students on average is more than $8,000 after grant aid is calculated.

"[ASAP] shows quite a bit of promise for improving completion and student success. So I think it's worth situating it in the broader conversation of community college reform and institutional change and how it can work in tandem with other efforts and interventions."

Maria Cormier
Senior research associate
Community College Research Center, Columbia University's Teachers College

The program continues to have an impact past the three-year mark. After six years, ASAP caused the graduation rate to increase by 10 percentage points, the 2019 MDRC research found.

ASAP "shows quite a bit of promise for improving completion and student success," said Maria Cormier, a senior research associate at the Community College Research Center at Columbia University's Teachers College. "So I think it's worth situating it in the broader conversation of community college reform and institutional change and how it can work in tandem with other efforts and interventions."

Given its promise, implementing ASAP is top of mind for numerous institutions. A formal effort to replicate ASAP is underway in Ohio, where a two-year evaluation led by MDRC found that graduation rates for degrees and certificates doubled, from 8 percent to 19 percent, for students who participated in

the experiment. The results, published in late 2018, virtually mirror the outcomes in New York, even though the Ohio college students in the study were more likely to be parents than the CUNY students (27 percent versus 15 percent) and were twice as likely to have a job (60 percent versus 31 percent). "Replications rarely deliver results comparable to those of original programs, but the Ohio demonstration has been an exception, achieving results similar to those of the original," a 2018 MDRC report said.

Elsewhere, the California community college system awarded Skyline College $3 million to try aspects of ASAP and to assist other colleges in doing the same. The college, which is located just south of San Francisco, had 507 incoming students take part in the school's version of ASAP in 2018-19, the first year of full implementation after a two-year pilot and support from a CUNY technical team. While the college needs another year to produce three-year graduation rates for its pilot

students, early results are positive. According to Skyline data provided to *Inside Higher Ed*, the fall-to-spring retention rate for students in the Promise Scholars Program was 93.5 percent—it was 79 percent for first-time, full-time Skyline students who were not enrolled in the ASAP-like program.

Within the CUNY system, more students are being placed into ASAP across the nine colleges participating in it, from 4,300 in 2014-15 to over 25,000 in 2018-19. The most ambitious expansion has been at Bronx Community College, which reached its enrollment target of 5,000 ASAP students in 2019—roughly half of its total enrollment of students seeking associate degrees. That effort is being studied by the Community College Research Center.

So how are these implementation efforts coming along, and what is required of other colleges to move the needle on graduation rates that have been agonizingly low for so long? And perhaps as important: What can't ASAP do?

An Expense that Pays Off

Rolling out ASAP costs money—several thousand dollars more per student than what colleges typically spend. At CUNY, providing ASAP services costs the institutions about $3,500 more per student annually, a 35 percent premium, according to CCRC. That's down from 2015, when the cost was roughly an extra $4,700.

So far Ohio's three colleges experimenting with ASAP—Cincinnati State Technical and Community College, Cuyahoga Community

College, and Lorain County Community College—on average spend much less per student annually: an additional $2,331 on top of the standard $7,284. About 40 percent of those extra costs were for administrative expenses, a quarter were for student services like advising and just under a third were for student financial perks.

At CUNY, ASAP students take advantage of student-counselor ratios of 150 to one, much lower than what the National Academic Advising Association estimates as the median caseload of an adviser at public two-year colleges—441 students per adviser. Ohio's ASAP program capped caseloads at 125 students per adviser.

The program costs vary by region. New York City is much more expensive than the Ohio ASAP locations. CUNY offers ASAP participants a metro card valued at about $125 a month (though the benefit itself is called unlimited), while the Ohio program instead metes out $50 gas and grocery cards.

The difficulty "for ASAP and scaling is that it's got this sticker price that is challenging for colleges," said Michael Weiss, a senior associate for postsecondary education policy at MDRC who has worked extensively on evaluating the program.

That price tag might be worth it for colleges eyeing improvements in student outcomes, assuming ASAP is the cause of students who otherwise would not have earned a degree earning one. So far, it's hard to know whether ASAP alone is driving students toward earning an associate degree.

The 2019 MDRC study noted that "ASAP's remaining 10 percentage point impact on six-year graduation rates likely reflects a

combination of some students who would have graduated beyond six years and some students who would not have graduated at all without ASAP."

Weiss said MDRC has funding to study the program's effects after eight years—two more than what's currently known. "I would say the bad scenario could be that it closes down to five percentage points," referring to the difference in graduation rates after eight years for ASAP students and non-ASAP students. "That could happen in a couple of years, but my guess is it's going to start flattening out for everyone, and pretty soon we'll feel confident about what the real differences are."

Of course, the quicker students complete their associate degrees, the more space there is on campuses to serve the next wave of students and avoid overcrowding. And if more students earn degrees who otherwise wouldn't, ASAP's up-front costs seem more worth it

when considering the cost per degree for a whole institution. Back in 2015, MDRC found that the cost per degree earned for non-ASAP students attending the three colleges studied was $118,248. The cost per degree through ASAP was $104,825.

The ASAP model can also yield benefits for colleges whose state funding is tied to student outcomes, a type of public policy known as performance-based funding. In California, student outcomes account for 10 percent of the state's new funding formula. In 2018, colleges could have received between $1,320 and $1,760 for every student who earned an associate degree, plus additional money if those students qualified for financial aid, though in truth the state didn't allocate the revenue to fully fund the formula (the community college system will create new rates for the upcoming year). Others said that as ASAP expands within a college, more of its oversight can be integrated into the broader governance of the college, which can save on personnel costs and other expenses.

Going Big in the Bronx

Expanding ASAP takes time, even under preferable conditions such as $35 million in financial support from New York City plus additional state dollars, major administrator interest in the program's success and increased national attention. That's the story at Bronx Community College, a CUNY campus where 50 percent of students vying for an associate degree are now in the program after the system vowed to create the first "ASAP college."

The college hit its ASAP enrollment targets, which is "not to be underestimated," said Cormier, who co-wrote a report on the [Bronx campus's ASAP adoption progress](). She said the 5,000-student goal was "an ambitious target to meet in a short amount of time," calling it "quite significant" and a clear sign that "they've been successful with the scale up and the expansion."

According to CUNY's Diana Strumbos, senior director of research and evaluation for student success initiatives, the most recent three-year graduation rate for Bronx Community College's ASAP students is 54.5 percent. In past years, students at the college who were eligible for ASAP but didn't enroll had a three-year graduation rate of 17.7 percent.

But scaling up required changes to the program's characteristics. The ASAP model already looks different compared to when CUNY first introduced the program. Initially, an adviser's caseload was closer to 70 students. The program was open only to students who fell below a specific income threshold or received federal financial aid. Today, most majors are accepted under the ASAP model.

During the expansion process, Bronx Community College hired six new student advisers in 2016 and 14 in 2017. But according to the CCRC report, "both ASAP and non-ASAP stakeholders reported that BCC's processes for hiring advisers were too lengthy to accommodate the rapid increase in advisers needed for ASAP." Because of this, several new hires were delayed, "preventing the program from maintaining a 150-to-one student-adviser ratio for several months." Some advisers told the report's authors that ASAP was accepting students faster than the college was hiring advisers.

It can also take up to a year to train advisers to follow the ASAP approach, which includes outreach and scheduling student meetings regularly while also assessing each student's needs before the term begins and creating an advising plan for them. Some students may be deemed high need, requiring monthly meetings in addition to other planned events. "It's really providing that in-depth connection and relationship with the student that makes them feel integrated and part of a college community," which can prevent students from dropping out, Cormier said.

Bronx Community College also had to change its ASAP enrollment procedures to hit its enrollment target. With 5,000 students, the college "had to think about how many exit points there are along the way for a student to never end up in ASAP," Cormier said.

Before the expansion plans, enrolling into ASAP happened independently of the admissions office, which resulted in "duplicative messaging to new students" and added "unnecessary complexity to the enrollment process," according to CCRC. To enroll more students into ASAP, CUNY developed an algorithm to flag students who could benefit. Next, the student receives an invitation to attend an information session about the program. Bronx took it a step further. If students were sold on the idea, they enrolled into ASAP and their classes through the admissions office, a process that required fewer steps. Integrating ASAP outreach and the college admissions office allowed for a "very different student experience than having this hit-or-miss interaction with various offices and departments across the college," said Cormier.

Removing duplicate work was a theme in

CUNY's expansion of ASAP. The system also integrated ASAP and CUNY data systems to cut down on data entry. Other changes included new hires, like additional ASAP recruiters and associate directors to oversee advisers after the expansion.

The commitment from Bronx was key, even in a supportive environment. "It's really what happens on the ground at an individual institution that ultimately is going to decide the success of these types of programs," Cormier said.

What all these examples of adopting ASAP have in common is technical support from CUNY, something that other colleges interested in adopting the model may want rather than developing the program on their own. CUNY officials did release a technical guide for replicating ASAP, but leaning on a CUNY technical team is likely the better bet, Weiss said, especially in confronting challenges colleges may not anticipate. "It just turns out that integrating all of these things is a lot harder than, I think, people expect," he said.

Some of ASAP's conditions may alienate students, like those preferring part-time status or who want to pursue degrees not covered by the program. But the benefits that ASAP promises—including financial ones like tuition waivers that cover what state and federal aid wouldn't, transit passes and textbooks—can compel part-time students to attend full-time. MDRC researchers found that ASAP increased full-time enrollment rates by "11 and 20 percentage points in the first two semesters of the evaluation."

College readiness also is a factor. At CUNY ASAP, students can't have more than two remedial classes and are obligated to begin completing them immediately, if not in the summer before fall term.

Colleges should also be clear on what ASAP doesn't offer or promise. For starters, the data suggest that ASAP "is not causing people who otherwise would not have earned a bachelor's to earn one," said Weiss. "But it is causing some people to earn that degree a little bit faster than they would have."

Nor does ASAP have any say in what's taught. It's not an overhaul of what students learn in the classroom or where they spend most of their time on campus.

"It's unclear how many students you can afford to offer it to," said Davis Jenkins, a researcher at CCRC and a leading proponent of guided pathways, a much more comprehensive overhaul of community colleges that focuses on the whole campus rather than a subset of students.

Even Bronx Community College's ASAP expansion, which is by far the most extensive, doesn't include every student on campus. "The field is wrestling with what does it mean to scale," said Cormier. She said CUNY officials had to dial back the promotional material behind ASAP's expansion at the Bronx college as the first "ASAP college" because "they recognized not every student is going to be eligible for ASAP, nor is every student going to want to participate in ASAP."

While the program is limited to a subset of the student population, the goal with guided pathways "is to reorganize the college so that every student is helped to develop a plan," said Jenkins. "And you do that by reorganizing the college around meta-majors or communities of interest."

SERVING STUDENT PARENTS

College goers with children endure the daily challenges of course work and limited finances that millions of other students experience in pursuit of a degree, but with added strain.

Limited affordable day-care options, course schedules that are indifferent to students' parenting demands and daily slights like having no space to pump breast milk all contribute to an often-dispiriting experience for legions of adults seeking a postsecondary education.

And despite representing a fifth of all college goers, students who are parents to children under 18 are seeing fewer crucial services on campuses across the country.

According to an analysis by the Institute for Women's Policy Research, the share of community colleges and public universities that have a campus childcare center dropped from 52 and 54 percent, respectively, to 42 and 48 percent, respectively, between 2002 and 2017. "I think part of that has been because until recently, there's been very little attention paid to the importance of the population, how big it is," said Barbara Gault, executive vice president of IWPR.

Even when campuses do have a center, parents may encounter long wait lists. That's to say nothing of affording childcare off campus—in 17 states and Washington, D.C., "the average annual cost of care for a four-year-old exceed[s] the annual cost of in-state tuition at a public university," the IWPR report said.

The only federal college childcare program, the Child Care Access Means Parents in School program, funds nearly 200 centers across the country, supplying seats for an anticipated 13,000 kids. That's an estimated 7,000 more than the program allowed for until 2018, when Congress increased spending on CCAMPIS from $15 million to $50 million—the first increase in nearly two decades.

A September Government Accountability Office report criticized colleges for not doing enough to inform students who are parents about available social programs to help them afford childcare. Some students could request an additional allowance through their federal student loans to cover childcare costs, but college websites rarely make this information available, and the U.S. Department of Education doesn't encourage schools to reveal it, the report found. According to GAO,

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"55 percent of student parents were single parents, 44 percent were working full-time while enrolled and 64 percent attended school part-time."

Limited data suggest campus day-care centers are effective at improving student outcomes.

At Monroe Community College in Rochester, N.Y., students who enrolled their children in the college's day-care center graduated on time at three times the rate of other student parents who didn't use the center, according to a report from the college and IWPR, which included some caveats.

Given that 42 percent of all student parents are enrolled at community colleges, more research into the impact such services have on students is needed.

Some descriptive data indicate more investment in parents who are students is worth the initial cost. IWPR calculates that compared to single mothers with just high school educations, "each single mother with an associate degree contributes $36,291 in additional taxes throughout her lifetime." For bachelor's degrees, it's nearly $85,000. Plus, with higher incomes, single mothers need fewer public assistance dollars.

The ideal fix is "free childcare for all student parents on their campuses," said Lindsey Reichlin Cruse, study director at IWPR. That's wishful thinking for now, but some efforts are under way to use local and state money to support parents who are students.

In California, Governor Gavin Newsom pushed through a $96.7 million expansion of the state's vaunted Cal Grant to support parents who are students as part of the 2019-20 budget. The plan, which calls for granting up to $6,000 to eligible students who attend public two- and four-year colleges, was a pet project of the governor's, who fought off legislative opposition.

Key lawmakers wanted to use the extra money instead to expand the number of college students who'd be eligible for the Cal Grant—something only a small percentage of community college goers receive, because the grant is largely reserved for students who enter college soon after high school. Ultimately lawmakers and the governor agreed to fund both the parent-student money—estimated to help 29,000 students—and slightly expand Cal Grants for students who start college after more than a year has passed since finishing high school, from around 26,000 to 41,000 (hardly enough to cover the roughly 261,000 students who'd be eligible for the Cal Grant were it not for this restriction, most of whom are community college students).

The back-and-forth occurred during a wider policy debate over how much more the state should pay to cover out-of-pocket expenses of students. Several proposals called for a promise to pay much more of the living expenses students face—something that could have benefited student parents as well but would have cost as much as $2.2 billion more per year.

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"I understand both sides of that, and obviously you hate to choose," said Reichlin Cruse. But she maintains that students who are parents are exceptionally vulnerable to dropping out. And because student parents are more often single mothers and people of color, targeting parents means focusing on traditionally marginalized student groups. More than half of student parents are people of color, and compared to dependent students, they are 1.7 times more likely to live with low incomes. Student parents also have $2,200 more in unmet financial need than dependent students, according to IWPR.

"The other benefit of targeting student parents is that you're affecting two generations of students," she said. "You've got current students and you have prospective college students in the next generation," children who are likelier to go to college because their parents earned a degree themselves.

The state's budget also included $239 million in capital projects for the Cal State system, and several of the campuses are using around $9 million of that money to repair or develop childcare centers. One campus, Humboldt State University, is using $8.6 million in 2019-20 to build a new childcare center on campus to serve 150 students, a system spokesman told *Inside Higher Ed.* How much of a dent this will make in the need for childcare seats is unclear; the system doesn't track how many of its students are parents.

A state synonymous with big spending isn't the only test case for big ideas in helping student parents earn degrees.

In Arkansas, a mentoring and financial services program designed for vocational students with children who received welfare benefits showed strong results in improving both degree outcomes and wages.

The program, called the Arkansas Career Pathways Initiative, started in 2005 as a way to drive more students with children receiving Temporary Assistance for Needy Families into higher-income careers rather than low-wage positions. Student services include hands-on advising and career planning, financial support for childcare and transportation services, textbook support, and assistance with résumé writing and job interview preparation.

An external examination by Metis Associates found that 52 percent of the program's 30,000 students completed at least one higher education academic certificate or degree between 2006 and 2013. By comparison, just 24 percent of Arkansas students who weren't in the program but had similar characteristics earned a degree or certificate in that period of time.

A follow-up found that students who participated in the program earned higher wages than students receiving TANF who weren't in the program, ranging from $2,500 to $3,100 more a year after leaving college, depending on the cohort. Researchers then compared the program students to the general college population, finding that though students who weren't receiving TANF earned more, the gap narrowed over time.

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Michael Scuello, a senior associate for design and analysis at Metis, explained that students in the general population may have had prior work experience and were further along in their studies. The TANF students who participated in the Pathways Initiative also may have started in entry-level positions that had a lot of upside, like parents who left a salesclerk job to earn a certified nursing assistant degree and start their nursing career from there.

He stressed that a key finding is that their wages start getting closer to those of the other students who didn't take part in the program, signaling that the Pathways Initiative was fulfilling its aim of improving the wages of welfare recipients with kids.

Scuello is bullish on what this program and other mentor-focused interventions have in common—coaching and a broad range of student supports. "We need to invest more in these types of wraparound services programs to help individuals who need assistance to complete certificates and degrees."

To him, the Arkansas Career Pathways Initiative is scalable, as long as it's replicated with fidelity. "The reason why it is so effective is because of that hands-on, high-touch level that they're getting from the coordinators actually running the programs at the individual campuses," Scuello said.

That the Career Pathways Initiative led to improved wages over time could be seen as a welcome antidote to another troubling trend among students with children: "Nearly half of students with children who entered college

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Michael Scuello
Senior associate
Metis Associates

in 2004—46 percent—defaulted on their federal loans within 12 years," according to a 2017 Center for American Progress report. That's nearly double the rate for students who had no children.

Smaller operations can also add value for students who are parents.

For example, Los Angeles Valley College, a community college in the San Fernando region, runs the Family Resource Center. There, students who are parents can pick up donated baby clothes, store breast milk in a fridge designated for that purpose, borrow at no cost textbooks for specific courses and

receive academic tutoring while their children play next door in a room filled with toys. The center is also available to workforce-training students who are in short-term programs but could still benefit from the family services. A twice-weekly food pantry is run out of the center as well. No one funding stream supports the center; instead its small staff maintains their salaries and student services through a patchwork of grants and donations.

"Their model is definitely scalable," said Reichlin Cruse. "They provide a range of low- and high-touch services that other campuses can emulate based on their capacity." Even creating something as modest as an exchange service for baby clothes can signal to students who are parents that the college cares about them.

Another suggestion from experts: the mentoring that students who are parents receive should be tailored to their specific needs for greater access to social services. Academic advisers may not be as attuned to the various local, county and federal services available to student parents. Having a case-management approach, where the adviser or set of advisers round out the academic, social and public services concerns for students, can be a big boost to student success. Other colleges are ensuring their financial aid office includes an enrollment specialist in SNAP, the federal food stamps program.

State restrictions on public subsidies for parents don't help, Reichlin Cruse argues. Three states require that parents who receive federal Child Care and Development Fund dollars work 20 hours a week on top of attending college. Another eight feature some work requirements, according to a 2016 IWPR analysis. The same analysis found that seven states and Washington, D.C., limited the fund dollars to students who are pursuing vocational degrees.

Then there are the pricier ideas that still stop short at free childcare for all. One idea: allowing parents who are enrolled in federal income-driven loan repayment plans to pay less per month for their loans. Another is awarding students with children a higher Pell award—$1,000 for every child a student has, maxed at $3,000. Ben Miller, vice president of postsecondary education at the Center for American Progress, estimates that the change would cost $3.1 billion to serve the more than two million student parents who received a Pell award in 2015-16. He noted that Canada, Finland and Germany include subsidies for parents, with dollar amounts ranging from $700 to $1,200 a year.　■

Guided Pathways to Graduation

Programs for full-time students are great, but what about the part-time learners who account for roughly two-thirds of all community college students in the U.S.?

As open-access institutions that accept all eligible students, community colleges have long struggled to be all things to everyone they enroll. Boutique programs with promising outcomes are a dime a dozen, but true reform requires a focus on the entire student body.

"There are two ways of thinking about improvement. One is rates for the students who are affected and the other is rates for the college as a whole," said Josh Wyner, executive director of the College Excellence Program at the Aspen Institute and a vice president there. When colleges create new programs, the question that leaders should be asking is "how many students can be served by this?"

Backers of one model that is gaining steam say they've got an answer: guided pathways.

The concept's pitch is simple enough, but its execution requires an intensive overhaul of how colleges teach their students. At its core, guided pathways allows students to pick a broad area of concentration and earn a degree or certificate with a clear understanding of the courses they need, with strategic advising throughout their time in school.

Though relatively new, the concept has numerous notable campus exemplars. Several of the 2019 Aspen Prize for Community College Excellence finalists are in various stages of guided pathways implementation, including co-winner Miami Dade College, an early adopter. Others among the first wave trying guided pathways have seen significant improvement in their graduation rates. For example, Cleveland State Community College in Tennessee's adoption of guided pathways' tenets is viewed as a major reason its early indicators of student success, such as data on students earning units toward a degree

State	Total Completion Rate
U.S. Overall	39.22%
Alabama	36.12%
Arizona	32.75%
Arkansas	39.38%
California	33.98%
Colorado	37.37%
Connecticut	33.89%
Florida	48.22%
Georgia	44.65%
Hawaii	41.34%
Idaho	37.62%
Illinois	47.14%
Iowa	51.09%
Kansas	45.82%
Kentucky	42.02%
Maine	40.27%
Maryland	38.44%
Massachusetts	38.96%
Michigan	37.25%
Minnesota	54.60%
Mississippi	46.27%
Missouri	40.42%
Montana	47.52%
Nebraska	40.54%
New Hampshire	41.06%
New Jersey	38.82%
New Mexico	36.56%
New York	43.35%
North Carolina	38.26%
North Dakota	59.39%
Ohio	33.16%
Oklahoma	34.27%
Oregon	33.17%
Pennsylvania	39.47%
South Carolina	35.68%
South Dakota	65.31%
Tennessee	40.89%
Texas	37.80%
Virginia	43.52%
Washington	42.66%
Wisconsin	49.21%
Wyoming	46.51%

Six-Year Outcomes for Students Who Started at Two-Year Public Institutions, by Origin State

[1] States with fewer than three institutions: DE, IN, NV, RI, UT, VT

State-level results are based on the state in which the student first enrolled in a postsecondary institution, not the state of residency nor the state in which the student graduated from high school.

Source: National Student Clearinghouse Research Center

or certificate, and completing a college-level math class in the first year, have increased. At Tennessee's 13 community colleges, arguably the furthest along of any state system in implementing guided pathways, initial signs suggest both overall gains and improvements for white, black and Hispanic students—though equity gaps remain.

Roughly 300 colleges are embracing guided pathways through formal initiatives, while others are adopting the model on their own. But its backers aren't ready to celebrate yet. "While these trends are promising, none of this is definitive evidence that guided pathways is effective, however," said Davis Jenkins, a leading researcher on guided pathways and a senior research scholar at the Community College Research Center at Columbia University's Teachers College. The team there is studying the implementation of guided pathways at 70 community colleges in Ohio, Tennessee and Washington, relying on student-level data to monitor progress. In July CCRC received a nearly $3 million federal grant to study how guided pathways can improve student outcomes in STEM fields.

For guided pathways to flourish, colleges need to spend several years planning the model and another few years fully rolling it out. For starters, colleges have to map out academic programs that show students which courses

they have to take and in what order. These maps also flag critical courses and give students options in math. Doing so departs with the common standard of requiring an algebra-focused math course, even though statistics courses arguably prepare students better for many careers—and students tend to find them easier to understand. So that students don't embark on a pathway they learn to dislike, the guided pathways model prescribes a trial period early in a student's tenure that exposes them to possible careers in that academic field. The trial period could include a course where they literally research a profession, or a course in which they're paid to work on certain job sites.

Backers of guided pathways caution that implementation isn't a clear sequence. Some aspects require multiple years of tinkering. The process is ongoing, as colleges introduce new academic programs and seek to better understand emerging careers.

Pacing is key, too. Guided pathways calls for students to complete most of their "core introductory courses" during the first year of college and to be efficient with course selection. That's meant to address the chronic meandering of students in community colleges. In California, for example, associate-degree recipients on average rack up 91 credits to earn their awards—far higher than the 60 credits required of typical associate degrees. Jenkins found similar credit bloat in his research. At the Alamo Colleges in Texas, the average credit load for associate-degree earners dropped from 92 to 82 in the few years since the campuses began rolling in guided pathways, according to a 2019 CCRC report. Faculty and advisers at San Jacinto College near Houston removed courses from program

maps where credits wouldn't transfer.

Through it all, the model places a premium on clear data and user-friendly information that tells students and their advisers know how far along they are on the way to a credential. At Indian River State College in Florida, the other 2019 co-winner of the Aspen Prize, students can access the college's website and find groups of related disciplines called meta-majors that organize certificates, associate degrees and bachelor's degrees they can pursue, with sample sequences of the courses they need to graduate. Accompanying dashboards show typical jobs and common employers, plus average pay. The display requires few clicks, and links to financial aid and information sessions line the course sequence material.

"I do think guided pathways, by taking the whole institution on, offers the opportunity for sustained change and can affect every student," said Wyner. "That's significant."

The strategy is a far cry from today's standard, cafeteria-style version of presenting course offerings, in which students are greeted with "dozens or hundreds of programs" but "are left to their own devices to pick a course of study and piece together their schedules based on often confusing and incoherent class lists and program information," according to a description of the problem by scholars from CCRC.

Complicating matters is that community college students, who tend to come from economically disadvantaged backgrounds, lack the preparation to wend through the college maze.

Just 40 percent of students who begin at a community college earn some kind of degree or credential after six years. California, with

its [celebrated master plan](#) designed to find a higher education home for any student who wants it, has one of the lowest reported completion rates: just 34 percent. Other states with large populations, such as Florida, Texas and New York, have higher shares of students who complete.

Over all, community colleges are "just hemorrhaging students at the front end, especially," said Jenkins. He estimates that community colleges lose about 40 to 60 percent of their students within the first two terms.

A stronger economy may help explain some of the decline in community college enrollment, but the disarray students of all ages confront can't help.

More adults ages 25 and up enrolled at community colleges in 1995 than in 2016, based on a CCRC analysis of the most recent Integrated Postsecondary Education Data System data available, even though the overall enrollment at community college students has gone up significantly since the '90s. "The adults aren't well advised. And if adults want to earn degrees, they have to go through dev ed," Jenkins said.

Younger students fresh out of high school might aspire to attend college full-time, but after a semester or two, full-time enrollment drops off. While just a third of community college students nationally are full-time, [more than 60 percent of 18- to 19-year-olds attend full-time](#). By the time students are 20 or 21, just 45 percent are full-time, and each subsequent age group is more likely to be part-time. A [2013 CCRC paper](#) that evaluated enrollment patterns at five community colleges in a state found nearly 40 percent of students stopped attending classes after one or two semesters and never returned to any place of higher learning within the study's period. For those who did stay, student enrollment patterns were highly variable. The study authors write that "among students who enrolled in more than one term, 17 percent attended only full-time, 22 percent attended only part-time, and 61 percent attended a mix of part- and full-time."

Nuanced View of What Leads to Stop-Outs

While jobs, family responsibilities and poverty can get in the way of academics, students stop out for numerous reasons for which the institution can be blamed. Students may meet with their adviser once in the beginning of their tenure, but never again. They don't typically receive an education plan to map their course pathway, Jenkins said. Nor are they taking courses that interest them, and most are stuck in remedial sequences that have lousy evidence to justify their existence. In short, everything guided pathways seeks to address.

Faculty can be unaware of the process needed to transfer into a university. One activity backers of guided pathways use is to have instructors map out the courses students need to take to transfer into a four-year university with junior standing. "They can't do it," Jenkins said, at least in most cases.

San Jacinto College staff underwent such an exercise, encountering "confusing" prerequisite requirements and "uncertainties" about which courses transferred, according

to a CCRC package released this fall on guided pathways implementation. The exercise can expose barriers beyond academics. San Jacinto realized some students couldn't afford the required $100 meningitis vaccine mandated by the state. So they worked out a way to have the charge picked up by financial aid.

The emerging wave of reform to remedial education pairs well with improving course sequences under the guided pathways model. That's true in California, where community colleges this fall must be in compliance with a state law, AB 705, that largely does away with remedial college course work in favor of placing students directly into math and English courses that count toward transfer. "Without AB 705, it would've been very difficult to implement guided pathways, because if you have 80 percent of your students come into remediation, it's going to take them possibly years before they're even eligible to take the transfer-level math and English course," said Olga Rodriguez, a research fellow at the Public Policy Institute of California's Higher Education Center.

CCRC's support for guided pathways coincides with national and state efforts to implement the model. California lawmakers for the 2017-18 budget approved $150 million in grants to bring more colleges into the fold over a five-year period. The American Association of Community Colleges is leading a national network of 30 colleges to do the same. Various interest groups, like California's College Futures Foundation, have their own guided pathways support and grant money.

Norco College in California's Inland Empire, east of Los Angeles, has been a recipient

of guided pathways foundation support. The college began exploring the model in earnest following a 2015 internal analysis that showed just 9.8 percent of students completed degrees or certificates between 2010 and 2014. Making matters worse, the Inland Empire is in the midst of a population surge, according to the U.S. Census and the United States Conference of Mayors, meaning the college risked enrolling even more students who didn't complete their academic goals.

After several years of informational sessions and working groups, college staff agreed on a framework for enacting guided pathways reforms, which are currently underway.

"It's easiest just to move forward with one or two people in the room and say, 'go,'" said Melissa Bader, who co-chairs the English department at Norco and co-chaired the college's guided pathways workgroup. But that's not the path the college took, instead opting for wider input and participation.

Despite good rapport, faculty showed opposition. Some worried their respective departments would disappear (to date, no major has been zeroed out under the guided pathways reforms, administrators said). Others worried their offices would move or their style of instruction would have to change. "Lots of those somewhat personal issues," Bader said. Faculty may have agreed that a 9.8 percent completion rate was terrible, "but at the same time, what does it have to do with me as an instructor in my one classroom or two classrooms?" she added.

The college, with district support, has come a long way. In November, software that will record whether students are on track with their pathways was scheduled to expand

districtwide. In the meantime, staff have been importing the pathways for associate degrees and certificates into the software system, called EduNav. The idea is to allow students to indicate which days they're able to attend classes and select courses within their pathway for each semester. The college also developed a "trailhead" approach to a student's first semester by identifying the 15 credits they'll need to get started on a pathway of their choice. That may also include a career-exploration course in addition to getting math and English requirements out of the way.

While the college has the vision, it lacks all the resources to see it through, staff said. Norco doesn't have the money to hire the 17 additional counselors and advisers necessary to coordinate guided pathways efforts at the college's four schools. Those hires would allow the college to have student-counselor ratios of 500 to one and student-adviser ratios of 250 to one, but they would cost $2.3 million. College leaders hope the software upgrades can at least clear much of clerical work required when students meet with the counselors the college does have, freeing up time for more high-level advising.

Staff also need a longer runway to experiment. Norco went through several iterations of its student enrollment process; what was a nine-day process, from application to enrollment, now takes two. "We can't just flip the switch and change everything overnight with every practice that we have in place," said Kaneesha Tarrant, interim vice president of student services at the college.

Other software issues include question marks about merging different software with discrete

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> "Bending the Curve,"
> Ad Astra

roles, like EduNav and another tool that allows multiple faculty members to check in on students throughout their time at Norco.

But Norco staff are excited about what they've done so far. For one, many view their reforms as doing away with the distinction between part-time and full-time students. "We are looking at students as being on-path and off-path," said Tenisha James, dean of student services at Norco. If that means taking a course or two per term while hewing to the order of courses students need, "that's OK." The college is developing a notification system to alert students that their cost of attendance can go up the longer they stay enrolled.

The reforms are designed to combat the confusion students face after entering a

community college with expectations that they'll just need two years of classes before transferring to a university. "They're taking classes that maybe they don't need, and then suddenly they find themselves having been at the community college for six years or more," said Quinton Bemiller, Academic Senate president at Norco.

Beyond clear pathways, "it's extremely important" that colleges offer courses to students when they need them, Jenkins said. Too often, community colleges roll over classes based on the section counts of past years and faculty preferences, rather than monitoring students' course-taking behavior.

At least one company is selling its course-management services to ensure colleges are providing students the instructional schedules that work for them. The current norm is for academic departments to plan their course schedules in vacuums without much coordination, said Tom Shaver, founder and CEO of Ad Astra, a classroom space management and course enrollment planning software firm.

In 2018, the firm released an analysis of the course balance at more than 200 colleges and universities as measured a few weeks after the school year began. It found that most courses are either under- or overenrolled. The ranges are based on best practices: an optimal enrollment is when a course is at 70 to 95 percent of total capacity. Another measure is an indication that a college is running too many sections, which can divert resources from other courses in need of more instructors and confuse students with unpopular options. Ad Astra's research shows that at associate degree–granting colleges, more than half the courses are underenrolled.

Courses with more than 95 percent of maximum enrollment indicate the opposite: not enough faculty are teaching in-demand subjects, and a sizable number of students who want to take these courses likely can't.

Ad Astra argues that balanced course scheduling can improve the overall retention rate of an institution by half a percentage point, based on an analysis of internal data matched with federal and National Student Clearinghouse trends. That might not seem like a lot, but between 2009 and 2014, the change in the retention rate varied nationally from zero to 1.7 percent.

"A balanced schedule means students can access the courses they need, at the times they need them," the report stated. "The schedule is no longer a barrier to their pathway to graduation."

As one of its college services, Ad Astra analyzes past course-enrollment patterns to make predictions about future enrollment. It's a "model based upon student progression against degree audit rules and guided pathways to predict [what's] needed for an upcoming term," Shaver said. Such an analysis allows Ad Astra to say, for example, that a college needs 126 seats for a course that a college's leadership thought only 100 students would take. Based on that recommendation, a college would add an additional section of that course. Meanwhile, Ad Astra staff check in with the college to monitor early enrollment data. "There's no guarantee that we're going to be able to perfectly predict student behavior," Shaver said, but the data give colleges a major leg up in determining if a course in an upcoming term has too many sections or too few.

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> Davis Jenkins
> Leading researcher
> Community College Research Center, Columbia University's Teachers College

Ideally, colleges build their course offerings around the academic plans students are on, said Jenkins, who's familiar with Ad Astra and thinks the company's work could be helpful to campus leaders. But that requires colleges to actually monitor student plans and maintain an infrastructure that keeps them on track. "It's unethical to take community college students' money without having a plan," Jenkins said.

Another data innovation of Ad Astra's is to not only monitor the number of credits students have completed but to determine if those courses are relevant to their academic goals. Imagine a student who takes 12 credits a semester. At that rate, they'll finish a 60-credit associate degree in five semesters. Some guided pathway dashboards already inform students of this. But Ad Astra is also selling a "degree velocity" tool that tells a student whether the credits they took are relevant to that associate degree. If the student's record is peppered with courses unrelated

to their academic goals, the data dashboard will show this and ideally prompt both student and institutional intervention. It's giving colleges a metric to "see how students are actually progressing through those pathways," Shaver said.

Colleges also can use data they have to forecast future progress. At Jackson College in Michigan, the college's governing board began to scrutinize data that tracked trends associated with positive outcomes, such as the share of students earning six or more credits in their first term, how many complete college math and English requirements in their first year, and the percentage of students who come back each term and year, CCRC observed.

While studies on guided pathways are limited, the Aspen Institute spends around $1 million researching the winning colleges, including those where guided pathways are a core tenet of their success, Wyner said. To measure

the value of the degrees students receive, the institute acquires student wage data. On completion rates for associate degrees and certificates that take a year or longer, Aspen looks at self-reported and IPEDS data, among others. Information from the National Student Clearinghouse fleshes out details on students who transfer. The vetting process also includes classroom visits and an assessment of whether the colleges enroll student bodies that reflect the diversity of the communities they serve.

The focus on student outcomes beyond the community college is key to Aspen's decision making. Evaluating a community college just based on the degrees and certificates it awards misses the legion of students with aspirations of a four-year degree.

Santa Barbara City College, which won an Aspen Institute award in 2013, had a 28 percent graduation rate in 2011, according to IPEDS. "You'd say, how can you possibly give an award to someone who's at the national average for graduation?" Wyner said. "The answer is another 26 percent of their students who don't get an associate's, but were there for at least a full semester, go on to get a bachelor's degree." In other words, the college's effective completion rate is 54 percent, he said.

One Plank of Campuswide Reform

Guided pathways isn't the only reform aiming for campuswide improvement, though its emphasis on easing transitions for students has lessons for other departments within a

college, such as financial aid. For example, at Miami Dade College, where nearly 100,000 students attend eight different campuses, students complete a 10-minute financial aid application in addition to the Free Application for Federal Student Aid to become eligible for 300 institutional scholarships.

It could also be the case that guided pathways, with its emphasis on stripping colleges of byzantine tendencies, is only one major plank of community college reform. Improving instruction should be another focus of colleges. "It's hard to think about teaching and learning. It's not standardized" the same way it is in K-12, said Wyner, whose center at Aspen also runs a fellowship program for future college presidents that stresses teaching and learning improvements. "But there are times when I think we're ignoring it because it's harder to count nationally, but it's no less important."

Some colleges work to strengthen transfer ties with the large four-year university next door. Others don't have the good fortune of four-year universities stationed nearby, so they make their own bachelor's programs. The closest four-year university to Indian River is 60 miles away, so the campus developed 20 bachelor's programs of its own. Everett Community College students in Washington State can earn bachelor's degrees in select programs at the nearby Everett University Center, where several of the state's four-year universities teach courses.

Students may find guided pathways jarring at first. As colleges in Chicago adopted guided pathways, some students "were concerned the maps might restrict their ability to choose alternative courses or make it difficult to

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> Valerie Lundy-Wagner
> Senior research analyst
> California Competes

change majors, and some said they were overwhelmed by seeing the complete, multi-year plan," a CCRC report noted.

Guided pathways also can be at the mercy of four-year universities that are bursting at the seams with students. While many universities fear enrollment declines, the University of California and California State University systems have struggled to open slots for additional students. "Even if the community colleges got all of their graduation rates of, let's say, 80 percent, all of those students can't go into the CSU or UC because of impaction, just for starters, right? There isn't space," said

Valerie Lundy-Wagner, senior research analyst at California Competes, a policy shop based in Oakland.

And while she believes California community colleges are benefiting from the system chancellor's insistence that campuses adopt guided pathways as part of the Vision for Success plan for all campuses, there's still uncertainty over which subjects fall under the guided pathways model. Career and technical education programs, which have a higher share of students of color, may not be thought of as a sector of education in need of the reform approach, Lundy-Wagner said. "So to what extent are we improving the organization if only one part of it is focusing on guided pathways?" That tracks with the experiences of other colleges. At San Jacinto College, staff noticed that black and Hispanic students tended to enter career-technical programs while white and Asian American students sought programs geared toward transfer.

Curriculum design and the right human touch go a long way, too. Most of the classes at Odessa College in West Texas are eight weeks in length so that students can complete course work faster and concentrate on fewer subjects. "Every faculty member every week is looking at who stayed in their course and who hasn't," Wyner said. Instructors learn their students' names within the first week, he added. And in another personal touch, instructors shake their students' hands at the end of class, telling them, "I'll see you tomorrow morning," an Aspen report said.

"Students become better students with greater connectivity," said Donald Wood, vice president for institutional effectiveness at Odessa, according to the Aspen Institute.

"Every time they go to a classroom, the instructor welcomes them. Every time they go from one course to another course, everyone knows their name."

Guided pathways can come with new roles for staff. At San Jacinto in 2013, department chairs moved away from teaching a full load to having just one course in the summer. In recent years the college made these positions permanent so that the chairs could focus on "instructional improvement, observing classes, coaching faculty, overseeing program reviews and organizing professional development for full- and part-time faculty," according to CCRC.

The college's board got rid of four intercollegiate athletics teams, savings that went toward underwriting the costs of implementing guided pathways, such as improved data systems, hiring educational planners and training for personnel, including part-time faculty.

Other colleges dropped their student-adviser ratios by a third, like Palo Alto College in Texas, where the ratio went from 1,000 students per adviser to 350. But that may not be a solution for all colleges, Jenkins said. Instead, students should be aided by the courses for career exploration, tapping faculty to serve as advisers once students pick an academic focus and monitoring their progress along their pathways.

"You want to ask the student, what is it you're good at? What are you interested in? What course did you take in high school that you like?" Jenkins said. "What turns you off?" ■

BASIC NEEDS AT COMPTON COLLEGE

Compton College in Los Angeles County is a midsize campus with a large basic-needs problem. A recent survey found that 68 percent of respondents at the school said they experienced housing insecurity, and 18 percent said outright they experienced homelessness. Another 59 percent were food insecure.

"I'm on the ground level. I'm hearing these students' stories, and I know our food pantry is out of food all the time," said Keith Curry, president and CEO of Compton College. "What does that tell me? That students are hungry."

He's working on solutions with urgency, though partnerships with other agencies to improve access to basic needs have hit snags. Curry expected the college's cafeteria to this fall begin accepting CalFresh, California's name for the federal food stamp program, or SNAP, through the Restaurant Meals Program. But the U.S. Dept. of Agriculture rejected the cafeteria's food service vendor's application, citing clerical errors. Compton College cafeteria could start accepting SNAP benefits in the 2019-20 school year if the revised application is approved.

The two-year college already has a county employee who visits the financial aid office several times a month to enroll students into CalFresh. And in a detailed master plan released in May 2019, the college announced plans to develop student housing on campus.

That's consistent with a set of recommendations from a statewide task force Curry co-chaired, which calls for greater integration of campus and other governmental services, a basic-needs point person at every community college, and on-campus housing for students, among other recommendations, such as a systemwide free lunch program similar to the one available to K-12 students.

The services would address a chronic problem of students across the state feeling they lack the funds to fully afford their time in college. A September statewide survey of students found that roughly a third of respondents were housing insecure or food insecure. Two-thirds of those students said the school-work balance or cost of college was the chief obstacle in succeeding in college.

Pairing county services and financial aid may be one way to remedy the millions of dollars in unclaimed SNAP, or food stamp, benefits. According to a GAO report in 2016, nearly two

million students who were likely eligible for SNAP didn't receive the aid.

A bill signed into law in October requires Cal State and California community college campuses to post on student web portals information about public services, including CalFresh, housing resources and support for mental health.

Unlike other building ideas in Compton College's master plan, the housing complexes don't have committed funding yet, but Curry is aiming for 540 beds for returning students or those with families. Other ideas include using housing to attract "a diverse pool of applicants for tenure-track faculty positions," Curry said, who could live on campus for up to two years.

Curry is mindful of how other community colleges rely on housing as a recruitment tool for international students or wealthier students who can pay more. Rather than charging a top rate to those students and using the proceeds to subsidize the rest of the campus, he wants rents to be around $600 a month.

Santa Rosa Junior College, located an hour north of San Francisco, plans to charge under $800 per bed, including utilities, for its dorm project—one of several in the works by community colleges across the state, according to various news reports. Presently, 11 California community colleges have dorms, but the affiliations between administration and residency vary. For example, Columbia College

near Stanislaus National Forest doesn't own, operate or manage its dorm space.

Housing would become a recruitment tool for students in the district Compton College serves but who live far from the campus. The dorms could also appeal to students living in crowded homes where there's less space to study. Just under half of the college's roughly 12,000 students live in the district. The college reflects the demographics of the city: 60 percent of the students are Latinx, and 25 percent are black.

Because the college floated a bond measure in 2014, paying for the housing plan with bond money is out of the question for now. And given that housing insecurity is plaguing community college students across the state, Curry wants state money to support a student housing effort. Other options include a private-public partnership. He's still early in the process but has already honored his board's request to consider student housing by putting a proposal in the master plan.

Looking ahead, the college's board commissioned a nonprofit through the federal AmeriCorps program to guide the college's thinking on housing for the next year.

The college is lobbying for changes to the state's education code so that campuses would be allowed to use capital and maintenance funds on student housing, something that colleges presently cannot do. Compton College is also seeking funding through the 2020-21 state budget for the first phase of the student housing plan, enough for 100 beds.

Curry thinks prefabricated housing units could satisfy not only the college's dorm needs, but the entire system's. First he plans to analyze cost. Then he'll enlist the help of the Foundation for California Community Colleges to draw up statewide contract language that the state architect agency could approve. The college established a Student Residential Housing Implementation Workgroup that includes architecture and construction firms, a Cal State researcher studying the college's housing efforts and Major League Baseball, whose teams could use the housing facilities over the summer.

According to the college's master plan, the housing complexes would include kitchens, study areas and laundry rooms. Additionally, "outdoor gathering areas are included throughout to support collaboration and create a sense of community." Also planned is a redesigned cafeteria to appeal to both resident students and commuters.

One irony in redesigning the campus to feel more like a community is that the college is already of the community—it's in the name. But Curry wants students to view the college as not just a source for learning but a place where the student's full range of academic, cultural and even medical needs are addressed.

"It's not just about what they are learning in the classroom," he said. "It's about the whole student."

That means having an inviting campus, which can lead to a more engaged and successful student, the master plan argues.

"You would rather have them hang out, be more engaged in the campus community" instead of leaving the college grounds, Curry said.

Sometime in 2014, after the opening of the modern campus library, a glass-encased structure with one side designed like a half dome that gives views of the sky and the grass fields beyond, Curry spotted students sitting in the lobby on a hot day making use of the central air-conditioning to cool off. One student asked Curry if they were breaking any campus rules by being there. The moment made him think that the students "don't know what they're welcomed to, and that's why campus spaces are important," Curry said.

The move to have the campus cafeteria accept CalFresh is a step in that direction, too.

The college didn't even have a health center until 2017. Students would have to visit El Camino College, eight miles away, at the time a sister college whose board technically oversaw Compton College following its loss of accreditation in 2005 due to financial and management problems. (The college officially regained its independence in 2019.)

Today the health center is in a bungalow on the Compton College campus, where a nurse practitioner can offer a battery of services for students, from wound care to managing chronic diseases like hypertension. For X-rays and lab tests, the nurse practitioner will refer students off-site and connect with them after

their appointments to go over results.

Students seeking services are covered through the standard campus fees they pay and their health insurance. Those without insurance can see a benefits counselor, who, like the nurse practitioner, is employed through St. John's Well Child & Family Center. "We help them try to get the health insurance—not a lot of people know how to do that," said Vincent Ewudo, the nurse practitioner.

The whole-student model extends beyond facilities, of course. The college is in the midst of a total redesign of its academics, embracing the guided pathways model that organizes the college's departments into five meta-majors. Curry and the college don't use that term, though, instead using "divisions" to broadcast to students the structure. "I'm trying to limit the number of terms that are out there, because it becomes confusing," he said.

Included in the overhaul is a reshuffling of staff members so that each division has a dean, a financial aid representative and a counselor, among other support service officials. These clusters will be called success teams and will focus on student completion.

"It's not about hiring more people—it's about distributing your work equally," Curry said. In one example of how the success teams will work together, Curry described a possible scenario in which one division staffer tallies the number of students who aren't receiving financial aid. They then attend a success team meeting, share that information with financial aid staff and consider next steps.

"That's huge," Curry said. "It is grounded in research, but also it just reorganizes the way that we do business."

In recent years the college has made strides in student completion. The percentage of students who earned a degree or certificate or were ready to transfer after six years increased from 29.5 percent to 36 percent between 2008-09 and 2011-12 cohort years, according to public data. Meanwhile, the number of students earning associate degrees grew by 60 percent between 2014-15 and 2017-18, the state community college system's new data tool reports.

The next few years will be a critical chapter for the college. Curry knows observers will be watching to see if it can self-govern and whether the city of Compton can have a community college that's truly independent. It's a surveillance that's in stark contrast to far-wealthier institutions nearby that have been in the news for a litany of academic embarrassments and student abuses but whose ability to self-govern isn't questioned.

"I don't believe it's fair. However, these are the cards that we were dealt," he said, adding that although racism plays a role in the college's travails, "I'm not going to harp on that."

The college's whole-student undertaking is one way to rewrite a script of community college management that Curry says "was not built for people of color." He sees the arc of reform as one that prioritizes new programs and initiatives, and "this doesn't work," he said.

"Let's restructure it. Right? And that's what we're trying to do here. It's a restructuring to really work with our students of color." ◼

Transferring to a Four-Year College

Colleges and universities are in the midst of a slow-moving storm of declining birth rates and shifting migration patterns that risks crippling their revenues. The number of college-going students will decline by 10 percent by 2029, according to one respected forecast. By 2032 the share of high school graduates is predicted to drop by more than 15 percent in Illinois, Michigan, New Jersey and Ohio. In California it's expected to drop by at least 7.5 percent. Highly selective institutions are predicted to be fine, but regional institutions overall can expect declines. As Nathan Grawe, the economist behind the forecasts, told *Inside Higher Ed* last year, "I hope that schools respond to the information in the model with better retention policy or new recruitment strategies and so survive or thrive despite demographic hurdles."

Transfer students represent a major source of potential revenue for four-year institutions: about 40 percent of all first-time college students start out at community colleges. But among those students who started community colleges in 2012, just 28 percent earned a certificate or associate degree, and less than a third successfully transferred to pursue a bachelor's. An even smaller share of that starting Class of 2012—13 percent—actually graduated with bachelor's degrees within six years—though 44 percent of those who transferred earned a bachelor's degree within six years. And the transfer process itself is hardly a smooth ride. A 2017 U.S. Government Accountability Office report found that students who transfer between public institutions lost more than a third of their earned credits.

Tightening those leaky pipelines is not only a means for institutional survival but a moral undertaking, too, as it can improve the college outcomes for low-income, black and Hispanic (or Latinx) students and other marginalized groups.

But many logistical hurdles get in the way of enrolling and graduating more transfer

students. "Articulation agreements amongst institutions have been identified as one of the biggest enhancements needed to ease the transition for students moving between multiple institutions," wrote researchers for the National Student Clearinghouse Research Center. Assumptions about transfer students' readiness for upper-division course work are also a culprit. And that's to say nothing of the millions of students with some college and no degree who are eager for a second chance at college but lack the information to give higher education another try.

There are numerous efforts underway to address those challenges. This section shines a light on a few, ranging from local and regional undertakings to national ones, as well.

Articulation Quicksand

Even in a higher education system that oversees both community colleges and four-year institutions, agreeing on transfer policy can devolve into acrimony and recriminations.

Identifying the choke points in the transfer process from a community college to a four-year institution is one thing, but convincing the relevant staff to make recommended changes is another. That was the case at City University of New York, a system with numerous two- and four-year colleges.

Nor is it enough to allow courses to carry over from a community college to a four-year institution; how those credits will be counted matters just as much.

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"The holy grail of transfer research has been to be able to tell when a student transfers. Not only do they get credit for a course, but is it credit that is applicable to their degree?"

Alexandra W. Logue
Research professor
City University of New York

"The holy grail of transfer research has been to be able to tell when a student transfers. Not only do they get credit for a course, but is it credit that is applicable to their degree?" said Alexandra W. Logue, a research professor at City University of New York. Through a trio of grants, Logue seeks to analyze the transfer problems at CUNY and lend lessons to other higher education systems.

She's hardly new to transfer reform.

Previously she was the university's chief academic officer while ushering through a series of reforms so that all 19 CUNY undergraduate colleges accepted each other's general education requirements. The overhaul, called Pathways, sought to combat the phenomenon

in which each of the colleges had its own general education requirements. When students transferred from one college to the other, they'd often have to take the new institution's general education courses even if they'd satisfied the college from which they came. That effort, which Logue chronicled in the book *Pathways to Reform*, took three years to complete and was met with fierce resistance, particularly from faculty groups, who sued twice to stop the reforms and sought a vote of no confidence against Logue.

Leading the opposition was the chair of the Faculty Senate, Sandi Cooper, a historian of protest movements who had written close to 20 *New York Times* letters and op-eds on a variety of issues. When the system's trustees voted to approve the measure that made way for the general education requirement reforms in 2011, Cooper said, "You are voting for a veritable coup in public higher education," presaging the bitter, multiyear conflict.

"It was horrible," Logue told *Inside Higher Ed* in July 2019.

Now she's on to the next frontier in the transfer maze.

At CUNY and elsewhere, the courses a student takes at a community college toward their major may transfer over as an elective, but not as a course satisfying the major requirements. "That's really problematic for students. And that's how they often end up with lots of extra elective credits, more than what they needed. And they have to stay longer to get all the courses done for their major," Logue said.

Earning all those extra credits delays graduation, eats up available financial aid and may

impel students to leave college altogether.

The transfer rigmarole also ensnares students who completed demoralizing remedial, or developmental, requirements only to be told their courses don't count toward majors once they transfer into a CUNY college offering bachelor's degrees.

The source of this dispute at CUNY and elsewhere, according to Logue, is how to count corequisite courses, which allow students who'd otherwise be placed in remedial classes that eat up time and money instead to take college-level classes that include extra support. For example, students who pass their statistics corequisite course upon transferring to a four-year CUNY institution may be told that the course doesn't count toward their major—and that they'll have to retake the class at the four-year campus.

The issue is dear to Logue because she's the author of a randomized-control trial study that showed students placed in corequisite statistics classes pass them at higher rates than similar students placed in traditional remedial elementary algebra. The students in the corequisite class continued to outperform the students in the traditional remedial sequence, having needed fewer attempts to pass their general education mathematical and quantitative reasoning requirement and earned their associate degrees at higher rates. (Few of those corequisite students were in ASAP, Logue said, meaning that the outcomes of the corequisite students weren't inflated by the effect ASAP has on students.)

She knows of one CUNY community college that was offering traditional college-level statistics and corequisite statistics classes that "were identical" and "had the same exams,"

she said. "But the senior college wouldn't recognize the one with the corequisite," instead recognizing it only as a general education course, she said.

As a result, she's hearing that some CUNY community college advisers are telling students in need of remediation to instead follow the traditional sequence so that they take the college-level math class without corequisite support, a workaround that exposes students to a less effective pathway for completing college-level math.

"I'll put it this way," Logue began when asked why these barriers to transfer exist. There's "a general feeling that students who come from community colleges can't be very good."

She believes there's a self-preservation element, as well, among the baccalaureate colleges. By insisting that transfer students retake certain courses, departments can argue for additional instructors to teach those sections, securing greater funding and influence within the college.

Then there are the psychosocial elements of transfer that may interfere with a student's pursuit of a credential. Transfer shock is one such phenomenon, in which transfer students may not be familiar with the new campus layout, the different schedules for tutoring and professor office hours, among other overwhelming experiences. Some universities are up front about the risk. Rutgers University offers a support page for students experiencing transfer shock and a physical transfer center to offer advice for newly enrolled transfer students. Orientation for transfer students, an introductory seminar that resembles the seminars freshmen take, a clear academic plan and the courses needed to get there—all

of these can assist transferring students, advocates maintain.

Professors who may be wary of transfer students or those with corequisite credits can mistake the problems that stem from students not feeling welcome for a lack of academic preparation instead. And because professors rarely look at success data beyond what happens in their courses, they may not notice that some transfer students experience an initial, broad dip in performance compared to where they were in community college, only to bounce back after a term.

That was the case in a study that examined outcomes for transfer students and students who started college at four-year institutions in Virginia. Transfer students' GPAs dipped by 0.3 points on the 4.0 scale their first term at the four-year institution, but then recovered and reached GPA levels that were higher than comparable students who began at the four-year school. That finding led the study's authors, who were from UC Irvine, Ohio State University and the Community College Research Center at Columbia University's Teachers College, to write that "community colleges appropriately prepared students for the academic rigor of the four-year context. Accordingly, the GPA dip may be partially due to transfer students' social and logistical adjustment to the new college environment."

Logue is working on solutions to combat the loss of credits that count toward a transfer student's major, along with other issues that often ensnare students as they advance from a community college en route to a bachelor's.

One of the grants, for which she's the principal investigator, is a four-year, $1.4 million research effort with MDRC funded by the

Department of Education's Institute for Education Sciences. It entails examining student transfer behavior at CUNY with systemwide surveys and focus groups of faculty and students. As of midsummer 2019, she's already surveyed over 600 staff members, who responded in detail about services for transfer students and ideas for improvement.

Similar to national data, 87 percent of community college freshmen at CUNY say they want a bachelor's degree. Six years later, only 11 percent have gotten one. "And so there are these leaks going on," Logue said, "but nobody really understands where the biggest leaks are or what kind of variables they're associated with."

One idea is to better track those leaks and to steer students correctly by use of an active data system. For example, it would monitor instances when a bachelor's degree–granting college changes a transferring student's courses from satisfying major requirements to being just elective course credits.

Based on Logue's initial research, such a tracking tool can be added to CUNY's existing student software program called DegreeWorks, which is popular among other institutions. Through another grant awarded this year by the Heckscher Foundation for Children, she and colleagues at Ithaka S+R and CUNY believe that they'll be able to quantify how often courses that should have counted toward a major are reclassified for transfer students, and then help students add a second major or a minor that will make better use of those reclassified credits.

And through a third grant, she's studying the leaky transfer pipeline for students with interests in the humanities. Funded by the Mellon Foundation, her research will examine whether CUNY community college students who demonstrate initial interest in the humanities receive the necessary support en route to transferring into a CUNY bachelor's program and graduating with a humanities degree. A 2019 Mellon Foundation report says between 1967 and 2015, the number of humanities bachelor's degrees awarded annually dipped from 100,000 to 90,000, even as the total number of college students has grown several times over.

Logue's research is a large undertaking but likely contains lessons for entire states that grapple with better harmony between various sectors of higher education. After all, CUNY enrolls roughly 275,000 students—more than the entire college-going population of Oregon.

States are easing the transition from community college to four-year institutions in varying degrees. California allows students to earn associate degrees in two years and receive guaranteed admission with junior status at the 23-campus California State University system and participating private colleges. Associate Degree for Transfer, as the state calls it, came about through legislation nearly a decade ago. The program has grown in popularity as both a way to earn a degree and a vehicle to transfer into the CSU. Between 2013 and 2018, the number of transfer students entering CSU with Associate Degree for Transfer grew tenfold, from 1,089 to 10,917. Meanwhile, twice as many of the state's community college students earned the degree between 2015 and 2018, from about 20,000 to more than 41,000. At CSU, students with the transfer degree earn bachelor's degrees at higher rates within three years than other transfer students—

79 percent versus 69 percent—though that's just descriptive data.

A similar agreement with the University of California for six of its nine undergraduate campuses debuted in fall 2019. Virginia in 2020 plans to ensure core courses from its community colleges transfer to most public universities in the state, though not all courses will be accepted. And the University of Virginia has its own guaranteed admissions transfer policies for state community college students. The Education Commission of the States in 2018 identified 33 states with statewide guaranteed transfer of an associate degree, a list that excluded California because its agreements weren't officially statewide.

A Promise to Transfer Students

Elaine Maimon has the zealotry of a recent convert. As president of Governors State University, a public university in Illinois where more than half of first-time students receive Pell Grants, she believes four-year universities have an obligation to guide community college students through the transfer process. Articulation agreements between community colleges and universities are not enough.

That's not to say Governors State doesn't have those. But one program at the university is doing much more. In addition to offering junior standing to students who earn associate degrees from one of 17 partnering community colleges near Chicago, Governors State employs transfer specialists who visit Chicago-area community college campuses weekly to guide students to bachelor's

programs that align with their career goals. Those specialists, who partner with community college advisers, aren't just boosters for Governors State; they also steer students to other universities if they offer programs GSU lacks.

The advising and guaranteed transfer arrangement, about a decade old and at one point backed by a Kresge Foundation grant, is called Dual Degree Program and rests on a philosophical foundation that Maimon (an occasional columnist for *Inside Higher Ed*) believes is missing across higher education.

"What's new about what we're doing is that we're saying the university has an obligation for helping students to complete the associate degree at the community college," she said. It's a change in mind-set her university is exporting to others. Through another Kresge grant, eight other clusters of community colleges and universities are learning from GSU how to enact a similar approach to improve transfer and completion rates. In 2019 the university published a detailed handbook for replicating the Dual Degree Program.

The program has relatively high graduation rates for students seeking bachelor's degrees, though a direct comparison to national six-year graduation rates for transfer students is hard to achieve because students enter DDP at different stages of their community college experience.

Still, according to data shared with *Inside Higher Ed*, more than 80 percent of DDP students who transferred to GSU in each of the cohorts between fall 2012 and spring 2015 earned a bachelor's degree from GSU by spring 2019. By comparison, 76 percent of transfer students who entered the most

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>
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> President
> Governors State University

competitive institutions nationwide earned a bachelor's within six years of transferring, according to an analysis by the Jack Kent Cooke Foundation (see exhibit 17). Among less competitive institutions, a category that includes GSU, the six-year graduation rate is 53 percent for transfer students.

Maimon sees an expansion of the program as one way to overcome demographic headwinds that are top of mind for many university leaders and could portend financial collapse for institutions that don't change their enrollment strategies. One analysis predicts a 5 percent decline in traditional-age college students by the mid-2020s in the Midwest and Northeast. Another, which takes into account that many adults are delaying starting families due to lingering effects of the Great Recession, predicts a 15 percent decline in the college-going population. Nathan Grawe, the author of the doomsday scenarios and a

professor at Carleton College in Minnesota, has a website with numerous visuals illustrating this likely drop-off in student enrollment.

Competition for other states' students is heating up. In Illinois, 48 percent of high school graduates who attended a four-year institution did so out of state. Aurélio Valente, vice president of student affairs at GSU, says he's suddenly noticing a new trend of Illinois's selective universities recruiting students from nearby community colleges. Improving transfer pathways becomes not just a moral mission for universities, but a fiscally sound one, too.

But those selective universities "came late to the game," Valente said. He believes the Dual Degree Program helped to stanch the enrollment bleeding GSU experienced during the state's recent budget impasse, in which public colleges and universities were shorted $1.2 billion in state spending. The university's

share of full-time-equivalent undergraduate students was relatively stable during that 2015–2017 period.

"It's all about relationships; it's all about transcending all the snobbism" that compels university officials to question the rigor of a community college education, Maimon said.

The Dual Degree Program enrolled 322 new students in 2018-19, increasing the program's enrollment by 58 percent from the previous year. (The university enrolls nearly 3,300 undergraduates and another 1,600 graduate students.) Students can enter the program after completing 12 to 45 credits at participating community colleges, attending community college full-time and maintaining a minimum GPA.

The DDP program also ensures that most students in it transfer. While the National Student Clearinghouse calculates that just under a third of community college students eventually head to a four-year university, nearly two-thirds of DDP students transfer to GSU, and another 11 percent transfer to a different four-year university, based on past years' numbers. An additional 4 percent of DDP students don't earn their associate degrees but transfer to GSU anyway.

Some colleges might want to skip the emphasis on earning associate degrees. Palo Alto College in Texas, named a 2019 Rising Star by the prestigious Aspen Institute College Excellence Program, must contend with the transfer policies of seven different independently governed four-year institutions that are nearby. The Aspen Institute writes that the college had to create 250 program maps for the different majors at the partnering institutions for students. "One destination may

count 60 community college credits toward a particular major, while another may accept only 42. This means that for some students, it makes sense to transfer before accumulating too many community college credits and an associate's degree," wrote Josh Wyner, founder and executive director of the program. "So even though it's common practice to counsel students to earn their associate's degree before transfer, Palo Alto advisers help students understand that there may be advantages to transferring without an associate's degree."

Whether that's a safe bet for students is unclear. More than 50 percent of Palo Alto students who transfer earn a bachelor's degree, higher than the national average of 42 percent at the time of the report. The college works to retroactively award students associate degrees through a process called reverse transfer (more on that later), a useful safety net for students who don't earn a bachelor's degree.

GSU's emphasis on community college students speaks to its long history of admitting only transfer students at the junior level. GSU didn't begin enrolling freshmen until 2014, some 35 years after it first opened. Most of the attendees are students of color. In the Dual Degree Program, 47 percent of students are white, and a near equal amount are black and Latinx.

Another aspect of DDP that's less common is the kind of advising transfer students receive. Unlike other articulation agreements, DDP students entering the university with an associate degree can major in any subject, though they're less likely to earn a bachelor's degree within two years of transferring if the degrees

mismatch, such as coming in with an English associate degree only to pursue chemistry for a bachelor's. To keep students focused, GSU guides its DDP students through meta-majors that can be clustered around career goals.

"I don't know any high school student who says, 'I want to be a health informatics specialist,' but it's a great major," Maimon said.

It's an ethos that prioritizes what a student wants to do with their life and finding the courses that fit that passion.

The approach also ensures timely graduation. From the time they enroll in DDP, students on average graduate with both associate and bachelor's degrees in less than three and a half years, according to data shared with *Inside Higher Ed*.

To be sure, the university provides financial aid on top of state and federal grants, which likely explains some of the program's success. DDP students who are eligible for Pell Grants can receive book stipends for four semesters and portions of their tuition and fees covered. Another grant covers housing at a dorm for two years. A third is a merit-based award that can cover tuition and fees.

GSU also promises to charge DDP students tuition at the rate of when they first entered the program, which officials view as another gesture to community college students that they're part of the GSU family. The tuition stays fixed throughout their tenure at GSU.

Part of the reason students graduate quicker at seemingly higher rates is because the university places a major emphasis on full-time enrollment, which some higher education advocates say is an unfair expectation for students who have families or need to work.

In fact, GSU requires all its freshman students to complete 30 units a year, which includes the summer term.

Maimon contends full-time enrollment, with proper advising, prepares students for the workforce. She chided counselors who encourage students to drop a course after experiencing a hardship. "This really teaches the students the wrong thing, because you don't do that when you're out in the working world. … You don't say, 'I want to go on part-time at my employment'" after a rough patch that isn't catastrophic, Maimon said.

Other initiatives, like the Male Success Initiative particularly for men of color and the Center on the Junior Year to prepare students for upper-division courses, continue the emphasis on interpersonal relations to ensure students feel like they belong.

The Dual Degree Program had growing pains. As GSU partnered with more community colleges, it struggled to maintain the program's intimacy. One solution was to hold more cultural events on GSU's campus rather than at the community colleges to maximize impact. But a campus presence is still vital. Transfer specialists help to dispel misconceptions about transfer rules that community college students may have. That can nip in the bud rumors that hurt enthusiasm for the program or for transferring into a bachelor's program altogether. "DDP keeps those lines of communication very active," said Jessica Specht, director of the program.

A lingering question is whether the participants in DDP are a self-selecting group. Do they exhibit qualities that distinguish them from community college students who don't enroll in the program? Maimon had an answer.

"Well, let's put it this way. I think they have to have grit; they have to have resilience. They have to be students who see an opportunity when it's staring them in the face," she said.

Some College, No Degree, but Closer Than You Think

As colleges seek to bolster their enrollments in a time of declining numbers of high school graduates, they can look to their past students who never crossed the academic finish line. According to the Institute for Higher Education Policy, a think tank located in Washington, D.C., roughly 35 million adults in the U.S. hold some college credits but no degree. The National Student Clearinghouse Research Center said in 2014 that four million of those students completed at least two years of college-level course work.

These vast numbers indicate that not only do higher education ecosystems—community colleges and private and public universities—have their work cut out for them in improving transfer outcomes, but that they're also leaving untouched millions of students who would welcome a second shot at earning a degree. Others who transferred from a community college to a four-year university and dropped out may be eligible for at least an associate degree if their credits are combined, which at minimum could be a useful salary booster when left with no bachelor's but loans to pay.

IHEP's website features profiles by state of how many adults earned some college credit but no degree and includes breakdowns by demographic background. In Alabama,

22 percent of adults fall into that category—close to the 25 percent who have a bachelor's and more than the 9 percent who earned an associate degree. In California, 21 percent of adults have college credit but no degree; using a different statistical approach, IHEP estimates that state alone has 530,263 potential completers. Texas has more than 280,000 potential completers. Missouri has nearly 76,000.

At minimum, "we're looking at a really significant number of additional associate's degrees across the country," said Julie Ajinkya, vice president of applied research at IHEP.

IHEP's two earlier campaigns—Project Win-Win and Credit When It's Due—led to more than 20,000 students in 19 states receiving associate degrees when they were either close to earning one, had accumulated the course work to earn one but never officially got one, or transferred to a four-year university without having earned an associate's first. Now IHEP is building off those gains with a new initiative called Degrees When Due. The first cohort of almost 50 colleges in eight states is set to announce initial results next year. The think tank announced in September a second cohort of more than 100 participating institutions, including large comprehensives like schools within the Cal State system.

The process, known as degree reclamation, can motivate colleges to both re-enroll students who are close to earning degrees and to learn why they left in the first place to prevent more students from doing the same. Other contexts for degree reclamation include awarding associate degrees to transfer students who are now at four-year universities.

IHEP developed a learning management

system for administrators and registrars' officers to use in their quest to identify past students who fit these descriptions. That's coupled with degree audits that determine how close past and current students are to a degree based on a host of information, such as the credits they've taken, articulation agreements with four-year institutions, competency-based credit and other aspects of a student's enrollment history.

Reverse transfer, as this process is sometimes called, can also improve degree attainment for students pursuing a bachelor's degree who transferred from a community college. A first-of-its-kind 2019 study of students in Hawaii and Minnesota by professors from the University of Utah and the University of Texas at Austin found that reverse transfer predicted increased retention and bachelor's degree completion of students and had no negative impacts on student progress. "Leaders at two-year and four-year colleges and universities should use these data to assuage the concerns of skeptical colleagues who are resistant to reverse credit transfer because of the potential negative effects on university retention," the authors wrote.

Within two years of receiving an associate degree via reverse transfer, 90 percent of students had either completed a bachelor's degree or were still enrolled at a four-year institution.

Jason Taylor, one of the two authors of the report along with Matt Giani, said a forthcoming study of his shows clearer evidence of the positive effect reverse transfer has on bachelor's attainment. It finds that receiving an associate degree via reverse transfer increased bachelor's degree retention and

attainment rates by about 6 to 7 percent, Taylor said. "The study was not causal, but we did use a quasi-experimental design" called propensity-score matching, he added.

That's evidence on top of descriptive data that suggested a correlation between bachelor's degree attainment and earning an associate degree. The National Student Clearinghouse Research Center showed that approximately 56 percent of students who transfer without an associate degree earn a bachelor's degree after six years, compared to 72 percent of students who transfer with the associate degree, but that 2013 analysis didn't account for other factors.

Research studies have been mixed on whether students who earn associate degrees have better bachelor's degree outcomes, but the 2019 study by Taylor and Giani was the first to look at outcomes for students who were already enrolled in bachelor's degree programs when they retroactively received an associate degree.

States are catching on, with 17 having statewide policies in place for reverse transfer of associate degrees. Other states excluded from the list are home to some institutions with their own policies for reverse transfer.

"To me this just means that, as institutions are facing increasing pressure with the completion crisis around the country, it makes a lot of sense to help students" earn the degrees they were pursuing all along, Ajinkya said. Nor are these degree-reclamation efforts watering down the criteria for a degree. "These degrees need to actually be conferred within the existing parameters," she added.

California State University Northridge is working on its own reverse-transfer initiative

in partnership with three community colleges that are prominent feeder programs into the university. The effort, called CSUN Connections, identifies community college students who transferred to CSU Northridge but are no longer enrolled there and haven't yet earned a first-time degree. By summer of 2019, officials had found 127 students who met requirements for at least one associate degree, and 41 degrees had been conferred.

"We learned that communications is our biggest struggle," said Deborah Cours, assistant vice president for academic undergraduate programs at CSUN. Some students don't notice the information or believe they've actually earned an associate degree. Another element of CSUN Connections is to convince reverse-transfer students to come back to the university, but Cours won't know how many have returned until the fall term.

Even community colleges are concerned about declining high school enrollment and are eyeing returning students to maintain enrollment. In its five-year master plan published in May, Compton College in Los Angeles County writes that to combat declining K-12 enrollments, it'll need to not only improve awareness with younger grades, but also expand dual enrollment and design "programs for adults, such as retraining opportunities to maintain pace with changing industries."

There are risks to degree reclamation for students who can put their financial aid or immigration status in jeopardy. In some cases, financial aid is contingent on the first degree a student receives, so if a student is eyeing a bachelor's and is awarded an associate degree in the process, financial aid may run dry for a four-year degree. School officials

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"To me this just means that, as institutions are facing increasing pressure with the completion crisis around the country, it makes a lot of sense to help students [earn the degrees they were pursuing all along]."

Julie Ajinkya
Vice president of applied research
Institute for Higher Education Policy

should be mindful of these circumstances and only award degrees through reclamation with student consent, Ajinkya said.

Other institutions offer degree reclamation by forgiving some of the debt students owe. Wayne State in Detroit, Michigan's third-largest university, runs the Warrior Way Back program to attract students who stopped attending the institution. Eligible students can "learn their way out of debt" by shaving as much as $1,500 off their account balance across three semesters or if they graduate within that time frame. Why $1,500? That's the amount at which the university puts a hold

on a student's account, preventing them from re-enrolling. The program applies to students who haven't enrolled at the university in two or more years and had at least a 2.0 GPA.

According to Wayne State officials, more than 12,000 Detroit residents since 2004 attended the university but never earned a degree. The program debuted last fall, enrolling 56 students with an average age of 39. After the first semester, nine students earned their degrees through the program. It's grown to 94 students, and half have senior standing. The program has generated more than $400,000 in net revenue as of July 2019, officials told *Inside Higher Ed*. The return on investment for the first two semesters of the program (fall 2018 and winter 2019) equals $368,989, a profit margin of 75 percent, officials said.

Some students even paid down enough of their institutional debt to owe less than $1,500 to become eligible for Way Back. And the university says the program has generated goodwill in the community. As of July 2019, no students who re-enrolled through the program stopped out.

IHEP created a calculator for campus leaders to use so that they can create their own way-back program. The tool allows users to enter how much debt forgiveness they're willing to permit and the likely net revenue from that investment.

Beyond that, colleges and universities can remove some of the hurdles and extra fees that bar students from receiving degrees they've academically earned, such as mandatory swim tests or unpaid parking tickets, something Ajinkya has seen occur at several institutions already.

She sees partnerships in degree reclamation across state lines and between students and employers as the next frontier. "Students and particularly older adults are just much more mobile, and you can't count on them to still be in the same town or community from the institution that they stopped out of," she said.

The National Student Clearinghouse has a tool that colleges can use to offer reverse-transfer associate degrees. It's being touted as "the first national platform for exchanging course and grade data between institutions" and is particularly useful in having colleges deal with the 40 percent of transfer students who cross state lines. The service allows colleges where students are currently located to share academic data with the colleges they transferred from so that the student can earn an associate degree.

Of course, higher education institutions are not alone in influencing the trajectories of students. Early-education experiences, K-12 school funding and strong college advising while in high school all contribute to the college success of a student. But colleges can break through barriers separating higher ed and K-12 to the benefit of students. For example, high school students who took college courses, known as dual enrollment, were two and a half times as likely to transfer to a four-year institution as students who didn't participate in dual enrollment. That's according to a 2017 study from the American Council on Education's Center for Policy Research and Strategy. While not all states cover high school students' costs to take dual enrollment courses, many do.

But colleges have a major role to play in improving outcomes for all their students. "It's not an easy feat, right?" said Lorelle Espinosa,

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> "You have to change the culture of the place. It takes a certain type of leadership. It takes the right timing; it takes a whole host of things that are often in the control of leaders and often not."
>
> **Lorelle Espinosa**
> Vice president for research
> American Council on Education

vice president for research at ACE. "This kind of approach requires silos to be broken down. It requires more collaboration and a partnership across the myriad departments on a given campus that deliver education and deliver student support."

Intentionality matters, too. "You have to change the culture of the place," Espinosa said, and higher education institutions "have deep and rich cultures" that may inhibit the change required to boost student outcomes. "It takes a certain type of leadership. It takes the right timing; it takes a whole host of things that are often in the control of leaders and often not." ∎

APP FOR EMERGENCY AID

Colleges are bulking up their emergency aid for students in need. But with limited staff and poor marketing, few students know about these financial lifelines when emergency strikes.

And when they do learn about it, the process for acquiring the money, enough to repair a downed laptop, stalled car or broken pair of eyeglasses, can take as long as two weeks—a strain on students desperate for relief.

The application for emergency aid can be cumbersome, too. Students "often perform their poverty" through essays or interviews, said David Helene, founder and CEO of Edquity, a student financial success and emergency aid company.

His company, with backing from the higher education foundation world and venture capital money, wants to remove hoops students jump through to receive emergency aid. For its chief strategy officer, the company recently hired Sara Goldrick-Rab, a Temple University professor of higher education policy and sociology and a leading scholar in research into students' basic needs.

After launching a version of its basic-needs app late in the spring term at two colleges in Nevada and New York, Edquity is preparing to expand its suite of services through a pilot with the Dallas County Community College District Foundation.

The Dallas partnership, which was scheduled to begin at the end of October, will employ Edquity's vetting and aid-disbursement services for students who apply for the money. The district foundation is putting up $500,000 to be distributed to an anticipated 1,500 students, said Pyeper Wilkins, executive director of the foundation. "We believe Edquity's innovative approach will allow us to equitably serve our students at scale in a seamless manner across our seven campuses, while also maximizing the use of our dollars and reducing the burden on our staff of trying to administer this program internally," she said in an email.

The idea is to limit the number of questions students are asked and to skip the in-person interviews and performative nature of requesting emergency aid. The approach is designed to move away from what Goldrick-Rab calls the status quo, wherein students convince fund gatekeepers to give them emergency

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aid, because "some people don't know what it means to present yourself as deserving of that support."

The undertaking is a proof of concept to determine whether such an approach works. The ECMC Foundation is funding a research project to measure the program's effectiveness. The research will be conducted by the Hope Center for College, Community and Justice, which Goldrick-Rab founded; she will have no role in the evaluation, she said. (Temple University notes on Goldrick-Rab's faculty page that her involvement with Edquity was reviewed and approved.)

A desirable outcome from the evaluation is that "students feel like their college is offering them support in a way that feels good to them," Goldrick-Rab said.

ECMC is also providing the operational costs for the Dallas district to administer Edquity's services. While overhead for a typical emergency aid program can be 30 percent of available funds, Helene said Edquity can bring that share down to a few percentage points. His business strategy includes offering a college other features to monitor the basic-needs picture of a campus. Students receive the service for free; institutions pay for the premium service.

A free version allows users to locate clothing banks, county health services and other establishments that can address their basic needs. Those come with a user-rating feature so students can hear from peers which offices or locations are the most helpful. The app can't enroll students into public services, however. That's too much of a technological lift and would require wending through each county's eligibility rules. But by early next year, the company plans to inform users if they're likely eligible for state or federal programs.

Students can also link their banking information with the app to receive advice on managing finances and have emergency aid money deposited directly into their accounts. Syncing banking information isn't a requirement for receiving funds at Dallas, Helene said. He's sympathetic to student privacy concerns; others simply may not have a bank account.

Alexis Zaragoza, a student voting member on the California Community Colleges Board of Governors, which oversees the state's 115 community colleges, called the app a good idea. She worries that while a college's staff may be familiar with services on campus—and even that's not always clear—few are familiar with services off campus that can stretch a student's budget. In addition to the campus food pantry at her previous college, Zaragoza said a church nearby offered free breakfast. Deeper in downtown, students could take advantage of a clothing drive if they knew about it.

"The more ways you can combine all of those services into one, the better, because then it makes it to where the students only have to look at one place," Zaragoza said.

There's some evidence that alerting students to campus aid through digital reminders can

APP FOR EMERGENCY AID
CONTINUED

reduce food insecurity. A random-assignment study at Western Michigan University found that "emailing students and encouraging them to seek out specific campus supports" reduced food insecurity by half a category on the four-level definition of the USDA food-insecurity scale, wrote researchers Daniel A. Collier and Dan Fitzpatrick. The authors urged caution, however. The study, which is currently unpublished, couldn't determine through college data which campus resources students used.

Professors have an obligation to inform their students the best they can about basic-needs supports, Zaragoza argued. Even when they place such services on course syllabi—an action encouraged by a growing number of college staff—the lack of detail can be alienating. A line informing where the mental health center or nurse's office is should include some text about what services students can expect there. "Even if you put, like, the location of the office, it's a huge mystery, and students don't want to walk in and ask about it and then feel like they look stupid for not knowing," Zaragoza said.

A centralized app has other perks, said the 21-year-old, who recently transferred to UC Berkeley from Modesto Junior College. Her friends already use various financial planning apps; linking one to a college's basic-needs offerings and an inventory of nearby governmental and nonprofit services reduces digital clutter and is likely to help students in need.

At the two campuses where Edquity debuted

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> **Alexis Zaragoza**
> Student voting member
> California Community Colleges Board of Governors

its cash-flow management and emergency resources offerings—LaGuardia Community College and Nevada State College—several hundred students used the apps between March and July. Half integrated their bank accounts with the app, and 80 percent searched for emergency resources, Helene said.

Edquity's application for emergency aid being piloted in Dallas is based on Goldrick-Rab's research and user experience design. The algorithm will inform a student whether they qualify for emergency aid within one or two days. The judgment could be faster, but

APP FOR EMERGENCY AID
CONTINUED

Goldrick-Rab doesn't want funds meted out based on a first-come basis so that funds are rationed evenly across the semesters, she said.

While parts of the questionnaire are proprietary, Goldrick-Rab said it's "far shorter" than the FAFSA and "far less intrusive." It doesn't ask for the student's race. Nor does it require details about a student's bank account or tax information. But it asks whether the applicant has children or is experiencing food insecurity.

And though she has a stake in the company, Goldrick-Rab said she'd gladly license the product for free if it proves useful, though she signed a contract with Edquity for its use over the next few years and won't break that promise. If the U.S. Education Department "wanted to adopt this method and start doing it federally, oh my goodness," she said.

The emergency aid will take many forms. It might be cash, a gift card, a stay at a hotel, a car repair or groceries. The effort doesn't solve poverty in the U.S., but it is targeted to make efficient use of the dollars available. "It's not like we're solving homelessness," she said. "We're trying to keep homelessness from driving the student out of the school, right? We're trying to keep the lack of childcare from driving the student out of school." ■

STEM PATHWAYS

For more than a decade, Edward Alexander has been guiding talented community college students in San Diego to work on the development of a new class of drugs with the potential to fight cancer.

Through a National Institutes of Health grant, the professor of chemistry oversees up to 16 students a year with a budding interest in science in a lab as they synthesize derivatives of vitamin C and fatty acids to cut off a cancer cell's absorption of glucose.

"If you can stop the ability of the cancer cells to absorb the glucose, they'll die," Alexander said.

Potentially life-saving research isn't typically the domain of community college students, which makes this program, now in its 14th year, remarkable. But Bridges to the Baccalaureate, as the NIH calls it, is designed to do more than just inspire students to pursue bachelor's and advanced degrees in the sciences. It focuses primarily on students underrepresented in the scientific community.

"The severity of the underrepresentation of these groups increases throughout the training stages," says an NIH explanation of why the program exists. It notes that black, Hispanic, American Indian or Alaska Native students and Native Hawaiians and other Pacific Islanders make up 39 percent of the college-age population but account for just 17 percent of bachelor's degrees and 13 percent of Ph.D. degrees in the life sciences.

The local Bridges program Alexander runs as principal investigator prioritizes students from those backgrounds, as well as students who have experienced extreme poverty or have disabilities.

It's based out of San Diego Mesa College, part of the San Diego Community College District, where Alexander has taught for 30 years. Bridges students earn wages for their lab work and receive real-world advising from Alexander, who is African American. Students also learn from researchers at the University of California, San Diego, which partners with Mesa through the grant and hosts additional experiments for students in the program. To qualify, students must take a certain number of science courses, carry at least a 2.8 GPA and pass a selection by committee. The Mesa version is one of 41 currently funded Bridges grants in the U.S.

Students taking part in the Bridges program at Mesa College have a 97 percent transfer

rate into a four-year university, according to data the college is required to collect as part of the NIH grant. That blows past 70 percent, the minimum established in the school's grant terms. Of the estimated 115 students who've attended the program, 22 are either candidates for or have completed a Ph.D. program, medical school or doctor of pharmacy. Another finished a master's in veterinary medicine.

About 90 percent of Mesa Bridges students earn a bachelor's in fields related to biomedical sciences—higher than the 75 percent the NIH grant stipulates. And the students head to high-quality universities. Last fall, of the 14 students who transferred, all attended a University of California or Cal State campus, and most transferred to UC San Diego.

Despite the program's momentum, scaling it might be difficult. Funded at $1.5 million over five years, Bridges is a significant investment for a small annual cohort of students. The money covers their wages, plus pay for Alexander and a part-time coordinator at Mesa College and some personnel at UC San Diego. It also goes to equipment and travel for students so that they can present their findings at undergraduate science conferences that focus on students of color. In 2016 a Mesa student in the Bridges program won a top chemistry prize at the Society for Advancement of Chicanos/Hispanics and Native Americans in Science's annual National Research Conference. The student's co-winner was a former Mesa Bridges attendee.

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"Folks have good intentions, but without the institutional support, these programs are really difficult to sustain."

Keith Harmon
Director
Meyerhoff Scholars Program
University of Maryland, Baltimore County

Ongoing support for such labor-intensive programs is key, said Keith Harmon, director of the Meyerhoff Scholars Program at the University of Maryland, Baltimore County, which is a national model in providing research opportunities and generous scholarships to students pursuing STEM fields. The program is bigger than Mesa's, enrolling anywhere from 50 to 65 students annually and sponsoring a total of 245 students presently, 78 percent of whom are from underrepresented racial or ethnic groups. Students attending the Meyerhoff program are more than five times as likely to go on to a STEM graduate program than admitted students who chose to attend a

different university.

"Folks have good intentions, but without the institutional support, these programs are really difficult to sustain," Harmon said. Funding agencies like the National Science Foundation, NIH and others "don't want to be in long-term support," he said. They're there to seed a good idea and have the program find sustainable funding sources.

In April, the Chan Zuckerberg Initiative donated $6.9 million for the Meyerhoff program to be replicated at the UC Berkeley and San Diego campuses.

Also aiding the Meyerhoff program is that the university's president was its founder. Beyond that, "what I feel like a lot of these programs also need to be successful is a senior celebrated scientist," Harmon said. He notes UMBC's Michael Summers, recognized as Baltimore's "best academic" by *The Baltimore Sun* in 2017, fits that bill for the Meyerhoff program, someone who is "a champion and a cheerleader and can advocate for the program that we have."

Beyond money, a program like Bridges at Mesa requires lab research projects and faculty committed to teaching. "These students are not just in the lab taking… a course that they would take ordinarily—they are actually doing research," Alexander said.

And though the NIH program funds several

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"People are concerned about underrepresented students and how poorly they're doing and all of that. But when it comes time to really putting in the work and the effort, it kind of drops off."

Edward Alexander
Principal investigator and professor
Bridges to the Baccalaureate, San Diego Mesa College

dozen partnerships between community colleges and four-year institutions to promote research training, Alexander says most partnerships expose students to far less than what he does at Mesa College.

That's because Alexander, who has a doctorate in chemistry and at one time served on the faculty of UC San Diego and other universities, is one of the few Bridges directors based at a community college rather than a university. "And what does the four-year institution do? They just use the community college to, what, recruit students, and they bring the students in and they'll set up like a summer program," Alexander said. "The students are exposed to some kind of enrichment, and then that's it."

NIH doesn't see it that way. "A majority of the Bridges to the Baccalaureate programs have a structure we call 'summer plus,' where there is more training and research year-round," said Stephanie Older, chief of communications and public liaison for the National Institute of General Medical Sciences within the NIH.

Still, it's up to the institutions whether students receive research training beyond the summer. The latest grant application "has no stipulation regarding students working in lab research for the entire academic year," said Mercedes Rubio, a program director in the Division of Training, Workforce Development and Diversity, where she handles various programs and initiatives, including Bridges. There's money in the grant to provide training year-round "if the PI designs the research training program as such."

Alexander also questions whether community colleges would put up the dollars to underwrite such a program. "Their approach is, we're taking these students from high school. We just want to bring them up to a certain level and then they can transfer, or we'll try to get them in the vocational area," he said. "That's the mentality."

Alexander has other gripes. "They wanted to take over the program. They didn't know how to run the program. They didn't know left to right," he said of his college. "They would've lost the program. And when they lose programs like this, they don't care."

He says colleges are prone to receiving money for a program, hiring a dean and other staff, losing the funding, and then running to the Legislature for additional dollars. "Who gets hurt the most are the underrepresented students."

Alexander is largely skeptical that political leaders are willing to back their do-gooder rhetoric with dollars that count. "People are concerned about underrepresented students and how poorly they're doing and all of that," he offered. "But when it comes time to really putting in the work and the effort, it kind of drops off."

That means not just funding a program like Bridges and hiring research faculty to lead students; bringing on faculty that actually resemble the diversifying student body matters, too. At UC San Diego, 19.5 percent of students are Hispanic and 2.6 percent are black—about half the share of the state's

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population for those groups. (Thirty-seven percent of undergraduate students there are Asian and 19 percent are white.) Less than a third of the faculty is made up of minority personnel, which includes members of Asian, black, Hispanic, Native American and Pacific Islander communities. In California, nearly two-thirds of the population is nonwhite. (At Mesa, 32 percent of students are white; for faculty, it's 62 percent.)

"I had students who go to UCSD and they say, 'Dr. A, we look around and we don't see anyone that looks like us,'" Alexander said. The NIH grant is a small step toward bringing more talented students of color to UC San Diego. A key aim of the grant is to increase by 10 percent annually the number of underrepresented students who transfer to UC San Diego or other universities and major in biomedical or behavioral sciences.

Alexander's efforts aren't going unnoticed. He was honored this year by the American Chemical Society with its Award for Encouraging Disadvantaged Students Into Careers in the Chemical Sciences. The award recognizes his "outstanding accomplishments and voluntary service with underrepresented minority students, resulting in increased student and workforce diversity in the chemical sciences."

Alexander was raised in New York City by parents who fled the Jim Crow South. He attended City University of New York for free in the 1960s before earning his doctorate in chemistry from SUNY Buffalo in three years.

Since then he has led several academic efforts at universities focusing on academic enrichment for students of color, beginning at Iowa State University after completing his graduate studies and a year later at UC San Diego. There he conducted research and mentored underrepresented students, accepting a post in 1970 at the university's newly created Third College, today named Thurgood Marshall College. He left after eight years during what he called a re-thinking of Third College's purpose.

Mesa's grant with NIH is up for renewal this fall. Because of the disbursement schedule, the school's program will have to get by on unused funds until NIH decides about renewals next summer. The college is kicking in some money. Alexander recently attended a meeting for Bridges directors, and Mesa covered a portion of the travel costs. He'll have to teach full-time again to earn his pay because there aren't enough funds remaining in the grant. The bulk is being reserved for the students, supply and travel. In contrast, the Meyerhoff program has seven full-time staff. But for that program to expand, it too would need more employees, Harmon said, in addition to more money and space.

For his grant renewal, Alexander requested additional funds to hire more personnel. It'll come as welcome relief.

"This is hard to do with just two people, man." ■

Prioritizing Completion at Cal State

As California goes, so goes the nation. The saying is as much a nod to the Golden State's size as it is the hope and reinvention that's core to its mythos. California State University, the largest university system in the country, with nearly 500,000 students, has long had the size but less of the hope.

As recently as 2012, 16 percent of CSU's students graduated after four years. For underrepresented minorities, a term the system uses to describe Latinx, African American and American Indian students, the four-year graduation rate was an abysmal 10 percent.

Things began to change in 2015, when the system introduced a set of ambitious graduation goals that built on more modest aspirations enacted in 2009. Dubbed the Graduation Initiative 2025, the plan was to lift the four-year graduation rate from 19 percent in 2015 to 40 percent by 2025. Progress so far has been steady, if uneven. As of last year, 25.5 percent of the system's students graduate after four years, but a few institutions have seen their rates dip, while 11 others still had fewer than a fifth of their students graduate after four years.

The system has made equity gains, too. A greater share of the bachelor's degrees awarded now go to Latinx and African American students, growing from 27 percent in 2010 to 41 percent in 2018.

CSU's efforts mirror the country's. With states digging out of a recession and public agencies clamoring for a return to funding gutted during the down years, a new culture of improving graduation rates spread across the U.S. to statehouses, fueled in part by bold proclamations from think tanks and then president Barack Obama to increase the nation's share of adults with a college degree. California lawmakers, too, called for better outcomes in exchange for promises that the state's public universities enroll more students, forgo tuition increases and produce more graduates for an economy estimated to have a shortfall of college-educated workers. The perception of

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> "Degree completion has become a national agenda. We're now asking, what is it about this institution, our policies, our practice, the culture, that may contribute to whether or not a student is retained?"
>
> James Minor
> Assistant vice chancellor and senior strategist
> California State University system

value matters, as well, scholar Robert Kelchen argued in his 2018 book, *Higher Education Accountability*. With college costs spiking rapidly in a generation, students and parents are more circumspect about where they park their higher education dollars. Assurances that money and time yield a desirable outcome—the degree—weigh more heavily on the public and legislators.

State lawmakers across the country also are increasingly tying a share of higher education funding to how well public institutions improve student outcomes, known as performance-based funding. Anywhere from 29 to 35 states have such a model, including a recently passed version for California's community colleges, which moves away from an approach that allocates money to schools largely based on how many students they enroll.

"Degree completion has become a national agenda," ushering in "a conversation about institutional accountability" that wasn't present a decade ago, said James Minor, assistant vice chancellor and senior strategist at the CSU system.

That introspection in higher education has triggered a shift in how campus leaders view their relationship with students. Before the thinking went that "they didn't try hard enough. They were underprepared, and you know, what a shame," Minor said. "We're now asking, what is it about this institution, our policies, our practice, the culture, that may contribute to whether or not a student is retained?"

Minor credited the system's uptick in graduation rates to the prominence of the graduation initiative. He called it the "North Star" that established priorities for every level within the CSU. From the system's chancellor to its

Board of Trustees, the graduation initiative has become the system's top priority and has shaped its decision making on a range of instructional and admissions policies.

The initiative, buttressed by $225 million in tuition and state support from the past three budget years, has several components. In addition to the four-year goals, the system seeks to improve its six-year graduation rate from 57 percent in 2015 to 70 percent by 2025. Similar leaps for transfer students also are part of the mix, as is a goal to "eliminate all equity gaps for underrepresented minorities and Pell-eligible students." Campuses have their own graduation goals, developed through an algorithm that matched each university with 10 to 15 institutions across the country that had similar student compositions, incoming high school grades and standardized test scores. Each CSU campus has as its goal to post graduation rates that would place it in the top quartile of its peer group, said Jeff Gold, assistant vice chancellor for research and innovation at CSU.

Much of the system's initiative dollars are being spent on instruction and support services. This year the 23-campus system plans to hire more tenure-track faculty, a $25 million investment. In 2017-18, the system's campuses hired 149 new tenure-track instructional faculty. That's led to more course offerings and more sections for popular courses. Between 2015 and 2018, the average credit load per student increased from 13 a semester to 13.3, which translates into 8,500 full-time-equivalent students.

Using 2017-18 initiative funds, the system also hired 101.5 full-time-equivalent advisers. That move is paired with course-sequence software to help students pick the right classes.

Some money went directly to students. At CSU Fresno, Bulldog Retention Grants are given to students nearing graduation who are short no more than $1,500 on their account balances and are at risk of being dropped from all classes. More than 300 students received these grants in 2017-18, and 96 percent "either graduated or were retained, demonstrating the power of microgrants," a report to the Legislature read.

Organizational Thinking and Faculty Pushback

The goals of the graduation initiative permeate through the various levels of the system, Gold said. He gave the example of an economics professor at a CSU campus who may join a meeting with a dean and learn about not only the school's progress in reaching its graduation rate goals, but the department's as well. "It might mean graduating an additional two students of color from that department and that department meets its goal," Gold said. "Everyone can buy in on a daily basis, on a weekly basis, and see how their contributions matter."

That's a change of pace for large systems such as CSU, Minor said. "Sometimes institutions as large as this one suffer from goal ambiguity, right? Everybody's sort of doing their own thing."

Asked to name three reasons the graduation initiative is making strides, Minor and Gold

stressed organizational thinking and mind-sets over any one policy tweak or use of data. Intentionality, relentless focus and courageous leadership round out the reasons the CSU is improving graduation rates, they said.

Sometimes that courageous leadership invokes the ire of faculty groups.

"We spent most of last year completely reforming our developmental education program in the face of significant resistance," Minor said. He's referring to an executive order from Timothy White, the system's chancellor, which ended the practice of placing students in remedial math and English courses that didn't count for credit. The system instead pressed ahead with credit-bearing courses that included extra support for students who'd otherwise be in remedial classes. CSU leadership argued the action was needed to meet its graduation initiative goals, citing the growing body of evidence that remedial courses are ineffective. Though the changes came about unilaterally, Minor said, "There's a risk factor, and it does require courage even though you've got the administrative authority to actually do it."

The statewide Academic Senate passed a resolution to delay the executive order, and many of the faculty bodies at the campuses voted similarly. That kind of groundswell comes with risks that can compel other leaders to backtrack. The threats of no-confidence votes and dissent among alumni "are very real threats to university leaders," Minor said.

Whether CSU leadership will employ that resolve in a current fight over proposed changes to another facet of system policy remains to be seen. The university is considering a requirement for incoming freshmen to take an additional year of math or quantitative reasoning to be eligible for admission. Those courses would be in addition to the three years of math currently required—algebra I, geometry and algebra II or higher. The saga has been ongoing for several months and took another turn in early November after system leaders delayed a planned Nov. 19-20 vote for the CSU trustees to approve or reject the proposal. That's been pushed to January of next year "based on the desire to better inform stakeholders of these changes and a request by the Governor—an ex officio member of the Board of Trustees—for additional time to review the proposal as it currently stands," CSU spokesman Michael Uhlenkamp told news outlet *EdSource*.

Critics, including prominent state think tanks and the state's largest teachers' union, call the move inequitable and one that risks harming students of color, especially because underserved students tend to enroll in poorly resourced high schools that may not even offer the courses that would satisfy a fourth year of quantitative reasoning. CSU counters that 99 percent of comprehensive high schools that have college-ready curricula already offer the necessary courses, though it's unclear if every student who wants the courses could enroll in them. CSU also pledged to use $10 million to double from 1,000 to 2,000 the number of science and math teachers it prepares in the next four years. Minor and other system leaders point to correlational data that show students coming in with four years of math do better at the CSU than those with three. They also initially argued that students who attend schools unable to offer the proposed courses could apply for a waiver, though critics had contended that putting the onus on students

to apply for one is unfair in its own right. Responding to that criticism, in November system leaders instead proposed to automatically exempt students from the requirement if they attend schools with insufficient course offerings.

Some of the arguments are case studies in a data point leading to antipodal takeaways. CSU says more than 90 percent of last year's incoming freshmen would have been eligible under the proposed fourth year of quantitative reasoning, which it says is an indication that the vast majority of students would be eligible already. If that's the case, why even have the policy, asked Audrey Dow, senior vice president of the Campaign for College Opportunity.

How the system is defending the proposal has puzzled some onlookers, as well. Because the idea of a fourth year of quantitative reasoning has been floated since 2016, critics have maintained the university should have produced the research data to back up its claims a fourth year of quantitative reasoning would lead to better outcomes for students at CSU. That charge gets to the heart of how a system justifies a major policy decision.

When asked in September whether CSU has any evidence that uses research design to suggest a fourth year of math helps students, such as a semi-experimental design or another approach that goes beyond correlations, Minor said, "That standard of evidence as it relates to this policy is what I would call unreasonable." He didn't stop there.

"The other piece that's missing here, you go look at the last four or five quasi-experimental studies that have been done, they're millions of dollars to do and conduct that take place over a long period of time. So my point is, to subject this conversation to that standard of evidence I think is unfair."

Asked for comment, Dow balked. "Their lack of analysis is astounding," she said. "It's purely correlational," added Vikash Reddy, senior director of policy research at the campaign, which is a nonprofit group based in California. He argues the CSU has its own internal data that it could run to create the evidence base needed to justify the move.

Minor believes the standard-for-evidence argument is being used arbitrarily. When CSU ended remedial education, think tanks, including the campaign, cheered the decision. "We didn't have a quasi-experimental study, but we have more evidence on that intervention than we had on any other intervention in the universe of higher education," he said.

Reddy disagreed. "There's plenty of quasi-experimental research" in remedial education, including several at the Community College Research Center at Columbia University's Teachers College, where he previously worked. "I have to push back on that. I think the standard of evidence that we're talking about here was absolutely met for the decision" to remove remedial courses, he asked in September.

Data and Student Outcomes

The conversation with Minor and Gold shifted from data that undergird a systemwide change to how professors can use smaller-scale information to boost student outcomes. The system has made strides with how faculty monitor student performance to offer

more targeted intervention through something it calls the Student Success Analytics Certificate Program. It's not the predictive analytics craze that's swept higher education, but something more modest to empower faculty to take ownership of the students they see daily. "Not that long ago, the only folks that you could talk to about data on a campus were the institutional research director or, you know, one or two people across the campus," Minor said.

During its July Board of Trustees meeting, CSU officials noted that the certificate program, which had two training cohorts by that point, had already changed the culture of data usage. "Post-survey responses revealed a shift in how data contributes to student success. Many participants commented that data were both a reliable way of identifying problems otherwise invisible to them and a valid source of evidence to confirm hunches and anecdotes," according to the agenda document.

To be sure, the system has relied on predictive analytics to spot key inflection points in the academic tenure of students, like noticing that more than two nonpassing grades early in college can derail a student's chances of graduating. While that may seem obvious, Gold said it reinforces the notion that professors can affect a student's whole trajectory. Professors become "more mindful of their pedagogies and their support services," he said.

There are some data trends that Minor and Gold disregard as meaningful. An *Inside Higher Ed* review of the high school grades of incoming freshmen showed that for nearly all campuses, average GPAs rose in the past eight years. Between 2010-11 and 2018-19, the average high school GPA of incoming freshmen at CSU Bakersfield rose from 2.98 to 3.30. At San Jose State, the high school GPA of incoming freshmen jumped from 3.28 to 3.45. At San Marcos, 3.15 to 3.38. A few colleges had no available data, while others had more modest increases. At CSU San Bernardino, the jump was from 3.24 to 3.34.

Asked whether that can explain some of the rise in CSU graduation rates, Gold and Minor demurred. "It's a fair point," Gold said. Some of CSU's campuses are impacted, meaning demand outstrips available seats. "And when you look at incoming student GPAs, in general, they have risen slightly."

Minor maintains the CSU is increasing its graduation rates by actually helping students rather than enrolling more competitive high school seniors. "I think what is remarkable about what we've been able to do over the last three years [is] take the groups of students who might be least likely to graduate from the CSU and figure out a way to get those students across the commencement stage," he said.

The increase in average high school GPA isn't significant enough to explain the growth in graduation rates. Becoming a more selective system is "fundamentally opposite of the mission of the institution," Minor said. ◼

EQUITY AND FREE ALTERNATIVES TO TEXTBOOKS

Jacob Jenkins was feeling good. The previous semester, he and two colleagues who teach nonprofit management at California State University Channel Islands found a $34 textbook, which cost just shy of a fifth of what their courses required in previous years.

With 10 course sections, each enrolling more than 30 students, the textbook was going to save students thousands of dollars.

A few months later, Jenkins got an email from a student asking whether he knew the university library had a digital version of the book that all students could check out.

It never occurred to Jenkins to even check the library, he said.

"I'm patting myself on the back because we cut it from $150 to $34, and I'm assigning a book that's free already that the students basically already paid for with their [tuition] fees."

The epiphany was one of several Jenkins had about textbook affordability, which would eventually help lead the campus to create a pathway for students to complete entire majors without needing to spend money on textbooks. The communication program, where Jenkins is a faculty member, together with the early childhood program, formally announced their status as z-majors—short for majors that have zero dollars in textbook costs—in the fall of 2018. A third major, health sciences, is joining that designation.

Since 2016, the university estimates that its students have saved $2.1 million on textbooks they didn't need to buy. The communication program estimates it saved students more than $600,000 through this spring.

The need is real. The College Board says textbooks and other materials cost students about $1,240 per year at four-year institutions and $1,400 at two-year institutions. (In California, that's about as much as a student would need to pay for one year of community college tuition.)

Though other U.S. colleges have been experimenting with zero-cost textbooks for more than a decade, CSU Channel Islands is likely the first university to offer a z-major for a four-year degree in the U.S., said Nicole Allen, director of open education for the Scholarly Research and Academic Publishing Coalition (SPARC). It's certainly the first, and only

campus so far, to do so in the California State University system. Other campuses, however—mostly community colleges, such as Tidewater Community College in Virginia—have introduced z-majors for associate degrees.

The genesis for CSU Channel Islands' serious foray into z-majors is a campaign shepherded by the Cal State system called Affordable Learning Solutions, a call to action for campuses to adopt free and low-cost alternatives to textbooks. Also aiding the cause was the enactment of the College Textbook Affordability Act of 2015, a California law that put aside grant dollars for state campuses to use open educational resources (OER), a catchall term coined at a 2002 UNESCO meeting that refers to free or low-cost digital academic content, which can replace commercial textbooks.

The concept has transitioned from theory to practice, supported by copyright rules that allow the textbook alternatives to be shared by publishers who curate strong academic content under the OER banner. Those include the Saylor Academy, Washington State's Open Course Library and OpenStax, housed at Rice University. The University of Minnesota's Open Textbook Library houses more than 600 OER works.

Through the 2015 law, Cal State campuses are eligible to receive $50,000 in grants, plus another $15,000 through a separate pot of money from the chancellor's office, to adopt free and open-source course material.

Some of that money can go toward stipends for local Affordable Learning Solutions coordinators, who are both cheerleaders for open-source material and point persons to encourage other faculty to adopt alternatives to commercial textbooks. The money also has been spent on student ambassadors who get the word out to their peers that these courses exist.

Another California law ordered public campuses to identify the classes in course catalogs that offer free alternatives to commercial textbooks. They appear as icons beside course descriptions, steering students toward courses that can lead to hundreds of dollars in savings.

Providing students free alternatives to traditional textbooks is "really an equity issue," said Leslie Kennedy, director of Affordable Learning Solutions and academic technology services at CSU. Cal State's efforts to offer free or reduced-cost materials had potential annual student savings of $45 million, the university system reported last year.

As a local Affordable Learning Solutions coordinator, together with nursing professor Jaime Hannans, Jenkins and other allies at CSU Channel Islands felt emboldened to cut the soul-crushing price of textbooks. Instructors for a public speaking course—the biggest within the communication major, with 20 sections of roughly 30 students each—met last year to identify a suite of free material that could be hosted digitally. They assembled 21 modules with publicly available videos,

readings and assignments—enough breadth and diversity of content for instructors who value open-source material but also want the academic autonomy to customize their own lesson plans. The faculty also endorsed a popular open-source textbook called *Fundamentals of Public Speaking*.

Creating the modules and uploading them to Canvas, the university's online repository for academic content, replaced the standard textbook that costs $150—resulting in annual savings of nearly $100,000 for students in that course.

From there, other courses came on board, allowing the communication major to become a z-major.

Not all sections in the university's z-majors will allow students to forgo spending money on textbooks, however. Some professors are holdouts, either because they're unfamiliar with the concept or they fear tinkering with the content ahead of their tenure review. "Their student ratings might suffer, or they might take away from their research time and stuff like that," said Jenkins. Others prefer the traditional textbook or compendium of reading materials that cost money. In the end, academic autonomy can trump a campus's collective efforts. But in Jenkins's experience, veteran professors were eager to get on the bandwagon as well, and at least one respected professor was already using open-source material for her introductory math classes.

Still, the z-majors at CSU Channel Islands promise students that each course will have at least one section that won't require a purchased textbook.

Another headwind is that adjunct instructors teach many of the courses and may not have time—or department support—to pick the open-resource alternatives to commercial textbooks. Having a department agree on a set of open-resource materials for entire courses and the accompanying sections can standardize the approach, assist faculty who are stretched thin and result in broader adoption. A 2019 survey showed that just 13 percent of faculty used OER material in one of their courses. Among instructors for introductory courses, the share was higher, at 22 percent.

For its efforts, Kennedy praised Channel Islands. "It's not easy to do," she said. "Faculty have to feel that they find valuable resources and that their students are going to perform just as well as they were before."

Evidence That OER Doesn't Hurt Student Outcomes

Several recent studies have examined the quality of open educational resources, how students and faculty perceive them and whether students in courses using these free resources are performing at the same

level as those in courses that use traditional textbooks.

In a 2016 paper summarizing the findings of nine studies that examined the efficacy of open educational resources, John Hilton III, an assistant professor of ancient scripture at Brigham Young University, wrote, "Results across multiple studies indicate that students generally achieve the same learning outcomes when OER are utilized and simultaneously save significant amounts of money."

Still, he found much to be desired of the available studies, noting that several, including at least one of his own, had methodological limitations. A 2019 paper he and two researchers at Purdue University wrote stated that "a serious issue with OER research to date is that more than half of the efficacy studies conducted do not make any attempt to control for student variables that could be influencing the difference in their performance."

The 2019 paper that Hilton co-wrote was one of the few to have found that courses with OER materials can result in a negative impact on student performance, albeit a marginal one. In comparing a calculus course that used a commercial textbook one term and OER material the next, the researchers found that for three-quarters of students, there were no changes in outcomes on the final exam. But for the rest, there were "more students negatively affected than were positively affected; however, those who were positively affected had a larger overall effect." Over all, students in the commercial-textbook course scored an average of two percentage points higher on the final exam. The course with the commercial textbook had more dropouts; the researchers speculate the extra number of students in the OER course may have skewed the final outcomes.

But even with the slight dip in grades, the researchers asked, "If in fact, students can save significant amounts of money through the use of OER with only a small decrease in their final exam score, should OER be utilized?" The commercial textbook with online bundles costs more than $121. A physical copy of the book with the bundled content cost $168.50. (The OER work was called *Calculus: Early Transcendentals*, by David Guichard, though the course instructor made modifications to it.)

Hilton in an interview said he counts 25 peer-reviewed studies that have attempted to measure the efficacy of OER between 2008 and early 2019, covering 185,000 students. Of those, 11 favored OER over commercial textbooks, 10 found no difference between the two (including the calculus study he co-wrote) and one favored commercial textbooks. But while 25 studies seems like a lot, it's a drop in the bucket, Hilton said. "I would love for there to be significantly more scrutiny in this area," he said. The added attention could compel more researchers and administrators to adopt open educational resources.

One reason he suspects few instructors know about them is because faculty lack the time to overhaul their curricula to adopt OER material.

EQUITY AND FREE ALTERNATIVES TO TEXTBOOKS
CONTINUED

Others might appreciate the bundled content that comes with newer commercial textbooks, like test materials and PowerPoint slides. Still, for most faculty, sticking with commercial textbooks is "a nondecision," he said. "They just aren't aware that there's a choice."

Studies are expanding their range, applying the research lens to specific student groups. The first published study to examine the relationship between OER and Pell Grant recipients, released in 2018, found a nearly 7 percent increase in grade point average for non–Pell recipients and an 11 percent increase for Pell recipients who took courses that switched to OpenStax material. Pell students were also less likely to earn a grade of D or F or withdraw from the course when using noncommercial textbooks.

For some students facing dire financial realities, saving money on textbooks can be the difference between food and schoolwork.

In the spring of 2018, CSU Channel Islands student Alviana Johnson, now 25, caught a series of bad breaks with a landlord and then a friend that left her out of stable housing. Unable to find a living arrangement on short notice, she had little choice but to live in her car for six weeks.

"The money that I had, it was just going towards other things," she said. "So many things happened that semester that textbooks were just way too irrelevant for me." Soon after, she lost her full-time job as a nighttime security guard at a shopping mall. The offense? Sleeping in her car.

Jenkins was her professor during this time. Johnson's travails were additional fuel he needed to push the communication program to a zero-textbook-cost commitment. "You can't identify who these students are. It never crossed my mind that she was homeless. She didn't look homeless. I mean, she was ironically and oddly cheery, because that's just who she is," he said.

While experiencing homelessness, food costs in particular shot up for Johnson. Without access to a kitchen, she could only purchase prepared foods, which are more expensive than buying ingredients to cook at home.

After those six weeks of living in a car, she found free emergency housing from the university for 10 days through its basic-needs office. That bought her time to find more long-term housing. She now works advocating for students' basic needs and free textbook alternatives in both the university and systemwide student government organizations. Johnson wants Jenkins to visit a statewide student government meeting to present on the effect of having zero-cost majors on their campus. The student leaders in turn could then apply pressure at their local campuses to revamp more courses so that they include alternatives to commercial textbooks, Johnson added.

For his part, Jenkins wrote a report for the Cal State system that serves as a road map for how his communication program eventually reached z-major status. Initial meetings and presentations for faculty, appointing

ambassadors to evangelize the concept and formally celebrating instructors who began using commercial textbook alternatives are all part of the playbook.

Traditional publishers sense the threat open educational resources pose to their bottom lines, Allen of SPARC said. Their strategy: convince institutions or academic departments to purchase bulk subscriptions to digital textbooks that are then charged to every student in the course. It's a model called inclusive access and allows a publisher to bring in revenue for every student at a reduced cost as opposed to charging more per textbook but seeing only a portion of students purchase it.

On one hand, participating universities are trying to do the right thing, "which is to reduce costs for students," Allen said. But "it certainly benefits the publishers a lot more than it benefits students."

Federal regulation says students can opt out of those subscriptions. But while some campuses make this process transparent, others do not. It can be especially hard for first-generation students or those attending at night who cannot access the right office that's only open during the day.

And by selling digital licenses that last only the length of the term, publishers are also nipping in the bud the rental or secondhand textbook market that allows students to acquire books at a reduced cost and to either keep them or sell them back to the bookstore.

At least one college is in the midst of a lawsuit over allowing publishers to charge its students for digital access to course material under the inclusive-access model. A local bookstore is accusing Trident Technical College in South Carolina of making it nearly impossible for students to opt out of automatic billing—which appears to violate federal opt-out rules.

As *Inside Higher Ed* reported in February 2019, in "one email cited in the lawsuit, Mark Schmid, a math instructor at the college, suggests that any student who opts out of a course using Pearson's MyLabsPlus platform would experience 'automatic failure since they cannot do their work.'" The college pushed back, saying that material applies to just two remedial math courses and resulted in savings for students. And of the 73 students who opted out of the inclusive-access programs in the fall semester, all were fully refunded, a campus spokesperson said.

By June, Allen had already had a busy year lobbying against publishers' efforts to pass inclusive-access measures in state legislatures.

Commercial publishers must also contend with intense animus from many students. A 2017 survey of more than 600 students found that 37 percent who provided open-ended statements on their views about publishers—and 601 out of 653 did—were "extremely negative." One respondent said it "is absurd to ask students to pay for books when perfectly viable resources exist online for free." Another said textbooks "are the biggest scam targeting the poorest demographic. Requiring

specific editions is a gross abuse of power for monetary gain."

Cal State plans to continue pushing for more open-access material at its campuses, Kennedy said. This summer, she said, she'll be leading an analysis to determine how students in course sections labeled OER perform compared to others that use commercial textbooks.

Even without state support, four-year universities are finding ways to promote courses with OER material. Kansas State University has for several years been charging some students a $10 fee that is then redirected as small grants worth up to $5,000 for interested faculty to encourage them to adopt OER course models. Between 2014 and 2016, roughly 18,000 students saved approximately $1.6 million in textbook costs by enrolling in OER courses, a 2017 study chronicling the program concluded. At BYU, where Hilton teaches, the library issues stipends to instructors who want to convert their courses to OER models.

"Given the vast amounts of money that students and those who support them can save," Hilton asks, "what is the rationale for not using OER?" ■

Conclusion

There's a recurring theme in the national effort to improve student outcomes that lacks its own chapter in this report: money. Colleges need to make smarter use of it and often require much more to move the needle on student graduation outcomes.

Take Norco College's estimate that it would need $2 million to hire more academic advisers for its guided pathways overhaul. The Cal State University system is seeing early signs that the $225 million and counting it has received for its plan to double the system's four-year graduation rate by 2025 is working. San Jacinto College in Texas disbanded four of its six intercollegiate sports teams to dedicate more revenue to student success efforts, freeing up a large chunk of the $2.6 million the college had spent annually on those teams.

Up-front costs may trigger heartburn among lawmakers who control a state's purse strings, but the greater investment in programs with a rich evidence of success seems to pay off down the line. Yes, ASAP at the City University of New York required an initial investment of more than $4,600 per student, but because so many more students earned their associate degrees under ASAP, the cost per degree for CUNY ended up being more affordable for an ASAP student than for someone who didn't take part in the program. One analysis found that ASAP reduced the cost to the college of providing a degree by 15 percent.

Across the reforms profiled in this report, smart use of available money was a prevailing theme as well. Any major push to improve student graduation rates required leadership that treated the initiative as a north star. Staff training and major transformations of how colleges provide courses and inform students of their choices are also staples of reform. Expanding the role of financial offices to connect students with federal food stamps and housing-assistance programs is another example of smarter use of available funds.

And though the free college movement is beyond the scope of this report, cutting expenses for students is not. The ASAP program includes free tuition, textbooks and

transit or gas cards. Providing free online course materials in lieu of textbooks for entire majors can also save students thousands of dollars. Setting aside money for student financial emergencies and budgeting to cover the tuition gaps of students can go a long way, too.

Whether the purpose of a degree is to expand global knowledge or to create better workers is immaterial to this report. Students attend college to graduate. It's clear from our reporting that more states and higher education leaders are finding new ways to make sure that happens. ■

Further Reading

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About the Author

Mikhail Zinshteyn, a freelance reporter and writer for various outlets, focuses on higher education and workforce development. In 2019, Mikhail's reporting has appeared in *The Washington Post*, PBS, *Christian Science Monitor*, *The 74*, *The Hechinger Report* and *AARP*. From 2017 to 2019, Mikhail reported on higher education and charter schools in California for the news outlet *EdSource*. He has also been a contributing writer for *The Atlantic* and *The Hechinger Report*, covering both K-12 and higher ed issues. Previously, Mikhail was a program manager at the Education Writers Association. He took one community college course in high school. Pell Grants helped fund Mikhail's undergraduate education. He earned a bachelor's degree at Union College in Schenectady, N.Y., and a graduate degree at the London School of Economics.

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