

THE TRANSFER PLAYBOOK:

ESSENTIAL PRACTICES FOR TWO- AND FOUR-YEAR COLLEGES



THE ASPEN INSTITUTE

COLLEGE EXCELLENCE PROGRAM

CCRC COMMUNITY COLLEGE
RESEARCH CENTER

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THE ASPEN INSTITUTE'S COLLEGE EXCELLENCE PROGRAM

The Aspen Institute's College Excellence Program aims to advance higher education practices, policies, and leadership that significantly improve student outcomes. Through the Aspen Prize for Community College Excellence, the New College Leadership Project, and other initiatives, the College Excellence Program works to improve colleges' understanding and capacity to teach and graduate students, especially the growing population of low-income and minority students on American campuses.

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The Community College Research Center (CCRC), Teachers College, Columbia University, conducts research on the major issues affecting community colleges in the United States to inform the development of practice and policy that expands access to higher education and promotes success for all students.

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TABLE I-1

HIGH-PERFORMING COMMUNITY COLLEGES AND UNIVERSITIES VISITED, BY STATE

STATE	COMMUNITY COLLEGE	UNIVERSITIES
Colorado	Front Range Community College	Colorado State University
Connecticut	Manchester Community College	Eastern Connecticut State University
Florida	Broward College	Florida International University Florida Atlantic University
Louisiana	Louisiana State University Eunice	University of Louisiana at Lafayette
Massachusetts	Holyoke Community College	University of Massachusetts Amherst
Washington	Everett Community College	University of Washington Western Washington University

INTRODUCTION

WITH THEIR “OPEN-DOOR” ADMISSION POLICIES AND LOWER TUITION, community colleges offer a gateway to higher education for millions of American students. Indeed, students who enter higher education through community colleges are much more likely than those who start at four-year institutions to be low-income or the first in their family to attend college.

While recent initiatives have focused on the important role community colleges play in technical workforce development, the fact is that most students entering community college aim to earn a bachelor’s degree.¹ For a host of financial and other reasons, many are unlikely to enter through a four-year college or university. Thus, the two- to four-year transfer process, when it functions well, represents a critical means for upward mobility across the United States.

Despite this great promise, the transfer process does not work well for most students. National surveys indicate that the vast majority of students who enroll in a community college intend to earn a bachelor’s degree. Yet of 720,000 degree-seeking students who entered a community college in fall 2007, only about 100,000, or 14 percent, transferred to a four-year college and earned a bachelor’s degree within 6 years.² Far from achieving its promise, the transfer process ends up wasting student and taxpayer resources. Worse, it stifles human potential.

Competition for students, misaligned incentives, and resource constraints each play a role in undermining the smooth functioning of the transfer process. In addition, many students face difficulties transferring their community college credits to four-year colleges, and the credits that do transfer often fail to count toward students’ desired majors.³ Most students who transfer do so without

first getting an associate degree or even completing most of their lower division coursework, which translates to additional time at the four-year college. This inefficiency creates substantial costs for students and taxpayers.⁴

Despite these barriers, a confluence of demographic, economic, and political forces is increasingly bringing community colleges and four-year colleges together to improve transfer outcomes. Community colleges and four-year colleges, alike, are confronted with declining state investment and increasingly rely on tuition for revenue. As cost pressures drive recent high school graduates to community colleges rather than directly to four-year colleges, four-year colleges increasingly rely on transfer as a means to enroll students from their traditional, college-age markets and meet their diversity goals. In addition, many state legislatures have introduced new mandates to improve graduation outcomes. Concerned about the inefficiency of the transfer process, policy makers are also implementing policies aimed at encouraging community colleges and four-year colleges to work together to improve transfer outcomes.

The stakes are high. Improving transfer and bachelor’s completion is essential if millions of community

¹ A 2011 National Center for Education Statistics study based on a representative sample of students who started higher education for the first time in 2003–04 found that 81 percent of students who began at a community college indicated that they intended to earn a bachelor’s degree or higher. See Table I-A, Horn, L., & Skomsvold, P. (2011). *Web tables: Community college student outcomes: 1994–2009* (NCES 2012-253). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics.

² Jenkins, D. & Fink, J. E. (2016). *Tracking Transfer: New measures of institutional and state effectiveness in helping community college students attain bachelor’s degrees*. New York, NY: Community College Research Center, The Aspen Institute, & National Student Clearinghouse Research Center.

³ Monaghan, D. B., & Attewell, P. (2015). The community college route to the bachelor’s degree. *Educational Evaluation and Policy Analysis*. 37(1), pp. 70–91.

⁴ Belfield, C. (2013). The economic benefits of attaining an associate degree before transfer: Evidence from North Carolina (CCRC Working Paper No. 62). New York, NY: Columbia University, Teachers College, Community College Research Center.

college students are to enter the American middle-class. The growing national demand for workers with at least a bachelor's degree—coupled with the changing demographic composition of American college students—means that transfer student outcomes will be increasingly critical to the capacity of regions, states, and our nation to compete and lead in a global knowledge economy.

Increasingly, the will to improve transfer processes is there. And research suggests that what institutions do individually and collectively to serve transfer students

matters for student success. The distinction between the better- and worse-performing institutions, however, is not simply a matter of resources expended or students served. Even after controlling for institutional characteristics and student demographics, some partnerships between community colleges and four-year colleges stand out as being more effective at helping students transfer and succeed.⁵ Thus, changing practice can lead to improved student outcomes.

⁵ Jenkins & Fink (2016).

THE PLAYBOOK IS ORGANIZED AROUND THREE BROAD STRATEGIES THAT WE OBSERVED IN THESE PARTNERSHIPS:

MAKE TRANSFER STUDENT SUCCESS A PRIORITY

CREATE CLEAR PROGRAMMATIC PATHWAYS WITH ALIGNED HIGH-QUALITY INSTRUCTION

PROVIDE TAILORED TRANSFER STUDENT ADVISING

In the first three sections, we describe essential practices underlying each of these three strategies (outlined in the sidebar to the right). Recognizing that there is still room for even the best current practice to improve, the fourth section of the playbook includes a discussion of “next frontiers” of practice; these are practices that even the high-performing community colleges and universities profiled here have only begun to work on in their continuing efforts to improve outcomes for their students. With that grounding, we then list in the fifth section activities for community colleges and four-year colleges to undertake in order to implement the strategies.

The playbook concludes with a synthesis of practitioners’ perspectives on the benefits and challenges associated with state transfer articulation policies.

This playbook is a practical guide to designing and implementing a key set of practices that will help community college and four-year college partners realize the promise of the transfer process.

The playbook is based on the practices of six sets of community colleges and universities that, together, serve transfer students well. Using student data from the National Student Clearinghouse, we selected pairs of institutions that have higher than expected rates of

bachelor's degree attainment for transfer students given their student demographics and institutional characteristics. Of these high-performing institutions, we chose to visit the community college and university pairings in Table I-1 because they were sufficiently varied in terms of their geographic location, state policy environment, and institution type. The Appendix describes the selection methodology in greater detail.

SUMMARY OF STRATEGIES AND ESSENTIAL PRACTICES IN THE PLAYBOOK

STRATEGY 1 MAKE TRANSFER STUDENT SUCCESS A PRIORITY

- Communicate transfer as a key component of the institution's mission.
- Share data to increase understanding of the need to improve transfer student outcomes—and the benefits of doing so.
- Dedicate significant resources to support transfer students.

STRATEGY 2 CREATE CLEAR PROGRAMMATIC PATHWAYS WITH ALIGNED HIGH-QUALITY INSTRUCTION

- Work collaboratively with colleagues from partner institutions to create major-specific program maps.
- Provide rigorous instruction and other high-quality academic experiences to prepare students for four-year programs.
- Establish regular, reliable processes for updating and improving program maps.
- Design unconventional pathways, as necessary.

STRATEGY 3 PROVIDE TAILORED TRANSFER STUDENT ADVISING

Community College Advising Practices

- Clearly articulate students' transfer options and help them determine, as early as possible, their field of interest, major, and preferred transfer destination.
- Continuously monitor student progress, provide frequent feedback, and intervene quickly when students are off-track.
- Help students access the financial resources necessary to achieve their goals.

Four-Year College Advising Practices

- Commit dedicated personnel, structures, and resources for transfer students.
- Assign advisors and clearly communicate essential information to prospective transfer students.
- Strongly encourage transfer students to choose a major prior to transfer.
- Replicate elements of the first-year experience for transfer students.
- Exercise fairness in financial aid allocation.



**“WE’RE NOT GOING TO OFFER COURSES
THAT DON’T TRANSFER.”**

— PRESIDENT ANDREW DORSEY
COLORADO’S FRONT RANGE COMMUNITY COLLEGE

STRATEGY 1:

PRIORITIZE TRANSFER

IMPROVING TRANSFER OUTCOMES requires a strong commitment to and focus on transfer students by administrators, faculty, and staff at both community colleges and four-year colleges. A hallmark of the successful transfer partnerships that we observed was the significant energy spent by senior administrators and faculty leaders to establish and reinforce the importance of serving transfer students well. The result was not only strong systems that support transfer student success, but a high level of trust and open and honest lines of communication within and between institutions. Three essential practices support this strategy:

- Communicate transfer as a key component of the institution’s mission.
- Share data to increase understanding of the need to improve transfer student outcomes—and the benefits of doing so.
- Dedicate significant resources to support transfer student success.

ESSENTIAL PRACTICE 1: Communicate transfer as a key component of the institution’s mission

Effective leaders at all levels of community colleges and four-year colleges understand that their words and actions influence institutional priorities and practices. Institutions with strong transfer pathways have leaders who consistently and continually emphasize that improving transfer outcomes is core to achieving their institution’s mission. These leaders recognize that, to enact change, stakeholders throughout the institution must be mobilized through clear and consistent communication around a set of shared goals. They also recognize that improving outcomes requires strong relationships with leaders in partner institutions. Successful leaders build consensus with partners to promote shared accountability and publically reinforce their commitment to improving outcomes.

President William Messner of Holyoke Community College (HCC) infuses the topic of transfer whenever possible into conversations he has with faculty and staff at HCC, as well as with external partners. He stays abreast of faculty and staff activities that promote improvements in transfer outcomes so that he can publically recognize

major contributors. For instance, he recently recognized HCC’s honors college program coordinator who helped forge a partnership with the University of Massachusetts Amherst (UMass Amherst) Commonwealth Honors College, a fitting destination for HCC honors students who transfer to UMass Amherst. President Messner and his staff also infuse HCC’s culture of commitment to transfer into hiring practices. “We prioritize folks who buy into and reflect the ethos of the place,” Messner explains, resulting in the hiring of “people who are steeped in transfer; it’s the norm around here.” President Messner’s recognition of the work of his faculty and staff—and his focus on transfer in hiring practices—reinforces HCC’s commitment to the institution’s goal of improving transfer rates.

Faculty and staff can be powerful messengers of an institution’s commitment to improving outcomes, especially if they build relationships with their counterparts at partner institutions. At the universities we visited, deans, department chairs, and faculty developed trust and professional friendships with their peers at partner community colleges—bolstered by the fact that many of the faculty and staff at the community colleges completed graduate school at their university. These relationships were the

basis for formal and informal efforts to align curricula, strengthen instruction, undertake joint education activities in the community, and initiate other collaborative activities. Academic administrators at HCC realized that instructors who also teach classes at their four-year partner institutions could provide useful context about institutional practices that may promote or impede student success. Leveraging the experiences of these instructors helped HCC forge strong, mutually beneficial relationships across institutions while also engaging adjunct faculty in supporting the institution's mission and goals.

Still, personal involvement by presidents is critically important to prioritizing transfer—particularly in the context of inter-institutional relationships. When Bruce Shepard was appointed president of Western Washington University (WWU) in 2008, he found that transfer was not a core part of the university's culture and resolved to make it so. President Shepard began to convene community college leaders in the region and asked them how WWU could better serve transfer students. His personal involvement in these meetings—which continues to this day—sends a signal to WWU faculty and staff, as well as the leaders of regional community colleges, that, “in the crush of everything else going on, [transfer] is a priority.”

In 2007, new President J. David Armstrong, Jr. of Broward College (BC) recognized the need for a stronger and more strategic partnership with Florida Atlantic University (FAU), the university where, on average, 45 percent of BC students transfer each year. Prior to his arrival, communications between BC and FAU were disjointed, unfocused, and mostly executed by departmental leaders or individual faculty. President Armstrong quickly set about developing a strategic partnership with FAU President Frank Brogan. A review of data showed that students who earned an associate degree prior to transfer were more likely to graduate with a bachelor's degree, so the two presidents committed to providing better guidance

to students in selecting the courses needed for their intended major and more encouragement to obtain their associate degree prior to transferring. This commitment led directly to the BC-FAU Link program, which more intentionally connects prospective FAU transfer students to a range of transfer-related services earlier in their studies at BC.

Similarly, President Messner of HCC regularly communicates about the importance of clear transfer pathways with UMass Amherst leaders, preferring to rely on informal and frequent in-person conversations rather than formal articulation agreements—the “paper stuff,” as he calls it. He believes in-person communication is more effective than static documents in engaging partners in shared goals and practices.

ESSENTIAL PRACTICE 2: Share data to increase understanding of the need to improve transfer student outcomes—and the benefits of doing so

At many community colleges and four-year colleges, persistent and pervasive misconceptions exist among faculty and staff about their institution's success with transfer students. Often, faculty and staff at community colleges overestimate the rate at which students graduate and successfully transfer to a four-year college. Faculty and staff at four-year colleges often underestimate how many of their institutions' students are transfer students. In addition, some faculty and staff may hold harmful biases about the ability of transfer students to succeed in upper-division coursework. Finally, four-year college faculty and staff are typically unaware of the economic value to their institutions of enrolling and succeeding with transfer students or the economic consequences of those students' falling short. These misconceptions and biases likely impede leaders' efforts to garner faculty and staff investment in policies and practices that will improve students' transfer and graduation rates.

COMMON MYTHS ABOUT TRANSFER STUDENTS

In 2000, the Undergraduate Student Retention Council at CSU conducted a study of transfer student experiences to provide faculty and staff with some much-needed clarity on transfer students and their outcomes. Using qualitative and quantitative data, the report identified and refuted the most common misconceptions about transfer students held by faculty and staff. We outline a few of the findings in the table below. CSU administrators found that this report was effective in raising awareness of the needs of transfer students on their campus in the early 2000s. Even though this analysis was conducted on students who transferred and graduated almost 20 years ago, similar myths about transfer students periodically resurface at CSU.

MISCONCEPTIONS	EVIDENCE
1. Transfer students represent a small proportion of the total undergraduate student population at CSU.	In 2000, 43 percent of all new CSU students were transfer students. Transfer students account for more than half of each CSU graduating class since 1995.
2. Transfer students are not qualified for direct admission to CSU from high school.	Only seven percent of transfer students had previously applied to CSU for freshman admission and been denied. Fourteen percent of transfer students had applied to CSU for freshman admission and were accepted, but chose to attend elsewhere.
3. Transfer students have much poorer outcomes than native four-year students.	Among students with 33 to 64 credits, the community college transfer student graduation rate (65 percent) is about the same as for transfers from other four-year schools (67 percent) and 12 percentage points lower than for native students (77 percent).

Source: *Transfer Students at Colorado State University: A Preliminary Look*, CSU Undergraduate Student Retention Council: Transfer Issues Committee, October 2000.

Many leaders are able to use data strategically to shift their colleagues' mindsets and invest them in prioritizing transfer outcomes. Data can be used to:

Dispel myths about transfer student abilities.

Overcoming misconceptions about students' abilities requires a patient, focused, and data-based approach. For example, the transfer admission staff at UMass Amherst meets individually with faculty in any academic department who express concern about transfer students' abilities to excel academically. In these meetings, the transfer staff share institutional research data that compares the performance and completion rates of transfer students in a given college or department with those of students who entered as freshmen. In many instances, the data reveal that transfer students perform as well as or better than "native" students, yet these reviews have also uncovered patterns indicating that transfer students are struggling in certain courses or majors. The university admission staff and faculty in those majors then meet with community college partners to discuss these findings so that systemic issues can be addressed collaboratively.

Leaders at WWU have also used data to demonstrate to faculty and staff that transfer students can excel academically at WWU. The university did an analysis showing that transfer students' GPAs dip just after they enroll but then recover over time. In fact, in one study they found that recent transfer students were more successful in 400-level courses, on average, than native students. WWU's findings are consistent with other research on transfer student academic success.⁶

Highlight the importance of transfer students to the institution's mission. Faculty and staff may underestimate the importance of transfer students to the institution's mission simply because they do not

know the size of their institution's transfer student population. During our visit, Paul Thayer, formerly in the Office of Student Retention at Colorado State University (CSU), recalled the moment he realized that CSU faculty thought transfer students accounted for 3 to 10 percent of the undergraduate student body when, in fact, transfer students were 40 percent of all undergraduates. In response, CSU issued a report on transfer student enrollment and outcomes to dispel this and other misconceptions and to engage academic and student services departments in implementing policies to improve transfer students' experiences and outcomes (see sidebar "Common Myths about Transfer Students" for details). The report was effective in shifting faculty and staff understanding of transfer students on campus.

Dispel misconceptions about institutional effectiveness.

Without transparent data on student outcomes, community college and four-year college faculty and staff may overestimate the extent to which students are achieving their goals. Before Everett Community College (EvCC) began its major transfer improvement campaign about a decade ago, many faculty and staff believed that the majority of EvCC's students achieved their transfer goals. This belief resulted in faculty and staff resisting early reform efforts. When EvCC's leaders shared that, of 4,000 students who indicated a goal of transferring to a four-year college, fewer than 400 successfully transferred, the resistance abated and many faculty and staff readily joined the campaign. Since then, EvCC's transfer and subsequent graduation rates have substantially improved: Between 2007 and 2012, the student transfer rate increased 47 percent, and between 2007 and 2010, the four-year bachelor's degree graduation rate increased by 57 percent.⁷

⁶ See Bahr, P. R., Toth, C., Thirolf, K., & Massé, J. C. (2013). A review and critique of the literature on community college students' transition processes and outcomes in four-year institutions. *Higher Education: Handbook of Theory and Research*, 28, 459-511.

⁷ John Olson, Everett Community College Advancement Office. Personal communication via email on 4/5/16.

ESSENTIAL PRACTICE 3: Dedicate significant resources to support transfer students

Dedicating institutional resources is one of the most powerful ways leaders can signal that transfer is a priority. Indeed, successful efforts to improve transfer outcomes require it. While some of the practices described in this playbook require an investment of financial resources, in each case, the institutions we reviewed believe that they have experienced a high return on investment in the form of improved transfer student outcomes.

Improving the transfer process often requires additional or re-purposed personnel and financial aid as well as the implementation of new processes, all of which impose direct and opportunity costs. Yet on the whole, these changes yield tangible benefits for institutions and students that outweigh their costs. Faculty and staff often need release time to develop strengthened program pathways with aligned curricula and instruction, but doing so can increase the institution's retention rates and the likelihood that students' community college credits will successfully transfer toward their four-year college major. Offering fair financial aid to transfer students requires reapportioning existing resources or raising additional funds, but strong financial aid options too can improve retention and bachelor's degree completion rates.

Providing effective advising support to transfer students often requires hiring new staff or reallocating existing staff time, but effective advising services are essential to getting and keeping students on transfer pathways. Other practices that support transfer students—such as reserving slots in high-demand majors or creating structures for transfer students to access internships, undergraduate research, campus leadership positions, and extracurricular activities—may also require financial investments but can bolster recruitment efforts and increase transfer student engagement and retention.

Establishing a visible “presence” on partners' campuses is another investment with a high return. Florida International University (FIU) hosts annual meetings where leaders, faculty, and staff from two-year transfer partners are invited to campus. FIU and BC jointly established an off-campus building where faculty and staff from each institution collaborate on programs and courses. EvCC created a university center where university partners offer bachelor's degree programs on the EvCC campus. According to an EvCC leader, this center creates “the excitement of university presence on our campus.”

By dedicating the necessary financial and institutional resources to improve transfer student outcomes, leaders at these community colleges and universities signaled to their internal and external stakeholders that transfer students deserve the same opportunity to succeed at their institutions as native students.

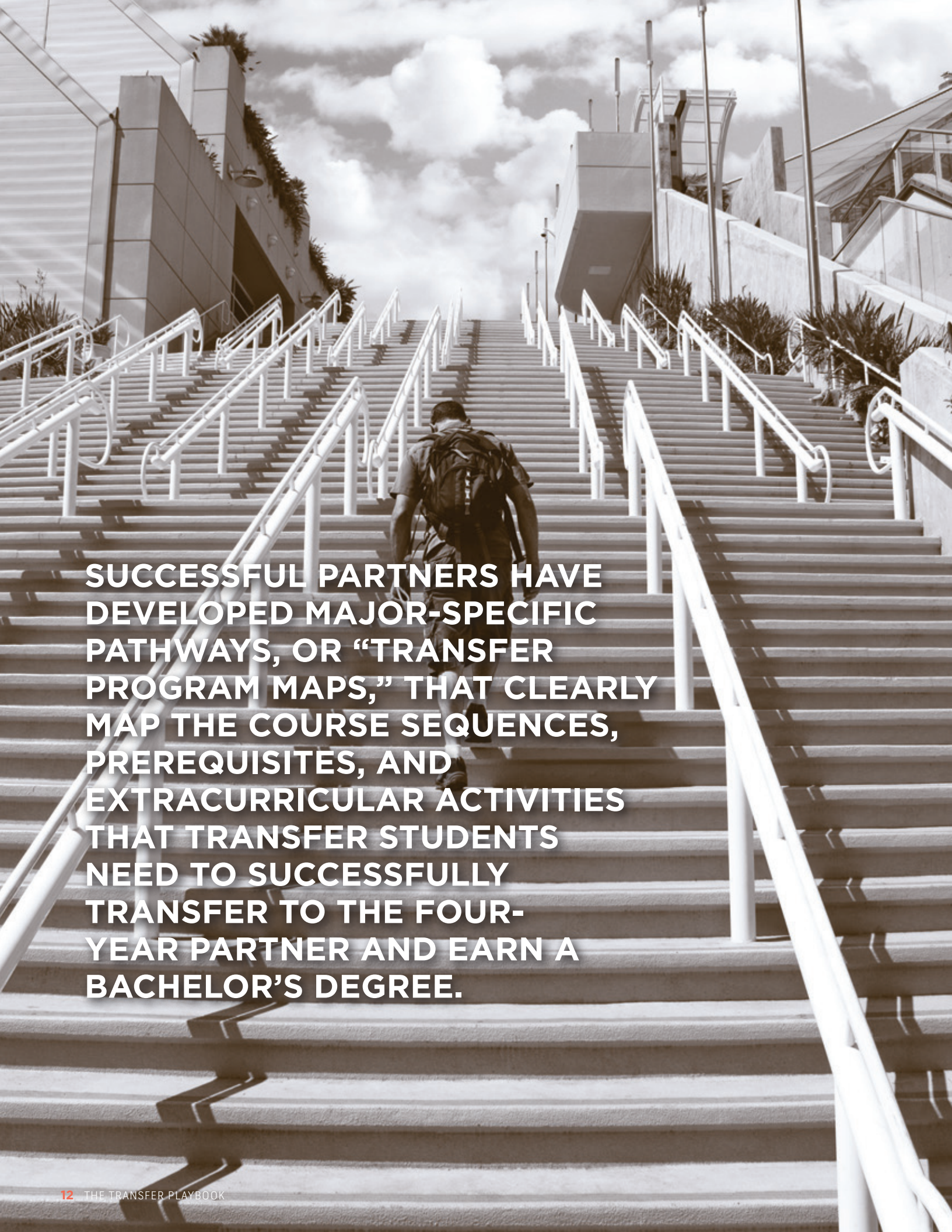
FUNDING TRANSFER STUDENT INITIATIVES THROUGH JOINT GRANT PROJECTS

Securing grant funding to pay for initiatives that enhance the transfer student experience can mitigate the financial burden of transfer improvement efforts and, at the same time, encourage faculty and staff at both institutions to work together on mutually beneficial projects. Below are examples of joint transfer-focused grants at the institutions profiled here:

- FAU received a \$3.5 million grant to partner with BC and Palm Beach Community College to increase the number of students enrolled, the rate of transfer, and the transfer student graduation rate in computer science.
- Faculty at Front Range Community College (FRCC) and CSU secured a \$1.2 million grant from the National Institutes of Health to create a clearly articulated pathway for students to transfer with full junior status in biochemistry, biomedical sciences, or psychology. The grant also provided students with supplemental instruction, research training workshops, and the opportunity to apply to participate in summer undergraduate research at CSU.
- HCC and UMass Amherst received two grants to align degree pathways and support student transfer. UMass Amherst faculty, in partnership with HCC and other local community colleges, were awarded a \$630,000 grant from the National Science Foundation to support student transfer from community college into UMass Amherst's College of Engineering. Additionally, HCC was awarded \$120,000 from the National Endowment for the Humanities to lay groundwork for a Latino studies program at HCC, which included coordination with UMass Amherst to align curricula for transfer. These grants helped the institutions define a common set of goals and deliverables for strengthening two undergraduate pathways.
- WWU received a National Science Foundation training grant to promote "learner-centered" instruction in undergraduate STEM programs. As part of this grant, WWU offers month-long summer training institutes where faculty from WWU and local community colleges work together to integrate active learning into their programs. WWU also offers workshops during the year for both faculty and academic administrators from community colleges. For example, in one workshop, community college administrators learned about best practices in assessing faculty teaching in STEM fields. Another workshop focused on how to align tenure and performance review requirements with effective teaching practice.

“I APPLIED TO [A FOUR-YEAR UNIVERSITY] AS A FRESHMAN AND GOT SCHOLARSHIPS. THEN I APPLIED [TO THE SAME UNIVERSITY] AS A TRANSFER STUDENT AND DIDN'T GET [SCHOLARSHIPS]. WHERE DID THEY GO?”

— CURRENT COMMUNITY COLLEGE TRANSFER STUDENT



SUCCESSFUL PARTNERS HAVE DEVELOPED MAJOR-SPECIFIC PATHWAYS, OR “TRANSFER PROGRAM MAPS,” THAT CLEARLY MAP THE COURSE SEQUENCES, PREREQUISITES, AND EXTRACURRICULAR ACTIVITIES THAT TRANSFER STUDENTS NEED TO SUCCESSFULLY TRANSFER TO THE FOUR-YEAR PARTNER AND EARN A BACHELOR’S DEGREE.

STRATEGY 2:

CREATE CLEAR PROGRAMMATIC PATHWAYS WITH ALIGNED HIGH-QUALITY INSTRUCTION

STUDENTS ENTER COMMUNITY COLLEGES WITH DIVERSE BACKGROUNDS AND GOALS; TO ACHIEVE THEIR GOALS, THEY NEED CLEAR GUIDANCE AND TAILORED SUPPORT to navigate academic decision-making at each stage of their journey. Often, information and advising about appropriate course sequences and credit transferability are confusing or, in some cases, nonexistent. Through no fault of their own, many students make poor choices that increase their costs or reduce their chances of attaining a bachelor's degree. Students load up on general education courses while neglecting prerequisite courses and extracurricular activities (like internships) necessary to enter bachelor's degree programs with junior standing in their desired major and on track for a career post-graduation. In many cases, they use up financial aid or take on burdensome loans, making future schooling financially unmanageable.

To be effective, community colleges and four-year colleges must work independently and together to create clarity about the steps students should take to attain a bachelor's degree and ensure that instruction and other programming support students through those steps. Successful partners have developed major-specific pathways, or "transfer program maps," that clearly map the course sequences, prerequisites, and extracurricular activities that transfer students need to successfully transfer to the four-year partner and earn a bachelor's degree.

However, simply outlining the sequence of community college courses that students need to successfully

transfer to four-year colleges in their intended majors is not enough. Instructors must teach those courses at a level of rigor sufficient to prepare students to meet the expectations of four-year college-level instruction. Moreover, transfer students need access to opportunities for in- and out-of-class experiences, like internships, so they are as prepared as native students for upper-level coursework and turning their degree into a career. Through the process of developing and using transfer program maps, institutional partners have nurtured a shared understanding among faculty and staff at each institution about instructional content and expectations and how to guide students successfully through the transfer process.

2 CREATE CLEAR PROGRAMMATIC PATHWAYS WITH ALIGNED HIGH-QUALITY INSTRUCTION

Effective transfer program maps consistently have the following features:

- **Maps create clear course sequences:** Program maps should clearly outline course sequences—including general education courses and major requirements—such that students can easily determine the necessary prerequisites for their intended major.
- **Maps include clear information about next steps:** Program maps should help students understand how completion of the bachelor’s degree in their field of interest aligns to career and/or graduate school opportunities.
- **Maps reflect rigorous educational content:** Program maps should include an enriching and rigorous sequence of courses. Each subsequent course should build on the learning outcomes of the previous course(s) such that student learning outcomes across all courses are logically ordered and coherent.
- **Maps include relevant and enriching extracurricular activities:** Program maps should clearly articulate the value of specific extracurricular activities that are educationally enriching and relevant to students’ intended fields.

The following practices are needed to support the creation and use of effective transfer program maps:

- **Work collaboratively with colleagues from partner institutions to create major-specific program maps.**
- **Provide rigorous instruction and other high-quality academic experiences to prepare students for four-year programs.**
- **Establish reliable processes for updating and improving program maps as program requirements evolve.**
- **Design unconventional pathways to ensure students have access to rigorous programs.**

ESSENTIAL PRACTICE 1: Work collaboratively with colleagues from partner institutions to create major-specific program maps

Program maps must be specific to a program of study in which a student might earn a bachelor’s degree and must cover every stage from the student’s first year at a community college to her last year at a four-year college. Developing program maps therefore requires collaboration by teams of faculty and staff with deep understanding of the requirements, academic content, and learning-enhancing activities of each major at each partner institution. Ideally, program map development is initiated by four-year college faculty and staff who are responsible for clearly articulating degree requirements and aligned extracurricular activities for a particular major. Then, faculty and staff at partner community colleges can translate the four-year college’s first- and second-year requirements into coursework and other expectations for their own first- and second-year students.

MAPPING UNIVERSITY PROGRAM REQUIREMENTS TO THE FIRST TWO YEARS AT COMMUNITY COLLEGE

Since the goal of a transfer program map is to guide students to a bachelor's degree, the right place to start is with four-year college or university requirements. With year-by-year expectations for four-year students in place, the focus of creating the transfer program map becomes translating the first two years of requirements into transfer expectations. **The following questions can help to guide that translation process:**

- **For this program of study**, what learning outcomes and other educational experiences are essential in the first two years so the student can transfer to a four-year college with junior standing?
- **For this program of study**, what essential elements of the learning experience for native four-year college freshmen and sophomores may be hard to replicate for community college students seeking to transfer?
- **Prior to transfer**, what alternatives to hard-to-replicate learning experiences can be provided by the community college so that students' junior-year standing is not compromised? Can these gaps be filled after students transfer?

2 CREATE CLEAR PROGRAMMATIC PATHWAYS WITH ALIGNED HIGH-QUALITY INSTRUCTION

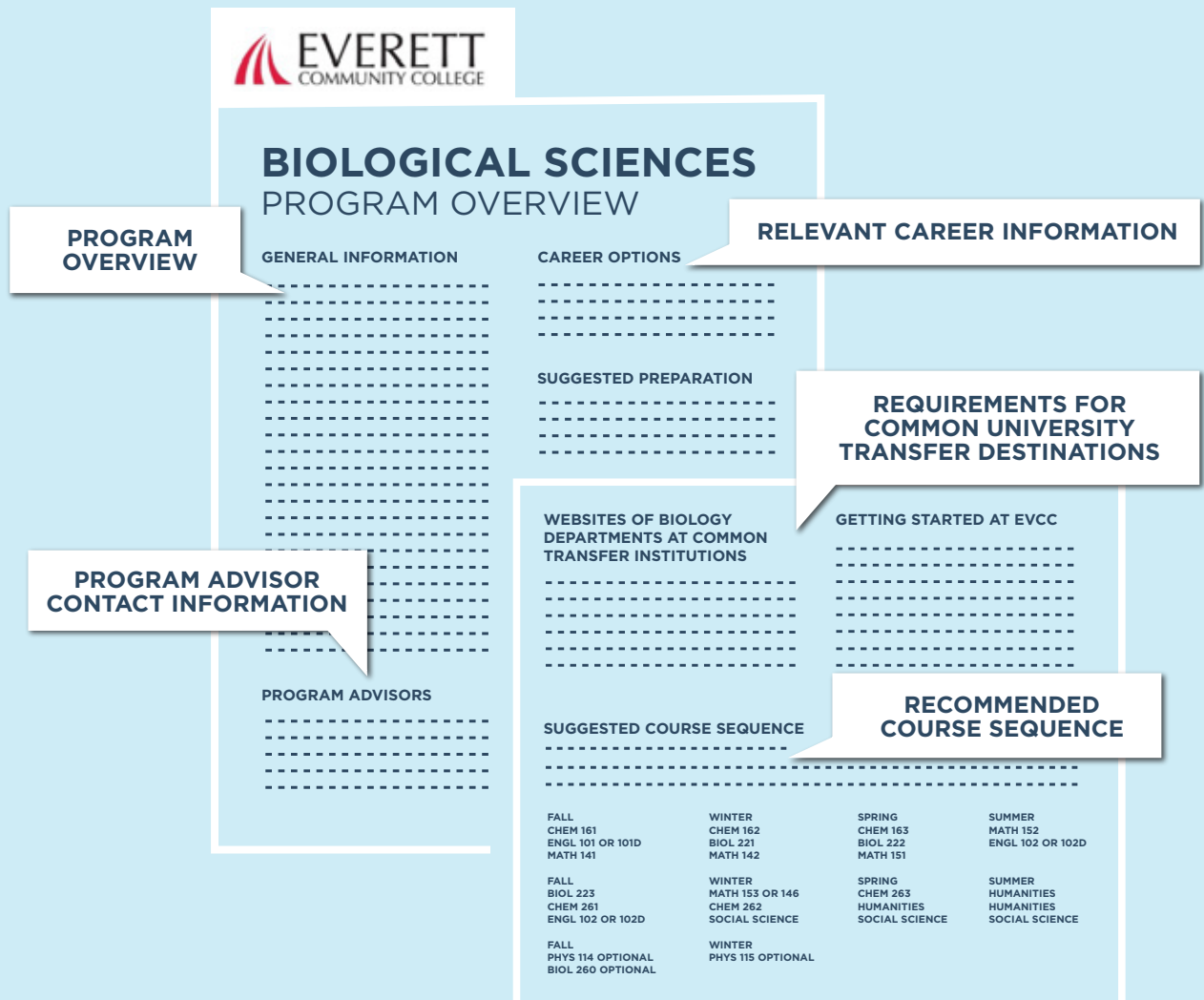
The design of new programs offers a particularly opportune moment for developing program maps that account for both the experience of community college students and the requirements of four-year college programs. When creating a new degree program in new media, an Eastern Connecticut State University (ECSU) program chair reviewed the transcripts of former transfer students to ensure that current community college students could transfer with junior-year standing given existing course offerings at partner community colleges. At Holyoke Community College (HCC), academic deans routinely meet with HCC's transfer coordinator when developing new programs to ensure that program specifications are aligned with four-year expectations. These approaches promote and strengthen alignment between the two institutions.

Program maps are an invaluable tool for advisors and students. But beyond that, for community colleges committed to improving transfer, program maps become the standard against which course offerings are measured. At Front Range Community College (FRCC) in Colorado, for example, President Andrew Dorsey consistently told faculty “that we’re not going to offer courses that don’t transfer.” Program maps allow faculty to clearly specify which courses meet this requirement.

Washington State’s community colleges and public four-year colleges have collaborated to create statewide, field-specific transfer agreements called Direct Transfer Agreements, or DTAs. EvCC has further customized these agreements to show how students can transfer in particular majors in the given field to the universities where EvCC students are most likely to transfer. The map on page 17 shows the specific courses recommended to students seeking to transfer and major in the biological sciences. The map also provides a clear suggested sequence of courses, indicates how requirements differ across specific four-year colleges, and identifies program advisors who can help students develop their academic plans.

(continued on page 22)

EvCC students are expected to take coursework that follows the program map in their intended major. According to an academic dean at EvCC, faculty understand that students who stray from their program maps will almost certainly have to take additional courses to qualify for junior standing in their field of interest—even in fields considered less restrictive such as communications, sociology, or psychology. Below is a schematic of EvCC’s program map for biological sciences.



For more information, see: <https://www.everettcc.edu/files/programs/biology.pdf>.

2 CREATE CLEAR PROGRAMMATIC PATHWAYS WITH ALIGNED HIGH-QUALITY INSTRUCTION

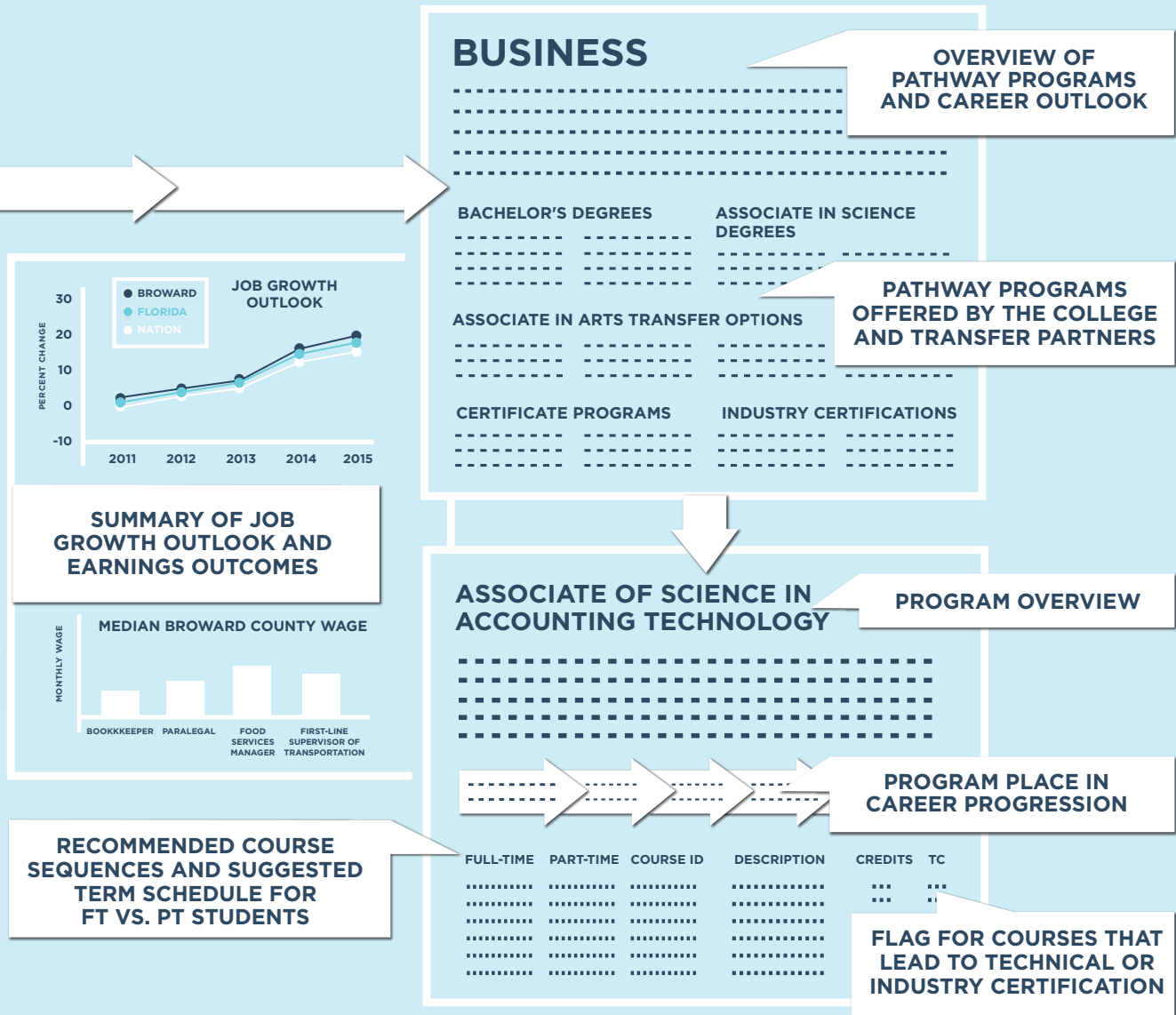
Ideally, program maps should not only delineate the path to a bachelor's degree, but ultimately show how transfer paths lead to jobs and careers. In 2015 academic administrators and faculty at Broward College (BC) reorganized the 2015-2016 course catalog into the eight "career pathways" outlined in the graphic below. For each career pathway, the catalog lists associated majors and careers with earnings;



CAREER PATHWAYS

SHOWING POTENTIAL MAJORS AND MEDIAN EARNINGS

the programs offered by the college and transfer partners by credential type (e.g., bachelor's, associate, certificate, certification); and, for each program, a map with a recommended sequence of courses and embedded certificates. Below is a schematic of BC's program map for business.



For more information, see: <https://broward.edu/academics/programs/Pages/business.aspx>.

THE LINK BETWEEN FLORIDA LAW AND FIU'S PROGRAM MAPS

IN 2012, the Florida legislature passed performance funding legislation that tied four-year institutions' funding in part to retention and graduation rates for first-time, full-time freshmen.⁸ According to leaders at Florida International University (FIU) and Florida Atlantic University (FAU), this new law, in combination with another new law that doubled the tuition price for excess credits, has had several effects on university practices.

First, the focus on first-time student performance has encouraged the state's regional four-year colleges to raise admission standards for incoming freshmen. In turn, recruiting transfer students to meet enrollment goals is increasingly important. At the same time, the "tax" on excess credits led

four-year colleges to require that freshmen declare a major in their first or second term and to strongly encourage that community college students intending to transfer decide on a major well before they transfer so they are more likely to take the right prerequisite courses at the community college. Universities have also strengthened program maps to better signal to native and transfer students which courses to take. For instance, FIU has program maps for both native and transfer students on its MyMajor website, which is designed to help students choose a major and chart a plan for completing their program as efficiently as possible. A schematic of FIU's MyMajor website is provided on page 21.

⁸ The excess credit hour surcharge rule is codified in Section 1009.286, Florida Statutes.

MY MAJOR

UNDERGRADUATE DEGREE SEARCH

ADMINISTRATIVE AND MANAGEMENT
BIOLOGICAL AND ENVIRONMENTAL SERVICES
GLOBAL AND SOCIAL SCIENCES
HONORS
HUMANITIES AND ARTS
HEALTH SCIENCES
PHYSICAL SCIENCES AND ENGINEERING
COMPUTER SCIENCES
BUSINESS ADMINISTRATION



FLORIDA INTERNATIONAL UNIVERSITY

SELECT A FIELD OF INTEREST

MAJOR MAP SHOWING COURSE SEQUENCE AND PREREQUISITES NEEDED TO COMPLETE BACHELOR'S DEGREE IN TWO ADDITIONAL YEARS

BROWSE MAJORS IN THE FIELD

MY MAJOR BROWSE MAJORS

MAJORS DEGREE MAJOR MAPS COLLEGE/SCHOOL

MAJOR PROGRAM DESCRIPTION

MAJOR: COMPUTER SCIENCE
BACHELOR OF SCIENCE
ENGINEERING AND COMPUTING

PROGRAM DESCRIPTION

ADMISSION REQUIREMENTS

CAREER OPPORTUNITIES

UNDERGRADUATE MAJOR MAP

FALL TERM 2016

SPRING TERM 2017

SUMMER TERM 2017

For more information, visit: <https://mymajor.fiu.edu>.

2 CREATE CLEAR PROGRAMMATIC PATHWAYS WITH ALIGNED HIGH-QUALITY INSTRUCTION

Despite the value of program maps, we heard from a number of faculty and staff that many students do not closely adhere to them. For example, only about 7 percent of students take advantage of the state of Washington's Associate of Science-Transfer (AS-T) program in STEM, despite the success of students who go on to earn a bachelor's degree in STEM via the program.⁹ It is possible that information about these programs is difficult to find or hard to understand. In addition, advisors may be reluctant to guide students into specialized transfer tracks out of concern that this will limit their options in the future. Based on our conversations with faculty and advisors at every university we visited, this advice is misguided: rather than preserve students' options, discouraging students from choosing a major early in their career actually limits the majors they can go on to pursue. Community colleges and four-year colleges must work together to make program maps more accessible and streamlined so that students and advisors can readily use them to navigate successfully toward their goals.

ESSENTIAL PRACTICE 2: Provide rigorous instruction and other high-quality academic experiences to prepare students for four-year programs

Important corollaries to well-designed program maps are community college curricula and instruction that prepare students to thrive in a four-year college teaching and learning environment. In all of the community colleges we visited, we observed a culture in which faculty, advisors, and others believe that community college students, including those from disadvantaged backgrounds, can meet four-year college standards. These beliefs are

communicated to students in many ways but perhaps most importantly by setting high academic expectations.

An engineering faculty member at EvCC described how he changes his instruction over time in order to prepare students for success in engineering courses at the University of Washington (UW) and other four-year colleges. In his first-year courses, he takes a very hands-on and supportive approach, allowing students to rewrite papers and retake exams. As students progress into their second year, his policies become stricter so that, eventually, students complete their coursework independently, since that is what faculty in their upper-division courses will require.

HCC instituted learning communities to provide the sort of rich and rigorous learning experiences that will prepare students for four-year college coursework. Organized around areas of academic interest, HCC offers several learning communities each semester that enroll hundreds of students whose demographics mirror those of HCC's student body. HCC's learning community offerings include several courses co-taught by English and science faculty; these courses are designed to deliver the kind of integrated learning HCC believes students will need prior to entering a four-year college. Additionally, HCC students can co-enroll in courses offered at local liberal arts colleges Smith College and Mount Holyoke College, some of which are co-taught with HCC faculty. HCC has received positive feedback from its four-year partners about the preparation of students who participate in these courses. And while similar courses are not included in the University of Massachusetts Amherst (UMass Amherst) course catalog, the flagship university accepts them for credit anyway because faculty have come to understand and appreciate how well the courses prepare students for the rigor of upper-division coursework.

Manchester Community College (MCC) has partnered with the Association of American Colleges and Universities (AAC&U) to more intentionally prepare

⁹ Among the 17,818 Washington state community college students completing associate degrees in 2013-2014, only about 7 percent (1,184) completed the "AS-T" degree, 3% (586) completed a "STEM-focused DTA", and 84% completed the generic "DTA" transfer degree. See Table 2, Washington State Board for Community and Technical Colleges, Report 14-3. Retrieved March 23, 2016 from: http://www.sbctc.edu/resources/documents/colleges-staff/research-data/transfer-research/resh_rpt_14_3_assoc_science_transfer_stem_focused_dta_aa.pdf

THREE IMPORTANT TOPICS FOR CONTINUOUS IMPROVEMENT CONVERSATIONS AMONG TRANSFER PARTNERS:

1. CURRICULAR CHANGES: Community colleges and four-year colleges should review any current or anticipated changes in program design and requirements since the prior meeting.

2. ACCESS ISSUES FOR TRANSFER STUDENTS: Four-year colleges should identify any degree programs where transfer students may face significant barriers to entry as a result of limited slots, high demand, resource constraints, or changed admission standards.

3. STUDENT SUCCESS DATA: Four-year colleges should present data on the following transfer student outcomes for each of their main community college “sending” partners:

- Percentage of transfer credits accepted overall
- Percentage of transfer credits that are accepted toward particular majors
- Student grades in upper-level courses
- Number of years it takes transfer students to graduate

Where possible, transfer student outcomes should be broken out by major or field and compared to those of native students.

students for success after transfer to four-year colleges. In 2009, MCC identified integrative learning as a key priority in its strategic plan and has, since then, worked to align MCC learning outcomes with AAC&U’s Liberal Education and America’s Promise (LEAP) learning outcomes and assessment rubrics. According to MCC President Gena Glickman, “the college’s Roadmap project facilitated our defining clear and precise pathways for our students to follow, from application through transfer and beyond, and assists students in taking ownership of their educational advancement.” Building on this work, the institution participates in the statewide Guided Pathways Initiative and has developed pathway advising sheets for students in every degree program and an advising site to help advisors track student progress along the pathway.

Most successful partnerships are focused on extending rigor beyond content knowledge to the broader cognitive skills that are required to complete complex tasks in upper-division courses, like lab experiments and research papers. Faculty at several of the community colleges we visited go out of their way to create structured opportunities for transfer students to participate in research projects on the university campus before transferring. Faculty at FRCC have arranged for their students to use high-end lab equipment at Colorado State University (CSU) and periodically invite CSU faculty on campus to deliver research talks. At MCC, students who participate in the Honors College are required to complete a capstone research project which requires that they work individually with a faculty member in their major. FIU leaders

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are discussing with Miami Dade College (MDC) leaders the possibility of giving FIU-bound students who plan to major in STEM fields the opportunity to participate in research activities through the college's School of Science research program while still enrolled at MDC.

Community college students often have trouble gaining access to the most rigorous and high-demand programs at four-year colleges. Transfer students' access may be limited by four-year faculty perceptions about their academic preparation, but, in addition, these programs often have limited capacity and give priority admission to native students. Also, unless community college students know well before they transfer that they intend to pursue a selective major, they may not take the necessary prerequisites. Whatever the cause, community college students are often shut out of STEM, business, nursing, honors, and other four-year programs that offer the greatest potential for post-graduation success in careers and graduate school.

In response to such concerns, several highly effective transfer partnerships that we visited take steps to secure access for transfer students to the most selective university programs. EvCC has developed special programs to prepare students for computer science and other STEM degrees. MCC aligns much of its preparatory work to the major requirements of the University of Connecticut-Storrs, the state flagship university, since students who meet the standards of the state's most selective public institution are likely to be able to enter limited-admission programs at any four-year college in the state. HCC launched an honors program which, in fall 2016, will offer a course identical to the UMass Amherst honors program course, "Ideas that Changed the World." HCC and UMass Amherst staff are now exploring the prospect of offering courses jointly taught by HCC's honors faculty and faculty in UMass Amherst's Commonwealth Honors Program. Additionally, HCC President Messner commended UMass Amherst for creating a new "honors to honors" scholarship fund for students transferring from community

college honors programs into the UMass Amherst honors college, a fund that has benefited many transfer students from HCC's honors program.

Ensuring that transfer students have access to and are successful in rigorous programs requires monitoring and discussing data. Institutional researchers at FIU conducted a study for the chemistry department on the preparation of community college students for transfer in chemistry. They found a strong, positive relationship between the level of chemistry completed at the community college and student performance in chemistry after transfer. This finding led to honest, difficult conversations with community college partners about lower-division course selection for students seeking to enter chemistry and other rigorous programs at the University. The partners concluded that the community colleges need to guide these students to higher-level community college science and math courses—and provide them with additional supports—while steering them away from less rigorous courses that will satisfy only general education requirements.

ESSENTIAL PRACTICE 3: Establish regular, reliable processes for updating and improving program maps

Program maps are only effective if they are up-to-date and reflect the most current course requirements and degree pathways. Inevitably, course requirements and degree pathways will change due to factors like changes in career requirements, advances in research, and faculty turnover. Without adequate communication channels, community colleges may not learn of program pathway changes until students unsuccessfully attempt to transfer once-eligible credits. In some cases, community college advisors reported that they monitor partner institutions' websites to learn about updates to course requirements. This inefficient process virtually guarantees that advisors will miss or misinterpret changes to program maps. Instead, four-year colleges should establish channels through

which they can proactively communicate programmatic changes to their community college partners.

In addition, faculty and staff must regularly monitor student outcomes data to identify situations in which outdated or poorly designed program maps are impeding student success in some degree programs. FIU and its partners at Broward College (BC) and Miami Dade College (MDC) established a process whereby faculty and staff meet annually to review student outcomes data and discuss curricula, teaching methods, and course learning outcomes. These meetings are designed to collectively identify strengths and gaps in existing program maps and collaborate in a process of continuous improvement. When FIU discovered that MDC students were underperforming in algebra compared to native students, faculty from the two institutions took advantage of their existing relationships to better align algebra instruction and subsequently update the relevant program maps.

Leaders at HCC invite university faculty to serve on program review committees for programs aimed at transfer. HCC leaders engaged university faculty in reviewing student outcomes data and identifying the strengths and gaps of program maps, which led to honest, periodic feedback about gaps in two-year program offerings from the four-year perspective. As a result of its structured feedback process, HCC has updated program maps for several programs, including engineering, psychology, chemistry, and accounting.

To fully realize the benefits of transfer program maps, faculty and staff must also periodically review and update the alignment of out-of-class academic opportunities. Faculty at CSU and FRCC provide an illustrative example. When faculty in CSU's College of Natural Sciences offered additional research opportunities for first- and second-year students, they were concerned that transfer students—who did not have access to these opportunities—would lag behind their native peers. After raising these concerns with FRCC faculty, CSU and FRCC jointly

applied for and received a National Institute for Health-funded Bridges to Baccalaureate grant to create additional summer research opportunities for FRCC students. Community college educators acknowledged that it is a challenge to provide students with opportunities for undergraduate research, internships, and other out-of-class learning experiences available to many four-year college freshmen and sophomores; not only do community colleges lack resources enjoyed by four-year colleges, but their students often have extensive family and work obligations outside of school which make it difficult to participate in extracurricular activities.

ESSENTIAL PRACTICE 4: Design unconventional pathways, as necessary

For some students, course requirements for their intended major are difficult, if not impossible, to complete at their community college. For instance, rural community colleges may not offer math-intensive science courses or courses that require extensive lab or studio equipment. Even larger community colleges may not offer the breadth of courses necessary to prepare students for degrees in fine arts or architecture. Waiting to take major-related courses until after transfer may delay and increase the cost of attaining a bachelor's degree. In rural areas, the four-year colleges to which community college students might transfer may be too far away to make commuting an option, and students' jobs and family situations might prevent them from moving.

In these cases, a typical "two-plus-two" program map (two years at the community college followed by two years at the four-year college) may not be the best path to student success. Effective partnerships develop alternative pathways that adapt to circumstances on the ground to better serve students. Examples of such alternative pathways include:

- *Offer Four-Year Degrees on the Two-Year Campus:* Louisiana State University Eunice (LSU Eunice), LSU's

2 CREATE CLEAR PROGRAMMATIC PATHWAYS WITH ALIGNED HIGH-QUALITY INSTRUCTION

only community college, is within a one-hour drive from the University of Louisiana at Lafayette (UL Lafayette), a common transfer destination of LSU Eunice students. Even so, many LSU Eunice students cannot travel or move to Lafayette due to family and work obligations. As a result, UL Lafayette offers a bachelor's degree program in education on LSU Eunice's campus, a program for which there is strong demand in the Eunice area. For more information about this partnership, see the sidebar on page 27.

- *Establish "One-Plus-Three" Bachelor's Degrees:* A review of student outcomes data revealed that FRCC had struggled to offer two years of the specialized course-work necessary to prepare students in engineering. In partnership with the Colorado School of Mines (Mines), FRCC established a one-plus-three transfer program in engineering through which FRCC students, in their first year, take 15 courses aligned to a Mines four-year engineering degree. After this first year, FRCC students transfer to Mines to complete their bachelor's degree. One FRCC faculty member reports that, thanks to "conversations with Mines faculty, we [can] keep the courses at the level [of rigor] they want to see." As a next step, the partner institutions are discussing the development of a "reverse transfer" process through which FRCC students can retroactively earn an associate degree after they transfer to Mines. The reverse transfer process would give FRCC credit for students' first year of preparation.

- *Establish Dual-Admission Programs:* FIU developed an admission pathway, Connect4Success, for potential first-year students deemed "not yet ready" for admission. FIU grants these students provisional admission contingent on their earning an associate degree at either BC or MDC within 2.5 years. FIU gives provisional students an FIU Panther ID, invites them to attend on-campus activities, and provides them tailored support to help them navigate the transfer transition process. Similarly, in 2014 LSU Eunice and UL Lafayette established the Ragin' Cajun Bridge Program that offers students attending LSU Eunice who plan to transfer to UL Lafayette access to many of the campus benefits enjoyed by UL Lafayette students. Students receive a UL Lafayette student ID card that gives them access to UL Lafayette sporting events, the library, tutoring, career services, and academic advising.

A BACHELOR'S DEGREE WITHOUT LEAVING THE COMMUNITY COLLEGE CAMPUS

Established in 1999 through the joint efforts of LSU Eunice and UL Lafayette, a “2+2” bachelor’s degree program in elementary education allows students to complete all four years of coursework on the LSU Eunice campus. Each year, the UL Lafayette portion of the program enrolls approximately 20 students, many of whom live in Eunice and have children, which makes the hour-long commute to the UL Lafayette campus more difficult.

The central features of the program are as follows:

- UL Lafayette has specific faculty who teach at the LSU Eunice campus. This way, UL Lafayette faculty have an established presence on the LSU Eunice campus and can tailor their instruction and activities to the LSU Eunice campus context.
- First-year LSU Eunice students map the courses and activities they need to complete their degree—tailored to reflect whether they will commute to Lafayette to complete the program on UL Lafayette’s campus or remain at LSU Eunice for the final two years.
- A UL Lafayette advisor visits the LSU Eunice campus weekly to field students’ questions about their pathway options and to remind students of key milestones they must meet to stay on track, such as taking the PRAXIS certification exams.
- A UL Lafayette math faculty member on the LSU Eunice campus communicates regularly with math faculty on the UL Lafayette campus to ensure continued alignment in math courses.

According to an LSU Eunice administrator, close collaboration between LSU Eunice and UL Lafayette program staff is integral to the success of the program: “The 2+2 program is truly a coordinated effort and one where timing is crucial because the students must be prepared to enter Block I [of the upper-division major] coursework in the fall after completing the Associate of General Studies.”



**“WHERE ARE YOU GOING AFTER THIS?
WE ARE NOT A STOPPING POINT.”**

— FACULTY MEMBER TO STUDENTS AT FRONT RANGE
COMMUNITY COLLEGE (FRCC)

STRATEGY 3:

PROVIDE TAILORED TRANSFER STUDENT ADVISING

STREAMLINING AND CLARIFYING THE PATHWAY TO A BACHELOR'S DEGREE

can go a long way toward helping students transfer and graduate. To successfully transfer and obtain a bachelor's degree, however, students often need more than a clear map. They need guidance—to help decide which pathway to follow, to help identify resources and plan how to use them, to navigate the inevitable obstacles they encounter along the way, and, in many cases, to reassure them that they really are capable of succeeding.

As detailed further below, community colleges and four-year colleges have overlapping but distinct advising priorities related to transfer students. Community colleges should provide transfer students with tailored advice about selecting a field of study as early as possible, choosing applicable coursework and extracurricular activities aligned to their selected major, identifying potential and appropriate transfer destinations, and financing all four years of their undergraduate education. Often, pre-transfer students also need regular

reinforcement to help them progress toward their goals. Four-year colleges should provide prospective students and their community college advisors with detailed information on the course requirements for students' desired majors, students' likelihood of admission based on their credentials and experiences, and costs of attendance and financial aid options. After students have transferred, four-year colleges should engage students in a robust onboarding process that involves frequent and regular meetings with their advisors.

STRATEGY 3: COMMUNITY COLLEGE ADVISING PRACTICES

For community colleges, effective advising includes the following essential practices:

- **Clearly articulate students' transfer options and help them determine, as early as possible, their field of interest, major of study, and preferred transfer destination.**
- **Continuously monitor student progress, provide frequent feedback, and intervene quickly when students are off track.**
- **Help students plan for and access the financial resources necessary to achieve their goals.**

ESSENTIAL PRACTICE 1: Clearly articulate students' transfer options and help them determine, as early as possible, their field of interest, major, and preferred transfer destination

Students can benefit from clear and relevant information about transfer options even before enrolling in a community college. On the homepage of its website, Holyoke Community College (HCC) prominently displays information about its “tradition of transfer” and links to key information about transfer pathways; this practice sends a clear message to prospective students about institutional priorities and HCC students' opportunities. Similarly, administrators at Manchester Community College (MCC) believe that advertising transfer pathways to prospective students finishing high school goes hand-in-hand with cultivating a strong transfer reputation.

Unlike many other community colleges, HCC strongly encourages high school dual enrollment students to declare a program of study rather than just take courses from a long list of general education distribution requirements. HCC also hosts nearly all dual enrollment courses on its own campus, taught by its own faculty, rather than in high schools taught by adjunct faculty, as is the practice at many colleges. This practice strengthens dual enrollment students' connections to campus and their recognition of the strong value the college puts on preparing students for transfer to baccalaureate programs. Moreover, HCC has a dedicated dual enrollment advisor for whom advising students on transfer opportunities and requirements is a key focus.

For students who enter community college immediately following high school, advisors work to help students set goals and choose a field of study as soon as possible. Faculty, advisors, and administrators across the college all play a critical role in this process. They consistently remind students—particularly disadvantaged students—that transfer is an achievable goal while, at the same time, clearly outlining the academic progress and personal grit needed to achieve their goals.

Some students enter community colleges with intended majors while others enter undecided. Community colleges should quickly match students who indicate a field of interest with a qualified advisor who can provide focused guidance and help them explore careers and majors in that field. This approach gives students the information they need to affirm or change their declaration. For example, Louisiana State University Eunice (LSU Eunice) matches new students with advisors during their required orientation through a sort of “major speed dating” process. Students first meet with an advisor in a field that they think interests them, but then are encouraged to move around to different advising groups as they narrow or change their focus. This process allows students to learn more about major options so that their choice of major is highly informed and, thus, more likely to stick.

Undecided students need intensive support to help them consider their options while also mitigating the risk that they will waste time and money on credits that ultimately won't count toward a degree. During our site visits, we heard repeatedly from all parties, including students, that unless students decide on a major or focus area before they transfer, they will likely take more courses than they would have otherwise. This lack of focus can add significant costs and increase the time it takes to earn a degree, or prevent degree attainment altogether.

LSU Eunice revamped its advising services for undecided students to provide the personal attention and tailored guidance that undecided students require. Previously, all undecided students were assigned to a single advisor who was unable to provide targeted advice in all of the many fields students were exploring. Now students are required to choose a focus area upon admission and students are assigned a faculty advisor in that area. The heads of the college's three academic divisions are responsible for helping students who select their focus area—but are not firmly committed—explore and identify areas of interest. The division heads either do this advising directly or by assigning these students to faculty members in their division who specialize in the advising of undecided students. Undecided students are also encouraged to take a career assessment inventory to provide additional guidance. The division heads and faculty advisors help these students select a first-term schedule that is narrow enough to give them a taste of their chosen field but broad enough that they can still change fields if they want. This way students can confirm or change their field based on first-hand experiences rather than second-hand information alone. Students cannot register for classes unless they have been cleared by a faculty advisor. LSU Eunice division heads report that this new approach more effectively supports undecided students.

At Everett Community College (EvCC) and Western Washington University (WWU), advisors jointly

communicate to students the importance of early major selection. When a student at EvCC indicates that transfer is a goal, her advisor immediately asks, "What do you plan to major in and where do you want to go?" WWU admission counselors reinforce this message by insisting students be "major-ready" when they transfer. Similar conversations between students and faculty happen at HCC; one student remarked, "Everyone asks, 'where are you going next?'".

ESSENTIAL PRACTICE 2: Continuously monitor student progress, provide frequent feedback, and intervene quickly when students are off-track

Once students choose a program and receive a program map, institutions must equip advisors and students with the necessary tools and information to monitor students' progress along their pathways. Close monitoring of student progress allows advisors to quickly respond when students fall off track, such as by performing poorly in a critical program course or registering for a course that is unlikely to transfer. Rapid responses ensure that students receive support before their challenges become seemingly insurmountable. Data-driven interventions also ensure that students receive tailored support based on their individual needs.

At LSU Eunice and EvCC, every student is required to have a degree plan and meet with their program-specific faculty advisor in order to register for classes. These faculty advisors closely monitor students' progress toward degree plan completion. Similarly, at HCC, academic advisors and financial aid staff use DegreeWorks to ensure students are sticking with their academic plans and not falling off track. FRCC, MCC, and Broward College (BC) are all taking steps to enhance their student progress monitoring. FRCC is redesigning advising systems so that all students will have an academic plan based on degree maps that are "backward designed" to align to transfer requirements in their field of interest. The college is upgrading its student information system so that students and advisors can track student progress

3 PROVIDE TAILORED TRANSFER STUDENT ADVISING

on their plans. FRCC is also implementing an early alert system to signal when students are struggling in critical program courses.

ESSENTIAL PRACTICE 3: Help students plan for and access the financial resources necessary to achieve their goals

In theory, students who first attend a community college will pay a lower price to attain a bachelor's degree than students who spend four years at the more-expensive college or university. Yet, misinformation about financial aid processes often prevents students from realizing those potential cost savings. In some cases, students exhaust their financial aid eligibility in community college, leaving them with insufficient aid when they do transfer. This can result in students incurring additional debt, which can lead to a more expensive degree or students' abandoning their pursuit of a bachelor's degree altogether.

Community colleges should provide transfer-focused financial aid counseling so that students can benefit from the potential cost-saving strategy of attending a community college. HCC's financial aid office, for instance, helps students map their projected expenditures through attainment of their bachelor's degree. To do this, HCC counselors developed a budget template that outlines the predicted costs for each year of study and the longer-term repayment implications of loans students may take out. In addition, HCC counselors update students each year on their lifetime aid eligibility so students are aware of their remaining amount. As one HCC counselor said, "When we discuss loan eligibility with a student, we're talking about their plans after HCC and what they need to achieve those plans."

Without access to adequate information, transfer students may believe that the community college financial aid determinations automatically transfer with them to their four-year college. Unfortunately, this is not the case. By the time students realize the error, critical deadlines for accessing the full breadth of aid at their new institution may have passed. In some cases, delays in enrolling at the four-year college may trigger their existing loans to enter repayment. To limit these hurdles, community colleges should engage four-year colleges and lenders in shared processes to help students transfer financial aid to their new institution.

STRATEGY 3: FOUR-YEAR COLLEGE ADVISING PRACTICES

For four-year colleges, effective transfer advising includes the following essential practices:

- **Commit dedicated personnel, structures, and resources for transfer students.**
- **Assign advisors and clearly communicate essential information to prospective transfer students.**
- **Strongly encourage transfer students to choose a major prior to transfer.**
- **Replicate elements of the first-year experience for transfer students.**
- **Exercise fairness in financial aid allocation.**

ESSENTIAL PRACTICE 1: Commit dedicated personnel, structures, and resources for transfer students

Effective four-year colleges understand that serving transfer students requires a holistic approach—transfer students need services and support that span multiple institutional functions and divisions. To integrate these services, effective institutions employ advisors who dedicate their time to supporting transfer students. Specialized transfer advisors can become the institution's best "transfer champions," which research suggests is crucial to transfer student success. Because their work spans multiple divisions, transfer advisors play a key role in continuously monitoring transfer students' academic progress and identifying barriers to their success that may fall between divisional lines.

Because they play such a critical role in transfer student success, cultivating skilled transfer advisors must be an institutional priority. The University of Massachusetts Amherst (UMass Amherst) administrator responsible for transfer students believes that hiring strong transfer advisors is one of her most important responsibilities. She argues that transfer advisors need different skills than advisors who work with entering freshmen. She values candidates who are critical thinkers, invested in UMass Amherst's transfer goals, and adept at evaluating complicated transfer student transcripts. She believes these skills are predictive of advisors' abilities to help transfer students with complicated academic and life situations.

Like UMass Amherst, other institutions sought to focus resources and streamline operations by combining various transfer-related functions in one office. In 2009, Colorado State University (CSU) created a new transfer center in the admission office, in which four experienced transfer advisors work on an integrated approach to outreach, recruitment, orientation, and advising of transfer students. Staff in the center regularly communicate with transfer advisors embedded in the colleges. At the University of Louisiana at Lafayette (UL Lafayette), transfer advisors are assigned to specific colleges. Entering transfer students meet with their advisors who help them select appropriate courses and navigate other institutional processes. An advisor in UL Lafayette's Academic Success Center works across colleges to provide extra support to students with academic or other challenges. Similarly, the University of Washington (UW) embedded transfer advisors in specific colleges while also offering general transfer advisors for students who are undecided or trying to gain admission to a college.

ESSENTIAL PRACTICE 2: Assign advisors and clearly communicate essential information to prospective transfer students

Most four-year colleges do not assign advisors until a student registers. Having an established transfer

3 PROVIDE TAILORED TRANSFER STUDENT ADVISING

partnership presents the opportunity to have four-year advisors meet with students who are highly likely to transfer before they enroll at the four-year college. Such prospective student advising makes students' transition between institutions much more seamless. For example, UMass Amherst advisors visit HCC's campus each month to meet with students. According to a transfer staff member at UMass Amherst, advising community college students before they transfer helps build students' trust and confidence that their credits will transfer. In her experience, this confidence encourages students to persist to finish their coursework at the community college. Ultimately, four-year colleges, through their advisors, are responsible for ensuring students at community colleges have the critical information they need to persist toward their goals and transfer successfully. See the sidebar on "Frequently Asked Questions from Prospective Transfer Students" for

examples of information that students want to know and that four-year colleges (working with their community college partners) should provide.

For many four-year colleges, the question of which credits will transfer and count toward a student's major is decided at the department level only after students are enrolled. This timing prevents students from making informed decisions about the best transfer destination based on their intended major. A better process, adopted by some four-year colleges, is to make credit acceptance determinations before students enroll. To do this, four-year colleges must adopt a centralized credit approval process where, instead of approvals happening at the department level, approvals are made by centralized transfer advisors who consult with academic departments as needed.

FREQUENTLY ASKED QUESTIONS FROM PROSPECTIVE TRANSFER STUDENTS

We asked transfer advisors at each of the universities we visited to share prospective students' most frequently asked questions. These are their responses:

- **Will I be accepted to the four-year college?**
- **Will I be accepted into my desired major program?**
- **Will my credits transfer? Will they count toward my major?**
- **What if I haven't decided on a major?**
- **How many years (or semesters) will it take to complete my degree?**
- **How much will it cost? Will I be able to afford it? How much financial aid will I receive after I transfer?**
- **Will I "fit in," meaning will I be able to adjust to the culture, practices, and expectations of a four-year college?**
- **What jobs can I get with my degree? What are my career options?**

“[OUR TRANSFER ADVISORS] ARE 100% HANDS ON. THEY TRY TO GIVE EACH TRANSFER STUDENT ONE-ON-ONE ATTENTION; EACH ONE OF THESE STUDENTS FEELS THAT THEY ARE ON TRACK. EACH TRANSFER ADVISOR IS SO WELL-TRAINED AND SO WELL-STEPPED IN THE REQUIREMENTS. THEY HAVE VERY GOOD COMMUNICATION WITH THEIR FEEDER COMMUNITY COLLEGES, SO STUDENTS ARE TAKING WHAT THEY NEED. AND THEY COMMUNICATE WELL INTERNALLY WITH UMASS DEPARTMENTS...THERE ARE HARDLY ANY SURPRISES ALONG THE WAY.”

**—ASSOCIATE DEAN OF HUMANITIES AND FINE ARTS;
HONORS PROGRAM COORDINATOR AT UMASS AMHERST**

At UMass Amherst, transitioning from a departmental process to a centralized process happened over the course of several years. Over that time, department leaders learned to trust that centralized transfer advisors would make credit transfer decisions according to UMass Amherst standards. To build trust, transfer advisors work closely with department leaders to ensure that transfer requirements are aligned with departmental requirements. Leaders from the transfer advising unit sit on key curriculum committees, including the Academic Matters and General Education Committees. These activities ensure that information about credit transfer is readily accessible to prospective students, mitigating any uncertainty transfer students have prior to enrollment.

In addition to advisors that work with transfer students once they arrive at Florida International University (FIU), FIU employs several “Bridge” Advisors who are located on BC’s and Miami Dade College’s (MDC) campuses. These Bridge Advisors gauge a prospective student’s progress or “transfer-readiness” by reviewing a student’s major, GPA, and completion of prerequisites. When needed, these advisors work with prospective students to consider

alternative majors that still meet their educational goals but will result in a clearer path toward graduation.

ESSENTIAL PRACTICE 3: Strongly encourage transfer students to choose a major prior to transfer

Effective four-year colleges encourage, and in some cases require, prospective transfer students to declare a major prior to transfer. UMass Amherst reviewed student outcomes data and found that students without a declared major were less likely to graduate than students with a declared major. This finding led to the development of a new admission policy in 2012 that requires prospective transfer students to declare a major for their application to be considered complete. For prospective transfer students who declare majors to which they are not admissible, UMass Amherst transfer staff work with students to find a major program that will admit them. FIU and Florida Atlantic University (FAU) also established major declaration as an admission criterion for transfer students. (Both of these Florida institutions require students who enter as freshmen to choose a major or at least an “exploratory major.”)

3 PROVIDE TAILORED TRANSFER STUDENT ADVISING

Rather than formally require major declaration, some four-year colleges give preference in admission to students who are “major-ready.” For instance, WWU advisors repeatedly emphasize to prospective students that WWU strongly considers whether students are prepared for their intended major in the admission process. Similarly, since 2006, admission officers at UW have considered how prepared students are to enter a major in addition to standard measures like GPA and associate degree completion. Following these shifts toward more “holistic” advising for transfer students, UW experienced an increase in both the number of transfer students from underrepresented groups who were accepted and the transfer student graduation rate.

“PEOPLE FORGET THAT TRANSFER STUDENTS HAVE SIMILAR ANXIETY TO INCOMING FRESHMEN, SO THEY NEED THAT SAME AMOUNT OF HIGH-TOUCH PERSONALIZATION. BEING ABLE TO HAVE SOMEONE SIT DOWN WITH THE TRANSFER STUDENT AND HELP THEM DIRECTLY IS REALLY IMPORTANT.”

— ADMISSION DIRECTOR AT FIU

ESSENTIAL PRACTICE 4: Replicate elements of the first-year experience for transfer students

Many four-year colleges create common first-year experiences for freshman students to increase their connection to the campus while helping them develop “college success skills” such as critical thinking, time management, note-taking, research, and writing. Often, resource constraints or misconceptions about transfer students’ needs result in similar opportunities not being provided to transfer students at four-year colleges, even though they would likely benefit as much as native freshman students. Adapting these first-year experiences into an orientation for transfer students can help integrate transfer students into the fabric of the institution and reinforce the institution’s commitment to transfer students’ success.

At CSU, the transfer student orientation is designed to demonstrate that the university is a welcoming destination for transfer students and to recognize the value of transfer students’ prior experiences. For example, CSU hires previous transfer students to lead the transfer orientations in order to establish more credibility and encourage a sense of belonging among incoming transfer students. To explore the impact of timing, CSU offered transfer orientations held at different times of year. CSU leaders discovered that orientations held in the summer, prior to student matriculation, were associated with higher student retention rates, especially for first generation college students and students of color. Earlier orientations also ensured that students could register for needed classes.

ESSENTIAL PRACTICE 5: Exercise fairness in financial aid allocation

To attract high-performing students, four-year colleges often prioritize incoming freshmen when they distribute financial aid and other institutional resources, such as on-campus housing. Usually, transfer students—who are generally admitted after incoming freshmen—are last in line for these resources. Four-year institutions that prioritize fair access to institutional resources and reserve key resources for transfer students are more likely to see those students succeed.

Four year-institutions should review the following forms of aid and other resources to ensure fair reserves are held for transfer students:

- **Institutional tuition discounts based on need:** Any initiatives or programs that discount tuition that are available to native students should also be available to transfer students. For example, in 2011, President Tony Frank of CSU ensured that the new “Commitment to Colorado” program, which covers tuition and fees for any admitted Colorado resident who is Pell-eligible, included eligible transfer students.
- **Merit-based scholarships:** Some merit-based aid should be reserved to award to qualified transfer students. UMass Amherst reserves \$6,000 merit-based scholarships for community college transfer students through its honors program partnership.
- **Dedicated scholarships for specific groups of students:** Some scholarship money that is dedicated to specific groups of students should be reserved for eligible transfer students. FIU has established an upper-division grant for full-time students to promote completion which, in 2014, it made available to incoming transfer students.
- **Other resources:** Some portion of other institutional resources, like housing and priority course registration, should be reserved specifically for transfer students. UMass Amherst departments hold seats in high-demand course sections for transfer students who may enroll or register later than native students. Similarly, UMass Amherst housing officials reserve units on two floors in a residence hall for transfer students who register early.

NEXT FRONTIERS FOR TRANSFER

The community colleges and universities described in this report developed high-quality partnerships that have yielded strong transfer student outcomes. Yet, there are several areas in which even the most successful partnerships can improve.

Emerging practices in the next frontier of improving the transfer process include:

- Improve bachelor's degree outcomes for high school “dual enrollment” students.
- Define transfer requirements in terms of competencies.
- Monitor student progress across the entire transfer pathway.
- Connect transfer pathways to regional labor market needs.

EMERGING PRACTICE 1: Improve bachelor's degree outcomes for high school “dual enrollment” students

Dual enrollment students—students who take college courses while still in high school—represent a significant share of college enrollments in the U.S. Of the nearly 1.3 million first-time students who enrolled in a community college in fall 2007, 15 percent (or 190,000) students were high school students “dual enrolled” in college.¹⁰ The majority of community colleges and four-year colleges in the United States now enroll dual enrollment students: Fifty-three percent of undergraduate institutions reported in 2010–11 that high school students were enrolled in courses at their institution.¹¹

The impact of dual enrollment on students' transfer and baccalaureate success is uncertain. Several universities we visited questioned whether the instruction offered through dual enrollment programs is sufficiently rigorous to prepare students for upper-division college

coursework. Some suggested that they have considered limiting the number and type of credits they will accept as transfer credits from dual enrollment programs. Whether to determine which credits to accept or to support better instruction, it is imperative that community colleges and four-year colleges review dual enrollment course curricula and learning outcomes.

Another concern with dual enrollment is that students typically do not select courses strategically. Administrators and students at Everett Community College (EvCC), Louisiana State University Eunice (LSU Eunice), and Broward College (BC) indicated that dual enrollment students typically take a hodgepodge of courses that, while eligible for transfer, are not clearly aligned to a particular major or program of study. Often, these students do not have the same access to advisors and support services that traditional students do. Advisors at some institutions make an effort to guide students into a major for which their accumulated dual enrollment credit is a good fit. Other institutions, like Holyoke Community College (HCC), are more proactive, offering a dedicated dual enrollment advisor who helps students select courses aligned to a specific degree program.

¹⁰ Jenkins & Fink (2016), p. 45.

¹¹ Marken, S., Gray, L., & Lewis, L. (2013). *Dual Enrollment Programs and Courses for High School Students at Postsecondary Institutions: 2010–11* (NCES 2013-002). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

EMERGING PRACTICE 2: Define transfer requirements in terms of competencies

Institutions in Colorado, Connecticut, and Massachusetts are beginning to use statewide transfer agreements to define transfer requirements in terms of competencies rather than credits earned. Competencies describe the skills and knowledge that students should have acquired at the conclusion of their coursework. In our view, demonstration of competencies can ideally provide a more useful indicator of students' level of preparation than grades earned in particular courses. At this time, there is still little consensus amongst practitioners and policy makers about how to reliably measure students' mastery of competencies and how to use that information to determine whether or not a student is prepared for upper-level coursework in a particular field. Such disagreement makes it difficult to establish a consistent state-level transfer policy around competencies. Yet even if official requirements are still defined in terms of courses and credits for administrative purposes, institutional partners working closely together can likely make progress in defining and measuring some competencies for transfer, thereby greatly improving their understanding of how to help students succeed.

EMERGING PRACTICE 3: Monitor student progress across the entire transfer pathway

Several of the community colleges and universities we visited were exploring how they could better share data about student aspirations and success rates in ways that would benefit both partners. For example, four-year college administrators could benefit from knowing which community college students are interested in transferring to their institution, while community college administrators and faculty could benefit from knowing how well their students perform after transfer.

Florida's Department of Education and Washington State's Higher Education Coordinating Board make available aggregate data on enrollment and graduation patterns of students who transfer from particular community colleges to state four-year colleges. However, in none of the states we visited do community colleges and four-year colleges share unit record data on students seeking to transfer. The Maricopa-to-Arizona State University (ASU) Pathways Program (MAPP) is a strong example of data collection and sharing. This partnership guarantees admission to ASU degree programs for students in the Maricopa Community College System who follow prescribed program maps.¹² As part of MAPP, students and their community college advisors have access to information that reveals what requirements students have already met and which they still need to fulfill to enter ASU as juniors in their intended majors. ASU administrators use information on community college students who are following MAPP pathways to ASU majors for enrollment planning. Maricopa and ASU also used data on transfer student progression to redesign program pathways so that more students succeed, such as a new 1+3 engineering program. For such cross-institutional data sharing to be useful, community colleges need to better identify the transfer goals of their students.

¹² For more information, see the MAPP website at: <https://transfer.asu.edu/agreement/maricopa-county-community-college-district/mapp/false>.

NEXT FRONTIERS FOR TRANSFER

EMERGING PRACTICE 4: Connect transfer pathways to regional labor market needs

As community colleges and four-year colleges work to develop clear programmatic pathways that span their institutions, they must also begin to develop pathways between their institutions and students' careers. Moreover, because institutions of higher education—in particular community colleges and regional public four-year colleges—often serve local students and function as local economic development hubs, it is important for these pathways to be responsive to local economic needs. Such partnerships can form the basis for “regional career pathways,” where community colleges and four-year colleges work with employers and economic development groups to identify career fields in demand in their local economy. They then use this information to map backwards to develop aligned programs and pathways throughout the education pipeline—from middle and high school, to community colleges, and to four-year colleges.

We observed some early efforts to develop regional career pathways in Miami. The Beacon Council, Miami-Dade County's economic development partnership, convened the presidents of Florida International University (FIU) and other Miami-area community colleges and four-year colleges, as well as the Miami public schools superintendent, to coordinate efforts to prepare students for seven high-demand, high-paying, and potentially high-growth fields in the Miami area. The Council established a task force for each of the seven fields and led conversations about curriculum alignment with faculty and deans at participating institutions. If, as envisioned, institutions are sharing data on students, then stakeholders across institutions can monitor student performance and progress at key junctures in the pipeline. Efforts like this have multiple potential benefits, the most obvious of which is better meeting regional labor market demands and thereby benefiting the local economy. We suspect that this effort will also improve student outcomes, especially for students who transfer from community colleges to four-year colleges, by more clearly connecting their academic pursuits to their future career opportunities.

“THE STEREOTYPE WAS THAT TRANSFER STUDENTS KNEW WHAT THEY WERE DOING, AND THERE REALLY WASN’T THAT MUCH ORIENTATION NEEDED... [ACTUALLY,] WHEN WE ASKED STUDENTS IN OUR INITIAL RESEARCH, THEY WERE NOT ABLE TO ARTICULATE OUR ARTICULATION.”

— TRANSFER DIRECTOR AT FIU

HOW TO GET STARTED

In this section, we outline steps that community colleges and four-year colleges can use to get started on the process of improving transfer practices. These steps draw from strategies we observed at the institutions in our study as well as on our broader work with colleges on organizational leadership and improvement. Research strongly suggests that discrete innovations are not adequate to substantially improve outcomes for transfer students; rather it will require a broad rethinking of institutional policies and practices. Bringing about these changes will also require a broader change management effort, with leadership from throughout the institution.¹³

Though they overlap in many ways, we outline steps for community colleges and four-year colleges separately. For institutions starting from scratch, getting started could take a full year.

GETTING STARTED AT COMMUNITY COLLEGES

- ✓ **Collect data on transfer student supports and outcomes.** Form a task force of faculty, student staff, and administrators to collect and analyze data on how your college currently supports students seeking to transfer, the outcomes of your students who do transfer, and opportunities for improvement. This group would work with the college's institutional research staff to:
 - Use data from your student information system** to quantify which currently enrolled students are seeking to transfer and identify the programs those students are in. Identify who within the college is responsible for monitoring transfer student progress.
 - Use data from the National Student Clearinghouse** (or state data tied to data on starting cohorts at your community college) to identify which four-year colleges your students transfer to, the rate at which they earn bachelor's degrees from each destination, and the fields in which they earn them. Plot the number of transfer students from your college by the number of college-level credits they earned before they transferred from your college; calculate the percentage of these students who earned a certificate or associate degree from your college before they transferred.

¹³ See Kotter (2007) for a widely used framework for change management, and Kezar (2014) for a guide to leading change in colleges. For a discussion of change management strategies applied to efforts to improve transfer practices, see Jenkins, Kadlec, and Votruba (2014), p. 24. Kotter, J. P. (2007). Leading change. Why transformation efforts fail. *Harvard Business Review*, (January 2007) pp. 92-107.

Review the support services available to prospective transfer students to assess their quality and the extent to which they are used by students. Make sure to examine the following areas of practice:

PROGRAM PATHWAYS. Do transfer program maps exist? How clear are they? Are they accurate and up-to-date? Do they clearly guide students to specific institutions in specific majors? Are they connected to careers with good wages in the college's service region?

ON-BOARDING/ORIENTATION. How effectively are new students introduced to transfer pathways and transfer support services at your college?

ADVISING. How effectively are students helped to explore transfer options and develop a transfer plan? How well is their progress monitored and by whom?

FINANCIAL AID. How does the financial aid counseling process help students think through the financing of their entire baccalaureate and not just remaining enrolled or completing the associate degree?

Review of the college's website and those of four-year transfer partners to assess the accessibility and accuracy of information for prospective transfer students on program options, requirements, and admission procedures.

Assess your college's relationship with the four-year colleges to which your students are most likely to transfer. To what extent does your college collaborate with key transfer partners? How often do presidents, chief academic officers, and other senior administrators meet with their four-year counterparts? What about program faculty, department chairs, and deans? When was the last time data on transfer students were shared and discussed with four-year partners? How can this collaboration be improved?

Hold individual listening sessions and focus groups with current and former transfer students about their experiences planning to transfer and transferring from the community college to the most common four-year college transfer destinations.

HOW TO GET STARTED

GETTING STARTED AT COMMUNITY COLLEGE CONTINUED

✓ **Build an internal coalition for improvement.** Form a “transfer champions team” of faculty, staff, and administrators to engage the college community broadly in reflecting on how well the college serves students seeking to transfer and to build a sense of urgency and commitment to improve outcomes for these students.

Hold meetings with academic and student services departments to review the data and discuss bright spots and areas of concern related to the transfer student experience and transfer student outcomes.

Review summary information gleaned from student interviews and focus groups, repeating a limited number as needed to increase understanding.

Create a report summarizing common themes from these meetings and recommended improvements.

✓ **Build on-going relationships with transfer destination partners.** Take steps to strengthen relationships with key four-year transfer destination partners.

Establish regular one-on-one meetings with the senior leadership of each partner to initiate the partnership and jointly commit to high-level goals. Bring relevant data on transfer student enrollment and outcomes to establish urgency and inform the goals of the partnership.

Request data from each partner on the performance and outcomes of students who transfer from your college. For example, it would be helpful to have data on the GPAs and completion rates of transfer students from your college compared with those of native students by four-year academic division. If feasible, ask four-year partners to conduct degree audits of bachelor’s degree graduates who transferred from your college to determine what percentage of their credits were accepted for credit toward degrees (not just for elective credit) and the reasons credits were denied.

Initiate regular conversations between senior academic and student services administrators at your college and at four-year partner colleges to explore the activities and actions your institution and the partner would need to undertake to implement the practices described in this report and thus build a highly-effective transfer partnership.

Initiate regular meetings between faculty and academic administrators from both institutions to identify common challenges and areas for improvement. Involve general education faculty and advisors in these discussions.

✓ **Create a vision and plan for improvement.** Based on the analysis of data and engagement with internal and external stakeholders, and with guidance and support from the transfer champions team, the college's senior leadership should adopt a guiding vision and plan for improving transfer policies and practices.

Ensure that the plan assesses current institutional practices and includes recommendations for improvement in the key areas of practice (program pathways, on-boarding/orientation, advising, financial aid, and collaborative supports with four-year partners).

Hold forums where members of the steering group can present draft findings and recommendations, and campus stakeholders can discuss and provide feedback.

Ensure that the final plan includes defined outcomes, a description of how the institution will measure and report its progress on those outcomes, an assessment of the resources needed to achieve those outcomes, and a clear communications strategy for informing and continuing to engage internal and external stakeholders as the plan is implemented.

HOW TO GET STARTED

GETTING STARTED AT FOUR-YEAR COLLEGES

- ✓ **Collect data on transfer student supports and outcomes.** Form a task force of faculty, student services staff, and administrators to collect and analyze data on how your institution currently support transfer students and how well these students do academically, as well as identify opportunities for improvement. This group would work with institutional research staff to:
 - **Use data from your student information system** to identify the number of students currently enrolled who are transfer students from community colleges, which colleges they transferred from, and their GPAs, completion rates and (among graduates) total college credits attempted compared to students in similar programs who entered the college as freshmen. Disaggregate these analyses by college and major. Identify who within the college is responsible for monitoring transfer student progress.
 - **Review the support services available to prospective and newly enrolled transfer students** to assess their quality and the extent to which they are used by students. Make sure to examine the following areas of practice:
 - **PROGRAM PATHWAYS.** Do transfer program maps exist? How clear are they? Are they accurate and up-to-date? Do they clearly guide students to further education and careers of economic importance to the college's service region? Is this information readily available on the college's website?
 - **PROSPECTIVE STUDENT RECRUITMENT AND ADVISING.** How effectively does the college recruit and support prospective transfer students from community colleges? Does the college make transcript audits readily available to prospective transfer students?
 - **COLLABORATIVE SUPPORT WITH PARTNER COMMUNITY COLLEGES.** In what ways does the college partner with community colleges to ensure program alignment and recruit, advise, and support prospective students?
 - **ON-BOARDING/ORIENTATION.** How effectively does the college help community college students transition to the four-year college?
 - **ADVISING.** How often is the progress of transfer students monitored and are adequate supports provided when these students struggle?
 - **FINANCIAL AID.** Does the college provide equitable access to financial aid for transfer students compared to native students?

OTHER SUPPORTS. Are there other types of student supports needed to assist transfer students in successfully acclimating to the four-year college experience?

Review the college's website to assess the accessibility and accuracy of information for prospective transfer students on program options, requirements, and admission procedures.

Assess your institution's relationship with the two-year colleges from which you are most likely to receive transfer students. To what extent does your college collaborate with key transfer partners? How often do presidents, chief academic officers, and other senior administrators meet with their community college counterparts? What about program faculty, department chairs, and deans? When was the last time data on transfer students were shared and discussed with a community college partner? How can this collaboration be improved?

Conduct degree audits for bachelor's degree graduates who transferred from partner community colleges to determine what percentage of credits were accepted for credit toward degrees (not just for elective credit) and the reasons credits were denied.

Hold individual listening sessions and focus groups with current and former transfer students about their experiences transferring to your college and how their experience could have been improved.

Build an internal coalition for improvement. Form a "transfer champions team" of faculty, staff, and administrators to engage the institutional community broadly in reflecting on how well you serve transfer students and to build a sense of urgency and commitment to improve outcomes for these students.

Hold meetings with academic and student services departments to review the data and discuss bright spots and areas of concern related to the transfer student experience and transfer student outcomes.

Review summary information gleaned from student interviews and focus groups, repeating a limited number as needed to increase understanding.

Create a report summarizing common themes from these meetings and recommended improvements.

HOW TO GET STARTED

GETTING STARTED AT FOUR-YEAR COLLEGES CONTINUED

✓ **Build on-going relationships with feeder community colleges.** Take steps to strengthen relationships with key community college feeders.

- Establish regular one-on-one meetings** with the senior leadership of each partner college to initiate the partnership and jointly commit to high-level goals. Bring relevant data on transfer student enrollment and outcomes to establish urgency and inform the goals of the partnership.
- Initiate regular conversations** between senior academic and student services administrators at your college and at partner colleges to explore the activities and actions your institution and the partners would need to undertake to implement the practices described in this report and thus build a highly effective transfer partnership.
- Initiate regular meetings** of faculty and academic administrators from your college and partner colleges to identify common challenges and areas for improvement.

Create a vision and plan for improvement. Based on the analysis of data and engagement with internal and external stakeholders, and with guidance and support from the transfer champions team, the college's senior leadership should adopt a guiding vision and plan for improving transfer policies and practices.

- Ensure that the plan assesses current institutional practices** and includes recommendations for improvement in the key areas of practice (program pathways, prospective student recruitment and advising, collaborative support with partner colleges, on-boarding/orientation, advising, financial aid, and other supports).
- Hold forums** where members of the steering group can present draft findings and recommendations, and campus stakeholders can discuss and provide feedback.
- Ensure that the final plan includes defined outcomes,** a description of how the college will measure and report its progress on those outcomes, an assessment of the resources needed to achieve those outcomes, and a clear communications strategy for informing and continuing to engage internal and external stakeholders as the plan is implemented.

PRACTITIONERS' PERSPECTIVES ON STATE TRANSFER POLICIES

Nationally, more than three-quarters of states have implemented policies designed to increase student transfer rates from community colleges to four-year colleges. Figure [P-1] summarizes the transfer policies in the six states we visited. Many states have developed “articulation” agreements which aim to facilitate transfer from community colleges to four-year colleges. At the institutions we visited, many of the faculty, staff, and administrators had participated in statewide articulation activities. Through these statewide activities—and in their day-to-day work advising students—faculty and staff experienced the benefits and challenges of transfer agreements first-hand. In our interviews, they shared with us their insights based on this experience—particularly with respect to statewide articulation agreements. This policy section of our report summarizes those insights in order to help practitioners who may be asked to participate in statewide committees in their own states, or work with colleagues to develop institutional strategies to respond to state transfer policies. Policy makers in other states can also learn from these insights as they develop new transfer policies.

FIGURE P-1

STATEWIDE TRANSFER POLICIES IN THE SIX STATES						
Policy Feature	CO	CT	FL	LA	MA	WA
Common course numbering	• ^a	• ^a	•	• ^a		• ^a
Course equivalency database				•	•	
Gen ed core articulation	•	•	•		•	•
Major-specific pathways	•	• ^b			•	
Field-focused pathways	•			•		•
Competency-based transfer maps	• ^c	•			•	
AA transfer guarantee			•			
Statewide transcript database			•			
Reverse transfer (credit capture)	•		•			
SUR data on transfer outcomes			•			•
^a Community colleges only. ^b Starting fall 2016. ^c Planned.						

PRACTITIONERS' PERSPECTIVES ON STATE TRANSFER POLICIES

Benefits of statewide articulation agreements

Faculty and staff at the community colleges and universities we visited identified a number of tangible benefits resulting from statewide articulation agreements.

Discourage self-serving requirements. From the perspective of community colleges, statewide articulation policies ensure that the process of developing course requirements for transfer is collaborative. Often, conversations between community colleges and four-year colleges expose course requirements at four-year colleges that students should, and in some cases already do, have access to at their community college. Without articulation agreements, four-year colleges have more decision-making power and may impose requirements on transfer students that increase costs or make transfer more difficult than it needs to be.

Promote consistency. Educators at four-year colleges report that articulation agreements encourage community colleges in a state to work together to standardize course numbers, content, and assessment across their institutions. More standardization at community colleges streamlines the transcript review and credit transfer process at four-year colleges, which benefits students. Educators also report that statewide agreements can form the basis for clearer program maps which can strengthen the advising support that students at community colleges receive.

Encourage mutual understanding and consensus on student learning expectations. Educators from both community colleges and four-year colleges report that collaborating on articulation agreements can help build mutual trust across institutions. Statewide meetings present a valuable opportunity for faculty from community colleges and four-year colleges to co-define student learning expectations at each level. Conversations at these meetings often enlighten faculty about offerings at other institutions and may surface roadblocks, like unnecessary prerequisites. Administrators

at Colorado State University (CSU) shared that meetings between community college and four-year college faculty helped dispel CSU faculty misconceptions about the quality and rigor of two-year instruction.

Potential pitfalls of statewide agreements

Weighing against these potential benefits, faculty and staff expressed concerns that statewide articulation agreements can fall short in a number of ways.

General education agreements are insufficient.

General education articulation agreements encourage students to focus on general education courses at the community college based on the premise that doing so allows students to explore their options. Yet, students should choose a major and take prerequisite courses while still at the community college in order to ensure efficient transfer preparation, including an increased chance that most or all community college credits will be accepted. Encouraging students to focus on completing general education requirements, then, without paying attention to major requirements may limit students' options rather than expand them.

Several common features of general education agreements reinforce these negative consequences. First, statewide general education agreements generally do not specify which courses can satisfy requirements for particular majors. This is particularly problematic for students seeking to enter majors in fields that have specific lower-division math and science requirements, like business, nursing, and STEM. As a chemistry professor at University of Massachusetts Amherst (UMass Amherst) explained, "If you complete all your gen eds at a community college and then transfer to UMass Amherst, you cannot complete your [chemistry] major in two additional years."¹⁴ Second, community college students who take only general education courses must delay taking courses

¹⁴ The Massachusetts Department of Higher Education is attempting to address this concern through implementation of a new initiative called MassTransfer Pathways. Faculty and transfer professionals from all public higher education

that align to their academic interests until they arrive at their four-year destination. Delaying their in-major courses might diminish student engagement and could require students to take an unmanageable load of demanding courses during their junior and senior years.

Some statewide major-specific articulation agreements are too specific. In an attempt to counteract a statewide general education articulation agreement considered to be too general, Colorado instituted the Degrees with Designation (DwD) initiative, which guarantees that students who follow a curriculum pathway precisely will earn junior standing in one of more than 30 fields of study. This created a new problem: the DwD program effectively requires that all Colorado four-year colleges define major prerequisites in the same way. Colorado faculty and administrators rightfully argue that major prerequisites should differ across four-year colleges according to the institution's selectivity and departmental disciplinary focus. To circumvent DwD guidelines, some four-year colleges defined degree requirements for their programs in ways that differ from the relevant DwD pathway. This countermove has increased the complexity and reduced the standardization of the DwD pathway, undermining the intent and potentially the impact of the initiative.

Some faculty and staff advocate for a more balanced approach: the establishment of statewide field-specific articulation agreements that clarify general lower-division requirements for a broad field, but still allow students to explore within the field and leave room for some variation in major-specific requirements across four-year colleges. The state of Washington's Associate of Science-Transfer degrees (AS-Ts), provide a strong example. The AS-Ts

institutions in the state met to develop and implement Pathways which incorporate both general education and major foundational course requirements. The first six Pathways (biology, chemistry, economics, history, political science, and psychology) will become available for fall 2016, with an additional 10 Pathways for fall 2017. With just one statewide Pathway for a particular major, students may complete that Pathway at any community college and transfer to any state university, with major foundational courses and general education completed and junior status guaranteed.

define the common lower-division requirements for majors in two broad fields: biological and earth sciences; and engineering and computer science. Within those two fields, each Washington four-year college created a major-specific program map that accounts for its institution-specific requirements. STEM faculty we interviewed at the University of Washington (UW) and Western Washington University (WWU) unanimously praised the way these agreements reconciled the requirements of broad general education articulation agreements and major-specific pathways. The state of Washington has created similar field-specific pathways in business, education, nursing, and technology management.

Institution- and major-specific program maps are still necessary. Faculty and staff at every site we visited agreed that state articulation agreements, while potentially helpful, do not eliminate the need for institution- and major-specific program maps. Statewide articulation agreements should ideally outline the common requirements students need to pursue a particular field, but they often lack the specificity necessary to guide students through transfer in a specific major at a specific institution. In addition, statewide articulation agreements are likely to be fairly static; program maps, on the other hand, should be updated annually to account for changes in program requirements or GPA acceptance thresholds. Therefore, transfer students should refer to the program maps for their intended major and destination institution.

Importance of involving advisors in the process. The development of statewide articulation agreements should involve faculty and academic administrators from community colleges and four-year colleges. Faculty and staff we interviewed, however, indicated the importance of including advisors in the development process since advisors have a unique perspective on student needs and long-term goals. Moreover, advisors are on the front lines of executing the articulation agreements, so engaging them at the beginning of the process means they are more likely to be knowledgeable and invested.

APPENDIX

RESEARCH DESIGN

Overview¹⁵

Our goal was to identify those community college and four-year college partnerships that, after controlling for student demographics and institutional characteristics, are most effective in enabling community college entrants to transfer to a four-year college and earn a bachelor's degree. To identify these effective partnerships, we analyzed college enrollment and degree attainment data from the National Student Clearinghouse (NSC) for the approximately 1.2 million students nationwide who entered higher education for the first time at a community college in fall 2007. Enrollment and attainment records were analyzed for each term from fall 2007 through fall 2014. While raw transfer rates and bachelor's completion rates are important measures of institutional performance, they also reflect entering student characteristics and fixed institutional characteristics, many of which are beyond the control of the institution. Therefore to more fairly compare institutions, we used a "value-added" approach, comparing residuals for each institution in a transfer partnership from regression equations that control for student and college characteristics.

In this analysis we defined transfer students as students who entered higher education for the first time in a two-year college and transferred directly into a four-year college. A substantial percentage of transfer students attended multiple institutions, but we excluded these students in order to focus on the effectiveness of "dyads" of community colleges and four-year colleges. Including students who "swirled" among community colleges and four-year colleges during the study period would have made it harder to attribute credit for student outcomes to any specific pairs of institutions.

STEP ONE: Identify community colleges with strong transfer student outcomes overall

The goal of the first step of our analysis was to identify community colleges with relatively high transfer volumes as well as better-than-expected bachelor's completion rates among transfer students who attended *any* four-year college.

Using NSC data on a cohort of entering community college students nationally, we used a regression to predict an expected transfer student bachelor's completion rate for each community college. We controlled for the following college-level characteristics: the college's student body socio-economic profile (using three equally-weighted student-level variables from each student's home Census tract: median household income, percentage of 25 or older population with bachelor's degree or higher, and percentage of workers in managerial or professional occupations¹⁶); the college's student demographic profiles (percentage of students who are female, percent African-American, percent White, percent Asian, and percent Hispanic); other student body profile information, including the percentage of students who are Pell grant recipients, percentage full-time enrolled, and percentage degree-seeking; distance to the nearest four-year transfer destination; percentage of associate degrees awarded in occupational areas; educational expenses per FTE; and state (to control for the institution's policy context). Then, for each community college, we subtracted the expected bachelor's completion rate from the actual bachelor's completion rate, yielding a bachelor's completion rate *residual* for each community college. As stated above, we included any students who transferred from the community college, regardless of their transfer destination.

¹⁵ Ran, X., Fink, J. E., Xu D., Jenkins, D., & Dunder, A. (2015, November). *Increasing college completion and equity through strengthened transfer partnerships*. Paper presented at the Association for Public Policy Analysis and Management Fall Research Conference, Miami, FL.

¹⁶ For more information on this procedure, see Jenkins, D. Leinbach, T. Crosta, P. Prince, D. & Whittaker T., (2006). Using Census data to classify community college students by socioeconomic status and community characteristics. (CCRC Research Tools No. 1.) New York, NY: Columbia University, Teachers College, Community College Research Center.

To ensure that we identified colleges with a large volume of transfer students, a high actual bachelor's completion rate among transfers, and better-than-expected performance based on the model-adjusted prediction, we restricted the national group of community colleges to a smaller pool that met the following thresholds: 1) the community college had a total number of transfer students that was above the median among all community colleges; 2) the actual bachelor's degree completion rate among transfer students was above the median of all community colleges; and 3) the community college had a positive residual when subtracting the model-predicted completion rate from the college's actual completion rate (i.e., the college performed better than expected). Applying these thresholds identified 143 community colleges of 800 community colleges for the second-stage analysis.

STEP TWO: Identify strong four-year transfer partners

The goal of the second step of our analysis was to identify receiving four-year colleges with better-than-expected bachelor's completion rates for students who transferred from one of the 143 community colleges that we identified in step one. To focus the analysis on transfer partnerships, we calculated the transfer student bachelor's completion rate for each pair of partnering community colleges and four-year colleges.

Three criteria were applied to ensure that the receiving institution was an important transfer partner for a particular community college: 1) at least 30 students in the fall 2007 cohort transferred from the community college to the four-year college; 2) the four-year college received at least 15 percent of all transfer students from the community college; 3) the four-year college was among the top 5 transfer destinations for the given community college.

For each of the 177 transfer partnerships that remained in the pool (some colleges were in multiple partnerships),

we used a regression to estimate the expected bachelor's completion rate of students transferring between each community college and four-year college pair. We adjusted the model using similar controls to those in step one but using data for the four-year institutions rather than the community colleges. In addition, we added controls for the four-year college selectivity and sector. We then derived a *residual* value for each transfer partnership by subtracting each partnership's expected bachelor's completion rate from the actual bachelor's completion rate. Finally, to ensure the partnerships both transferred and graduated a substantial number of students, we excluded partnerships where the number of transfer students who earned bachelor's degrees was below the 25th percentile in the pool, leaving 133 remaining transfer partnerships.

STEP THREE: Selecting partnerships for site visits

As a follow-up to the above-described procedure, we conducted screening interviews with 12 transfer partnerships (24 institutions total) with the highest *dyad residual* values (partnerships that were most outperforming their expected completion rates). Based on the screening calls with college leaders to assess whether the strong outcomes were the result of intentional, replicable practices, and in an effort to achieve some variation in our sample by geography, size, and four-year college types, we selected six transfer partnerships for site visits.

STEP FOUR: Conducting site visits

During the site visits, we spent a day at each institution interviewing key administrators, faculty, student services staff, and students using a semi-structured protocol. To better understand the success of the community college and all of its transfer partners, we met, in three of our site visits, with a second four-year destination that is a significant partner to the community college. These visits took place in the spring and fall of 2015.



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