

MAXIMIZING RESOURCES FOR STUDENT SUCCESS

The Business Case for Regional Public Universities to Strengthen Community College Transfer Pathways (with Guidance on Leading the Process)

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1. DESCRIPTION OF STRATEGY AND UNDERLYING HYPOTHESIS

In this strategic case investigation, we present evidence that strengthening transfer pathways between community colleges and regional comprehensive universities is a strategy with great potential to increase postsecondary attainment by large numbers of low-income students while minimizing the cost to students and taxpayers.¹ It is also a sound business strategy for regional universities to expand recruitment of students who have a high likelihood of success and who, increasingly, are unlikely to enroll as freshmen at these institutions. Strengthening recruitment and support for transfer students will also help comprehensive universities fulfill their mission as engines of regional economic development.

Assuming students are able to transfer with minimal loss of credits toward a bachelor's degree, the more lower-division coursework they take at a community college, the more affordable a path to a bachelor's degree starting at a community college is for students. It's also a better deal for taxpayers.

However, research indicates that the transfer process is far too complex, with too many choices and too little guidance. Moreover, community college transfer offerings are often not well aligned with university degree program requirements. Students say they are confused and they frequently make poor decisions, taking courses that are not accepted for credit toward degrees in their desired majors, thus adding to the time and cost of getting a bachelor's degree. Many become discouraged and drop out of college altogether.

Over 80 percent of the approximately 1.5 million students who enter higher education each year through community colleges indicate that they intend to earn a bachelor's or higher. Yet, only about 17 percent actually complete a baccalaureate within six years. And most students who transfer do so without first earning an associate degree. This means that the majority of students who enter community college seeking a college degree end up with none. We estimate that addressing the pervasive inefficiencies in the current transfer system could increase the number of transfer students who complete both bachelor's and associate degrees by tens of thousands each year, thus producing better outcomes for the investment in college by students and taxpayers.

There is growing evidence that a key to improving degree outcomes for community college transfer students is to create clearer, more educationally coherent pathways from community college to bachelor's programs at four-year institutions. Strengthening transfer pathways requires strong commitment by both the sending and receiving institutions. It also requires substantial financial investment by both partners, but especially universities. The costs to universities include specialized recruitment and advising for transfer students, information systems to monitor transfer students' progress, and ongoing coordination and relationship-building within the institution and with community colleges. Some universities have gone even further, for example, by locating university advisors on community college campuses and offering courses at the two-year campuses.

Despite the costs and other factors that have prevented greater cooperation between universities and community colleges, a confluence of demographic, economic and political trends is creating incentives for universities in many parts of the country—particularly regional comprehensive institutions—to actively work with community colleges to improve recruitment and degree completion of transfer students. Here we present cases of universities that are doing this not only to improve student success and better meet the needs of the regions they serve, but to achieve competitive advantage in the face of the growing market pressures on these institutions.

Section 2 following this overview presents evidence that strengthening transfer pathways has the potential to lower the cost of earning a college degree for students and taxpayers and describes the practices of universities that are recognized for building strong transfer partnerships with community colleges. Section 3 makes the business case, presenting examples of universities that are benefiting in a variety of ways from collaborating with community colleges to improve transfer outcomes. Section 4 draws on research and experience in the field to outline steps that leaders of regional universities can take to develop transfer systems that are effective for students and sustainable for the partnering institutions.

2. EVIDENCE BASE FOR THE STRATEGY

THE PROBLEM (AND OPPORTUNITY)

Falling short of their goals. Over 80 percent of new college students who begin higher education each year at a community college indicate that they intend to earn at least a bachelor's degree.² Yet only about a quarter of those who say they want a bachelor's degree end up transferring to a four-year institution,³ and only about 17 percent earn a bachelor's degree within six years.⁴ Moreover, the majority of students who transfer do so without first earning an associate degree. This is so despite research showing that students who earn an associate degree before they transfer are significantly more likely to earn a bachelor's degree than those who transfer without one.⁵

Potential to benefit large numbers of students. Thus, there is a need to improve the rates at which community college students who want to earn a bachelor's degree a) actually transfer (currently 25 percent), b) earn an associate degree before they transfer (currently 20 percent of transfers), and c) earn a bachelor's degree after transferring (currently 62 percent of transfers).⁶ Given that over 1.5 million students enter higher education each year through community colleges, to the extent that these rates can be improved across the country, the number of community college students who earn a college degree could be increased by tens of thousands annually. Extrapolating from current statistics, we estimate that increasing the transfer rate to 30 percent from 25 percent would add 75,000 new transfers per year nationally, and an estimated 46,000 bachelor's degrees. Increasing the rate at which transfer students earn associate degrees before transferring from 20 percent to 30 percent would add 37,500 associate degrees annually and almost certainly boost bachelor's completion rates as well.

A great deal financially. Improving transfer outcomes would have substantial economic benefits for students and taxpayers. Because community colleges are less expensive than four-year institutions, assuming students take most of their lower-division coursework at a community college and are able to transfer their credits efficiently (that is, they do not “lose” credits when they transfer), the “2+2” is an affordable route to a bachelor’s for both students and taxpayers. Mullin (2012) used a nationally representative survey of beginning postsecondary students to estimate that the 203,000 students who started in a community college in 2003–04 and transferred to a public four-year institution saved \$943 million in inflation-adjusted dollars in tuition. Extrapolating, he estimated that students starting at a community college in 2011 who transferred to a 4-year public university saved \$1.9 billion and students who transferred to private nonprofit institutions saved \$1.7 billion.⁷ Community colleges spend considerably less per FTE than public four-years: \$9,501 in 2010, compared with \$12,240 for public master’s institutions and \$15,951 for public research institutions.⁸ So the more of their bachelor’s coursework students can take at community colleges, the lower the bill for taxpayers. In light of the compelling evidence of strong economic and social returns to both bachelor’s degrees and associate degrees—benefits that have not diminished in the wake of the Great Recession—increasing rates of degree completion would increase the return on investment in college by students and taxpayers.⁹

Critical avenue for upward mobility. Because community colleges serve a disproportionate share of low-income students (and a majority of Latinos and Native Americans and near majority of African Americans who are undergraduates), strengthening transfer pathways has the potential for improving upward mobility.¹⁰ Studies find that transfer students from two-year colleges are more likely to come from low-income families than are students who enter universities directly as freshmen or transfers from other four-year institutions.¹¹ Drawing on findings from research such as this, the Commission on Transfer Policy and Practice, convened by The College Board, concludes in its 2012 report that: “The increasing stratification of higher education makes transfer the most important—and perhaps the only—viable avenue [to postsecondary success] for students from underserved groups” (emphasis added).¹² Others have argued that in light of disparities in K-12 education, improving transfer rates from two- to four-year institutions may be the only scalable strategy for increasing diversity and opportunity in the professions and for meeting state goals for baccalaureate-trained STEM professionals, health professionals and teachers.¹³

Key role for regional universities. The majority of community college students who transfer to a four-year institution go to public four-year institutions. Most community college students who transfer attend moderately selective or nonselective public institutions; fewer than one-fourth of community college transfer students go to flagship research universities or other highly selective public four-year institutions.¹⁴

Not only do the majority of community college students who transfer to four-year institutions attend regional universities, but this is also probably where the greatest potential for increasing transfer rates is, since such institutions are likely to have greater capacity to accommodate transfer students than do selective public universities.

Great potential for maximizing resources for student success. In light of this evidence, we believe that improving outcomes for students transferring from community colleges to regional universities has great potential—perhaps more than any other strategy—for maximizing the use of existing resources to increase college completion and success for large numbers of low-income students.

BARRIERS TO TRANSFER

Process is too complex. There is compelling evidence that the transfer process is far too complex and that this complexity costs time and money as students take suboptimal paths toward a degree. The large variation in admission and degree requirements not only across universities but among university programs makes the transfer process so complicated that even experienced advisors can have trouble figuring it out.¹⁵

Too little guidance. Most community colleges lack a systematic process for helping students who are not clear about a field of study explore options for careers and majors.¹⁶ Students can see an advisor, but advising departments are often understaffed. Some community colleges have transfer advising staff members or centers, but there is evidence that the students who need such services the most are least likely to use them.¹⁷ In fact, many new students are not even aware such services are offered.¹⁸ Thus, students are left to navigate what has been described as the “gauntlet” of the transfer pathway largely on their own.¹⁹ Most community colleges and many universities generally do not track students’ progress in relation to students’ own educational goals.²⁰ University orientation and advising for transfer students is also often lacking. Even where universities do have special intake services for transfer students, they rarely approach the level of support provided to students who enter as freshmen.²¹

Students are confused. When asked, many students say they are confused about a wide range of issues, including the cost of college and financial aid guidelines.²² Most students in regional comprehensives and community colleges have to balance school with work and family obligations. For such students, the additional pressures of navigating the transfer process can overwhelm aspirations. In focus groups and surveys, students report being frustrated by the complexity of the transfer process and the difficulty of getting accurate information and guidance.²³ Many students report losing time and money because the credits they were told would transfer are not accepted for credit by university departments. Even though the system is flawed, some students blame themselves.²⁴

Poorly aligned programs. Community college associate degree requirements are often not well aligned with the requirements for bachelor’s degrees. College advisors generally recommend that students take liberal arts and sciences courses on the premise that such courses are likely to satisfy lower-division “general education” requirements for a bachelor’s degree. Some 30 states have adopted statewide general education core transfer agreements to try to ensure that public universities accept general education courses from community colleges for credit.²⁵ However, because the requirements for bachelor’s degree programs vary by major, even in states with such agreements, students are not necessarily guaranteed that they can transfer their general education credits, let alone credits from other courses they took at a community college, toward junior standing in a

specific major.²⁶ Poor communication between community colleges and universities (and within them) leads to extensive confusion and misinformation.²⁷ As a result, students may have to take additional courses to satisfy bachelor's requirements in their major field, adding time, cost and frustration to their quest to earn a bachelor's degree.

Inefficiency of credit transfer process. A recent study using a nationally representative sample found that students who were able to transfer almost all of their community college credits to a four-year institution were two-and-a-half times more likely to earn a four-year degree than students who brought along fewer than half of their credits.²⁸ However, the study found that fewer than 60 percent of students were able to transfer most of their community college credits, and about 15 percent could transfer very few credits and essentially had to start over. The study examined reasons often posited for why many community college students who want a bachelor's degree fail to earn one, including lowered expectations from attending a two-year college, the vocational (as opposed to an academic) focus of some community college programs, and the assumed lower academic rigor of community college instruction. None of these was shown to have a negative effect. Instead, the largest barrier to bachelor's completion for community college students was the inefficiency of the credit transfer process.

THE SOLUTION

Simplifying and strengthening transfer pathways. There is growing evidence that a critical part of the solution to overcoming the many barriers that confront community college students seeking to transfer is to simplify the process. This can be accomplished by creating clearer, more educationally coherent pathways for students to transfer into their fields of interest, building "on-ramps" to help students choose and enter a program of study, and providing integrated progress monitoring and support to help students advance along the path. The idea that students will benefit from more clearly structured and coherent educational pathways is consistent with findings from research in behavioral economics and psychology, on learning in K-12 and higher education, and on organizational effectiveness.²⁹ Rigorous research on structured programs in higher education is only beginning, but the early results are promising.³⁰

Large-scale examples. Clearly articulated program pathways are a central feature of highly regarded, large-scale transfer partnerships nationally. For example, in 2006, the **University of Central Florida (UCF)** partnered with the four state colleges (formerly referred to as community colleges) in its region (**Valencia, Brevard, Lake Sumter and Seminole**) to establish DirectConnect, which offers guaranteed admission to the university for all students who complete an associate degree from the partner two-year colleges.³¹ Sandy Shugart and David Harrison, two of the architects of DirectConnect, have written that the approach reflects a rethinking of transfer practices so that "...students see their program of study, across the partnering institutions, as a coherent, planned, supported pathway to a goal that is meaningful to them."³²

DirectConnect is far more than a set of articulation agreements about which courses will transfer. Rather, it is a system of shared admissions, orientation and advising and clearly defined curriculum maps that enables students to transfer seamlessly from the state colleges to UCF. Community college students in DirectConnect

meet regularly with UCF advisors to help create and update as needed an academic plan that lays out the full program to a bachelor's degree based on maps created jointly by faculty members from UCF and the partner two-year colleges for all degree programs. Not only are students who complete their programs at one of the partnering two-year colleges guaranteed admission to UCF, but they can gain preferential enrollment in selective programs such as business, engineering and nursing, so there is a strong incentive to complete their lower-division coursework at the less-expensive state college. By fall 2010, only four years after the initiative was launched, more than 35,000 students were enrolled in the DirectConnect pipeline, which had become the preferred path to transfer for students from community colleges in Central Florida.³³

Another large-scale example is the Maricopa to ASU Pathways Program (MAPP) between **Arizona State University** and **Maricopa County Community College District (MCCCD)**.³⁴ A central feature is clearly delineated curriculum maps, designed by faculty and advisors to enable students to transfer seamlessly from Maricopa colleges to ASU. Each MAPP specifies all the courses students must take so that they complete the requirements for the Arizona General Education Curriculum (AGEC) and their associate degree, while also completing the lower-division prerequisites for their intended major at ASU. According to a brochure on ASU's partnerships with community colleges, the mantra is "No surprises."³⁵ In addition to laying out the required courses, any other special requirements, such as minimum grade point averages, are clearly indicated in each student's MAPP. Students who complete the MAPP enter the university as a true junior with a maximum of 60 credits remaining to complete their bachelor's degree. Students are guaranteed admission into their desired major, and Arizona residents receive a reduced level of tuition through ASU's Tuition Commitment Program.

With support from the Kresge Foundation, ASU and MCCCD developed an information system to track the progress of MAPP students. The information in the system is available to students and to MCCCD advisors for use in guiding their students. ASU uses the system for enrollment management, to help anticipate when transfer students will arrive at ASU and in which programs. In 2009, ASU and MCCCD started with MAPPs for 32 majors. As of spring 2014, over 9,000 MCCCD students were enrolled in MAPPs in more than 160 majors.³⁶ ASU now has MAPP-like agreements with every community college in Arizona as well as with more than 30 in California.

Building strong transfer pathways requires systemic changes in practice on the part of both the two- and four-year partners. Merely having articulation agreements in place is by no means sufficient. Instead, community colleges and universities need a new form of partnership that, in the words of Sandy Shugart and David Harrison, "goes beyond institutional articulation to deeper alignment of people, processes, systems and measures."³⁷ Examples of the sorts of practices followed by universities that have reputations for building strong transfer partnerships with community colleges are summarized in the text box.

MODEL UNIVERSITY TRANSFER PRACTICES

This list of practices reflects those of universities that actively seek to build strong transfer relationships with community colleges.

OUTREACH & RECRUITMENT	INTAKE & SUPPORT
<ul style="list-style-type: none"> Regularly share with partner community colleges data on retention and completion rates of transfer students by major program area. Create a process for four-year and two-year faculty members to meet regularly to compare curricula and learning outcomes and update program pathway maps. Establish a presence on the community college campus that will help prospective transfer applicants select the right courses and become familiarized with the four-year institution. Build durable channels of communication with community college department chairs and advisors to keep them up-to-date on programs and services at the university. Train recruitment staff to deal effectively with the more complex academic profile of the typical transfer student. Create transfer admissions guarantees for students who complete an academic contract delineating required courses and grades, and guarantee junior standing in one's major. 	<ul style="list-style-type: none"> Develop and market functions for recruiting, admitting, orienting and advising that are specially tailored to serve transfer students. Create a campus "home" for transfer students by establishing a campus transfer center that has strong connections to academic departments, student services and the registrar. Target Federal Work-Study Program funds to transfer students who are most likely to work while in college. Fund scholarships specifically for transfer students, and provide financial aid information and incentives that span the transfer student's transition from the two-year to the four-year institutions. Create co-admission/concurrent enrollment agreements where students have access to services, as well as classes, at both institutions, and put in place a "credit capture" process to award transfer students' credit toward associate degrees taken at the university. Support faculty and frontline staff members by creating strong professional development opportunities around creating clear pathways for students.

3. IMPLEMENTATION CHALLENGES AND OPPORTUNITIES

In the past, universities have not had strong incentives to make serving transfer students a high priority, despite the benefits to students and society. However, the higher education environment is changing such that universities can now benefit from building strong transfer partnerships with community colleges. Understanding both the disincentives and incentives is critical for seizing opportunities and overcoming barriers to effective implementation of policies and practices in support of clear transfer pathways.

DISINCENTIVES TO BUILDING STRONG TRANSFER PARTNERSHIPS

Costs to universities. Creating strong transfer partnerships, and building the infrastructure to serve transfer students, requires a strong commitment as well as a substantial financial investment from both sets of partners, but especially the universities. For the university partners, the costs include an admissions process separate from that for students who enter as freshmen and a system for evaluating transfer applications, which is labor-intensive.³⁸ In general, the diversity of transfer students' educational histories and situations makes a one-size-fits-all approach to recruitment, enrollment and support for them impractical. Financial aid for transfer students is particularly challenging, since students are often not aware of the precise amounts and sources of the aid they have received in the past.³⁹ Because of the inefficiencies in the transfer process described earlier, many students bring credits that do not transfer toward a degree in their desired major and must take additional courses, thus further exhausting financial aid as well as students' own resources. This is becoming more of an issue as the federal government and some states increasingly place restrictions on the amount of time students are eligible for aid. Studies have shown that some community college students experience "transfer shock" when transitioning to a university, resulting in lower GPA.⁴⁰ Although this effect does not seem to persist, helping students make the transition to a university so they can "hit the ground running" takes a substantial amount of specialized advising, which can be costly.

There are also substantial costs for coordination, communication and engagement, both with community college partners and within the university. Some universities go beyond just creating strong communication channels with their community college partners. In some cases, universities locate not only advisors but university programs themselves on campus in what is sometimes called the "university center" model.⁴¹ The summary case study below describes the costs **Arizona State University** has incurred since it started in 2009 to aggressively strengthen transfer partnerships with community colleges in the Maricopa County Community College District and others in and outside of Arizona (as described earlier).

SUMMARY CASE STUDY: Costs to Arizona State University of its Transfer Partnerships

According to ASU administrators,⁴² the major costs that the university has incurred in building transfer partnerships with community colleges include the following:

- hiring a vice provost for academic partnerships (currently held by a former president of one of the MCCCDC colleges), along with a senior director and a project assistant;
- adding a position to the university's curriculum office, which develops the MAPP (and similar Transfer Admission Guarantee or TAG) pathways for community college students, to keep up with the constant task of adding new MAPPs and updating existing ones;
- developing the student information system that ASU created in partnership with MCCCDC to monitor the progress of community college students advancing through MAPP pathways (it was funded primarily by a \$1 million grant from the Kresge Foundation, but the university pays for the system's ongoing maintenance and improvement);
- hiring "transfer specialists," who work closely with an assigned group of community colleges, help students from those schools transfer and be prepared to succeed at ASU, hold regular office hours at all of the community colleges in the state and regularly interact with community college advisors to keep them up-to-date;⁴³ and
- arranging travel for the specialists and staff. According to Maria Hesse, the vice provost for academic partnerships, "It is important for the university staff to go out and meet with colleagues at the community colleges on a very regular basis, so we significantly increased the travel budget to get those relationships going and to sustain them. I also visit each community college in the state each semester to talk with the administration and discuss progress or issues."

ASU bears most of these costs, but its community college partners have also found that it takes staff time to train advisors on the use of the MAPPs, to market the MAPPs to students and to review pathways for accuracy before they are published on college websites.

Limited accountability for transfer outcomes. The metrics used by government agencies to measure the performance of universities typically do not reward them for serving transfer students. For example, the federal IPEDS graduation rate measures are based on outcomes for students who enter four-year institutions as full-time freshmen. Transfers are not even counted.⁴⁴ A recent review of research on performance funding in the eight states that have accounted for most of the research on the topic found that only two (Missouri and Tennessee) have measures related to successful transfer from two- to- four-year institutions.⁴⁵ In both cases, such measures apply to community colleges, not four-year institutions. An exception is Washington state, where, according to college officials, policymakers track not only how many students transfer to the state universities but also how many of those students end up earning a bachelor's degree.⁴⁶

Competition for students. “Flagship” state universities and other elite institutions that can afford to be more selective generally receive enough applications from prospective freshmen and do not need to recruit large numbers of transfer students to fill their undergraduate classes. In contrast, less-selective public universities may be in competition with local community colleges for students. Related to this is the fact that lower-division courses, which often consist of large lecture classes, are typically less costly and therefore potentially more “profitable” for universities to offer than upper-division courses. Hence, it may not be in the financial interest of four-year institutions to encourage students to complete more of their lower-division coursework at community colleges.

Little status for serving transfers. Public research universities, whose business model relies on large lower-division lecture courses to subsidize upper-division undergraduate and graduate programs, generally do not have strong incentives to enroll substantial numbers of transfer students.⁴⁷ Leaders of regional universities seeking to become more selective and thus move up the “status ladder” may encounter resistance from faculty members, board members and others to admitting transfer students. Related to this is the common perception among four-year faculty members that community college instruction is inferior, although research discussed below does not bear this out.

Mission overload. In addition to these other disincentives, efforts to strengthen outreach and support for transfer students may be seen as competing with other mission-critical activities of the university. This is especially likely in times of state funding cuts and tight budgets, when adding a new mission emphasis may require reallocating resources from other areas.

THE BUSINESS CASE FOR REGIONAL UNIVERSITIES TO STRENGTHEN TRANSFER PARTNERSHIPS

Despite these disincentives, we believe that there are growing *incentives* for public universities—particularly those that are not highly selective institutions with a strong research focus—to work with community colleges to strengthen transfer pathways. In our review of the research and in interviews with leaders at two- and four-year institutions, we identified ways that regional universities are creating competitive advantage by building strong transfer partnerships with community colleges. The following table summarizes some of the ways that universities are benefiting. These are described in more detail below along with case examples. Note that the incentives vary depending on the particular mission, circumstances and policy environment of the institutions involved.

BENEFITS OF STRONG TRANSFER PARTNERSHIPS FOR REGIONAL UNIVERSITIES

POTENTIAL BENEFITS	EXAMPLES
Source of students with strong likelihood to complete	East Carolina University Washington State Universities
Source of nontraditional students in face of declining traditional college-age student populations	Iowa State University University of New Hampshire
Source of traditional-age students seeking affordable route to college	Wayne State University
Strategy for growing enrollment overall while recruiting better-prepared freshmen	Arizona State University University of Central Florida
Strategy for focusing resources on strengthening bachelor's offerings	Indiana University East
Strategy for increasing lower-division capacity in high-demand fields	University of New Hampshire
Source of students for geographically isolated institutions	East Carolina University University of Texas El Paso
Strategy for meeting regional labor market needs	East Carolina University Temple University
Strategy for responding to the growing demands of policymakers for improved student outcomes	Arizona Washington State

Source of students with strong likelihood to complete. For regional universities, strengthening transfer relationships with community colleges offers potential for increasing recruitment of students who are likely to graduate—in some cases, at rates higher than students who enter as freshmen. Despite the evidence, mentioned earlier, that some students experience “transfer shock,” most careful studies find that community college transfers do as well as rising juniors.⁴⁸ In a 2009 study, William Bowen and his colleagues found that community college students who transfer to public flagship universities are as likely to graduate as those who start at such institutions, and community college transfer students have an even greater chance of graduating than first-year students at less-selective four-year institutions.⁴⁹ Thus, for regional universities with high dropout rates among freshmen and sophomores, enrolling transfer students can help address underutilized capacity in upper-division courses and improve completion rates overall.

For example, **East Carolina University** recently decided to increase enrollment of entering transfer students from 1,300 to 1,500. According to Marilyn Sheerer, the university’s provost, there are two reasons ECU does not want to increase enrollment among freshmen, which is currently around 4,000 per year.⁵⁰ First, the university is “tapped out” in its capacity to offer lower-division coursework. This would require hiring more adjunct instructors, which is not easy to do in a rural area. Second, because the university has trouble retaining its own freshmen, recruiting transfer students helps to fill upper-level courses. Sheerer says that encouraging her

colleagues to work to strengthen transfer pathways has required “debunking the myth” that community college programs and their students’ academic preparedness are inferior.

SUMMARY CASE STUDY: Washington State Public Universities

In the late 1990s, Washington’s community and technical colleges signed a “proportionality” agreement with the state universities, stipulating that the universities would commit to ensuring that at least 30 percent of incoming students each year would be transfers from the state’s two-year colleges as opposed to entering freshmen.⁵¹ Not surprisingly, the universities have sometimes chafed at this restriction. To coordinate updating of transfer agreements among the two-year colleges and universities, a Joint Transfer Council was established. This has helped to mediate disputes between the two sectors. According to a community college administrator who has been extensively involved in the joint transfer council, there are two main reasons why universities continue to abide by the proportionality agreement and work with the two-year colleges to improve transfer outcomes. First, state policymakers recognize the importance of transfer and pay attention to transfer outcomes. So, for example, state performance metrics for universities in Washington (unlike many other states) include measures of the rate at which transfer students complete their programs. The second reason is that transfer students have high rates of completion, which has been documented by research by the State Board for Community and Technical Colleges and the universities themselves.⁵²

Source of nontraditional students for institutions facing declining traditional student markets. A 2011 report by the U.S. Department of Education projected that high school graduation rates will level off or decline in 27 states.⁵³ Particularly in regions such as the Northeast and Midwest, with declining numbers of recent high school graduates, enrolling transfer students could allow four-year institutions to fill slots that in the past might have been occupied by 18- and 19-year-olds.⁵⁴ For example, driven by the need to maintain enrollment in a state with declining high school graduating classes, **Iowa State University** has taken steps to strengthen transfer partnerships with community colleges, including assigning transfer admissions counselors to regularly visit Iowa’s 15 community colleges.⁵⁵ In another example, the **University of New Hampshire** has stepped up recruitment of community college students, increasing the number of community college students transferring to the university system by 57 percent since 2007.⁵⁶ According to UNH officials, the main reason is that, as the number of 18-year-olds is steadily declining across the Northeast, universities such as UNH expect fewer traditional-age applications.⁵⁷ UNH is recruiting community college students more actively and has streamlined the application process for them. Community college students who complete a specified number of credits and maintain a threshold GPA are guaranteed admission. According to a report by New Hampshire Public Radio, students can save \$26,000 by starting at community college for two years and then transferring to UNH.⁵⁸

Source of traditional-age students seeking more affordable route to college. Given the rising cost of college, a growing number of students who in the past might have entered college through a four-year institution are instead starting at a community college in order to save money. A 2012 survey found a sharp increase even among the number of high-income families (i.e., those earning more than \$100,000 per year) sending their

children to community colleges—from 12 percent in 2009–10 to 22 percent in 2010–11.⁵⁹ The survey found a similar increase among middle-income families—from 24 percent to 29 percent. James Jacobs, president of Macomb County Community College, told us: “As the cost of college goes up, more and more younger students with their families will choose community colleges as a lower-cost entry point.”⁶⁰ Jacobs said that a clear sign of the importance the university attaches to transfer students was that, in its recent efforts to hire a new president, nearby Wayne State University’s board emphasized the ability of candidates to work closely with the region’s community colleges. In a related trend, the enrollment growth that community colleges have experienced in recent years has been fueled mainly by students of traditional college age, many of them enrolling full-time.⁶¹ Compared with older, part-time students, these students are more likely to want to transfer to a four-year institution. Therefore, to “capture” a growing number of traditional college-age students, universities in the future will likely have to build pathways for them from community colleges, rather than just recruit them directly from high school, as many have done in the past.

SUMMARY CASE STUDY: Wayne State University

About half of students entering **Wayne State University** in Detroit are transfer students. This is a big change from 10 years ago, when the majority of students entered as freshmen. This shift has been intentional. Wayne State has strategically sought to form stronger partnerships with community colleges in the region and to set up extension centers, all of which are located on or near community college campuses—including two in Macomb County, just north of Detroit. In taking steps to strengthen the pipeline for transfer students, Wayne State is responding to demographic shifts as well as economic and policy trends that have combined to make recruiting and serving transfer students much more important to the university.

The first is the decline in the population of Detroit and the related growth in Macomb and other surrounding counties. In 2006, the lieutenant governor of Michigan headed a commission on higher education that, among other things, recommended that Wayne State expand programs into Macomb County, which is the only county in the state without a four-year institution. In response, Wayne State has opened two extension centers in Macomb County: one on the Macomb County Community College (MCCC) campus, which offers upper-division coursework in programs identified as leading to jobs in demand in the area, and another in the southern part of Macomb County (again developed in concert with MCCC) that focuses on advanced manufacturing, engineering, cybersecurity and other fields related to occupations in demand in that part of the county. Ahmad Ezzeddine, associate vice president for educational outreach and international programs, said students and parents are becoming ever more cost-conscious consumers of higher education. As a result, students who in the past might have gone directly to a university are now starting at a community college to save money. At the same time, the image of community colleges among students and the public is changing. In the past they were viewed as primarily offering technical training; now they are seen as a viable path to a four-year degree. Moreover, in Michigan and elsewhere throughout the country, community colleges are themselves offering bachelor’s degrees.

Strategy for growing enrollment overall while recruiting better-prepared freshmen. Building a pipeline of transfer students from local community colleges through the DirectConnect partnership described earlier enabled the **University of Central Florida** to become more selective in admitting freshmen while at the same time substantially growing overall through increased enrollment of transfer students.⁶² The efforts by **Arizona State University** to build strong transfer partnerships reflects a similar strategy, enabling ASU to function as a major research university while also becoming fourth in the country in the number of transfer students enrolled.⁶³ There is some question whether such a strategy is possible in states with an oversupply of public four-year institutions. This has not been the situation in either Arizona or Florida.

Strategy for focusing resources on strengthening bachelor's offerings. While community colleges and regional universities have often competed with one another for students, it is possible for them to work together for their mutual benefit, particularly if they align their missions so that each institution is able to focus on what it does best. A case in point is the partnership between **Indiana University East (IU East)** and Ivy Tech Community College Richmond, described in the case summary below.

SUMMARY CASE STUDY: Indiana University East⁶⁴

In 2006, IU East was struggling to survive. It had suffered several years of declining enrollment and revenue—due in part to the transformation of the Ivy Tech Richmond campus, which is located on the same site, from a technical college to a comprehensive community college. Based on recommendations of a review committee appointed by the Indiana University system president, and with new leadership, IU East undertook major reforms aimed at expanding its bachelor's degree offerings and improving academic, financial and support services for students. A central strategy was to build a partnership with Ivy Tech Richmond. As part of this, IU East discontinued its remedial and associate degree offerings, and referred students needing remedial support or seeking an associate degree to Ivy Tech. The partnership and the realignment of missions with Ivy Tech freed up resources and focused the attention of IU East on expanding and improving its offerings at the bachelor's level and above. Between 2008, when the partnership was formed, and 2011, IU East's enrollment increased 52 percent, and the number of graduates increased 19 percent. Ivy Tech Richmond experienced a similarly large increase in enrollment and graduates, and the number of Ivy Tech transfers to IU East has also grown considerably. The partnership and the realignment of missions with Ivy Tech freed up resources and focused the attention of IU East on expanding and improving its offerings at the bachelor's level and above. Through an array of productivity-improving efforts, IU East reduced its per-student expenditures by 21 percent between 2008 and 2011. The university used the savings to expand its online offerings and create 11 new bachelor's programs and four new master's programs that address community needs.

Strategy for increasing capacity in high-demand fields. Partnering with community colleges also creates the potential to expand capacity to increase the number of students graduating in high-demand fields. For example, policymakers in New Hampshire have set a goal to increase the number of STEM graduates by 50 percent over the next several years. In response, the **University of New Hampshire**, which produces the vast majority of STEM graduates in the state, has dramatically increased its science programs, boosting enrollment in these fields by 50 percent or more in some cases.⁶⁵ In the process, UNH has found itself facing capacity constraints in its lower-division science courses. To address this problem, the university has been working with two-year colleges in the state to expand their lower-division science offerings for students interested in transferring to UNH in the biological sciences and engineering. According to administrators at UNH, the community colleges have stepped up their STEM offerings. For example, New Hampshire Technical Institute, the largest two-year institution in the state, now offers calculus-based physics, which it had not in the past. UNH and the two-year colleges have collaborated to raise scholarship funds to support community college students seeking to pursue STEM majors at the university.

Source of students for institutions that are geographically isolated. Recognizing that they are “the only game in town,” University of Texas at El Paso President Diana Natalicio and former El Paso Community College President Richard Rhodes committed to building strong pathways between their two institutions. Since 2003, the university and community college have established a “suite” of transfer student services, including a transfer student center at the community college, joint training every semester for academic advisors from both institutions, and improved orientation for transfer students. The university also implemented an automated “credit capture” system that allows transfer students to earn the balance of their associate degree credits at the university, but then receive an associate degree from the community college. During this period, retention of transfer students at UTEP has improved markedly.⁶⁶

Strategy for helping meet regional labor force needs. Community college students are more likely to be “place-bound” than are students in most universities. Thus community college students who transfer are more likely to stay locally when they complete a degree. This is particularly important for rural areas or other regions with a limited supply of skilled labor. The summary case studies of East Carolina University and Temple University, presented below, describe how efforts by these universities to strengthen transfer pathways have helped contribute to a shared mission to promote regional workforce and economic development. In the case of Temple University in particular, this role is recognized and valued by local policymakers.

SUMMARY CASE STUDY: East Carolina University⁶⁷

When she became dean of East Carolina's College of Education in 1996, Marilyn Sheerer (who subsequently became provost) noticed that many teacher aides in small towns throughout the rural, impoverished area served by ECU could not come to the university to get degrees that would enable them to become full-fledged teachers. Using funding provided by the state legislature for distance education, Sheerer and her colleagues began partnering with local community colleges. They established a "hub site" at Craven Community College—where, with an ECU advisor and faculty members, the university offered bachelor's-level courses in teacher education to students from the area. Students progressed through the program as a cohort, with early advising and clear degree plans stipulating what courses students should take and when. From the hub at Craven, ECU built out "spokes" to four other community colleges that fed students into the program. Sheerer and her team then secured a \$2.5 million grant from Wachovia to provide senior-year scholarships to support students who would otherwise have to quit their jobs to complete their internships.⁶⁸ This enabled students to complete their senior year and go back to get teaching jobs in the school districts where they interned. Follow-up research on students who participated in the program found very high rates of retention in their jobs. In addition, by helping students advance from teacher aides to much higher-paying jobs as teachers, these efforts not only enabled them to advance in their careers but helped local school districts in this rural area "grow their own" teaching force. The partnership with community colleges also enabled the ECU College of Education to increase student credit hour production, which in turn allowed it to double the number of faculty members from 70 to 140.

When she was selected as provost for the university, Sheerer began working with other departments to create similar 2+2 partnerships with community colleges. In this work, she frequently encountered resistance from faculty members and others who thought that the instruction offered by community colleges is not on a par with what is offered at the university. She countered these concerns with data from the university showing that transfer students do as well as, if not better than, "native" students. She pointed to the example of the 2+2 partnership that ECU has built with local community colleges in engineering. Faculty members were initially skeptical that enough community college students would be able to meet the math requirements, but it turned out that there were an adequate number of students at community colleges, including many older students and military veterans, with the necessary math and science background to qualify. Sheerer says she believes that working to build strong transfer partnerships with community colleges fits with the university's mission both to provide access to college for residents of eastern North Carolina and to foster regional economic development. She also argues that it also makes good business sense since collaborating with community colleges makes it possible for the university and the community colleges to leverage their resources to reach students who might not be able to attend the university through the traditional on-campus route.

SUMMARY CASE STUDY: Temple University⁶⁹

Nearly half of the approximately 8,000 new students enrolling at Temple University each year are transfer students. Leaders of local community colleges speak highly of the rich variety of transfer relationships that Temple has built with them, ranging from program-to-program (or just general-education-to-general-education) articulation agreements to dual-admissions arrangements. Administrators at Temple confirm that relations with community colleges take a lot of time and effort to develop and maintain. Peter Jones, Temple's senior vice provost for undergraduate studies, says, "That's why we call them 'partnerships' instead of just 'agreements.'" Jones and his colleagues say that in Temple's case there are not strong economic incentives to serve transfer students. Most transfer students enter taking upper-division courses, which are generally smaller and therefore more expensive to offer than lower-division courses.

Still, the university remains committed to transfer students, Jones and his colleagues say. The first reason is its mission, established at its founding more than 125 years ago, to provide access to college for students who otherwise would not have the opportunity. In addition, serving transfer students helps to fulfill another core mission, which is to serve the economic needs of Philadelphia and the surrounding region. According to Jones, one in every seven adults in the Philadelphia area who has a bachelor's degree received it at Temple. Other universities in the area attract students who come for their education and then leave to live elsewhere. Temple attracts students from the region who are likely to stay there—and this is especially true of transfer students. According to Jones, "Partnering with community colleges brings college to families in our region who haven't had access to college education before.... The health of the city depends on Temple's ability to ensure that local families are well-educated." Jones and his colleagues say that Philadelphia's mayor and other policymakers in the city and region recognize Temple's important role in this respect, as do employers. A key focus of the university under its current president is to increase the graduation rate and reduce student debt. This focus is also related to both the university's access and its economic development mission. As Jones said: "When students leave, the rates at which they get married, buy houses, get jobs contributing to the local economy and tax base depend on graduating on time with minimal debt." Thanks to a large investment in advising—doubling the number of advisors from 52 to 104 in the past six years—retention and completion rates for both students who entered as freshmen and transfers have been increasing steadily.

Strategy for responding to the growing demands of policymakers for improved student outcomes.

Policymakers at the state and federal levels are increasingly interested in improving the return on the public's investment in higher education. One sign of this is the growth of performance funding. Tennessee was the first state to adopt performance funding in 1979. As of late 2013, 30 states were considering or had enacted so-called performance-funding formulas.⁷⁰ Another indication is that a growing number of states have also implemented more policies designed to improve outcomes for community college transfer students. Over a third of states have adopted some sort of statewide policy designed to facilitate transfer of community college

students to four-year institutions.⁷¹ In some states, these policies encourage the transferability or “equivalency” of individual general education courses in a general education core (examples include Ohio and Texas). Other states provide “junior standing” for students who complete a transfer associate degree (examples include Florida, Massachusetts, New Jersey, Oregon and Virginia). However, these policies do not guarantee that general education courses or other associate degree credits will be accepted for credit toward junior standing in a particular major. This means that students who have completed the general education core or even an associate degree may have to take additional lower-division courses after they transfer to satisfy major requirements.

To ensure that students’ community college credits count toward degrees at four-year institutions, several states have adopted “major pathways” transfer policies, which stipulate the courses that will transfer toward junior standing in a major, including both general education and pre-major courses. Arizona and Washington State were early adopters of such policies. In both cases, some research has been conducted on the effects of these policies on transfer student success (see the summary case studies for details), although the findings are by no means definitive. More recently, other states, including California, Connecticut, Maryland and Tennessee, have adopted major-related transfer pathway policies.

These developments reflect the growing awareness among state policymakers of the inefficiencies in the transfer process and the opportunity to improve student outcomes and make better use of the scarce resources for higher education. While policies such as these are not sufficient to ensure the widespread development of strong transfer pathways in a state (see the case study of California and discussion about North Carolina later), they provide a helpful framework for simplifying the path between two- and four-year institutions across an entire state. They also provide incentives for colleges and universities to work together to strengthen transfer pathways based on the recognition that policymakers are increasingly unwilling to accept the status quo.

SUMMARY CASE STUDY: Arizona⁷²

In 1996, at the direction of the Arizona Legislature, Arizona public universities and community colleges developed a new model of transfer articulation. The goal was to improve the existing system and ensure that community college students could transfer to the state’s universities without losing credit. Key features of Arizona’s transfer system include the following:

- **Arizona General Education Curriculum (AGEC)**—The AGECE is a common set of requirements that may be completed at any of the community colleges and will satisfy the lower-division general education requirements at all of the universities. Each of the state’s community college districts has agreed to a 35-credit block with courses that fit within three broad program streams: liberal arts (AGEC-A), science (AGEC-S) and business (AGEC-B);

- **Common courses.** More than 40 disciplines in majors offered at the universities have identified at least two courses (6 credits) that may be completed at the community college and are guaranteed to apply to that major at any of the public universities. Many majors have identified more. Business, for example, has identified 27 community college credits applicable to the degree; and
- **Course Applicability System.** A web-based system provides information to students, faculty members and academic advisors for planning and transferring, including an online course equivalency guide (how courses from a community college will transfer to any of the universities) and an interactive planning tool to determine how courses completed or planned will meet the requirements for a desired major at a university.

Every year, faculty members in 20 disciplines meet to talk about pathways for students in related major programs and to identify changes in requirements—changes that feed back into the course applicability system. To oversee the transfer system, the state established the Academic Program Articulation Steering Committee (APASC), which is composed of senior administrators from the state’s three public universities and 12 community colleges.

A 2007 study found that after these policy changes, transfer students completed bachelor’s degrees in nearly one semester less than did students who transferred before the policy was implemented.⁷³ Students transferring after completing the AGECE (with or without completing an associate degree) were more likely to graduate in a specified time period than were students transferring with credits but not completing the AGECE, and those completing the AGECE graduated with fewer credits. A more recent analysis found that the number of students transferring from community colleges to universities in Arizona has increased every year since 2006, and the rate at which transfer students complete bachelor’s degrees also increased.⁷⁴

SUMMARY CASE STUDY: Washington

Washington state is fortunate to have a 40-year history of public two- and four-year institutions working together to facilitate the transfer process for students. The past 25 years in particular have seen several innovations on this front.⁷⁵

In the mid-1990s, the community and technical college presidents became concerned that, as the state’s universities were recruiting larger numbers of high school graduates to enter as freshmen, there would not be enough room for students who wanted to transfer from the two-year colleges. This led to the signing of the “proportionality agreement,” which stipulated that each university would maintain the

proportion of students entering as freshmen and as transfers as was the case in 1992. This helped to address a problem that transfer students face in other states: the lack of slots at public universities for transfers.⁷⁶

In the late 1990s, responding to a call from employers and policymakers for more STEM graduates, the systems came together to create an Associate of Science Transfer (AS-T) degree with two tracks: one for biological and earth sciences and the other for engineering and computer science. A 2006 study by the Washington State Board for Community and Technical Colleges found that students with AS-T degrees who transferred to a university were more likely to earn a bachelor's and complete fewer credits overall than students who followed the more general Direct Transfer Agreement with a science-related concentration.⁷⁷ Similarly, a study by the Washington State Board for Community and Technical Colleges—focusing on 2013 graduates from the state's universities—found that graduates who had earned an associate degree in business or one of the AS-Ts (transfer associate degrees in STEM fields) needed to take fewer credits than did those who did not follow these specialized tracks.⁷⁸

Building on the AS-T work, the two systems again came together in the early 2000s to create “major-related pathways” with a focus on improving transfer in high-demand fields such as nursing. A 2009 study by the Washington State Board for Community and Technical Colleges found that the three-year graduation rate for students transferring to one of the state's public universities increased from 63 percent in the late 1990s to 71 percent in 2006–07.⁷⁹ The SBCTC researchers speculated that this increase could have been the result of the major-related pathways, although there was no way to say for sure.

While the relationship between Washington's two- and four-year systems has not been without conflict, both sectors have been committed to resolving problems. A key has been the presence of organizational structures that bring together key decision makers from both systems to oversee and update transfer agreements. The latest incarnation is the Joint Transfer Council, established in 2005. The state's legislature understands the importance of having a well-functioning articulation system. The legislature and the state's higher education agencies monitor transfer rates as well as completion rates for transfer students.

This system seems to work well. A study by the Washington State Board for Community and Technical Colleges of 2013 graduates from the state's universities found that the median credit hours earned by transfer students (defined as students who earned more than 40 credits from a community and technical college) were comparable across all majors with those earned by students who entered a university as freshmen.⁸⁰

SUMMARY CASE STUDY: California

In California, with the nation's largest higher education system, community colleges play a critical role in providing access to bachelor's degree programs. Under the state's Master Plan for Higher Education, direct access to the public universities is limited to the top one-third of high school graduates. The Master Plan promises that community college students who have completed a prescribed plan of study with a satisfactory grade point average can transfer to a public university. However, over time, the process has become highly inefficient, with low transfer rates and—among those who do transfer—high rates of students taking credits that do not transfer toward degrees.⁸¹

To try to address the problem, California lawmakers passed legislation calling for the creation of 60-credit transfer associate degrees that would qualify students to enter the California State University system with junior standing and be given priority admission to an academic major that is similar to the program the student completed at a community college. However, early reviews of the implementation of the law found that there was variation in the number of transfer degrees created by the state's community colleges and in the number of such degrees that each CSU campus deems similar to its own. In 2013, the legislature passed additional measures in an effort to increase the number of transfer degrees that the community colleges would adopt and that the CSU institutions would accept. A recent study of progress by the California Community Colleges and CSU found that the reform is leading to the development of clearer transfer pathways for students.⁸² However, it is not clear whether the reforms will reduce the number of college credits students take, and thus lower the time and expense needed to earn a degree. In addition, awareness among students about the transfer pathways is low. Moreover, even if students are aware of the transfer pathways and do follow them, the continuing constraints on the CSUs to accommodate more students may prevent students from getting into bachelor's programs. The researchers recommend extending the provisions of the legislation to the University of California and to private universities to expand opportunities to transfer. The limited capacity of California public universities may add momentum to the current push by some community colleges to offer bachelor's degrees. For the purposes here, the California case indicates the limits of public policy to improve transfer when there are not strong incentives of capacity among universities to serve more transfer students.

4. RECOMMENDATIONS FOR IMPLEMENTATION

The evidence and cases presented in the previous sections indicate that creating clearer and more coherent pathways for students has great potential to increase postsecondary attainment by large numbers of low-income students while keeping college affordable for students and increasing the return on investment for taxpayers. But realizing the possible gains requires intensive effort at many levels within and across two- and four-year institutions to improve the transfer function.

In what follows we draw on the insights and strong research base in organizational improvement,⁸³ implementation science⁸⁴ and change management⁸⁵ to examine the implementation puzzle facing regional four-year universities interested in significantly improving their transfer outcomes. We also draw on the growing body of research on the implementation of innovations in higher education specifically.⁸⁶ In addition to the empirical research base from a range of fields, we rely also on our own experiences working directly with colleges and universities seeking to implement innovations and create clearer pathways to success for students.

Because creating strong transfer pathways involves commitment at every level of an institution, as well as shared commitment across two- and four-year institutions, we stress that successful implementation of the right policies and practices necessitates rigorous attention to the human side of change. Whether it comes to aligning organizational structures with transfer priorities, improving functions within various departments or divisions of an institution to better serve transfer students, or helping faculty and staff members think about and do their jobs differently in order to improve transfer outcomes, it is the quality of execution and the right mix of “push” and “pull” strategies that will make or break implementation.⁸⁷

In the next section we adopt the lens of organizational alignment to offer a checklist for building a culture of transfer. Whereas in the previous section we focused on model practices and policies, in this section we focus on organizational and cultural change. After providing the checklist to support culture change on behalf of improved transfer pathways for students, we turn our attention to how to make and sustain such changes through adaptive leadership at multiple levels. While we draw on the research base in a range of fields, our bias here is in favor of practical guidance and support for institutional and system actors seeking to actively focus on significantly improving transfer outcomes at regional universities.

ALIGNING ORGANIZATIONAL POLICIES AND PRIORITIES IN SUPPORT OF CLEAR TRANSFER PATHWAYS

In their now-classic book *Built to Last*, Jim Collins and Richard Porras (1994) argue that “alignment” is a critical shared trait of companies that have managed to maintain high levels of performance over many years. By “alignment,” they mean that “all the elements of a company work together in concert within the context of the company’s core ideology and the type of progress it aims to achieve” (p. 202). In addition to having a clear vision, consistently high-performing organizations also make efforts at multiple levels to ensure the structure and culture of the organization is fully aligned to support that vision. There is evidence that Collins and Porras’ insights apply to the complex landscape of public higher education, as well as to the private sector, and that the alignment lens and process can be used to support institutionalized change of any kind.⁸⁸

Because the alignment process looks at a wide range of organizational functions across different levels of the organization, it is a comprehensive approach to identifying barriers to achieving core goals. It is also an approach designed to embed commitment and active support for the priorities deep into the fabric of an institution. And since it is a comprehensive approach, alignment work promotes both structural and ideological change, “the twin drivers of institutionalized change.”⁸⁹

Below, key dimensions entailed in the analysis of transfer function alignment are presented as a checklist that can be used as an overall assessment tool for gauging institutional readiness for strengthening the transfer function; as a strategic planning tool for sequencing/prioritizing actions; as a gap analysis tool to better understand how different stakeholders understand challenges and opportunities; as a diagnostic tool, a discussion starter for strategic planning for an alignment process; or as an index to track progress on an ongoing basis.

The following questions should be considered when using the checklist to assess or improve efforts to align institutional functions on behalf of improved transfer: What are we already doing well? Which of these have we not yet done or are we not yet doing well enough? Which should be our top priorities now? Where is the low-hanging fruit? What are the biggest challenges and opportunities with respect to effective implementation of each of these?

CHECKLIST FOR ALIGNMENT: BUILDING A CULTURE OF TRANSFER

- Do the institution's foundational documents—vision, mission and values statements—reflect the importance of serving transfer students?
- Do university leaders and governing board members talk about the importance of transfer students in their speeches to internal and external groups?
- Do university officials, including governing board members, engage policymakers and regional economic development actors in dialogue about the importance of a strong transfer function and clear pathways for students to jobs in demand?
- Is the institution's commitment to transfer made explicit in recruiting and preparing senior leadership, including academic leadership within divisions (e.g., deans and chairs)?
- Do performance evaluations of senior administrators include elements related to how well various offices and functions within the university are serving transfer students?
- Is improving the transfer function widely viewed as critical to the university's competitive advantage?
- Does the institution have a strategic, as opposed to a tactical, enrollment plan that sees the recruitment and enrollment of transfer students as a long-term commitment?
- Do planning processes within academic affairs, enrollment management, outreach, student affairs and financial aid prioritize creating clear pathways for transfer students?
- Is there an effective process for communicating changes in curriculum and program requirements to community college academic departments and advisors?
- Does the university track the performance and completion rates for transfer students?
- Is information on transfer student progress and success regularly reviewed by institutional leaders (including trustees) and used to improve program outcomes?

- Does the university share data with community college partners on the performance and outcomes of transfer students?
- Are there any unit-level incentives or rewards for units that are most active and successful in serving transfer students?
- Do the institution's awards and ceremonies recognize the value and importance of supporting transfer students? Are efforts on behalf of transfer students celebrated?
- Are transfer students themselves celebrated as valued members of the campus community?
- To what extent does state-level public policy contribute to smooth transitions from two-year colleges to four-year universities?

THE IMPORTANCE OF PUBLIC POLICY ALIGNMENT

As mentioned in Part 1, legislative bodies in a growing number of states are becoming increasingly active in creating policies to mandate smoother pathways. State policy efforts around outcomes-based funding, transfer pathways and core curriculum can create incentives and space for collaboration and innovation on behalf of improved transfer outcomes, but for these policies to have their intended effects institutional leaders must play an active role. Institutional and system leaders, including presidents and governing boards, cannot afford to sit back and leave it to legislatures to drive the policy conversation around transfer. It is through alignment of policy and the specific practices of collaboration that the real work of creating strong pathways does or does not happen. Part of the job of institutional leaders, along with governing boards, is to help legislators understand the limits of what policy can do and the dangers of making critical decisions about educational practice at a remove from the classroom.

Having raised cautions about the limits of policy, it is important to note that policy is essential for: setting priorities around things like mission differentiation and focusing attention on student success and completion; creating the infrastructure for collaboration through convening state-level committees; aligning policy with practice in ways that attend to the incentives for collaboration across sectors; and collecting data and sharing information on student outcomes and institutional performance. Policy plays an essential role in creating or constraining the conditions for effective collaboration. However, even when policy is designed to lower barriers to seamless flow between different types of institutions, unless it is also designed with implementation in mind, it is unlikely to achieve its intended results. This is why institutional leaders must attend to alignment of policy and practice both internally and externally.

THE ROLE OF ADAPTIVE LEADERSHIP IN THE CREATION OF TRANSFER PATHWAYS

While creation of clear transfer pathways requires attention to institutional alignment, the path to such alignment begins and ends with the people who will be asked to do the work of implementing the policies and practices. In this section we dig deeper into the human side of change in order to provide a fuller picture of what is entailed in effective implementation. The shorthand we use here is “adaptive leadership,” in which leadership is a complex dynamic involving people at all levels, rather than emanating only from the top down.⁹⁰ It involves systematic and skillful engagement of internal and external stakeholders, and it relies on a distributed rather than centralized approach to decision making. The key output of adaptive leadership is wide co-ownership and a shared sense of responsibility for problems and solutions across functions and levels of an organization.⁹¹ Put simply, adaptive leadership is a process of developing the communication and collaboration practices that allow an organization or institution to improve desired outcomes in complex and changing environments. In this section, we focus on those core insights and practices associated with adaptive leadership that are most relevant to a regional university’s role in building clear transfer pathways for community college students.

In *Leadership Without Easy Answers* (1994), Ron Heifetz argues that technical problems are easy to identify, and lend themselves to cut-and-dried solutions that are expert-driven and successfully implemented by edict. Most of the problems associated with creating strong transfer pathways do not fit this description. Instead, most complex challenges are what Heifetz calls “adaptive,” meaning they are difficult to unpack and solving them requires changes in values, beliefs, roles, relationships and approaches to work.

Adaptive leadership in a university seeking to align organizational policies and practices to build strong transfer pathways with partner community colleges should look something like this:⁹²

- **Define success, connect the dots**

Adaptive leaders respect the fact that the faculty and staff members who are asked to implement new policies and practices bring contextual histories, values and identities that shape how they understand and feel about any given change effort. They also recognize that most faculty and staff members are awash in initiatives and perpetually struggling to do more with less. Because the work of creating clear transfer pathways for students requires effort at many levels within and across institutions, under conditions of constrained resources and initiative-fatigue, the bedrock practices of adaptive leadership at regional universities include 1) crystal-clear articulation of goals and 2) concerted efforts to connect the dots between those goals and the values/interests/identities of rank-and-file faculty members and front-line staff members who must actively co-own the work if it is to succeed. Adaptive leadership in this context requires clear articulation of why the university will be stronger and more competitive as a result of efforts to strengthen transfer pathways, and how a stronger institution will lead to faculty members getting more of the things they want. For example, faculty members want academically prepared students, and evidence suggests that transfer students are more likely to be prepared and motivated for success than their first-time freshman peers. Connecting these dots between institutional goals and the self-interest of the faculty can be critical for marshaling and sustaining broad support for efforts to improve a university’s transfer outcomes.

- ***Listen wide and deep***

The most skillful adaptive leaders listen as much as they talk. They are also committed to listening early and often to those who will be asked to implement changes in policy and practice aimed at creating clearer pathways. Real listening includes meaningful follow-up. In our experience, faculty and staff members can live with difficult changes to the way their work is organized, but they cannot abide being steamrolled or having their ideas and expertise disregarded in the process. Ongoing efforts to listen to and address the concerns of the faculty and staff result in stronger implementation planning and a smoother implementation process. At regional universities with Research 1 aspirations, faculty members are generally serving too many masters (research, teaching and service) to be able to participate effectively in the kind of collaborative pathway design required for meaningful improvement in transfer outcomes. Without deep listening to the faculty and staff, it is easy to overlook the pressures and incentives that shape the practical realities of their lives.

- ***Identify and engage potential champions and thoughtful skeptics among administrators, faculty and staff***

Through the course of deep listening across the university community, leaders can identify potential champions for improving transfer pathways. Identification of potential champions is critical because overreliance on the same go-to supporters is a strategy that inevitably leads to their burnout. Distributing leadership by cultivating new champions on an ongoing basis is important for maintaining the momentum required for implementation. Next to champions, “thoughtful skeptics” are the most important individuals to engage as partners in the work of creating transfer pathways. These are the individuals who have concerns about the value or viability of the proposed changes, but who are also deeply committed to student success. Unlike “laggards” who fundamentally resist change of any kind, thoughtful skeptics are open to effective case-making by leaders and peers, and they tend to have influence with peers.

- ***Establish a sense of urgency, then empower a guiding coalition to engage peers more broadly***

After identifying potential champions and important thoughtful skeptics, it is time to get to work on broadening the case-making efforts to create a sense of urgency among those who will be asked to do the heavy lifting on implementation. Focusing on the changing landscape and the incentives and imperatives that now exist for improving the transfer function is a critical piece of case-making that leaders at every level must attend to. It is not enough to argue on altruistic grounds that serving transfer students is the right thing to do. Securing competitive advantage, growing enrollments, increasing retention and investing in a pool of better-prepared students are reasons for prioritizing the transfer function that speak to the self-interests of various actors within regional universities. These are the arguments that must be marshaled in order to establish a sense of urgency, and they must inform the activities of those who will be empowered to lead the implementation, planning and execution process. Crucial steps for establishing the sense of urgency are 1) empowering a guiding coalition from across the campus community, including faculty influencers and staff members from student services and enrollment management, and 2) ensuring that the guiding group is both representative of those to be engaged and equipped to make the case and answer critical questions.

- ***Develop a purposeful structure and process for ongoing engagement of the faculty and staff at and between four-year and partnering two-year institutions***

The channels of communication necessary for successful implementation of strong transfer pathways do not emerge on their own, nor do they happen automatically as the result of policy mandates. Rather, they must be purposefully created. When it comes to ongoing collaboration among faculty from two-year and four-year institutions, the difference between North Carolina and Arizona is particularly instructive. In the mid-1990s, both North Carolina and Arizona passed transfer legislation—but in Arizona the legislation stipulated the creation of an infrastructure for collaboration between institutions, whereas the North Carolina legislation did not. Today, Arizona has a robust and dynamic transfer system with clear pathways and “no surprises” that has been created by faculty members participating regularly in the process of cataloguing courses. The North Carolina legislation did not require a process for institutional collaboration and, until recently, there were still no clear transfer pathways for students. A new round of legislation was passed in 2013 requiring institutions to comply, and the North Carolina Community College System and the University of North Carolina System developed a new statewide articulation agreement, which was signed by leaders of both systems in February 2014. The new agreement includes a mechanism for regularly updating and refining specific programmatic articulation agreements.

- ***Attend to the seemingly mundane details of process, including the design and facilitation of meetings and working sessions***

Without rigorous attention to process design details, such as how and when people are invited to participate in meetings and working sessions, how issues are framed, the way data are translated for different audiences, and the fairness and quality of facilitation, even seemingly uncontroversial and straightforward efforts can breed resistance and hostility among those whose support is required for success. Because the relationship between regional universities and community colleges is often characterized by histories of competition and suspicion, creating new relationships is critical. The process details that either support or undermine those relationships are often the first to be overlooked by busy leaders or those tasked with managing change. The perils here are real, and we have seen that the setbacks can be substantial. Making real change is hard enough without creating additional, unnecessary challenges through failures of conversation design and facilitation.

- ***Generate and celebrate short-term wins***

Because improving the transfer function of a regional university involves long-term commitment and therefore a long-term change process, it is critical to attend to the significance of short-term wins. Failure to recognize the psychological and practical importance of short-term wins is both unwise and risky. Elevating and celebrating short-term wins serves a range of purposes, including strengthening the morale of champions, bringing thoughtful skeptics on board and undermining the influence of resisters. In terms of strengthening transfer outcomes, short-term wins might include the successful mapping of a particularly important program pathway. Capturing even anecdotal information about the student experience of the improved pathway can be an important vehicle for bolstering the morale of faculty members involved in the heavy lifting by making gains visible. Taking the time to celebrate

accomplishments, such as improved semester-to-semester retention of transfer students or increased enrollments of transfer students, can be extremely important for building the momentum involved in lasting change on behalf of improved transfer outcomes.

- ***Consolidate gains and push further***

Public higher education institutions are particularly vulnerable to the vagaries of the political and economic climate they inhabit. Initiative fatigue can be viewed as a natural consequence or expression of this vulnerability. This means that when it comes to long-term change efforts, like those involved in prioritizing the transfer function of regional universities, the temptation to ease up on the work and focus attention on other priorities can be great. But the consequences of letting up can be dangerous because critical momentum can be lost, and once momentum flags it can be extremely difficult to rebuild. Because the new practices and relationships entailed in creating strong transfer pathways must be sown deep into the culture of regional universities, it is critical for leaders and the guiding coalition to remain locked on to the long-term goals even in the midst of celebrating short-term wins. In other words, a short-term win should not be viewed as a reason to pause but instead should be viewed as a trigger to double down on efforts to articulate the case for better serving transfer students, bring more people from critical divisions into the work at various levels, and empower the guiding coalition to identify and begin to tackle new problems.

4. CONCLUSION

The demographic, economic, and political forces that are creating incentives for regional universities to build strong transfer partnerships with community colleges show no signs of abating. If anything, they are intensifying. Thus, leaders of regional universities will likely face more pressures to work with community colleges to strengthen pathways for students to successful transfer and degree attainment. But this also means that their students, their institutions and the communities and states they serve will have more to gain by their efforts to do so.

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(ENDNOTES)

- 1 We acknowledge that actual transfer patterns are far more varied than the conventional path from two- to four-year institutions. Overall, one-third of all undergraduates transfer at least once within five years (Hossler, Shapiro, et al., 2012). Transfer rates are similar for both public two- and four-year institutions. Two-year colleges are the most frequent transfer destination for students starting at all types of institutions, even four-years. Roughly half of all transfers from four-years were “reverse transfers”—students who started in a four-year but moved to a two-year institution (Hossler, Shapiro, et al., 2012). Nearly 40 percent of all community college transfers go laterally—that is, they transfer to another community college (Hossler, Shapiro, et al., 2012). Also, frankly there is very little research on four-year to four-year transfer, and we were not able to find examples where this is done systematically, except within a state system such as University of New Hampshire and Penn State.

We chose not to focus on “reverse transfer,” or what might be more accurately referred to as “credit re-appropriation” (see Adelman, 2013, who clarifies the distinction), because: 1) the focus of this case is on regional four-years, and credit re-appropriation benefits accrue mainly to community colleges; and 2) a large-scale pilot effort (Project Win-Win) involving 60 colleges and several states encountered difficulty identifying and contacting eligible students. In part that was because of limitations with institutional and state data systems and the fact that students are mobile across state lines, and because of the relatively small yield of students retroactively awarded degrees (approximately 11 percent of 42,000 students). Of those identified as “potentials”—students who were close to a degree but had not earned one—only 8 percent returned to school (Adelman, 2013).
- 2 Horn & Skomjvold, 2011. Note that the 81 percent figure is from 2003–04—up from 71 percent in 1989–90.
- 3 Hossler, Shapiro, Dunbar, et al., 2012, Figure 8, p. 29.
- 4 Shapiro, Dunbar, et al., 2013.
- 5 Ehreberg & Smith, 2004; Crook, Chellman, & Holod, 2012; Crosta & Kopko, forthcoming 2014. According to recent data from the National Student Clearinghouse (Shapiro et al., 2003), community college students who transferred with a community college credential are up to 16 percentage points more likely to earn a bachelor’s degree compared with students who transferred without a credential—72 percent vs. 56 percent. A recent study found that the net benefits (discounted post-college earnings minus discounted total costs of a student’s education to the student and taxpayers) are higher if students earn an associate degree before they transfer than if they transfer without a degree (Belfield, 2013). This is due in part to the fact that taking lower-division coursework is less costly at a community college than at a four-year institution. Moreover, a substantial proportion of students who transfer do not earn a bachelor’s degree, so that many of those who transfer without an associate degree end up with no degree and thus without the economic benefits associated with having a college credential of some sort.
- 6 Between the 1990s and 2000s, the number of community college students who transferred to a four-year institution increased, but the transfer rate remained unchanged (Handel & Williams, 2012, p. 24).
- 7 Mullin was not able to make similar calculations for students who transferred to for-profits. He was also unable to estimate the savings to the public.
- 8 Desrochers & Kirshstein, 2012, Figure 2, p. 6. It is the case, however, that public subsidies accounted for 63.8 percent of community college revenues in 2010 (down from 76.8 percent in 2000), compared with 47.1 percent for public master’s and 43.8 percent for public research universities (Desrochers & Kirshstein, 2012, Figure 3, p. 8).
- 9 Belfield & Bailey, 2011; Baum, Ma, & Payea, 2013; Oreopoulos & Petronijevic, 2013.

- 10 According to a 2006 study by Anthony Carnevale and Jeff Strohl of Georgetown University, students from the lowest half of the income distribution represented 58 percent of students in community colleges, but only 14 percent of undergraduates in the most selective four-year institutions (Carnevale & Strohl, 2010, p. 137, Figure 3.7). Even in less-selective four-year institutions (to which community college students are most likely to transfer), students in the bottom two socioeconomic quartiles represented only 34 percent of undergraduates. A 2013 report by the Century Foundation observes: “[A]s the socioeconomic divide between two- and four-year institutions grows, students at community colleges are cut off from valuable middle-class peer networks found at four-year institutions” (Century Foundation, 2013, p. 14).
- 11 Bowen et al., 2009.
- 12 Handel & Williams, 2013, p. 22.
- 13 Shugart & Harrison, 2011, p. 45.
- 14 Of students who entered higher education for the first time through a community college in 2003–04, and who transferred to a public four-year institution (72 percent of all transfers), 30 percent transferred to open-admission or minimally selective four-years, 48 percent transferred to moderately selective institutions, and only 22 percent transferred to very selective institutions (Authors’ calculations using BPS:04/09, U.S. Department of Education, National Center for Education Statistics).
- 15 Handel & Williams, 2012, Chapter 6.
- 16 Grubb, 2006; Karp, 2013.
- 17 Karp, O’Gara, & Hughes, 2008.
- 18 Karp, 2013.
- 19 See the excellent analysis of the “gauntlet” students must navigate before and after transfer provided by Handel (2012).
- 20 While community college departments closely monitor enrollment in their courses, they often do not know which students are pursuing programs of study in their fields and thus do not track students in their programs to ensure that they make steady progress toward achieving their goals for program completion and transfer (Karp, 2013). As a result, many students end up self-advising.
- 21 Handel, 2012.
- 22 Recent surveys of prospective and current students find that most information that policymakers and educators consider critical around cost and graduation rates remains opaque to students. In one survey, Public Agenda found that students are not using the resources and information available to them about cost and other data, such as graduation or default rates, in part because they do not understand it (Hagelskamp, Schleifer, & DiStassi, 2013). In another survey, Public Agenda found that 7 out of 10 high school graduates do not know what the FAFSA is (Johnson, J., Rochkind, J., & Ott, A., 2011).
- 23 Kadlec & Martinez, 2013, pp. 3–4. See also Booth et al., 2013. In one study using “activity-based” focus groups, community college students were generally unable to complete tasks involved with planning transfer, and they found online and other resources difficult to access, confusing and inaccurate (Jaggars & Fletcher, 2014).
- 24 Kadlec & Gupta, 2014.

- 25 Smith, 2010; Mullin, 2012.
- 26 Handel & Williams, 2012, p. 25.
- 27 Handel & Williams, 2012; Kadlec & Martinez, 2013.
- 28 Monaghan & Attewell, 2014.
- 29 For a discussion of the supporting research, see Jenkins & Cho, 2014. See also Wyner, 2014, Chapter 2.
- 30 For example, ongoing research from a random assignment evaluation by MDRC of the Accelerated Study in Associate Programs, or ASAP, at City University of New York, has shown very promising results, including for students requiring remediation (Scrivener, S., and Weiss, M.J., 2013). ASAP involves prescribed curricula for students in particular majors, required full-time study and integrated advising and support. ASAP associate degree programs were chosen based on job growth projections and transferability to four-year CUNY institutions and programs. Moreover, part of the intensive advising offered to students focuses on transfer, although accelerated completion of associate degree programs, rather than transfer, is the focus.
- 31 This summary is based on Shugart & Harrison, 2011, as well as information from the participating institutions' websites. See, e.g., <http://today.ucf.edu/directconnect-guarantees-entry-to-ucf-for-transfer-students/>.
- 32 The longer passage from which this is taken reads: "It is now incumbent upon colleges and universities to enable individualized pathways that create a personal roadmap for students based on their life circumstances and personal goals. These new pathways to the baccalaureate will need to go beyond simple articulation agreements to encompass programs, curricula, and support services tailored to the unique needs of today's diverse transfer students. An important question in reframing institutional partnerships then becomes, "What do we want the students to experience?" The succinct answer is that we want students to see their program of study, across the partnering institutions, as a coherent, planned, supported pathway to a goal that is meaningful to them. While this seems straightforward, it is anything but common....[T]he first step is that the student has a plan, a written description of his or her program of study through the associate and on to the bachelor's degree.... With the support of both the partnering institutions the students has a clearly described pathway that serves to reduce inefficiency in the accumulation of credit and, more importantly, provides the motivation to pursue longer-term goals and to see the connection between the incremental steps and ultimate degree achievement" (Shugart & Harrison, 2011, p. 44).
- 33 David Moltz, *Waiting in the Wings*, *InsideHigherEd*, January 8, 2010. Retrieved from: <http://www.insidehighered.com/news/2010/01/08/directconnect>
- 34 Information on ASU's transfer practices came from telephone interview with Maria Hesse, vice provost for academic partnerships, Arizona State University, and former president, Chandler-Gilbert College, Maricopa County Community College District. ASU has similar arrangements—called Transfer Admission Guarantees, or TAGs—with all other two-year colleges in Arizona as well as some in California.
- 35 Arizona State University, *Creating a Culture of Transfer: Arizona State University's Progress with Community College Partnerships*. Brochure. Office of the Executive Vice President and Provost, Arizona State University, No date. <http://provost.asu.edu/ap> .
- 36 11/19/13 presentation by Maria Hesse, vice provost for academic partnerships, Arizona State University, and former president, Chandler-Gilbert College, MCCC, at Jobs for the Future meeting on strengthening transfer pathways, Boston, MA.
- 37 Shugart & Harrison, 2011, p. 43.

- 38 Handel & Williams, 2012, p. 34.
- 39 1/10/14 telephone interview with Peter Jones and Michele O'Connor, Temple University.
- 40 Carlan & Byxbe, 2000.
- 41 Under this model, four-year universities offer upper-division classes at two-year campuses, enabling participation by students who, for reasons of work, family or residence, need to avail themselves of a four-year education in a local community college setting. Senior institutions award the degree (Geiser & Atkinson, 2010). For example, Macomb Community College, located outside of Detroit, has partnered with nearby Oakland and Wayne State Universities to offer concurrent enrollment in bachelor's programs. Classes are taught by faculty members from partner universities, but are held on Macomb campus.
- 42 Telephone interview with Maria Hesse, vice provost for academic affairs, Arizona State University, and former president, Chandler-Gilbert College, MCCCDC.
- 43 According to Maria Hesse, these positions were created from existing positions that were moved from other parts of the university, so they were funded through a reallocation of resources rather than new funds.
- 44 The federal Graduation Rate Survey for two-year colleges has separate metrics for students who graduate from the starting institution from those who transfer to a four-year institution, although there is wide agreement that the latter are not tracked reliably (Committee on Measures of Student Success, 2011). At least community colleges have had providing lower-division coursework for students seeking to transfer to four-year institutions as a central part of their mission.
- 45 Dougherty & Reddy, 2013.
- 46 1/15/14 telephone interview with Michelle Andreas, vice president for instruction, South Puget Sound Community College, and formerly director, student services and transfer education, Washington State Board for Community and Technical Colleges.
- 47 Handel & Williams, 2012, p. 34.
- 48 Bowen et al., 2009; Glass & Harrington, 2010; and Melguizo, Kienzl, & Alfonso, 2011.
- 49 Bowen et al., 2009, p. 141.
- 50 1/10/14 telephone interview with Marilyn Sheerer, provost and senior vice chancellor for academic affairs, East Carolina University.
- 51 This summary case study is based on an article by Sherman and Andreas (2012) on transfer practices in Washington state as well as on a 1/15/14 conference call with Michelle Andreas, vice president for instruction, South Puget Sound Community College, and formerly director, student services and transfer education, Washington State Board for Community and Technical Colleges.
- 52 WSBCTC, 2013.
- 53 Hussar & Bailey, 2011, p. 10. Similar projections are available from the Western Interstate Commission on Higher Education (WICHE): <http://www.wiche.edu/knocking-8th>.
- 54 Handel & Williams, 2012, p. 21.

- 55 Handel, 2011, p. 14.
- 56 *New Hampshire News* (2013), <http://nhpr.org/post/more-students-choose-community-college-transfer-en-route-bachelors-degree>.
- 57 1/17/14 telephone interview with Rob McGann, assistant vice president for student and academic services, and director of admissions, and Sharen Gibadlo, senior associate director of admissions, University of New Hampshire.
- 58 See <http://nhpr.org/post/more-students-choose-community-college-transfer-en-route-bachelors-degree>. In a 1/17/14 telephone interview, Robert McGann, assistant vice president for student and academic services, and director of admissions, confirmed that this figure sounded accurate.
- 59 Sallie Mae, 2012, cited in Handel, 2013.
- 60 Personal communication with James Jacobs, president, Macomb Community College, November 22, 2013.
- 61 Goldrick-Rab, Harris, et al., 2009, p. 10.
- 62 Shugart & Harrison, 2011: 47-48.
- 63 See *U.S. News and World Report* list of institutions with the largest number of transfer students enrolling in fall 2012. <http://colleges.usnews.rankingsandreviews.com/best-colleges/rankings/most-transfers?src=stats&int=4f0116> According to this list, ASU (7,228) ranks fourth after DeVry University (13,210), Excelsior College (10,134) and University of Texas at Arlington (8,650). University of Central Florida ranks fifth, with 6,110 transfer students enrolled in fall 2012.
- 64 The information on the UI East-Ivy Tech Richmond partnership is draft from MGT of America, Inc., 2011.
- 65 See endnote 57.
- 66 According to a 2011 article in the *Chronicle of Higher Education* (Ekal & Krebs, 2011), between the fall of 2009 and the fall of 2010 alone, transfer-student retention at UTEM increased 9 percent.
- 67 Case summary based on 1/10/14 telephone interview with Marilyn Sheerer, provost and senior vice chancellor for academic affairs, East Carolina University.
- 68 Wells Fargo, which took over Wachovia when it collapsed, did not have the same commitment to the program, so Sheerer persuaded the North Carolina State Employees' Credit Union to take over support for the scholarship.
- 69 Summary case study based on 1/10/14 telephone interview with Peter Jones, senior vice provost for undergraduate studies, and Michele O'Connor, associate vice provost for undergraduate studies, Temple University, and separate conversation with Karen Stout, president, Montgomery Community College, Pennsylvania.
- 70 Kelderman, 2013.
- 71 Mullin, 2012, Figure 1, p. 6.
- 72 This case study is based on Kadlec & Martinez, 2013, and unpublished survey documents from the National Center for Higher Education Management Systems (NCHEMS), which are available at: <http://www.nchems.org/c2sp/documents/Arizona.pdf>.
- 73 Hezel Associates, 2007.

- 74 Hezel Associates, 2013.
- 75 This summary is based on Sherman & Andreas (2012) and a 1/15/14 telephone interview with Michelle Andreas, vice president for instruction, South Puget Sound Community College, and former director, student services and transfer education, Washington State Board for Community and Technical Colleges.
- 76 Handel & Williams, 2012, Chapter 4, pp. 29ff.
- 77 WSBCTC, 2006.
- 78 WSBCTC, 2013.
- 79 WSBCTC, 2009.
- 80 WSBCTC, 2013.
- 81 Moore, Shulock, & Jensen, 2009.
- 82 Moore & Shulock, 2014.
- 83 Collins & Porras, 1994; Heifetz, 1994.
- 84 Klein, 2006; Weiner, 2009.
- 85 Heath, 2010; Kotter, 1995, 2002.
- 86 Kezar & Eckel, 2002; Kezar, 2013; Shugart, 2012.
- 87 “Push” strategies are mandates from those who have the power and authority to assert and enforce them. They can originate from governmental bodies, institution or system governing boards, presidents or provosts, and others who are in a position to effect change through mandates. By contrast, “pull” strategies are intended to incent individual or institutional behavior. A push strategy might include legislation mandating the creation of a core transfer library, while a pull strategy might include incentive funding for those units within an institution that make significant strides in serving transfer students.
- 88 Beere, Votruba, Wells, & Shulman, 2011.
- 89 Harley, Harkavy, and Benson, 2005, p. 212.
- 90 Heifetz, 2009; Obolensky, 2010; Kotter, 1995.
- 91 Spear, 2003.
- 92 This list reflects ideas from change management luminaries such as John Kotter (2000) and the Heath brothers (2010).