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

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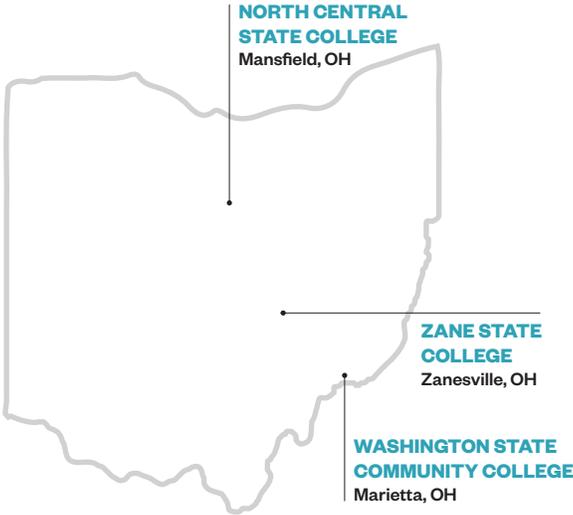
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Three Case Study Institutions



Introduction

In October 2020, CCRC published *Funding Guided Pathways: A Guide for Community College Leaders* (Jenkins et al.), which was designed to help college leaders understand the costs involved in implementing guided pathways reforms and develop plans for funding and sustaining them. The guide was based on field research at six colleges chosen to represent a range of institutions by region, governance structures (e.g., union vs. non-union), and size. Only one of these colleges, however, was a smaller institution: Cleveland State Community College in Tennessee, which enrolls approximately 3,200 students in credit programs.

In our presentations, workshops, and institutes on guided pathways, we often hear from small colleges that the challenges they face in implementing guided pathways reforms are notably different from those facing larger colleges. In particular, smaller colleges lack economies of scale that can generate revenue to support investments in technology, staff training, and release time for staff to participate in reforms. Taking on the multi-year systemic change process involved in implementing guided pathways in a small college means that faculty and staff, who already wear many hats, have to take on even more roles and responsibilities to plan and manage the process.

This report summarizes lessons learned about how small colleges can fund and sustain guided pathways reforms. It is based on activities at three small Ohio community colleges that have made large-scale changes in practice based on the guided pathways model over the past several years. These colleges—North Central State College, Washington State Community College, and Zane State College—have successfully implemented these reforms in an environment that has challenged community colleges, especially smaller institutions. The challenges facing these and other colleges nationally include:

FALL 2020 CREDIT ENROLLMENTS

Washington State: 1,800

Zane State: 2,200

North Central State: 2,700

- **Declining enrollments.** All three colleges suffered steep enrollment drops when the enrollment surge brought on by the Great Recession ended. They were able to stabilize enrollment after this drop (and Washington State even increased enrollment after hitting a low in 2015), although all three have suffered declines since the start of COVID. All three are in areas where rates of college-going are historically low and the population of traditional college-age students is declining.
- **Decreased tuition revenue.** The enrollment losses have meant that the colleges have had less revenue from tuition and fees than they had in the past. This is exacerbated by the fact that, like colleges in many parts of the country, all three have sought to offset declines in enrollment among older students by serving growing numbers of high school students taking college courses through College Credit Plus (CCP), Ohio's dual enrollment program. Under CCP, colleges negotiate discounted tuition rates with school districts for courses taught on the college campus and typically do not charge for courses taught in the high school by qualified high school teachers. Colleges are prohibited from charging students fees for CCP courses, and the state has mandated that colleges will pay for a growing share of the costs of books and instructional materials for CCP students, which is one reason why Ohio community colleges have moved aggressively to adopt Open Educational Resources (OER).

- **Performance funding.** Finally, since 2015, Ohio public colleges and universities have received 100% of their state general operating funds based on performance metrics, which for community colleges include both completion rates and rates at which students achieve intermediate goals, such as enrolling in college-level math and English after completing developmental coursework and reaching credit-hour benchmarks (12, 24, and 36 credits of college-level coursework) (Snyder et al., 2020).

Despite the challenges created by weak enrollments, lower tuition revenue, and pressure to improve performance, all three colleges have managed to implement major changes in practice that have enriched the experience in and out of the classroom for all entering students, not just targeted groups. College leaders credit these changes with bringing about the impressive improvements in rates of student progression and completion all three colleges have achieved. In the following, we summarize what changes in practice the colleges implemented at scale and how they funded and are sustaining these reforms. This report is also accompanied by case studies of each of the small colleges we discuss here, which provide more detail about their guided pathways reforms, the effects of those reforms on student performance, and the strategies they used to fund their efforts.

Redesigning the Student Experience Into and Through Programs

All three colleges made major changes in practice consistent with the guided pathways model with the aim of increasing student retention and completion (CCRC, 2021).

- **Improved program information.** All three colleges enhanced the information on academic programs on their websites, clearly mapping program sequences (including field-appropriate math courses), embedding certificates and certifications in career-technical programs, and expanding information on career and transfer opportunities associated with each program.
- **Strengthened program onboarding.** All three colleges redesigned the onboarding experience for new students with a focus on helping students explore career and academic interests, connect with faculty and others in fields of interest, and develop an academic and career plan.
- **Eliminated prerequisite remediation.** All three colleges eliminated nearly all prerequisite remediation and now place students directly into college math and English composition courses with either corequisite (North Central State and Zane State) or integrated support (Washington State) for students who arrive needing additional support.
- **Moved from generalist advising to case management advising by field.** All three colleges replaced generalist professional advisors with advisors who specialize in each of the college's academic areas and work with faculty to advise and coach students enrolled in the given area.
- **Built on-ramps to college and career pathways for high school students.** All three colleges appointed specialized advisors and took other steps to encourage high school students to develop career and college plans and to take dual enrollment courses

in certificate and degree programs connected to either in-demand jobs or to transfer (with no excess credits) in fields of importance to their respective regions.

Each college also instituted other innovations.

- Zane State identified critical courses by meta-major and **eliminated courses that were not essential for program completion**, freeing up \$1 million to be spent more productively on instruction in essential courses.
- North Central State and Washington State developed **in-house communications systems to facilitate information sharing** among faculty, advisors, and other student support staff on the progress of every student and on efforts to help them stay on track.
- North Central State and Zane State supported **all faculty to be trained and certified in effective teaching methods** through the Association of College and University Educators (ACUE).
- Washington State **converted most of its programs to eight-week terms** (excluding some health programs) to avoid the burnout common in longer semesters and **launched new programs based on eight-week terms** scheduled to help working adult students complete associate degrees in two years with embedded industry certifications in high-demand fields in the college's service area. (Eight-week courses offer the same number of credits as they would in a 16-week format, and students can enroll in two eight-week terms during the course of the conventional fall or spring semester. For example, instead of taking four classes for 16 weeks, a student would take two classes during the first eight-week term and then two more during the second eight-week term.)

The colleges credit these systemic reforms for the impressive gains they have achieved in student progression and success (which have led to increases in performance funding). All three colleges achieved marked improvements in:

- The rates at which students took and passed college math and composition in their first year.
- The rate at which entering students took at least 24 college credits in their first year, thus ensuring that they were on track to graduate in under three years.
- The three-year completion rate for first-time full-time students.
- The number of students earning certificates and industry certifications as part of career-technical programs.

In addition to substantially increasing the rate at which students earn credentials, Zane State lowered the average number of credits earned by associate degree graduates. Washington State stepped up efforts to gauge student satisfaction—not just through surveys but also through kiosks around campus and through faculty and staff regularly asking students how they are doing. Leaders at the college believe that the changes they made have increased students' satisfaction with instruction and college services.

How the Colleges Funded These Reforms

As may be clear from the summary of the extensive changes in practice these three colleges have implemented over the past several years, all three approached these reforms strategically, with a clear vision and measurable goals for improving student success. Their approach to funding and sustaining these reforms was also strategic. Although all three colleges raised grant funds to launch their reforms, none of the colleges raised tuition to help fund these efforts. Instead, the colleges covered the lion's share of the new costs generated by these reforms by redefining and reorganizing existing staff roles, using technology to increase communication and productivity, and reinvesting resources gained through efficiency and cost-cutting—all with the overarching goal of helping students enter and complete programs of study that enable them to advance to jobs and further education in fields of interest to them. As Washington State's president Dr. Vicky Wood said, “[As a small college in a rural area], raising new resources is not how we solve problems. We do it instead by creating alignment and efficiencies—making sure the right people are in the right roles and everyone is on the same page with the goals.” All three colleges routinely assess the return on investment of their major reforms to ensure that they lead to increased success for students and greater recruitment and retention (and thus increase revenue from tuition and state performance funding) for the college. The specific strategies these colleges have used to fund and sustain guided pathways reforms are outlined as follows.

Redefined roles and cross-trained staff to work as teams to help students explore, enter, and complete programs.

As shown in the table below, all three colleges redefined what had been narrowly focused functional staff roles and cross-trained staff to work together on one of two sets of teams: one responsible for recruiting and onboarding students into programs and the other for ensuring that students complete their programs.

Table 1.
Reforms to Roles and Staffing for Program Recruitment/Onboarding and Program Completion

COLLEGE	PROGRAM RECRUITMENT AND ONBOARDING	PROGRAM COMPLETION
North Central State	<ul style="list-style-type: none"> • Reorganized intake advising under the Student Success Center. • Redesigned existing advisor positions as success coaches to work with new students until they choose a program. • Redesigned first-year experience course to help each student develop career, academic, and financial plans. • Hired a second dual enrollment advisor to help high school students develop education and career plans. 	<ul style="list-style-type: none"> • Assigned faculty mentors to work with students once they choose a program. • Assigned new advisors to each academic division who work with each other and with faculty mentors to case manage students in their division. • Hired a full-time retention specialist to connect students with both on-campus and community resources for nonacademic needs related to issues such as food, housing, and childcare.
Washington State	<ul style="list-style-type: none"> • Consolidated admissions, high school outreach, financial aid, the business office, records, and dual enrollment advising into a newly renovated Student OneStop Center. • Replaced admissions and dual enrollment advisors with college pathways advisors who work as a team to recruit and advise high school students interested in enrolling after high school and other prospective students. • Cross-trained staff in frontline offices (including financial aid, the business office, and records) with pathways advisors to collaboratively answer questions of students seeking to enroll. 	<ul style="list-style-type: none"> • Consolidated services for enrolled students into the Center for Student Success (relocated to library). • Replaced positions previously focused on discrete student services functions, such as disability services and tutoring, with success coaches cross-trained to work with field-specific faculty advisors to support students in programs. • Assigned library staff to Center for Student Success team and broadened roles to include tutoring and career counseling.
Zane State	<ul style="list-style-type: none"> • Replaced optional group orientation with one-on-one meetings with a faculty member in student's interest area (i.e., one of the college's meta-majors). • Redesigned first-year experience course to promote student engagement and self-efficacy. • Assigned new success coaches by meta-major to help each student develop academic, career, and financial plans. 	<ul style="list-style-type: none"> • Appointed success coaches to provide case-management advising to students by meta-major.

In each case, broadening roles and cross-training staff increased efficiency and responsiveness to student needs. For example, to better serve students entering the college, Washington State redesigned and consolidated the admissions, high school outreach, financial aid, business, and records offices into the Student OneStop Center located in a newly renovated space on campus. The goal was to provide a place where students seeking to enter the college could have a personalized experience with one staff member who answers their questions without shuffling them around. In the past, these front-end services were siloed, and students frequently complained about struggling to find the information they needed. College leaders said they wanted frontline staff to be able to answer 80% of students' questions, with only 20% handled by "experts beyond the counter." They thus needed to empower frontline staff so that students would perceive interactions with them as "a conversation, not a transaction." To that end, they replaced specialist advisors in admissions and dual enrollment advising with college pathways advisors and cross-trained almost all staff to answer questions across the Student OneStop functions (e.g., course scheduling, billing, and financial aid), which increased their productivity. The positions of director of admissions and director of financial aid were combined in a new director of enrollment services position, which reduced overall administrative costs even as it improved coordination across these front-door functions.

Washington State conducted a survey in fall 2021 and found high levels of student satisfaction with the front-end services. College leaders said that frontline staff now feel more comfortable with their newly empowered roles. According to a member of the leadership team, “[Staff] are better able to help students get the information they need, in some cases answering questions students didn’t even know they had.”

Washington State took a similar approach in staffing its Center for Student Success, which is designed to help students complete their programs and was relocated to the library to make it more accessible to students. The college replaced positions previously focused on specific student services functions (including advising, tutoring, dual enrollment student advising, and disability services) with success coaches who were cross-trained to work as a team with field-specific faculty advisors to respond to a wide range of questions from incoming students. College leaders also assigned library staff to the Center for Student Success and broadened their responsibilities to include tutoring and career counseling.

All three colleges added at least one advisor or coach to both their program onboarding and program completion teams. The colleges were able to pay these new staff members more than the previous advisors responsible for intake and ongoing support, and their cross-training to work with other staff as teams made them collectively more effective. Washington State is using Perkins funding to cover one of its success coaches, but even though the two additional success coaches have added costs, staff of the Center for Student Success (as with the Student OneStop Center) have been cross-trained to support students in a more coordinated, aligned way. At Zane State, one of the three success coaches who case manages students in one of the college’s three academic divisions also teaches the redesigned first-year experience course. Thus, part of this person’s time is covered through instructional budgets. Leaders at all three colleges say that the extra cost of some of the personnel on these teams has more than paid off in improved student recruitment, retention, and satisfaction.

Redeployed other staff to support improved quality of instruction and services.

As we mentioned, it is not uncommon for staff at small colleges to take on multiple roles. All three of the colleges redefined additional staff roles and ensured that the multiple responsibilities assigned to staff were well aligned. For example, at North Central State, the director of the tutoring center now also oversees TRIO as well as student groups including Phi Theta Kappa and the National Society for Leadership and Success. In part because this person connects with so many students through these other roles, the tutoring center, which is located next to the TRIO program office, is highly utilized. North Central State also rewrote the job descriptions for two existing instructional design staff persons so that they could focus their efforts on helping faculty teach online and evening classes, which are often taught by individuals from industry who lack formal training in teaching.

Used technology to facilitate both monitoring of student progress and information sharing on efforts to provide students with needed supports.

With the help of a consultant, North Central State chose Colleague Student Planning, a system for storing and updating students’ academic plans that enables students, faculty, and advisors to monitor their progress toward completion. It also implemented a student

case records system that facilitates information sharing among faculty, advisors, and other student support staff on the progress of individual students and efforts to help them stay on track.

In a bold move for a small college, Washington State discontinued its contract with an IT services firm and hired its own IT staff. Under the leadership of the vice president for organizational effectiveness, the IT staff now works closely with faculty and staff from the Student OneStop and the Center for Student Success to understand what information faculty, staff, and students need and to develop and deploy systems that provide it. Thus, the college has been able to develop in-house systems that other colleges purchase at a high price from vendors—including systems for case management communications, early alert, tutoring ticketing (which helps identify tutoring students' needs and better match them with tutors), and a queue system that ensures students at the Student OneStop or Center for Student Success get their questions answered as quickly as possible. Whereas other colleges find that off-the-shelf systems often do not live up to their promise or are underutilized, Washington State's IT staff works hard to understand what information staff and students need, thus ensuring that the systems they develop will be used.

The IT department at Washington State also serves as the college's institutional research office. College leaders say that IT responds to their data requests with precision and speed. This represents a remarkable change for the college, which in 2018 was cited by the Higher Learning Commission visiting review team for gaps in data on students and learning outcomes assessment. The college does purchase special purpose software tools that are not easily developed in-house—for example, the Interviewstream mock interview platform and a texting system to better communicate with students—but the costs for these are reasonable, especially if they can improve productivity and responsiveness to student needs.

Invested in strategic training and professional development.

Most colleges have funds for individual faculty members' professional development. The three colleges profiled here were markedly strategic in their investments in training and professional development. For example, over the past two years, as more instruction has moved online, North Central State and Zane State have provided support for faculty to become certified in effective teaching methods through the Association of College and University Educators (ACUE) with support from the Ohio Association of Community Colleges (OACC). The majority of full-time faculty at North Central State have been certified or are currently going through training. It will also support ACUE training and certification for adjunct faculty. As a result, more faculty at the college are trying new ways of teaching in their classes—and seeking students' feedback on the effectiveness of these innovations.

Used grant funding strategically to build capacity, not to cover operating expenses.

Through its foundation, Washington State raised \$180,000 from local philanthropy to renovate space in the library for the Center for Student Success and to help cover the salaries of the new success coaches and dean of student success. The people in these new roles were paid more than the student services staff and assistant dean they replaced because the success coaches are expected to be full-fledged career and academic advisors and the dean

position now oversees all of the onboarding. The college has since shifted support for these positions to its general operating funds. Beyond starting up the Center for Student Success and initiating success coach positions through grant funds, the college has implemented the impressive changes to college practices and systems described above without using additional new resources.

North Central State used a Title III grant to initially fund its division advisors, although it has since moved support for them to general operating funds. The college also used Title III funds to purchase the Colleague Student Planning and Aviso scheduling systems and train faculty and staff to use them. Funding for ongoing system maintenance and upgrading is now built into the operating budget.

Increased instructional productivity.

In the course of mapping its programs as part of its guided pathways work, college leaders at Zane State recognized that the college was offering numerous courses (many of them general education) that had low enrollment or were not essential to program learning outcomes. The college held a speed-dating-style event during which general education faculty pitched courses to program faculty and explained how their courses contribute to specific programs. Ultimately, 13 general education courses with a combined total of 97 sections were eliminated, reducing the number of adjuncts and faculty overloads needed. This freed up \$1 million of instructional resources that the college could spend more productively.

Through its Focus to Finish initiative, Washington State converted most of its programs to be taken in eight-week terms (nursing is the major exception). This enables students to take the same number of classes they would in a traditional 16-week semester but to split them up into two eight-week sessions, which helps avoid the burnout common in long semesters. The college has also added an eight-week summer term during which students can complete a few courses and thus finish their programs faster. And starting fall 2022, the college will roll out programs based on the eight-week model that are designed for students to complete as a cohort on schedules suited to working adults. The new programs include those for two-year associate degrees with embedded industry certifications in accounting, business, and engineering technology—fields for which there is strong demand among local employers who are willing to pay good wages for qualified workers. This is intended to increase enrollment among older working adults, which, as at many colleges in Ohio and elsewhere, has fallen precipitously at Washington State over the past decade.

Reinvested funds generated through performance gains.

From fiscal year 2017 to 2021, North Central State increased its funding from the state's Student Success Initiative performance funding policy by 22%, compared to an average increase of 6% for Ohio's community colleges overall. In particular, the college achieved a dramatic increase in funding for the number of students who earned certificates, which are now embedded in associate degree programs, and in the rate at which entering students completed college-level math. The college has used revenue from such gains in performance funding to fund additional efforts to improve student success. For example, because the college earns performance funding when dual enrollment students earn college credits,

complete college math and English, and achieve other milestones, North Central State has used some of its performance funding revenue to fund tuition-free scholarships for students who earn at least 8 credits through dual enrollment with the college while in high school.

Capitalized on free knowledge-sharing, professional development, and coaching from OACC Success Center.

The leaders of all three colleges said that they benefited greatly from opportunities for free cross-college sharing, networking, and professional development on guided pathways and related student success strategies that were afforded by the institutes, workshops, and coaching organized for all Ohio community colleges by the Success Center at the Ohio Association of Community Colleges (OACC). Washington State's president, Dr. Vicky Wood, said that the OACC institutes and webinars have provided them with expertise and sharing opportunities that they could not afford on their own.

OACC also provided mini-grants to colleges for training or specialized assistance. For example, Zane State received a grant from OACC to use Ad Astra scheduling software for identifying essential courses and under-enrolled courses. A small grant from OACC paid a consultant who helped North Central State review student planning system needs and develop criteria to select products suited to its needs. North Central State also received a small grant from OACC to train and support faculty (including adjunct instructors) to redesign and learn to teach corequisite courses in math and English as part of the national Strong Start to Finish initiative, in which Ohio was a partner. Through this initiative, North Central State faculty met with faculty from other Ohio community colleges and universities to discuss strategies for strengthening curriculum and pedagogy.

Used assessments of ROI and institutional and individual metrics to prioritize investments.

To ensure that the college is investing its limited resources to advance student success, leaders at all three colleges regularly examine the extent to which their resource allocation decisions yield a return on investment (ROI) in terms of improved outcomes. For example, North Central State decided to use Perkins funds to partially support the retention specialist hired to help students with nonacademic needs. According to college leaders, this position has more than paid for itself because the retention specialist has helped many students negotiate personal challenges and stay in school when they would have otherwise likely dropped out.

To help achieve their extraordinary coordination and alignment of efforts across staff and departments, Zane State and Washington State both adopted change management models designed to help organizations clarify their goals and assess progress toward achieving them. Zane State used Franklin Covey's Four Disciplines of Execution (4DX) to set long-term retention and completion goals and to identify indicators for measuring progress. Working groups based on strategies for achieving goals, such as increasing new student engagement, met regularly to review outcomes for target indicators (Klempin et al., 2019).

Washington State implemented an execution model similar to Franklin Covey's 4DX management system. Under this model, every department has established goals and metrics aligned with the college's overarching goals and metrics for improving student

success and institutional performance. The metrics for each department include indicators that the team can use to assess the effects of their effort on students—for example, reducing “summer melt” for success coaches or decreasing turnaround time for data requests for the IT department. The college is now implementing StrengthsFinder, a system that enables individual staff members to recognize their strengths and employ them more effectively with their teams. The use of this system is related to the cultural or mindset aspect of change that college leaders say is a needed complement to the technical management capabilities they have built using the 4DX-based execution model. The college’s vice president for organizational effectiveness, who is trained in 4DX, led the implementation at the college without needing to pay for outside training of staff or consultants. Other staff trained in StrengthsFinder are leading that initiative.

Conclusion

The three small colleges profiled here—North Central State, Washington State, and Zane State—have succeeded in transforming practice on their campuses in ways that have produced impressive improvements in student outcomes. They have done so during a time of stagnant or declining enrollment without substantial new income by redefining roles, cross-training staff, and using technology to enhance information, communication, and coordination—all with an overarching focus on supporting students. They have carefully monitored these reforms to ensure that investment of their limited resources pays off in terms of increased student success.

It is noteworthy that all three institutions managed to implement such sweeping changes as small colleges in an environment that has been challenging for all community colleges. Their strategies for funding guided pathways reforms set them apart from the larger colleges that we studied in our earlier research on funding guided pathways (Jenkins et al., 2020). In that study, four out of five of the medium-to-large colleges we studied raised tuition to help cover the costs of implementing guided pathways reforms. However, the three small colleges in this study, as well as the one small college in the previous study, Cleveland State, funded their reforms without raising tuition.

To minimize new costs, Zane State College President Chad Brown stresses the importance of weaving projects and budgets together. Reflecting on the college’s work, Dr. Brown commented, “What’s interesting is that these reforms don’t exist by themselves. To implement the volume of things we’ve done [as a very small college], it all has to articulate together.”

One way these colleges have aligned multiple reforms has been to break down siloes by strategically reorganizing and redefining what had been narrowly focused functional staff roles and cross-training staff to serve as part of a team focused either on recruitment and onboarding or on students’ program completion. In this way, staff and faculty took on additional roles but also received the support and training to do so. These changes had a positive impact on the student experience as more people at the colleges were able to answer student questions, which cut down on students being referred to different departments for help.

A key source of support and professional development for the colleges in this study was the OACC Success Center for Ohio Community Colleges. All three colleges in this study

participated in frequent statewide professional development activities through the center's statewide Student Success Leadership Institute, where teams from colleges could learn about guided pathways and related reforms from national experts. The OACC Success Center also provided consulting services and coaching to colleges free of charge, supported faculty to participate in ACUE trainings, and provided small grants to colleges for accelerated developmental education reforms and better course scheduling. This support was critical to these small colleges, which did not have much funding set aside for professional development, the hiring of consultants, or new software.

Large-scale change at any institution is time consuming and challenging. However, the leaders of the three colleges in this study show how the guided pathways framework can be used to focus reforms on helping students explore, choose, plan, and complete programs of study aligned with their career and further education goals. Having an overarching framework helped guide the colleges' decision-making about how to invest limited resources, with some confidence that doing so would pay off in terms of improved degree completion and post-college success for their students. Additionally, the guided pathways framework was instrumental in providing a rationale for broad change and in securing commitment from college staff and faculty to engage in ambitious reform efforts to improve student success.

References

Community College Research Center. (2021). *Investing in student success at community colleges: Lessons from research on guided pathways*. <https://ccrc.tc.columbia.edu/publications/policy-brief-guided-pathways.html>

Jenkins, D., Brown, A. E., Fay, M. P., & Lahr, H. (2020). *Funding guided pathways: A guide for community leaders*. Columbia University, Teachers College, Community College Research Center. <https://ccrc.tc.columbia.edu/publications/funding-guided-pathways-guide.html>

Klempin, S., Pellegrino, L., Lopez, A. G., Barnett, E. A., & Lawton, J. (2019). *iPASS in practice: Four case studies*. Community College Research Center and Achieving the Dream. <https://ccrc.tc.columbia.edu/publications/ipass-four-case-studies.html>

Snyder, M., Boelscher, S., & Zaragoza, D. (2020). *Driving better outcomes: Fiscal year 2020 state status & typology update*. HCM Strategists. <https://hcmstrategists.com/resources/driving-better-outcomes-fiscal-year-2020-state-status-typology-update/>

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