



Improving Credit Mobility for Community College Transfer Students

Findings and recommendations from a 10-state study

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About Education Northwest

Education Northwest is a nonprofit, nonpartisan organization dedicated to helping all children and youth reach their full potential. We partner with public, private, and community-based organizations to address educational inequities and improve student success. While most of our work centers on the Pacific Northwest, our evaluations, technical assistance, and research studies have national impact and provide timely and actionable results.

This qualitative study investigates the issue of credit mobility in 10 states: California, Florida, Georgia, Kentucky, New York, North Carolina, Ohio, Tennessee, Texas, and Washington.

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Executive Summary

Community colleges are the first point of access to higher education for millions of students looking for an affordable path to a bachelor's degree. Nearly half of community college students are the first in their families to go to college, and while many aspire to earn a bachelor's degree, few will realize their educational hopes and dreams. **Less than a quarter of community college students transfer to a four-year institution and only about 10 percent complete a bachelor's degree** (Horn & Skomsvold, 2011).

There are many reasons why some community college students fail to transfer and earn a bachelor's degree. This study focuses on problems with credit mobility, or the transfer of credits from a sending to a receiving institution. State and institutional policies can support the transfer of credits across public institutions, making a focus on credit mobility a key lever for higher education policymakers and leaders who seek to improve the bachelor's degree completion of community college transfer students and ensure more equitable postsecondary outcomes for historically disadvantaged college students.

Transfer students can face problems with credit mobility when a receiving institution does not accept their course credits. They can also encounter degree program credit loss when a receiving institution accepts courses as elective credits that do not apply to a student's degree program. Unlike the outright loss of credits, degree program credit loss leads to excess elective credits. The long-term consequences of both types of credit loss, however, are the same: They extend students' time-to-degree, increase their expenses, lead to more debt if students are funding their college education with loans, and lower the likelihood of bachelor's degree attainment.

This study investigates the issue of credit mobility in 10 states: California, Florida, Georgia, Kentucky, New York, North Carolina, Ohio, Tennessee, Texas, and Washington. It provides a unique opportunity to understand multiple policy approaches to credit mobility and how these policies play out and, potentially, break down at the campus level. The study utilizes qualitative data from policy documents and legislative statutes, phone interviews across the 10 states, and interview data collected during site visits to two- and four-year colleges in Texas, Washington, and Tennessee.

This study addresses two questions:

- What are different policy approaches to credit mobility?
- How and why do community college transfer students lose credit?

Findings

Degree program credit loss, rather than the outright loss of credit, is more likely to be identified as a challenge

When discussing the transfer of credits, most study participants focused on the challenge of students receiving elective credit instead of academic program credit for their community college courses because the transfer credits do not apply to a major or degree program. Much less common, according to study participants, was the issue of transfer students receiving no credit at all for their community college courses.

A new framework can help in understanding different policy approaches to ensuring that transfer students' credits transfer and apply to their major

This framework, developed by the study authors, categorizes states and systems across a continuum, from systemwide transfer initiatives to local-level institution-to-institution policy approaches:

- In **2+2 systems**, policies guarantee the transfer and application of general education and pre-major or prerequisite course credits across institutions in a system and ensure transfer students can seamlessly enter university ready for upper-division major coursework.
- In **credit equivalency systems**, policies offer guarantees for the transfer and application of general education and some pre-major courses across institutions in a system for all programs, the most popular programs, or programs with very specific lower-division coursework. Individual institutions have some flexibility in specifying the prerequisite major courses that students need to take to enter as a junior in a particular program.
- In **institution-driven systems**, policies guarantee the transfer and application of general education course credits, and individual institutions specify the prerequisite major courses that students need to take to enter as a junior in a particular program.

Existing policies do not address the common reasons students lose credit: student uncertainty and resource-constrained advising.

As discussed by college staff and students in the study, one of the primary reasons for degree program credit loss was student uncertainty about their majors and destination institutions. This was a pervasive and consistent reason for credit loss across all three systems and may prevent students from fully taking advantage of seamless transfer policies available in 2+2 systems.

The second major reason cited for degree program credit loss was a lack of early, personalized, and knowledgeable advising for students interested in transfer. Participants felt student uncertainty about their majors and destination institutions could be mitigated by individualized and early advising, but community college student services staff struggle to provide such advising to students due to large case-loads and other demands on their time. Transfer advising may be particularly complex in institution-driven systems where community colleges may have thousands of articulation agreements for different degree programs and universities. Across all systems, community college students had to be largely self-directed in finding their path and taking the right courses to avoid credit loss.

Recommendations

Refine policies to better meet the needs of undecided students

Policies that standardize lower-division major requirements are designed with a particular type of transfer student in mind—one who enters community college with a clear path. Yet, the typical community college student, or college student in general, may not have a clear idea of what they want to major in or ultimately do with their life. States, systems, and institutions may be able to meet the needs of these students by:

- Implementing policies that require advisors to support students in selecting a path early on (e.g., by 30 credits)
- Working together to develop a smaller number of transfer pathways at community colleges that lead to multiple bachelor's degree programs at four-year universities
- Creating bachelor's degree programs for college students who are uncertain about their path and want meaningful opportunities to explore different fields without accumulating excess credits

Additionally, to fully serve the population of community college students interested in earning a bachelor's degree, it is imperative that four-year institutions offer assurances that individual courses will transfer and apply to students' degree program requirements even if they do not earn an associates degree.

Develop “transfer college knowledge” early and at key milestones in students' academic career

Beginning in high school, efforts to enhance college knowledge would be strengthened by a more explicit focus on what it means to begin postsecondary education at a community college. This “transfer college knowledge” should include a frank conversation with high school students interested in starting their college career at community college about the advantages of selecting a major and destination institution early, as well as the consequences of delaying these decisions.

Efforts to enhance transfer college knowledge should also be incorporated into community college orientations, first-year student success courses for all students, and/or individualized advising sessions since so many community college students are interested in transfer. A more substantive and embedded relationship between community colleges and four-year institutions is also necessary to develop transfer college knowledge that is aligned with the expectations and structures of four-year institutions.

Overall, developing transfer college knowledge is not intended to be an additional task for secondary and postsecondary counselors, but rather a way to structure and improve the limited time they already may have with students.

Improve data systems and conduct research on credit mobility to determine policy effectiveness

System-level and college staff members typically do not know the number of credits that transfer students lose outright, are able to apply to their degree, or count as electives. Better systems that link community college and university data across a state or higher education system are needed to address questions of credit mobility.

Additionally, institutional and external researchers could use linked data from community colleges and universities across different states to address questions of policy effectiveness. New policies under all three transfer policy approaches also seek to address many of the challenges related to student

uncertainty by helping students choose a path or by allowing undecided students to explore multiple fields without losing credits. State- and system-level transfer policy reforms must be continuously evaluated, to better understand both the complexities of implementation and the extent to which the policies are achieving their intended goals.

Our study highlights the complexities of navigating transfer for students, advisors, and other institutional actors across a broad range of systems, even those with longstanding or recently adopted systemwide transfer pathways. Continued efforts to ensure transfer students do not lose the credits they earned or accumulate excess elective credits are essential to supporting the degree completion of millions of community college students each year.



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Chapter 1

Introduction

When I was over at [Community College], and I told them where I wanted to transfer, they told me that I needed to be careful. That's all they said—that the credits I took there weren't going to transfer everywhere.

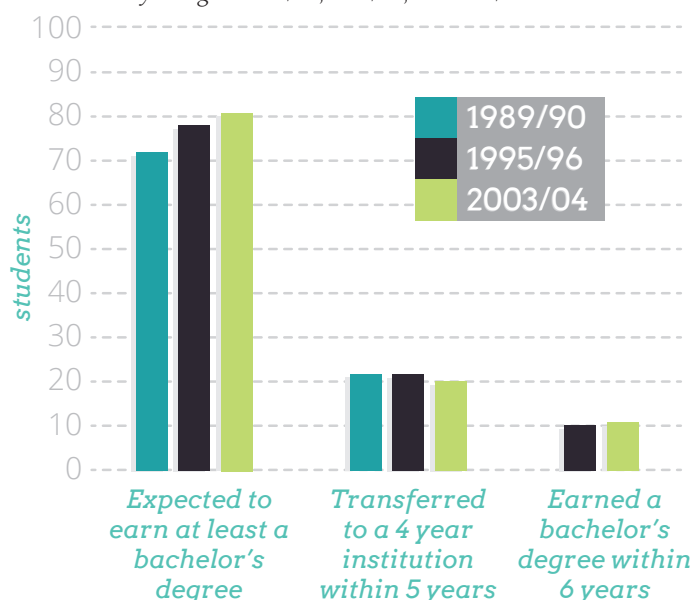
-Texas university transfer student

Community colleges are the first point of access to higher education for millions of students each year. In fall 2013, 40 percent of first-time undergraduates (1.25 million students) entered a two-year institution. Nearly half of community college students are the first in their families to go to college, and slightly over half receive the Pell grant, need-based federal aid for low-income students. Many of these students attend community college because they offer the opportunity to stay closer to home and cost less than four-year institutions (Cohen & Brawer, 2003).

While many students begin their college career at community college, most aspire to transfer to a four-year institution and earn a bachelor's degree (Horn & Skomsvold, 2011). According to the Beginning Post-secondary Student (BPS) study, which has been surveying first-time undergraduates since 1989, over 70 percent of first-time community college students consistently expect to earn at least a bachelor's degree (Figure 1). Today, 77 percent of 2011/12 first-time community college students said that they expected to earn at least a bachelor's degree (Horn & Skomsvold, 2011).

While such aspirations are high, few community college students realize their degree goals. Consistent data over the years illustrate that less than a quarter of community college students end up transferring to a four-year institution within five years, and bachelor's degree completion hovers around 10 percent (Figure 1). Degree aspirations are similarly high across racial/ethnic groups, yet transfer and bachelor's degree completion for these groups of students are lower than the national average. Among students who started community college in 2003/04, 19 percent of Asian students, 13 percent of White students, 8 percent of Latino students, 6 percent of Black students, and 3 percent of American Indian or Alaska Native students had earned a bachelor's degree in six years (Figure 2).

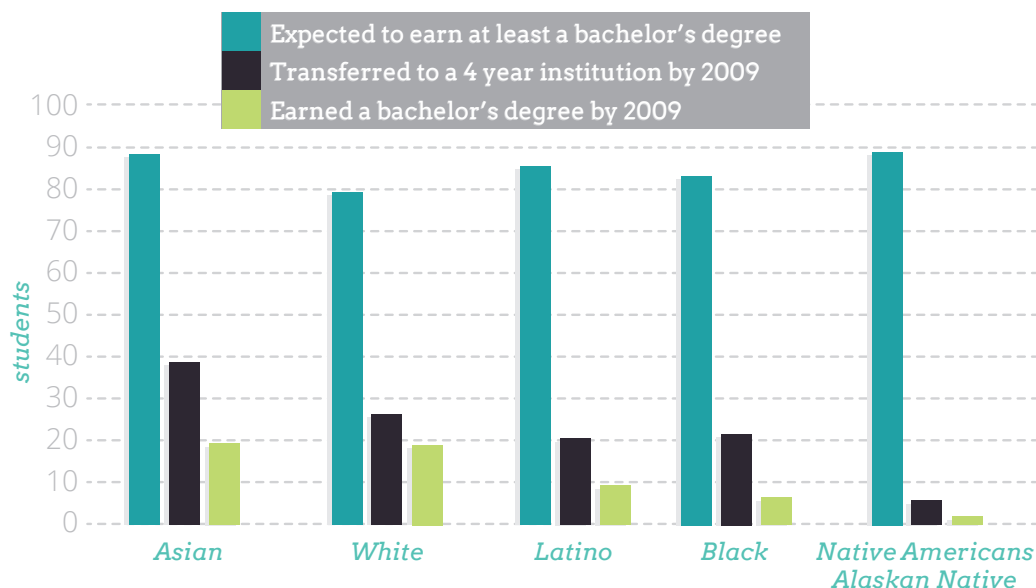
Figure 1 Bachelor's degree aspirations are high but transfer degree completion is low for first-time undergraduates who entered community college in 1989/90, 1995/96, and 2003/04



Note: Six-year bachelor's degree attainment was not available for the 1989/90 cohort. Their five-year degree attainment was 7 percent, which is similar to that of the other two cohorts.

Source: Adapted from Horn & Skomsvold (2011) who used BPS data.

Figure 2 Degree aspirations are similarly high across racial/ethnic groups but bachelor's degree completion is below 10 percent for Latino, Black, and American Indian/Alaska Native first-time undergraduates who entered community college in 2003/04



Source: Computation by authors using NCES Quick Stats, BPS: 2009 data.

There are many reasons why some community college students fail to transfer and earn a bachelor's degree. Community college students tend to have very high attrition due to high rates of enrollment in developmental education, family and school responsibilities that pull them away from school, lack of integration into college life, and numerous other reasons discussed in the large literature on community college student outcomes (e.g., Bailey, Jeong, & Cho, 2010; Horn & Nevill, 2006; Tinto, 1994).

This study focuses on a specific reason why community college transfer students may have low rates of bachelor's degree completion: problems with credit mobility, or the transfer of credits from a sending to a receiving institution. A receiving or destination institution may not accept a transfer student's course credits and/or may accept courses as elective credits that do not apply to a student's degree program.

State and institutional policies can support the transfer of credits across public institutions, making a focus on credit mobility a key lever for higher education policymakers and leaders who seek to improve the bachelor's degree completion of community college transfer students and more equitable postsecondary outcomes for historically disadvantaged college students.

This study investigates the issue of credit mobility in 10 states: California, Florida, Georgia, Kentucky, New York, North Carolina, Ohio, Tennessee, Texas, and Washington. The study utilizes qualitative data from policy documents and legislative statutes, phone interviews across the 10 states, and interview data collected during site visits to two- and four-year colleges in Texas, Washington, and Tennessee. It provides a unique opportunity to understand different policy approaches to ensuring students' credits transfer and apply to degree programs across different states and higher education systems. The study also demonstrates how these policies play out and, potentially, break down at the campus level. Understanding implementation of policies designed to prevent credit loss and transfer student experiences with credit loss across a wide range of postsecondary systems is needed to guide future research and policy priorities related to improving credit mobility.

Credit Mobility

Generally, this means the transfer of credits from a sending to a receiving institution. In this report, we focus on the transfer and application of credits to a parallel degree program from public two-year to four-year institutions in the same state or system.

This study addresses the following questions:

- What are different policy approaches to credit mobility?
- How and why do community college transfer students lose credit?

Data collection and analysis

To answer these questions, the study began with a review of the official transfer and articulation policies in each of the 10 states. We typically studied transfer policies at the unit of the state with three exceptions. In Georgia, there are two public higher education systems: the University System of Georgia (USG), which includes two-year and four-year institutions, and the Technical College System of Georgia (TCSG), which only has two-year institutions dedicated to adult education and career training programs with less of a focus on transfer. We looked most closely at USG transfer policies, which pertain mainly to USG two-year institutions. New York has two public higher education systems that include universities and community colleges: State University of New York (SUNY) and City University of New York (CUNY). California has two very different university systems: California State University (CSU) and University of California (UC). We studied systems in New York and California separately.

The policy reviews were verified for accuracy at multiple points. First, they were cross-referenced with the Education Commission of the States Transfer and Articulation database. In addition, the main elements of each state's transfer policies were reviewed during phone interviews with key stakeholders.

Subsequent to the completion of the state policy reviews, we used a stratified purposeful sampling strategy to select expert respondents from each of the states (Patton, 2002). Phone interviews were conducted with individuals from each state's higher education offices and the system offices for the two- and four-year systems, where applicable. State- and system- level officials recommended institutional respondents who were familiar with transfer policies and worked directly with transfer students. These respondents then recommended additional individuals at their institutions who could provide a fuller picture of transfer policy implementation and processes. Table A2 presents the number of higher education systems, institutions, and individuals we interviewed by state.



Student voice is a critical component of this study. The purpose of the site visits was to speak to community college students intending to transfer and to university students who had transferred from community college to learn about their experiences. We also wanted to hear about transfer policy implementation in more depth at a select number of institutions.

We selected site visit states to provide data on transfer policy across a range of different policies. Each state falls into one of the three categories of transfer policy outlined in Chapter 3. Texas offers an example of transfer policy where institutions largely rely on articulation agreements. In contrast, Tennessee, with the 2010 passage of the Complete College Tennessee Act that led to the development of transfer pathways across 52 fields, represents a relatively recent and comprehensive approach to reforming statewide transfer policy. Washington, which has had Direct Transfer Agreements in place for more than 40 years, provides insights into well-established statewide transfer policies.

We selected the site visit institutions within each state based on recommendations from state officials, visiting community colleges and neighboring universities where a large number of community college

students transferred. We sought to visit institutions that educated a large number of underrepresented college students and were typical, not exemplary, models of transfer. Prior to each focus group, university student participants completed a brief survey to provide a sense of the number of credits they were able to transfer from their origin institution and apply to their degree.

It is important to note that we only spoke with a small number of university students in Texas, Tennessee,

and Washington—approximately 10 in each state—who are certainly not representative of all transfer students; however, one could argue that they are the type of student who should benefit from transfer policies because they transferred with a degree and/or a large number of lower-division credits. Twelve of the 15 university students in Tennessee and Washington had at least one associate's degree and accumulated between 60 and 112 credits before transfer. While only 3 of 11 Texas university students had a degree, they had accumulated between 29 and 72 credits before transfer.

Data analysis involved multiple rounds of coding. All interviews were transcribed and coded using ATLAS.ti software. In the second phase of coding, multiple researchers reviewed data for common themes that were documented in memos and matrices and across states, institutions, and respondent types. In tandem with the analysis of the interview data, the state policies were examined for a second time, in-depth, to identify areas of convergence. This resulted in the transfer policy framework presented in Chapter 3. We then reviewed common themes to identify any differences in implementation across these transfer systems, which we discuss in Chapter 4. See Appendix A for more details on data collection and analysis.

Data Collection Totals

- 22 Higher education systems represented
- 37 Higher education state or system officials interviewed
- 39 Higher education institutions represented
- 86 College staff interviewed
- 65 Students in focus groups



Study organization

In the next chapter, we begin with background on the issue of credit mobility, including what we know about the prevalence and consequences of credit loss and attempts to improve credit mobility. In Chapters 3 and 4 we present our key findings on transfer policy and implementation across a range of systems. In Chapter 3, we present a new framework for understanding different policy approaches to ensuring transfer students' credits transfer and apply to their major. We categorize states and systems across a continuum, from systemwide transfer initiatives to local-level institution-to-institution approaches. In Chapter 4, we present findings related to implementation of these transfer policies across nearly 40 community colleges and universities in the 10 states. We find that credit loss persists across all types of transfer policy systems to varying degrees due to challenges students face in selecting a major and destination institution and limited institutional capacity to provide community college students with strong transfer-related supports. In the last chapter, we provide recommendations for research, policy, and practice that seek to address the challenge of credit mobility.



Chapter 2

Background on credit mobility



We all have to remember that everything transfers, but not everything applies. So simply transferring credit from a two-year to a four-year institution, if it's academic credit, then almost all of it transfers. It's almost unheard of for it not to transfer. But the real issue for students is, does it apply to their degree?

-Texas system official



Prevalence & consequences of credit loss

Problems with credit mobility may result in the loss of credits when a destination institution does not accept a transfer student's course credits. Research on credit loss generally focuses on this outright loss of credits.

There are many types of transfer, and the average amount of credits lost varies by type of transfer (Simone, 2014). Students transfer across institutional sectors (from a public to a private nonprofit institution and vice versa), in-state or out-of-state, and levels (from a four-year institution to another four-year institution or from a two-year institution to another two-year institution, called lateral transfer, and from a four-year institution to a two-year institution, called reverse transfer). The most common form of transfer is from a public two-year college to a public four-year institution: More than 60 percent of transfer students transfer from a public two-year to a four-year institution, and nearly 80 percent of these students transfer within state (Hossler et al., 2012).

Overall, transfer students lose an average of 13 credits, and for 39 percent of transfer students, no credits transfer between the sending and receiving institution (Simone, 2014). Students who transfer from a public two-year college to a public four-year lose fewer credits than all other types of transfer students: Specifically, transfers from a public two-year to a public four-year college lose 8 credits on average, and for 19 percent of these students, no credits transfer between the sending and receiving institution (Simone, 2014).

Relatively lower credit loss for two-year to four-year transfer students may be due to the presence of transfer policies that seek to address the credit mobility of these students. Yet, despite the presence of transfer policies—which we will discuss subsequently—close to half of students who transfer from a community college to a public university experience some degree of credit loss upon transfer. Using BPS data from different cohorts, Doyle (2006) and Monaghan and Attewell (2015) have studied the prevalence of credit loss for community college students specifically, and its relationship to bachelor's degree attainment. Among the 1995/96 cohort of community college transfer students, 56 percent were able to transfer all credits, while the remaining students lost some credits (Doyle, 2006). Similarly, among the 2003/04 cohort, 58 percent of community college transfer students were able to transfer 90 percent or more of their college credits, while the remaining students lost some credits (Monaghan & Attewell, 2015). For 14 percent of students, their transfer institution accepted less than 10 percent of their credits.

The loss of credits during transfer is tied to low bachelor's degree completion for community college students. Among the 1995/96 cohort of community college transfer students, credit loss is associated with a 40 percentage point graduation gap: 82 percent of students who were able to transfer all of their credits graduated with a bachelor's degree within six years of starting college, compared to 42 percent of students who lost any amount of credit (Doyle, 2006). Similarly, among the 2003/04 cohort, controlling for pre-transfer grade point average, total credits earned at community college, and the selectivity of the four-year transfer institution, the number of credits lost had a large and persistent relationship with the probability of bachelor's degree completion: Specifically, students who had all or most of their credits transfer had a 2.5 times greater likelihood of graduation than similar students who had less than half their credits transfer (Monaghan & Attewell, 2014).

Problems with credit mobility may also result in transfer students receiving elective credit instead of academic program credit for their community college courses because, as noted by the Texas system official at the beginning of this chapter, transfer credits do not *apply* to a major or degree program. We refer to this as degree program credit loss because students lose credits that they expected to apply toward a degree. Little quantitative data exist on the prevalence and consequences of degree program credit loss, but there is qualitative evidence from a study in Indiana (Kadlec & Gupta, 2014) that illuminates student

Degree Program Credit Loss

Transfer students receive credit for college credits earned at origin institution, but credits count as elective credits rather than major/degree program credits. This results in excess elective credits and the accumulation of more credits than required to graduate.

stories of losing credits they expected to apply to their degree program. Many of the nearly 170 transfer students from eight Indiana University campuses that participated in the study reported their transfer credits transferred as excess elective credits, rather than degree program credits. The authors note that electives have lost their educational value for many transfer students:

The term 'elective' has lost its educational meaning as a way to explore subjects outside their majors. Instead, the elective category is a kind of academic graveyard where students essentially bury all those courses that transfer but do not meet any specific requirements in the new institution (Kadlec & Gupta, 2014, p. 7).

Unlike the outright loss of credits, degree program credit loss leads to excess elective credits, an accumulation of more credits than are required to graduate. However, the long-term consequences of both types of credit loss are the same: They extend students' time-to-degree, increase their expenses, result in higher debt if students are funding their college education with loans, and lower students' likelihood of bachelor's degree attainment.

Taken as a whole, credit loss represents a waste of resources for individual students who spend time and money on courses that do not count toward their degrees; in turn, these lost or "nonproductive" credits lead to higher costs and inefficiencies in the higher education system (Auguste, Cota, Jayaram, & Laboissière, 2010). If not addressed, problems of credit mobility are likely to persist and grow because community colleges are a consistently popular route to a bachelor's degree (Handel, 2013). These institutions may become even more popular as states seem to be increasingly moving toward free community college tuition for recent high school graduates (as in Oregon¹ and Tennessee²).

¹ http://www.oregonlive.com/education/index.ssf/2016/02/with_6_days_to_go_12000_oregon.html

² <http://www.tennessean.com/story/news/education/2014/10/10/apply-free-tennessee-community-college/17055583/>



Study participants were more likely to identify degree program credit loss as a challenge

When discussing the transfer of credits, most study participants elaborated on the challenge of students losing credits toward their degrees, not the outright loss of credits. Officials across many states and systems were able to succinctly explain this issue, as articulated by the Texas official at the beginning of this chapter.

Identifying the exact incidence of degree program credit loss is complex, and no states in our study measure the number or proportion of credits applied toward a major versus those counted as elective credit. But, qualitative research from this report and others (Kadlec & Gupta, 2014) suggests that degree program credit loss may be a more pressing issue for community college transfer students than the outright loss of credit.

University students in our focus groups did not experience the outright loss of credits as much as degree program credit loss. Self-reported information about credits earned, transferred, and applied revealed that many community college credits did not apply to a degree program. In each state, only one student reported losing some of their credits. But, all 11 students in Texas and 7 of 9 students in Tennessee and Washington reported that a subset of credits (between 9 and 85 credits) transferred as elective credit. Students explained that some of these credits were intended to fulfill general education or pre-major degree requirements, but for a variety of reasons that we will discuss in Chapter 4, they transferred as elective credit, requiring students to retake one or more courses. For students with transfer associate's degrees, this meant that they did not enter university as juniors; for all students, this ultimately results in excess credits and extended time-to-degree.

All 11 students in Texas and 7 of 9 students in Tennessee and Washington reported losing a subset of credits transferred as elective credit.

One way to infer the extent to which transfer students lost credit towards their major is to examine the number of excess credits students have when they graduate, or compare the number of credits earned by transfer students and “native students” who began their career at the university. We gathered such data for four states from a dissertation from Texas (Cullinane, 2014), interviews, and state research. In Texas, transfer students were 17 percentage points less likely to graduate within six years compared to native students; among those who graduated, transfer students had attempted eight more credits than native graduates, perhaps due to bringing credits from their origin institution that transferred but did not apply to their degree (Cullinane, 2014). In Kentucky, among students who earned a bachelor's degree in 2006/07, transfer students accrued a total of 143.7 to 146.7 credits, compared to the 137.7 credit average among students who began at a four-year university. (See report reference in Appendix D.) Additionally, a university administrator from Tennessee cited institutional research in that state that also found that transfer students graduate with more credits:

My recollection was that we did a backwards look at bachelor degree recipients from several different years in a row, and we found that native students graduated on average with about 128 credits for a 120-hour degree. Whereas the transfers, it was like 140 or 145, somewhere in there.

Florida is the only state that routinely monitors the number of excess credit hours among graduates who were native and transfer students; however, it is unclear if this metric provides any information about transfer credit application toward a major. Counter to the above research on excess credits, in Florida, a lower proportion of transfers with an associate's degree who earned a bachelor's degree (24 percent) and transfers with no associate's degree who earned a bachelor's degree (29 percent) graduated with excess credits compared to native students (39 percent). (See report reference in Appendix D.) Florida counts transfer students' credit hours as credits accumulated at the university and credits that transferred in toward a bachelor's degree program³. So, it is unclear if this metric counts credit hours that students transferred that did not count toward a bachelor's degree.

There is evidence that states are in the process of developing more robust data systems, which will help in illuminating degree program credit loss. For example, North Carolina is setting up a system to better track students, including courses students take at community college and whether or not the courses apply to their degree at the destination institution. This process, which started in fall 2014, is expected to take three years to yield good data on students earning associate's degrees under the new articulation agreement.

The trend toward more robust data systems is also reflected in the implementation of reverse transfer programs, which is occurring in Florida and Tennessee (Table B1 in Appendix B). These programs may provide the data infrastructure necessary to monitor how many transfer credits counted toward students' degree programs, as explained by a Tennessee Board of Regents official:

This reverse transfer database will in actuality become a transcript database. So we won't know definitively until that's completely populated ... to see, okay, Jane Doe presented this many credits from her previous three colleges. This many were accepted as degree credit. This many were thrown into the elective column. It took her X number of years to graduate. And she graduated with 13 additional credits beyond what it seems she would have needed for this degree. To link all those things together, we're getting all the pieces in place from having it all reflected accurately in the data so that we can do that, we're not quite there yet, but we're so close it's scary. In the meantime we look for circumstantial evidence.

Ongoing research will help build a deeper understanding of the prevalence of degree program credit loss; in the meantime, evidence of degree program credit loss is largely based on the experiences of higher education stakeholders and transfer students, and quantitative data on the excess credits of transfer graduates.

³ http://www.flbog.edu/about/budget/docs/performance_funding/PBF--EXCESS_HRS--Methodology_2015-11-21.pdf



Attempts to improve credit mobility have varying impacts on credit loss

Most of the courses offered by the earliest community colleges of the 1920s were liberal arts transfer courses, and thus community colleges have always had articulation agreements with neighboring public universities that specify the lower-division courses students need to take to transfer from a community college into a specific degree program (Cohen & Brawer, 2003). More recently, states and systems have developed more formal mechanisms to improve credit mobility. Two primary strategies stand out.

One strategy to improve credit mobility is to develop **transfer policies that reach beyond institutional articulation agreements** and apply to all public four-year institutions in the state or system of higher education (Goldhaber, Gross & DeBurgomaster, 2008; Mullin, 2012; Smith, 2010). Traditionally, these policies include a transferable common core that guarantees the transfer of general education credits between public institutions in a state or system, and a transfer associate's degree that is designed to ensure transfer students enter as juniors. Some states and systems have developed articulation guides and common course numbering that clarify to students which courses should be transferable and accepted across public institutions within the state or system. A national scan of transfer and articulation policies conducted by the Education Commission of the States (Anderson & Millard, 2014) found that as of May 2014:

- 36 states have a transferable common core
- 16 states use a common course-numbering system
- 36 states have a transfer associate's degree

There is little evidence that growth in these state transfer policies, however, has led to improvement in bachelor's degree completion for transfer students (Anderson, Sun, & Alfonso, 2006; Goldhaber et al., 2008; Gross & Goldhaber, 2009; Roksa & Keith, 2008). While it is not clear why there is no relationship between statewide transfer policies and transfer student outcomes, the literature suggests two main reasons. One reason may be that few students take advantage of the policies. In two state systems, only a small proportion of community college students in transfer-oriented programs completed the transferable common core (Hodara & Rodriguez, 2013). Nationally, only 29 percent of transfer students earn a certificate or associate's degree prior to transferring (Jenkins & Fink, 2016). Second, while a transferable common core and transfer associate's degrees support the transfer of credits from one institution to another they do not always guarantee the application of credits to a student's degree program (Bailey, Jaggars, & Jenkins, 2015). Thus, students may still experience degree program credit loss, which can impact their bachelor's degree completion.

Given the limitations of traditional transfer policies, some states and systems have turned to other strategies to ensure credits transfer and apply to majors. Bachelor's degree programs frequently have specific lower-division pre-major or prerequisite requirements to prepare students for upper-division coursework. To make transfer more seamless for these students, states and systems have developed **systemwide agreements that specify the lower-division pre-major or prerequisite courses required for upper-division coursework in a major** (Bailey et al., 2015). Figure 3 illustrates the path to a bachelor's degree for community college students in a specific major where a student might complete the common core (i.e., general education courses that transfer across the system) and a transfer pathway (i.e., common pre-major or prerequisite courses for a major that transfer across the system).

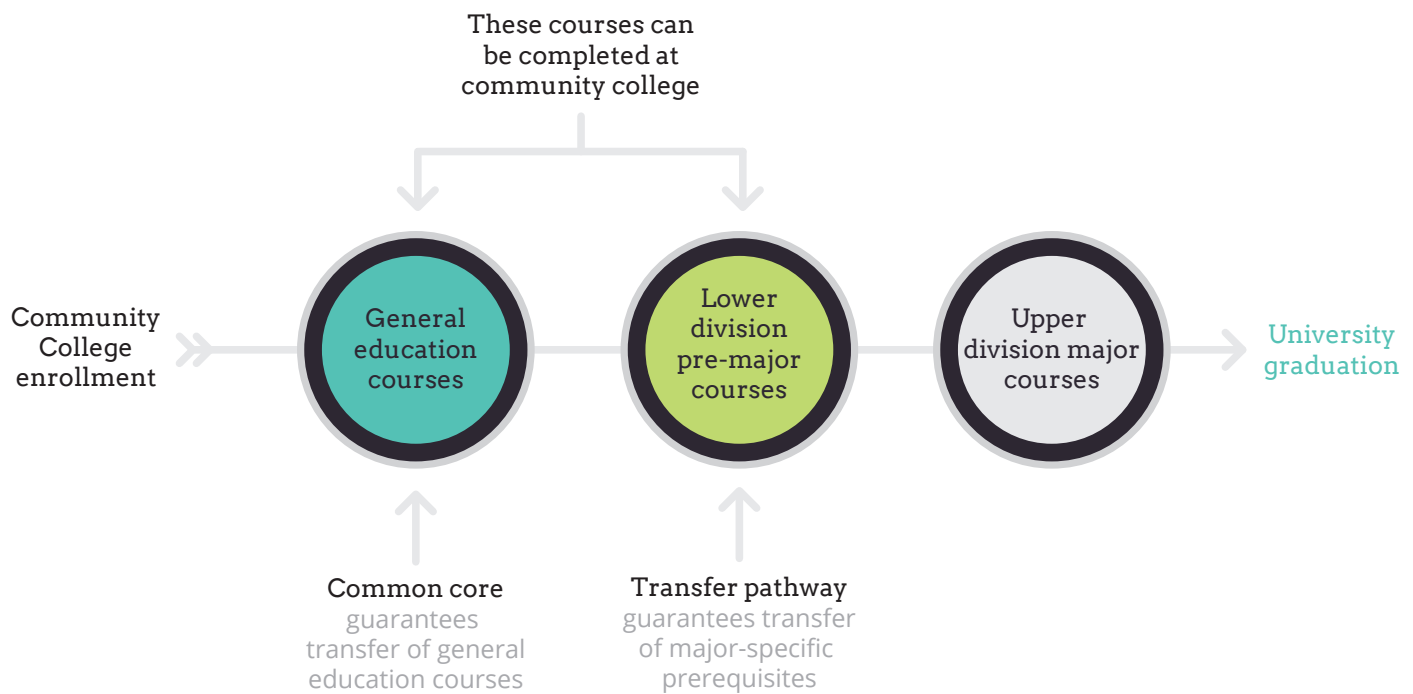


Figure 3 Transfer pathway policies specify pre-major courses guaranteed to transfer and apply to courses in a major
Source: Authors' illustration.

Together the common core and transfer pathway allow the student to complete their lower-division major courses at community college. Then, they can transfer and apply their coursework to a major at any public four-year institution in the state or system where they take their upper-division major coursework. Essentially, systemwide transfer pathways are similar to institutional articulation agreements for specific programs; however, they are more far-reaching because they apply to the same degree program across a state or higher education system rather than just between two institutions.

Systemwide transfer pathway policies are increasingly popular yet research has not examined these newer policies closely. Key questions remain related to how these policies may be different across states and systems, and to what extent they effectively address degree program credit loss and the related issue of excess credits.



Chapter 3

Comparing credit mobility transfer policies



I think the associate science transfer degree is a great improvement. That degree is much more useful for anyone entering the sciences than the Direct Transfer Agreement. In the past, we would admit students who were interested, for example, in being a biology major and who had the Direct Transfer Degree and they had their general eds out of the way, but they still had two years of prerequisites before they could enter the biology major because they did not have sufficient math and chemistry and physics. So the associate of science transfer makes it clear to community college students that those prerequisites are more important than meeting all of the general education requirements, and that's a tremendous advantage to those students. It also saves time because those students arrive having completed the science prerequisites, and they're major-ready in most of the areas if they complete that.

-Washington system official



The content, scope, and specificity of credit transfer policies vary substantially across higher education systems (Hezel, 2009; 2010). For example, system guidelines may address how both general education and lower-division pre-major credits transfer or only focus on one of these curriculum areas. Transfer policies can apply to all public institutions in some states, pertain only to the community colleges in others, or allow individual institutions to voluntarily opt-in to agreements. Finally, policies may provide a general structure in which institutions have flexibility and choice, or they may set detailed rules for colleges and universities to follow.

Sifting through the details of transfer policies and understanding how states compare to one another can be a challenging task. To make the undertaking more manageable for practitioners and policymakers, studies on transfer typically identify common policy elements often incorporated into transfer systems (e.g., see Ignash & Townsend, 2001; Kisker, Wagoner & Cohen, 2011). We present these elements for the 10 states in this study in Table 1 on the next page. Such descriptions provide invaluable information for mapping out the range of policy components across transfer systems. They also help analysts, policymakers, and practitioners track the broad strokes of what states are doing and how systems change over time (see for example Smith, 2010).

Simply knowing the general policy elements contained in transfer systems is less useful, however, for comparing how systems actually protect transfer students from losing credits toward their degree and accumulating excess elective credits. For example, even though all but four systems have transfer associate's degrees (Table 1), these degrees may only guarantee completion of general education requirements and junior standing in terms of the number of credits needed to enter as a junior, not in terms of entering as a junior in a particular major. The quote at the beginning of this chapter from a Washington official explains that completion of the Direct Transfer Agreement (DTA) degree means students have "their general eds out of the way" or completed, but the student may not have completed any prerequisite requirements for a particular major. Thus, some of their degree courses will count as excess elective credits, and a student will still have prerequisite major courses to take before they can enter upper-division major courses.

Table 1 System-level transfer policies as of April 2016

State or System	Categorization in our framework	Transferable Common Core	Transfer Associate's Degree	Common Course Numbering	Reverse Transfer*
Florida	2+2	Yes	Yes	Yes	Yes
Tennessee	2+2	Yes	Yes	Yes	Yes
State University of New York	2+2	Yes	Yes	No	No
University System of Georgia	2+2	Yes	Yes	No	No
California State University	2+2	Yes	Yes	Partially; some community college transfer classes	No
Washington	Credit equivalency	Yes	Yes	Partially; community colleges only	No
University of California	Credit equivalency	Yes	No	No	No
City University of New York	Credit equivalency	Yes	No	No	No
Ohio	Credit equivalency	Yes	No	No	No
North Carolina	Institution-driven	Yes	Yes	Partially; community colleges only	No
Kentucky	Institution-driven	Yes	Yes	Partially; community colleges only	No
Texas	Institution-driven	Yes	No	Partially; community colleges only	Yes

Note: *Recently, states have been adopting reverse transfer policies that retroactively award an associate's degree to transfer students who complete the requirements of an associate's degree at a four-year institution (Anderson, 2015).

Source: Authors' policy review; reverse transfer from Anderson (2015).

Credit mobility policies attempt to help transfer students either avoid losing credits from transferred courses not applying to program requirements or having to take additional courses to fulfill unmet prerequisite program requirements for upper-division status. These policies have two primary features: **Credit applicability** means course credits can be applied to courses in a major and serve in lieu of similar courses at the receiving institution for meeting major requirements. **Major-ready status** means students have met lower-division general education requirements and all pre-major requirements for a program of study and are considered upper-division or major-ready students.



Policies for preventing degree program credit loss and excess credits

Credit Applicability Policies

As Table 1 illustrates, all states and systems in our study have a systemwide common core that specifies the general education courses that transfer across the system. Some states and systems (Florida, Tennessee, USG, SUNY, CUNY, Kentucky, and Texas) allow students to meet all or a subset of general education requirements without completing an associate's degree. In these states and systems, by completing the common core, students may be certified as exempt from needing to take any additional general education courses. Or, by completing a subject area in the common core, students may be exempt from taking courses in that particular subject category. In Washington, North Carolina, and CSU, students must complete a transfer associate's degree to be exempt from taking any additional general education requirements; in Ohio and UC, individual institutions and programs determine if students have completed the necessary general education courses for their major.

Where the states and systems diverge even more is in their pre-major credit applicability policies, which we refer to as transfer pathway policies because they specify a lower-division path or set of courses that will transfer and apply to a major program at a four-year institution. Transfer pathways can be systemwide so that a major in a state has the same lower-division prerequisites, or they can be determined by institutional articulation agreements. Table 2 on the following page presents the various systemwide transfer pathway policies in which states and systems specify common pre-major courses that apply to particular programs across a state or system. Five states/systems specify all pre-major courses for nearly all majors. Four states/systems only specify some pre-major courses. Two states do not specify any pre-major courses and in Texas, the transfer pathway policy is out-of-date. In these latter three states, individual four-year institutions and programs specify pre-major courses that apply to degree programs.



Table 2 Number of majors with systemwide transfer pathway (systemwide pre-major courses) as of April 2016

State or System	Name of systemwide transfer pathway policy	Number of majors with common pre-major courses
<i>State/system specifies all pre-major courses for nearly all majors</i>		
Florida	Common Prerequisites Source: https://dlss.flvc.org/manuals/common-prerequisite-manuals/catalog-year-2015-2016/program-listing-discipline-area-order-2015	347
University System of Georgia	Area F Source: http://www.usg.edu/academic_programs/new_programs/area_f_requirements	54
Tennessee	Tennessee Transfer Pathways Source: http://www.tntransferpathway.org/transfer-major	52
State University of New York	SUNY Transfer Paths Source: https://www.suny.edu/attend/get-started/transfer-students/suny-transfer-paths/	49
California State University	Transfer Model Curricula Source: https://c-id.net/degreeview.html	36
<i>State/system specifies some pre-major courses</i>		
Ohio	Transfer Assurance Guides Source: https://www.ohiohighered.org/transfer/tag/definitions	56
University of California	UC Transfer Pathways Source: http://admission.universityofcalifornia.edu/transfer/preparation-paths/	21
City University of New York	CUNY Pathways Source: http://www.cuny.edu/academics/initiatives/pathways/majors.html	10
Washington	Major-Related Programs Source: http://www.wsac.wa.gov/sites/default/files/2015.TransferReport.pdf	10
<i>State/system does not specify pre-major courses or pre-major policy outdated</i>		
Texas	Fields of Study (outdated) Source: http://www.thecb.state.tx.us/index.cfm?objectid=0BDF101B-0B61-7D8D-392A61E18CBC7093	9
Kentucky	N/A	0
North Carolina	N/A	0

Note: Table B2 in Appendix B indicates the disciplines of the majors with common pre-major courses.

Source: Authors' policy review.

Major-ready status policies

A student is major-ready when he or she has completed all lower-division credit requirements, including any pre-requisites for the major. Transfer pathway policies vary based on whether or not they guarantee transfer students can enter a university as a junior *in their major* ready to take upper-division major course-work. In states and systems that specify all pre-major courses for nearly all majors, students completing these pathways are eligible to complete upper-division courses in the major across four-year institutions in the state or system. In states and systems that do not specify all pre-major courses or specify common pre-major courses for only some majors, individual four-year institutions and programs determine what additional institution-specific courses students need to be considered major-ready. In states with no common pre-major courses, articulation agreements or institutional transfer pathways specify the lower-division courses students need to take to transfer from a community college into specific programs at specific four-year institutions ready to complete upper-division courses.



A new categorization of transfer policy

Although the states and systems we examined managed pre-major credit applicability and major-ready status through a number of policy strategies, this variation can be generally sorted into policies that provide systemwide guidelines versus those that allow individual receiving institutions and programs to determine credit applicability and major-ready status. Simultaneously categorizing the scope of both pre-major credit applicability and major-ready status policy strategies allows states and systems to be placed into one of three types: 2+2 systems, credit equivalency systems, and institution-driven systems (see Figure 4).

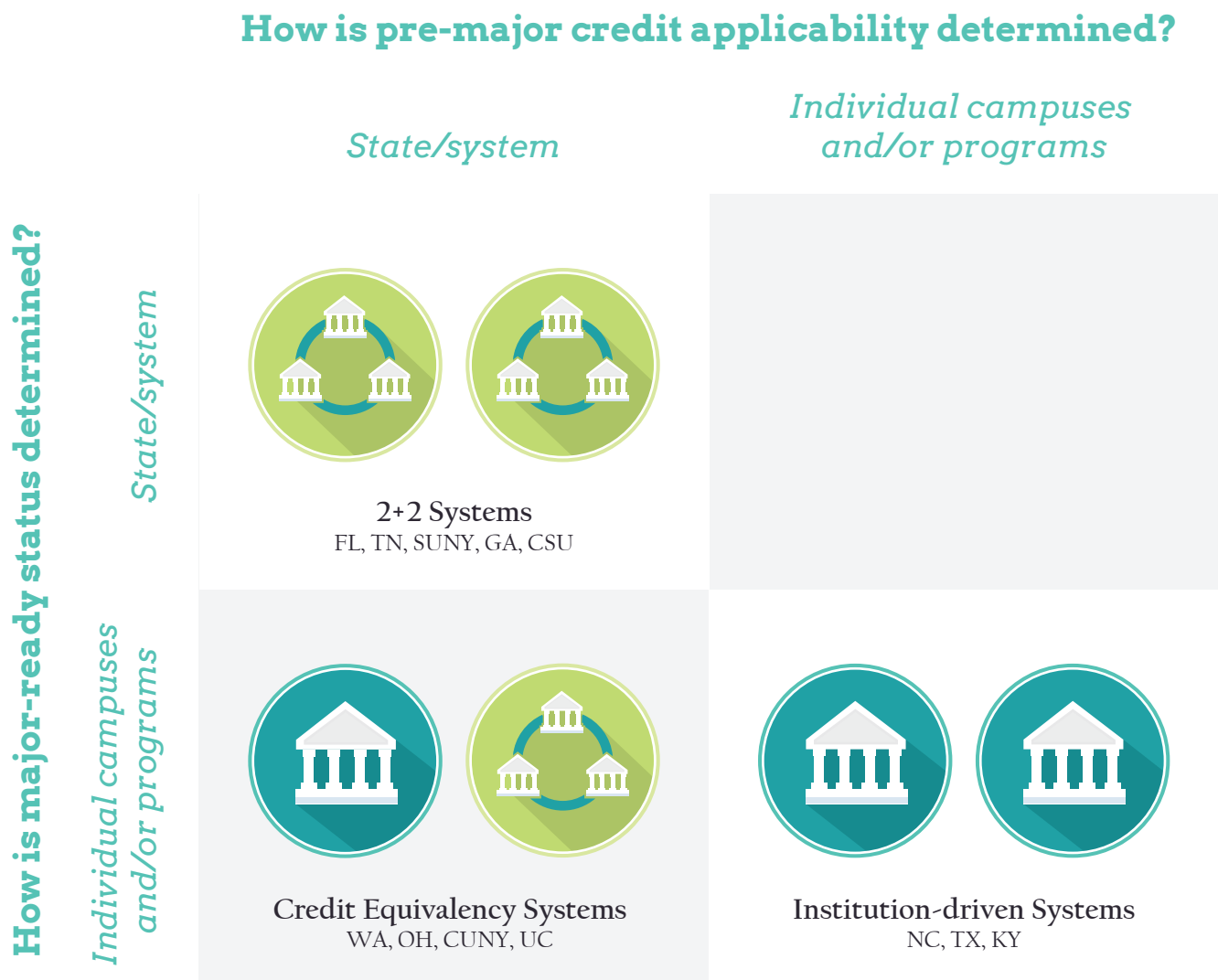


Figure 4 Types of credit mobility policies

Source: Authors' policy review.



2+2 systems

2+2 systems combine systemwide common core and pre-major course agreements that ensure course credits are applied to programs of study consistently across the system with systemwide transfer pathways that specify all pre-major courses for nearly all majors. This policy combination allows most students with an associate's degree to meet all lower-division general education and

pre-major requirements before transfer, enter university major-ready, and earn a bachelor's degree within two years, regardless of receiving campus or program of study.

Two states and three state systems are 2+2 systems. Florida has the longest-standing 2+2 policies. Since 2010, the remaining states and systems have introduced new or improved 2+2 policies: Tennessee's 2010 Complete College Tennessee Act created a statewide transfer policy that developed the Tennessee Transfer Pathways for all majors. The Complete College Georgia Initiative released a comprehensive systemwide completion plan for USG in 2012, which included a new articulation policy with provisions for the guaranteed transfer of general education and pre-major courses.⁴ California's 2013 Student Transfer Achievement Reform Act required community colleges to grant associate's degrees for transfer and resulted in policies and processes for creating transfer pathways from community colleges to the CSU system. In 2015, the SUNY system implemented the comprehensive SUNY Transfer Paths that specify "the knowledge and skills that are essential for students to complete during their first two years of study for a major in a given discipline."⁵



Credit equivalency systems

Credit equivalency systems contain policies for ensuring that lower-division general education and some pre-major courses transfer and are uniformly applied to program requirements at all campuses across the system. These systems have developed some transfer pathways for pursuing particular majors, but they do not guarantee that transfer students with an associate's degree will

have met all lower-division requirements of the receiving campus and program and enter major-ready. This is because four-year institutions have some flexibility in determining lower-division major course requirements for all or some majors.

Two states, Washington and Ohio, and two state systems, UC and CUNY, are credit equivalency systems. Washington developed their major-related programs in 2004 for science, technology, engineering, and math (STEM) and health majors that have very specific pre-major coursework. As the quote at the beginning of this chapter indicates, these transfer pathways specify all pre-major courses to be considered major-ready. However, we consider Washington a credit equivalency system because for most majors, individual campuses and programs determine if students are major-ready.

In 2010, Ohio updated their articulation and transfer policy, which includes discipline-specific transfer pathways for nearly all majors; however, the pathways do not guarantee students will transfer major-ready. In 2013, CUNY underwent a comprehensive transfer policy reform process and developed a transferable common core and common pre-major courses for their 10 most popular majors. At the time of our study, UC was continuing to develop common pre-major courses for their most popular majors, called UC transfer paths.

⁴ [Transfer between the Technical College System of Georgia and the University System of Georgia is governed by institutional articulation agreements for individual degree programs. Thus, from the point of view of technical college students, Georgia might be considered institution-driven.](#)

⁵ <http://www.suny.edu/attend/get-started/transfer-students/suny-transfer-paths/>





Institution-driven systems

In institution-driven systems, institutional articulation agreements decide how transfer credits apply to major requirements and major-ready status for programs of study. Three states fall under this category.

North Carolina updated and approved its statewide Comprehensive Articulation Agreement in 2014, which includes a 30-credit common core guaranteed to transfer and junior status guarantee for transfer students who complete an associate's degree program. However, individual university programs determine any major-specific coursework. A community college advisor estimated that advisors had to keep track of approximately 1,280 articulation agreements since there are 16 public universities and about 80 programs at each institution.

Texas has nine major pathways, called fields of study, which were established in 2002 and include common pre-major courses for nine majors (Texas Higher Education Coordinating Board, 2014). However, respondents indicated that the fields of study had become outdated and were not used by students. Instead, all Texas public universities have articulation agreements with one or more area community colleges. On average, they maintain 38 active agreements. Texas State University, one of the largest institutions in the system, has an exceptionally high number of agreements: 3,090 agreements with 29 separate two-year institutions.

Kentucky has fewer agreements than North Carolina and Texas. Kentucky universities publish degree pathways in an online guide to help transfer students meet lower-division requirements for majors. The number of pathways identified by each institution ranges from a high of 24 at the University of Louisville to none listed for Kentucky State.

In the next chapter, we discuss how students lose credits, highlighting major implementation gaps in transfer policy. For each reason for credit loss, we return to the transfer policy framework to understand how credit loss varies based on transfer policy system.

Chapter 4

How and why students lose credit



It feels like when they are looking at a course that you want to transfer, they are looking for a way to say no, that doesn't transfer—you've got to take ours. It feels like an adversarial system where they're trying to say no ... nope, that doesn't count, nope, that wasn't the right 100 level, 200 level, nope, that wasn't calculus based. Instead of looking for the reason to say no, look for the reason to say yes. If it's close enough, if it's there, and you know that I studied, and I worked hard, and I got a decent grade in the class, look for a reason to give me credit for it.

—Tennessee university transfer student



The university students we talked to frequently had rocky, rather than seamless, transfer experiences. Students in Texas had slightly more problems with applying credits to their degree programs than students in Tennessee and Washington. In some focus groups in Texas and Washington, we did not have to ask directly about credit loss since it was one of the more distressing parts of university transfer students' experiences, and they brought it up themselves, unprompted at the beginning of the focus group. In a focus group in Tennessee, one student described having to retake a course he completed at community college that the university would not accept for credit. He said it was “the same information ... the exact same material ... even the exact same textbook.” Another student, quoted above, described transfer as an “adversarial system.” What can explain these frustrating and costly experiences for community college students seeking a bachelor's degree?

Two reasons for degree program credit loss

- Student uncertainty about major and destination institution
- Low institutional and advisor capacity to offer support

College staff and students primarily discussed two reasons for degree program credit loss: student uncertainty about their major and destination institution and low institutional and advisor capacity to offer students transfer-related support. Table 3 provides counts of the reasons for credit loss reported by university focus group participants by state, while Appendix C presents quotes to illustrate an example of each reason.



Table 3 Reasons for credit loss discussed by university focus group participants

Reason for credit loss	Number of times reason cited by university students in focus group*		
	TN	WA	TX
	2+2	Credit equivalency	Institution driven
<i>Student uncertainty</i>			
Switched majors	3	1	2
Student completed core curriculum/liberal arts degree, but courses not specific to university major	0	0	3
<i>Issues with advising</i>			
Advisor told them wrong courses for major/institution	1	2	4
Self-advised, used online resources, and took wrong courses for major	2	2	0
<i>Other</i>			
Took too many electives at community college	2	0	2
Lateral transfer (four-year to four-year)	1	2	0
University did not accept courses as equivalent (unknown reason)	1	1	4

Notes: *Students had one to three reasons for credit loss. Counts reflect unique number of times reason discussed by students.

Source: Authors' analysis of interview data.

Students do not select a major and destination institution early enough in their college career to avoid credit loss

In every state and system, at least one university or community college advisor spoke about students losing credits or accumulating excess credits due to changing majors or delayed major selection. Even students who completed the common core or an associate's degree but did not follow a specific major pathway encountered problems. Differing requirements across institutions adds another layer of complexity to the transfer process that leads to credit loss.

Degree program credit loss due to uncertainty about major

Selecting a major early on affords benefits to all students, whether they are in a community college or a four-year institution, because majors have specific prerequisite requirements that students need to complete within their first two years if they are to graduate within four years. But, many students struggle to identify a major; among those who choose a major, many later change their mind.

In 2+2 systems, systemwide pathways lay out the plan of study that will allow students to transfer seamlessly to a four-year institution with all of their lower-division coursework completed. For example, a representative of the Tennessee Higher Education Commission explained the benefits of the new Tennessee Transfer Pathways program over the former articulation agreement policies:

When you're a student at community college and you're pursuing, say, accounting, you don't have to wonder any more whether any university will take those courses. You now know they do because they're part of the pathway. Because in the old days you may be at one of our community colleges and the local university says, "Yeah, you're good and, you know, we'll take those courses." However, you then transfer to a university across the state, and they say, "Well, no, sorry, you know, we have a different view of that, and we're not going to take those." You don't have to worry about any more at all. Students who are in the pathways, it is certain that they will be accepted. I think that's the biggest key, is that there's no mystery anymore. It's been worked out ahead of time.

But, these policies only function to the extent that students select a major early enough to complete the necessary coursework. In some states, stakeholders expressed doubts about transfer pathways as the correct lever for increasing community college students' credit mobility since for the pathways to function as intended, community college students must select a major early on. An administrator from a Tennessee university explained that their new transfer pathways do not work for students who are indecisive about their major:

Theoretically if they entered as a first-year student at the community college knowing specifically they wanted to be a history major, they could come through the pathway and come here ready to be a junior history major. In reality, they may spend a semester or two semesters at the community college trying to figure out what they want to major in. So they enter the path late, or they enter the path already with credits accumulated that don't apply. That's where some of the difficulties come in.

Six students across the focus groups in Tennessee, Washington, and Texas switched majors and lost credits (Table 2). In Tennessee, a university student who was interviewed said he wished he knew what he wanted to major in from the "get-go":

I would definitely say it makes it easier if you know what you would like to study at the four-year because, well, you know, how I said I lost 11 credits? Some of that was definitely due to nonapplicability or nonequivalency. But if I had known from the get-go, then I could have gotten 60 hours completed in two years, and used the pathway program and transferred right in. It would have been far simpler than having to kind of work out, I guess, some of the kinks in terms of what would transfer and what wouldn't.



For this student, even in a system with a comprehensive set of pathways, uncertainty about his major resulted in degree program credit loss. The student completed general education requirements but did not take the appropriate pre-major courses, and thus 11 credits transferred as excess elective credits. Some students run into problems transferring general education credits as well.

Degree program credit loss due to major-specific lower division general education requirements

Completing the common core before selecting a major is a related reason for degree program credit loss. As one North Carolina community college administrator said, foundational general education courses may not count toward major requirements:

Unfortunately, we have students very often in our office that think, I'll knock my gen eds out, I don't have to make a decision until I transfer, and that's one of the worst things you can do as a student. You should really be making a decision in your first 15 to 20 hours, in my opinion. Even very, very foundational general education courses may not count toward any number of different majors.

We found that instances of general education courses not applying to foundational degree program requirements are most problematic for specific majors. The way a common core generally works is that students must take a few specific courses (e.g., English Composition), but for the most part, they can choose one course in a number of different subject areas from a list of approved courses that transfer across the system. For many degree programs, regardless of the course students select, completing the common core (or a subject area of the common core) guarantees credit will be applied to the degree program and general education course requirements are satisfied.

However, certain majors have very specific general education courses. Across all states, STEM, business, and health fields were consistently identified as having major-specific general education requirements. STEM and business tend to

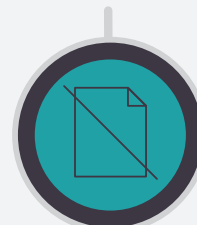


Transfers to university with general studies associate's degree



Major course prerequisites not met

Majors have prerequisite requirements that students need to complete within their first two years in order to be placed in upper-division courses and graduate on time.



Not eligible for upper-division courses in major



Additional major prerequisites required



Degree program credit loss

When lower-division credits don't apply to a student's major, the credit "loss" actually leads to excess elective credits and an accumulation of more credits than are required to graduate.



Delay in graduation

have specific math requirements, such as calculus and finite math, which the systemwide common core might not offer. In some states, business also has specific social science requirements related to economics, whereas the common core often allows students to choose economics, psychology, sociology, or other social science courses to fulfill the general education social science requirements. A university student in Texas who lost credit for four classes said that his basic philosophy general education course did not count towards his business program because the university wanted him to take “business ethics.” Additionally, nursing and other health fields have specialized lower-division general education requirements.

For the most part, institutions seem to communicate to students in online resources and transition guides any major-specific general education requirements. But, even the best efforts to communicate specialized general education requirements will not prevent degree program credit loss for students who do not select their program early enough in their college careers.

Degree program credit loss due to general liberal arts majors or associate’s degrees not tied to major pathways

Students who are undecided about their major may opt to pursue a liberal arts or general studies associate’s degree. The general associate’s degree covers the general education requirements (for most majors), but not pre-major requirements. Thus, students may find they have outstanding lower-division credit requirements, even after transferring with sufficient credits to have achieved upper-division class standing. For example, three students in the Texas university focus group completed the common core or a liberal arts degree but lost credit because they did not complete major-specific courses (as illustrated in Table 3 and a quote in Table C1).

Advising about the importance of selecting a major and transfer destination early on is critical to ensuring students can successfully transfer.

Nonetheless, these degrees were described as popular among students. Participants in nearly all states and all three transfer systems explained the drawbacks of these degrees. Among the students who complete a two-year degree, a university administrator in Tennessee reported that most complete a general studies degree, which is not linked to a specific major and a four-year institution.

There’s nothing wrong with an associate degree in general studies, and a lot of times, it does prepare them pretty well ... they will have most of their general education done. In fact, if we admit them, we can’t require any more general education from them. But there will still be requirements, both for their major, and for their college requirements, they may not have math because they weren’t following a pathway, and they weren’t following one of our transition guides. The vast majority of our transfer students come in that way.



An administrator from a SUNY university explained that their new transfer pathways may not support most students because many of them have not followed a specific major pathway:

The specific population that the seamless transfer requirement was designed to serve, namely, students coming from a SUNY community college with an associate's degree and transferring into the same major, they are likely to move through pretty smoothly and graduate in four years. And that was really the impetus behind putting that requirement in place. I'm just not sure how many students that actually represents. Sixty percent of our transfer students come from a SUNY community college, but not necessarily with a degree and not necessarily going from the same major to the same major. In fact, often they come in with a worthless liberal arts major. And the only reason I say that is because it hasn't built up any depth in their major field yet.

The demonstrated preference among community college students for programs that are not linked to a transfer pathway calls into question the extent to which systemwide transfer pathways can adequately meet the needs of most transfer students. If students must select a major to take advantage of “major-ready” guarantees, but are not opting to do so, the policies will fail to produce the expected benefits.

Degree program credit loss due to uncertainty about destination institution

Students who plan to transfer within a credit equivalency or institution-driven system contend with the additional layer of complication presented by differing requirements across institutions to be “major-ready.” This may be particularly true in institution-driven systems. The Texas university and community college students tended to focus on knowing “what college you’re going to” more than students in Tennessee and Washington due to wide variation in degree program requirements across universities. For example, one student gave this advice:

I think the best advice that I could give for a transfer student is if you know what college you’re going to, go to the specific college that you want to get your degree in and ask them what you should be focused on as far as your classes go.

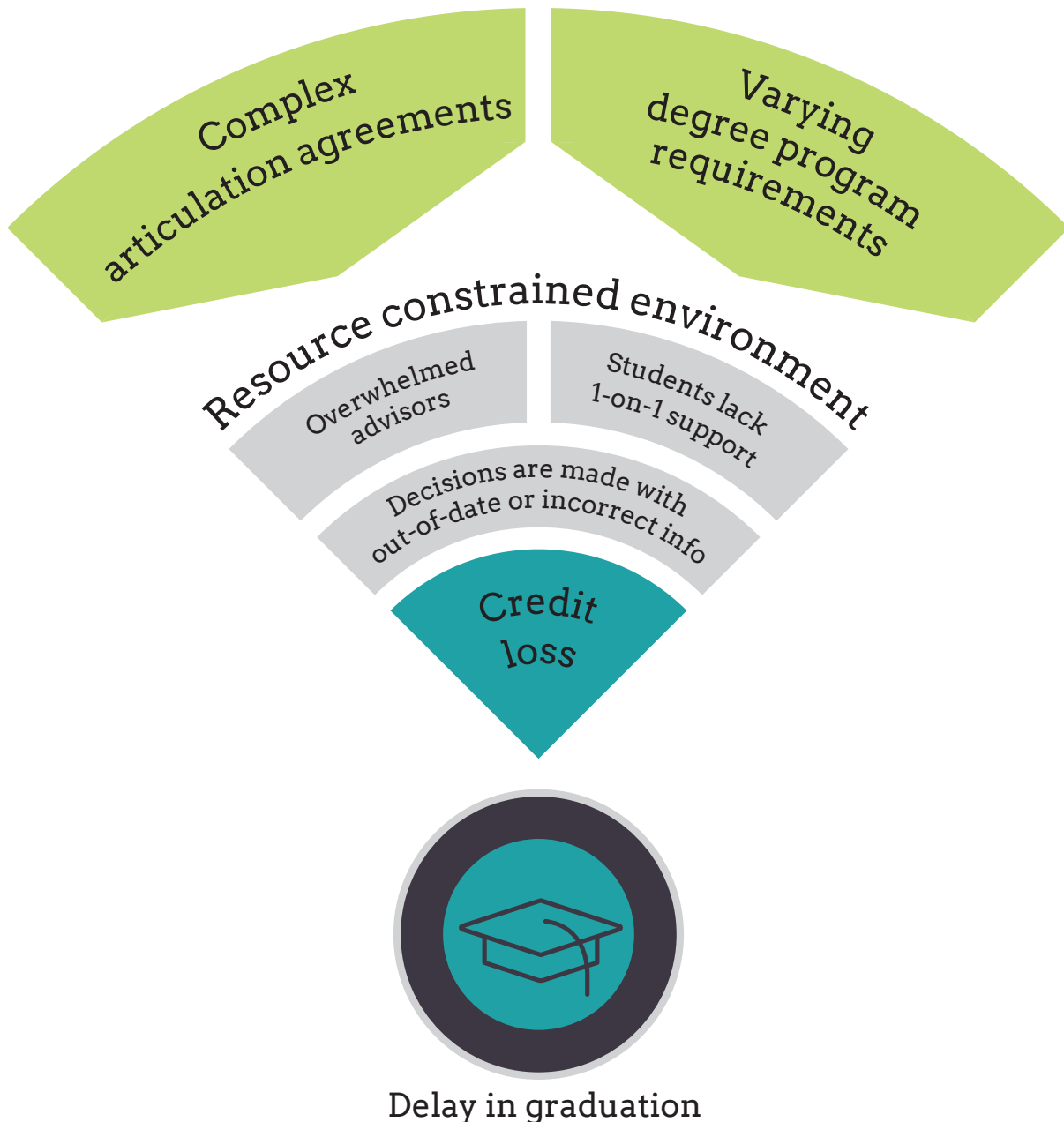
In practice, 2+2 systems also allow some degree of variation in lower-division major requirements. We heard about variation at flagships and certain departments in Florida and Tennessee. For example, a university administrator in Tennessee explained that community college advisors have to keep track of the “footnotes” in the systemwide pathways to be able to advise students to take the right courses:

There's a lot of footnotes within the pathways that say if you want to do this, if you're transferring to this institution, then you should really be taking this. So while it standardized some things, it didn't standardize all things. I think there's some benefit, but, at the same time, for the student that's like, “Maybe I want to go to MTSU, maybe I want to go to UT,” you know, it's a little bit of lost in translation, depending on the advisor that they might be meeting with at the other institution, you know, they might not get recommended to take this course or that course.

In sum, a major reason for credit loss is that students delay selecting a major and destination institution or select a general liberal arts path that does not prepare them for upper-division major coursework. This problem seems to be pervasive across all transfer systems. Taken together, students’ experiences suggest that advising, and particularly advising about the importance of selecting a major and transfer destination early on—or at least being made aware of the trade-offs associated with not selecting them early on—is critical to ensuring that students can prepare to successfully transfer.

Institutions and advisors lack capacity to provide personalized and knowledgeable support for transfer

The complexities of transfer policies and community college students' struggles to choose a major pathway and destination institution early in their college career perhaps could be mitigated by robust student supports for navigating the transfer process. Yet, a major challenge facing community colleges is providing students interested in transfer with one-on-one, knowledgeable advising and counseling.



Advising students in a resource-constrained student services environment

Community college staff in every state discussed the challenge of insufficient advisors and counselors for all community college students. Advisors talked about only getting to meet with students for 15 minutes at a time, and community college students in all three states experienced quick advising sessions, such as this student in Washington:

I saw a counselor here a couple times, and it was so fast. This isn't their fault, but they have so many students coming in; they can't remember you or what you want to do.

An advisor at a California community college where the student counselor ratio is 1,600 to 1 painted a vivid picture of what he deals with on a daily basis:

I've got the student who was down at MiraCosta College and didn't do all that well but has 30 units of bad grades and two years have passed and now wants to go to UCLA. So that student requires one set of counseling. And then you've got the student who shipped in from the East Coast with transcripts from a four-year college. And then you've got the military guy that walks in with a variety of transcripts from other schools. With me, right before you called, I've got a student who owes Berkeley \$20,000, and so her transcripts are frozen, and she's being hounded by a collection agency and asking what are my transfer options? Well, first, go rob a bank to pay off your loan, and then we can talk because we can't do anything. And so that's the love that I have for the community college student. You never know what's in the second box of chocolates; you never know what you're going to get.

The challenge of advising large numbers of students with a variety of needs is made even more difficult by the expansive knowledge base required to successfully advise transfer students. As discussed previously, variation in lower-division major requirements is present across all systems and presents a challenge for all community college advisors tasked with helping students choose the right courses for their major and destination institution, but the sheer number of articulation agreements may make advising more labor-intensive in institution-driven systems. In fact, one of the clearest differences across transfer systems surfaced in the varying perspectives of advisors in Texas, North Carolina, and Kentucky compared to their peers in other states. Advisors in institution-driven systems described their systems as more complex than advisors in other states and systems.

There were also similarities in transfer advisor experiences across the three systems: Nearly all advisors, for example, talked about the importance of understanding the degree requirements of specific institutions. This can be seen in comments from community college advisors in Florida (2+2), Washington (credit equivalency), and North Carolina (institution-driven).

An advisor in Florida explained that they encourage students to get on a degree path as early as possible and then map out the requirements for that degree and destination institution:

Our biggest role is to help them identify if they are going to be an AA student and the university transfer institution and the degree path that they want at that university as quickly as possible. And we want to start them thinking about that at 18 hours and then by 30 hours be really solid so that we get them on the right path and particularly on the right science courses if they need a certain GPA and they need to know that early. Particularly in our case a vast majority of our students and I think 80 percent of our students transfer to FSU and we actually map FSU requirements with our students. This is the first semester, this is the second semester, this is the third, and this is the fourth, and we take those maps and show our students that these are the courses you need for FSU, so be sure to take these and take them in this order so that you do not have any trouble when you get there.



An advisor in Washington explained mapping out requirements for a student based on the university with the most common requirements:

Most of our students are in that situation, where they don't really know where they want to go or haven't even thought about it ... what I would do then is I show them the WSU requirements and we'll look at the Eastern, we'll look up Heritage, and then we'll kind of maybe base off, "Well, to be on the safe side, let's complete all the WSU requirements because that satisfies both Heritage and Eastern as well." Yeah, so, I mean, it can get complicated. Like I said, a lot of times we're learning along there with them.

A director of advising at a North Carolina community college discussed how to manage all of the different program requirements and the importance of knowing where to access resources and who to talk to:

I have an expansive spreadsheet with I think 30 tabs across the bottom, and each tab is a major at UNC Charlotte and each tab tells me yes or no to Associate's Degree, this many hours, semester course work. Sixteen schools times an average of 80 programs per school. Let me be clear about a few things when I say that. The first thing is, do we have to memorize it? No, we have to know where to quickly find it. We become very well-versed at quickly finding it. Second of all, you have to have people at the college who know who to call at that four-year school if something looks confusing, which it usually does for admission standards. I'm working with transfer advisors who know who to call. We have a whole separate document of who to call for what program.



These advisors used different strategies for learning about or communicating major requirements to students, but what is similar across these advising experiences is the emphasis on understanding the requirements of specific institutions.

Nearly all advisors talked about the importance of understanding the degree requirements of specific institutions.

As the North Carolina advisor explains, it is nearly impossible to know off-hand the lower-division major requirements for every program in the state, especially when they may be different across universities. Therefore, advisors rely on knowing where to access online information; a primary resource used across all systems is “institutional transition guides,”

which spell out any institution-specific major requirements. State and system officials and university administrators in nearly all systems talked about their efforts to communicate not only policies to advisors but where and how to access online resources. Advisor training and professional development included:

- Statewide summer orientation to educate advisors about new transfer policies/pathways and online resources
- Professional associations for advisors that provide a forum to discuss transfer
- Workshops and conferences for student service professionals to come together and understand the system
- A full-day program with community college advisors on the university campus to meet with university staff face-to-face and learn about the transfer pathways’ website and other online resources

Yet, for every respondent who mentioned efforts to educate advisors about transfer policies, we heard stories of these efforts falling short.

Student experiences in a resource-constrained student services environment

Many community college students intending to transfer and university transfer students we spoke with described a largely self-directed transfer experience fraught with some level of confusion, unknowns, or misinformation. In every state, students encountered overworked advisors who did not know the degree requirements for their major at their destination institution and either tried to figure out the requirements along with the student by utilizing online resources or directing students to such resources to determine lower-division major requirements at their intended destination institution on their own.

According to one focus group participant in Tennessee, two in Washington, and four in Texas (Table 2), information from advisors led to credit loss due to advisors using outdated transfer paths in Washington and articulation agreements in Texas and providing the wrong information about which courses to take and when to take them (e.g., advice to spread out the core and take major courses in between). A community college student in Tennessee summed up a sentiment that we heard from students across all three states:

I feel like a lot of times advisors don't know the answer so they're guessing, and that's really bad for a student because then you get signed up for classes that may not transfer to the university.

The most positive advising experiences students had were when they found a highly knowledgeable community college advisor, community college faculty member, an advisor in a specialized program (e.g., TRIO), or a university advisor tied to a specific degree program whom they could meet with one-on-one for longer periods of time. These individuals were able to help them select a degree program and destination institution if they were unsure of their major and career goals and, for students who already selected a major and transfer institution, map out the courses they needed to take term-by-term. For example, a student from Washington described a positive transfer experience due to strong advising:

When I started [Community College], I found this kind of unique club. It was called the transfer advising club, so I had a transfer advisor in there ... so I knew the whole time exactly what I was going to do. I did the Direct Transfer Agreement. I got right into [University]. I got my associate's degree in two years just because I took every single class I was supposed to take ... and then I found out about the interdisciplinary studies program, and I just went right into it.

The consensus across states from college staff was that community college students intending to transfer need this kind of personalized and knowledgeable advising early and often to help them select their major and destination institution and then figure out their lower-division major requirements. Yet, in documenting the most common student supports across the institutions represented in this study (listed in Table 4 on the following page), early and regular individualized advising for community college students who want to transfer was rarely mentioned and intrusive advising seemed to be reserved for students who had not declared a major by 30 credits or had poor grades.



Common services for community college students who want to transfer are centers, events, and online resources and tools that advisors could direct students to or which students could access on their own (Table 4). In the focus groups, students did not discuss centers and events, but they did talk about using online resources and tools. Students tended to have positive experiences with these resources and tools, and while at community college they relied on them to know which courses to take for their university degree program. However, in every focus group, at least one community college student expressed uncertainty about where to access these tools and how to use them. According to two university students in

What was often missing was a process for community college students that could prevent credit loss by mapping out their degree pathway early in their college career.

Tennessee and two in Washington, they used online resources to understand their transfer path but ended up not reading the footnotes and asterisks that directed them to different program requirements for their destination institution (Table 3).

Students had positive experiences meeting with university advisors with knowledge of their program requirements, and this was a common service provided across the institu-

tions (Table 4). However, this service was typically for students who were already sure of their degree program and destination institution. What was often missing was a process for community college students that could prevent credit loss by mapping out their degree pathway early in their college career, similar to the process described by the advisor from Florida in the previous quote about students transferring to FSU. Additionally, we did not hear advisors talking about the realities of transfer at orientation, except for a community college advisor from Tennessee:

I speak a lot at new student orientation, and I also try to talk about the importance of knowing what you want to do when you first start and kind of recognizing the myth that you can go your first two years and then decide what you want to do, because you really can't because of the specific requirements for different majors.

In summary, student uncertainty about their majors and destination institutions was a pervasive and consistent reason for credit loss. Community college students who delay major selection, do not know where they want to transfer, or pursue a general liberal arts degree may accumulate credits that do not apply to their degree program at university. These students could benefit from individualized and early advising, but may not receive the kind of support they need.

Community college student services staff members are responsible for advising large numbers of students with very different backgrounds and needs but are often over-extended and not sufficiently familiar with the complexities of transfer policy. They may inadvertently give students the wrong information about which courses to take, leading to credit loss. Or, they may direct students to online resources and tools to figure out their major requirements by themselves. The complexities of advising transfer students seemed more profound in institution-driven systems. But, across all systems, community college students had to be largely self-directed in finding their path and taking the right courses to avoid credit loss.

Table 4 Most common student supports for transfer students at institutions in 10 states

Type	Specific Examples
Community College Services	
Courses	Student success courses, may be required or optional
Centers	Career and transfer center TRIO center
Events	Transfer fair Discovery day - Community college students go to university
Online tools	Comprehensive state website with curricular maps for transfer pathways Transfer transition guides available on system or university websites Course-by-course equivalency tool National websites for transfer students (College Fish) Degree audit system
Intrusive advising	Undecided by 30 hours – hold on account until student meets with advisor and declares major Students not in good standing must see an advisor Completion coaches for at-risk students
Advising from university	University has advising office at community college for walk-ins University advisors come to campus for one-on-one sessions with students University recruiters on community college campus – may provide advising
University Services	
Centers	Transfer student resource center Freshman advising center (also for transfer students)
Events	Orientation for transfer students Resource fair for transfer students Transfer and new major receptions Programs for transfer students of color Transfer honor society programming
Online tools	Same as community college online tools
Advising for transfer students specifically	One-on-one consultation for transfer students by phone, online, or in-person when they are transferring credits Advisors evaluate credits during orientation Student transfer liaisons, transfer orientation ambassadors, peer mentors
Intrusive advising	Early alert system
General advising	Faculty advisors (once in major)

Source: Authors' analysis of data.



Chapter 5

Discussion and considerations for policy and practice

Summary of findings

Many community college students want to earn a bachelor's degree but few will realize their educational dreams. A key challenge students face related to degree attainment is the loss of credits when they transfer, which typically takes the form of losing credits that apply to their degree and accumulating excess elective credits. Credit loss is not only detrimental to individual students: it also represents inefficiencies for higher education systems.

The 10 states we examined in this study—California (UC and CSU), Florida, Georgia (USG), Kentucky, New York (CUNY and SUNY), North Carolina, Ohio, Tennessee, Texas, and Washington—employ systemwide transfer pathway initiatives to local-level institution-to-institution approaches to address credit mobility:



In **2+2 systems**, policies guarantee the transfer and application of general education and pre-major course credits across institutions in a system and ensure transfer students can seamlessly enter university ready for upper-division major coursework.



In **credit equivalency systems**, policies have guarantees for the transfer and application of general education and some pre-major course credits across institutions in a system for all programs, the most popular programs, or programs with very specific lower-division coursework.



In **institution-driven systems**, policies guarantee the transfer and application of general education course credits, but the application of pre-major credit to majors and major-ready status are largely determined by individual institutions.

The 2+2 systems provide more clarity for students and advisors about credits that transfer and apply to specific majors across a state or system. However, to take advantage of these policies, students must select their major early on. Further, in practice, variation in lower-division major requirements may persist to some degree across institutions in 2+2 systems. In credit equivalency and institution-driven systems, community college students interested in transfer must select their major and destination institution early on to know what courses they need to take to stay on track to earning a bachelor's degree. States and systems have set up a number of supports for community college students intending to transfer, including partnering with university advisors and developing online course equivalency tools and transfer guides, but these resources may not come early enough to be most useful for students.

Recommendations

Findings from our report point to three main recommendations:

1. **Refine policies** to better meet the needs of undecided students
2. **Develop transfer college knowledge** early and at key milestones in students' academic careers
3. **Improve data systems and conduct research** on credit mobility for ongoing evaluation of transfer policy effectiveness

Refine policies to better meet the needs of undecided students

I think, over time, we will see decreases in the total number of units students are completing. But it's too early to assess whether that's true. But I doubt that we are ever going to see quite what they envisioned: like everybody would be marching lockstep through the process, earning 60 plus 60 equals 120. You know, magically efficient, freeing up all this extra space.

—CSU faculty member

The faculty member quoted above with deep knowledge of transfer in California expressed optimism about the long-term prospects for the effectiveness of transfer pathways policies, particularly in terms of increasing credit mobility and decreasing the accrual of excess credits. But, she cautioned that the nature of community college students, who are often first-generation college students learning to navigate the system and young people prone to shifting interests, made it unlikely the system would achieve perfect efficiency.

Policies that standardize lower-division major requirements are designed with a particular type of transfer student in mind—one who enters community college with a clear path. Yet, the typical community college student, or the college student in general, may not have a clear idea of what they want to major in or ultimately what they hope to do with their life. Many students who begin their studies with a clear career goal and major also change their minds and may experience the same kinds of challenges upon transfer. An estimated 75 percent of all college students change their major at least once before graduation (Gordon, 1995). Other community college students aim to transfer to a four-year institution as soon as possible, with little interest in a transfer pathway that will prolong their time in a community college.

To a large extent, transfer policies miss the mark in helping students who:

- Do not know their major
- Do not know where they will be transferring
- Change majors
- Do not want to earn an associate's degree



There are three general ways to meet the needs of undecided students.



One is to use **policy to assist institutions in creating and maintaining guided pathways with support**. For example, North Carolina community colleges require that by 30 hours, students must meet with an advisor to select a major and destination institution, and all students must take a student success course in which they map out their educational plan (Altstadt, 2014). Florida developed eight meta-major academic pathways; when students enroll, their advisor provides them with a pathway for the meta-major they are most interested in. Then, by 30 hours, students select a destination institution, and an advisor informs them of the common prerequisite courses for that institution. Our findings on student uncertainty suggest that early advising to choose a path and clear tools to understand which courses to take to pursue that path are extremely important for avoiding credit loss.

Another direction is for **systems to work together to develop a smaller number of transfer pathways at community colleges that lead to multiple bachelor's degree programs at four-year universities**. Several study participants noted that fewer degree pathways would improve credit mobility because foundational general education courses would be the same across different majors, and pre-major courses would count towards the lower-division requirements for multiple bachelor's degree programs. This policy approach might limit the likelihood of taking the wrong course for a major if the student persisted in the same broad field during their college career. This is the same idea as meta-major transfer pathways. In Florida, systemwide meta-major transfer pathways specify a set of agreed-upon general education and pre-major courses for a set of degree programs or majors in the same field at four-year institutions in the state or system (Altstadt, 2014). Similarly, in Tennessee, eight academic focus area transfer pathways “allow students who have not chosen a specific degree program to choose a broad direction for their initial studies that can then be refined upon further investigation, interest and coursework.”⁶



A third approach is to create **bachelor's degree programs for college students, both transfer and native, who are uncertain about their path and want meaningful opportunities to explore different fields without accumulating excess credits**. This might look like an interdisciplinary program. For example, in Washington, a community college transfer student who wanted to change majors was able to switch to an interdisciplinary major at university, which prevented any credit loss.

Finally, many study participants noted that a large population of community college students prefers the general liberal arts path because they are uncertain about their major or, many times, interested in solely completing some or all general education requirements at community college and then transferring to a four-year institution to pursue a major. Thus, to fully serve the population of community college students interested in earning a bachelor's degree, *it is imperative that there are guarantees that individual courses will transfer and apply to their degree program requirements, even if students do not earn a degree*. Transfer policies to increase credit mobility that require students to complete an associate degree to be eligible for general education completion or major-ready status guarantees are insufficient to meet the needs of the large and enduring population of transfer students that has little interest in earning a community college credential. Seven states and systems examined in this study allow students to complete general education requirements without completing a degree; to fully protect transfer students' credits, there also need to be guarantees in place for the transfer and applicability of individual courses, or students will continue to find themselves with excess elective credits. Transfer policy will only meet the needs of students when it is designed to meet the needs of students along all points of the transfer continuum.

6 <http://www.tntransferpathway.org/find-your-pathway-now>

Develop “transfer college knowledge” early and at key milestones in students’ academic career

The day of exploring your education is coming to an end and students are needing to specialize earlier and earlier. So we’re talking about what can we do at a community college to help students get on that path sooner and have the best data available to help them get on the road to a job and career?
—Washington system official



As noted by the Washington official above, a persistent belief across the states and systems is that community college transfer students need support choosing a major and career path. Counseling and advising staff can support students as they transition from high school into community college and then university.

High school guidance counselors. Even with the national focus on college readiness and the recognized importance of community colleges as a point of access for underrepresented students, there is still little discussion about what college readiness means or looks like in community college settings, particularly for transfer students. A core component of college readiness is college knowledge, which includes contextual information about college primarily around understanding the college admissions and financial aid process, the culture of college, and the challenge of postsecondary coursework (Conley, 2005). The concept of college knowledge does not currently include the specific types of skills and knowledge that transfer students will need to successfully navigate the transfer process.



Beginning in high school, we argue that *efforts to enhance college knowledge would be strengthened by a more explicit focus on what it means to begin college at community college*. This “transfer college knowledge” includes all the contextual information needed to succeed as a community college transfer student and should be fully integrated into the counseling and guidance process starting in high school. Part of that guidance should include a frank conversation with high school students interested starting their college career at community college about the advantages of selecting a major and destination institution early, as well as the consequences of delaying these decisions. Other key elements of transfer college knowledge for high school students are outlined in Table 5.

College knowledge about transferring should be fully integrated into the counseling and guidance process starting in high school.

Community college student services. Efforts to enhance transfer college knowledge should also be embedded in the student services provided to community college students. Table 5 outlines transfer college knowledge in different dimensions at different points in a student’s college career. We recommend *community colleges build transfer college knowledge into orientation and first-year student success courses for all students and/or individualized*

advising sessions, since so many community college students are interested in transfer. Ideally, community college faculty would also have some basic professional development in advising for transfer to ensure that students have access to such information across the campus.

University student services. University admissions officers and advisors have an important role in developing transfer college knowledge, since much of what students need to know is directly related to university requirements, expectations, and processes. Unfortunately, community college students and advisors may have limited contact with receiving four-year institutions. In our study, we encountered examples of advisors and/or recruiters who had a predictably available presence on community colleges through maintaining regular office hours on a weekly basis in a dedicated space. More commonly, however, the presence of representatives from destination four-year institutions was limited to transfer fairs or events. *A more substantive and embedded relationship between student services staff at community colleges and four-year institutions is necessary to develop transfer college knowledge* that is aligned with the expectations and structures of four-year institutions.

Overall, developing transfer college knowledge is not intended to be an additional task for secondary and postsecondary counselors, but rather should provide some structure and improve the limited time they already may have with students. Elements of transfer college knowledge could be used as a basis for a checklist or agenda of items to review with high school students interested in attending community college. Similarly, the list could be used with community college students during an orientation session on transfer or during a student success course focused on transfer. Additionally, such tools could be used to structure advising sessions where community college or university advisors check-in with students at the beginning of their first term and later, as students move through their college career and prepare to transfer.

Table 5 Transfer college knowledge—What students need to know and when

Time Frame	Dimension	Transfer College Knowledge
<i>High school or orientation to community college</i>	Major and career exploration	Identification of possible careers Knowledge of how majors relate to career paths Optimal timeline for major and destination institution selection to avoid accumulating excess credits
	System and institutional structures and policies	General understanding of state and system policy context Online transfer resources
<i>First year at community college</i>	Major and career exploration	Identification of major and career pathway If undecided: · Any drawbacks to pursuing general studies/liberal arts degree · Any opportunities to explore multiple majors and avoid accumulating excess credits (e.g., meta-majors)
	System and institutional structures and policies	Colleges/universities offering chosen major · Knowledge of four-year institutional transfer policies/major requirements · Knowledge of institutional transfer resources
	Transfer strategies	Early and regular advising Understanding of how to access and use degree audit system Affiliation with transfer support programs
<i>Second year/prior to transfer</i>	Monitoring progress toward credit milestones	Regular review of one's degree audit and/or progress toward: · General education requirements · Lower-division pre-major requirements
	Transfer preparation	Selection of transfer destination(s) College application process(es) for transfer students Financial aid and scholarship options Communication with transfer destination institution/department
	Transfer strategies	Options for limiting credit loss when major is undecided (or changes): · Availability of general studies or interdisciplinary bachelor's degrees · Identification of transfer-receptive four-year institutions
<i>Post-transfer</i>	Transfer student support structures	Advising resources at the university specifically for transfer students Supports within one's department Transfer centers
	Transfer strategies	Policies and procedures to self-advocate for course/credit transfer

Source: Authors' summary of recommendations.



Improve data systems and conduct research on credit mobility to determine policy effectiveness

In my perfect world, what I would really like a report on, on an individual student basis, I wouldn't need the student names, but I would like to know, okay, the student left the two-year institution with this many credits and when they transferred to the next institution how many credits did they get, so I could compare the two numbers. I would predict right now that there's a very close to one-to-one match, but I'd like some assurance of that. And I don't have that right now.

—Georgia system official

As noted by the Georgia system official, system-level and college staff members do not know the number of credits that transfer students lose outright, are able to apply to their degree, or count as electives. Better systems that link community college and university data across a state or higher education system are needed to address questions of credit mobility. State-specific data monitoring could also be used to define the pervasiveness of credit loss and identify if the problem is concentrated among specific institutions or programs. **We recommend states pursue a robust research agenda that examines credit mobility and credit loss.** Specific questions states might pursue include the following:

- Within a state, how many credits are transfer students bringing with them to university and how many of those apply to their majors?
- How do average credits transferred and applied to a major vary based on where students are transferring from/to?
- How do average credits transferred and applied to a major vary based on degree program?
- How do average credits transferred and applied to a major vary based on students' socioeconomic status, whether they are first-generation college students, and other characteristics that might illuminate equity gaps in the problem of credit loss?

Additionally, institutional or external researchers could use linked data from community colleges and universities across different states to address questions of policy effectiveness. Across states and systems that recently implemented new systemwide transfer pathways (i.e., California, New York, and Tennessee), one or more respondents suggested that the state and/or system policies were too new to have yielded sufficient longitudinal data to evaluate the policies. New policies under all three transfer policy approaches also seek to address many of the challenges related to student uncertainty by helping students choose a path or allowing undecided students to explore multiple fields without losing credits. **We recommend that future regional and national research consider quasi-experimental research designs to exploit policy variation across time and identify the effect of transfer policies on bachelor's degree completion.** Such research might explore the following questions:

- What are the differences in credit mobility and completion outcomes under 2+2, credit equivalency, and institution-driven systems?
- To what extent do policies that require community college students to select a major by 30 credits improve eventual transfer and bachelor's degree completion outcomes?
 - How does the magnitude of the effect of institutional policy supports, such as early major selection, compare to the effect of state transfer and articulation policies on degree completion?
 - How does the effect of early major selection vary across states and systems with different transfer policies?
- To what extent do guided meta-major transfer policies improve eventual transfer and bachelor's degree completion outcomes?
 - How does the effect of guided meta-major transfer policies compare to the effect of traditional transfer pathway policies?

Finally, continued qualitative research may also help in understanding the mechanisms underlying the effect of policy on student outcomes. Data from this study suggest that individual faculty members and advisors sometimes serve as policy brokers. More research is needed to understand how local-level interpretation of state- and system-level policies impacts transfer credit mobility.



Conclusion

A recent direction for community colleges seeking to better support student success is developing guided pathways (Bailey et al., 2015). Under a guided pathways model, community colleges provide students with more guidance and structure through intake processes and career counseling that encourage and help students select a major and career path, offer clearer curricular maps for majors or fields of interest, and give ongoing student supports. Based on what we observed across the states and systems in our study, community college students interested in transfer would benefit from guided transfer pathways. In particular, **guided meta-major or interdisciplinary program pathways** may support students who are undecided about their major and future career pursuits.

In addition to guided pathways, potential transfer students would benefit greatly from more intentional efforts to develop their **transfer college knowledge** starting in high school and continuing throughout their time at community college. Reviewing the elements of transfer college knowledge could help structure the content of orientation sessions, student success courses, and check-ins with community college and university advisors.

Our study highlights the complexities of navigating transfer for students, advisors, and other institutional actors across a broad range of systems, even those with long-standing or recently adopted systemwide transfer pathways. **State-level and system-level transfer policy reforms must be continuously evaluated**, to better understand both the complexities of implementation and the extent to which the policies are achieving their intended goals. The next step for research is to begin to understand at a more systematic level the impact of recent developments in transfer policies on students' credit mobility and bachelor's degree completion. Continuing to highlight effective ways to ensure transfer students do not lose the credits they earned or accumulate excess elective credits is essential to supporting the degree completion of millions of community college students each year, many of whom are the first in their families to go to college and who seek an affordable path to a bachelor's degree and, ultimately, a gainful career.

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Appendix A

Data collection

Context for the 10 states in study

The states in this study—California, Florida, Georgia, Kentucky, New York, North Carolina, Ohio, Tennessee, Texas, and Washington—are diverse in terms of geography and higher education systems (Table A1).

Table A1 Number of public four- and two-year colleges and governance structure in 10 states

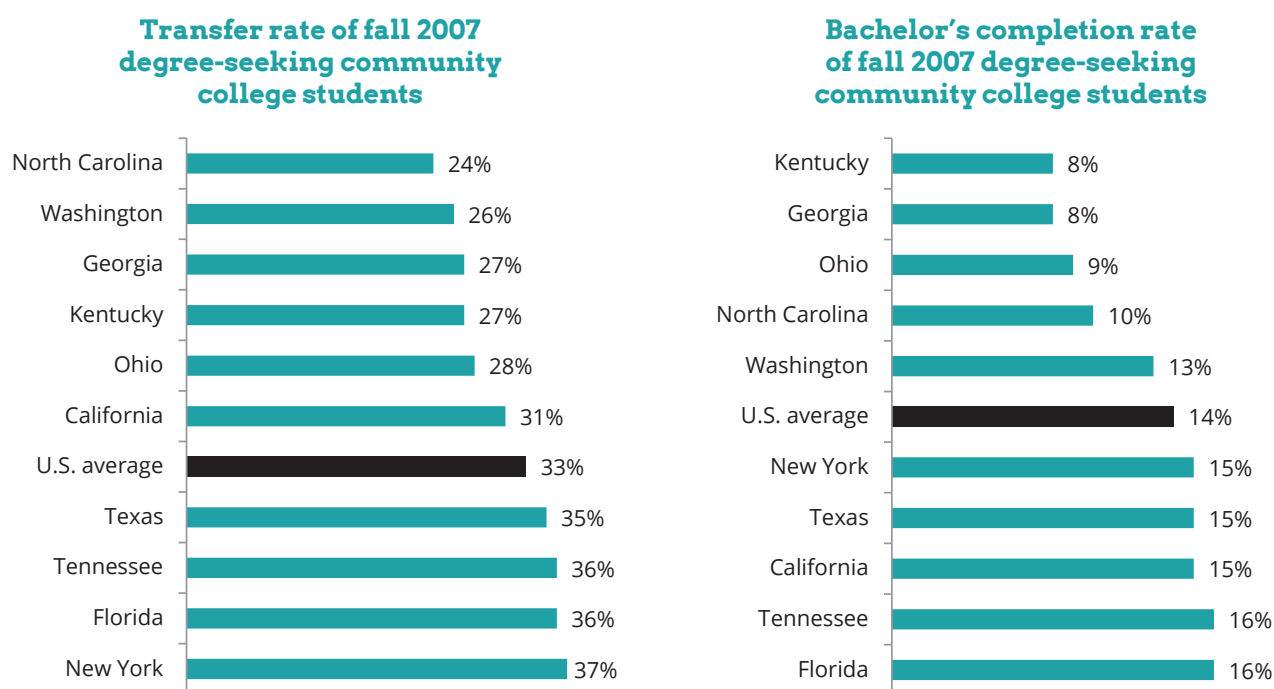
State	Four-Year Colleges	Two-Year Colleges	Systems
California	33	113	CA community colleges (no system); University of California; California State University
Florida	35	40	Florida College System; State University System of Florida
Georgia	30	32	University System of Georgia; Technical College System of Georgia
Kentucky	8	16	Kentucky Community & Technical College System; Kentucky universities (no system)
New York	45	37	City University of New York; State University of New York
North Carolina	16	60	NC Community College System; University of North Carolina
Ohio	36	34	Ohio Department of Higher Education (formerly known as Ohio Board of Regents)
Tennessee	9	39	Tennessee Board of Regents; University of Tennessee
Texas	45	63	Texas community colleges (no system); Texas State Technical College System; University of Houston System; University of North Texas System; University of Texas System; Texas State University System; Texas A&M University System; Texas Tech University System
Washington	17	26	Washington State Board for Community & Technical Colleges; Washington universities (no system)

Source: Authors' policy reviews.

Turning to transfer outcomes in the states in this study, an analysis of National Student Clearinghouse data finds that between 24 to 37 percent of degree-seeking students who entered community college in fall 2007 in the 10 states transferred to a four-year institution (Figure A1). New York, Florida, Tennessee, and Texas have the highest proportion of degree-seeking community college students transferring to a four-year institution, and these rates are above the national average of 33 percent of community college students transferring. The rate at which degree-seeking community college students earn a bachelor's degree ranges from 8 to 16 percent across the 10 states.

We do not discuss these outcomes in relation to our findings since many of the states in our study have undergone changes in transfer policy in recent years. We illustrate these outcomes to provide some context on the states and show that all transfer rates are well below the proportion of students who expect to earn a bachelor's degree based on BPS data (see Figure 1), and the degree completion rates hover around the national average from BPS data (see Figure 1).

Figure A1 For degree-seeking community college students in the 10 states, transfer rates range from 24 to 36 percent and bachelor's completion rates range from 8 to 16 percent



Source: Jenkins & Fink (2016).



Phone interview and site visit participants

Table A2 Phone interview and site visit participants

	Higher Education Systems of Participants	Higher Education Institutions of Participants	Number of individuals interviewed		
			System Officials	College Staff	Students
California	California State University University of California	2 community colleges 1 UC four-year 1 CSU four-year 1 private	3	6	0
Florida	State University System of Florida Board of Governors Florida Department of Education	1 community colleges 1 public four-year	4	3	0
Georgia	University System of Georgia Technical College System of Georgia	2 technical colleges	4	3	0
Kentucky	Council of Postsecondary Education Kentucky Community and Technical College System	1 community colleges 3 public four-years	2	7	0
North Carolina	University of North Carolina System North Carolina Community College System	2 community colleges 2 public four-years	2	4	0
New York	City University of New York State University of New York	1 CUNY community college 1 CUNY four-year 1 SUNY community college 1 SUNY four-year	5	9	0
Ohio	Ohio Board of Regents Ohio Association of Community Colleges	1 technical college 3 community colleges 2 public four-years	4	6	0
Tennessee	Tennessee Higher Education Commission Tennessee Board of Regents Tennessee Independent Colleges and University Association	2 community colleges (1 interview, 1 site visit) 4 public four-years (3 interviews, 1 site visit) 1 private	6	13 (6 phone, 7 in-person)	15 (2-year) 9 (4-year)
Texas	Texas Higher Education Coordinating Board Greater Texas Foundation Texas Association of Community Colleges	2 public four-years (1 interview, 1 site visit)	3	14 (1 phone, 13 in-person)	3 (2-year) 11 (4-year)
Washington	Washington Student Achievement Council State Board for Community and Technical Colleges	1 community college 2 public four-years	4	11	18 (2-year) 9 (4-year)
TOTALS	22	39	37	86	65

Note: *Site visit states; some or all interviews conducted in-person. All student focus groups conducted in-person.

Interview topics

Phone interviews

Phone interviews with state and system-level officials focused on the following topics:

- Verification of state or system policies from policy review
- Perspectives on how well transfer policies work to ensure community college students can transfer their credits
- Perspectives on what is missing from state or system policy
- State or system-level efforts to improve transfer policy and practice
- Recommendations for transfer-related research reports and respondents

Phone interviews with college staff focused on the following topics:

- What policy implementation looks like and role of various institutional actors in transfer (advisors, counselors, faculty, administration)
- Perspectives on how well transfer is working to ensure credits transfer and transfer students earn a degree
- Reasons for transfer policies and practice not working well
- Barriers to success for transfer students
- Institutional efforts to address barriers
- Recommendations for transfer-related research reports and respondents



Site visits

In Tennessee, Texas, and Washington, we conducted interviews with college and university administrators overseeing academic affairs, transfer and articulation, student services, and advising, as well as counselors and advisors who worked with students directly.

In all three states, community college participants were intending to transfer to a public university, often the university we visited for the site visit, but they were at various stages of the transfer process. Some were in their first term at community college, while others were in their last. In all three states, all university participants had transferred from community college. About half had transferred from the community college in the site visit, while a quarter had transferred from a community college in the same state. The remaining students had transferred from a community college in another state.

Interviews with college staff touched on many of the same topics as the phone interviews, including:

- Personal role in implementing transfer and interactions with community college students intending to transfer or university transfer students
- Service and resources college provides to transfer students
- Perspectives on how well transfer is working to ensure credits transfer and transfer students earn a degree
- Reasons for transfer policies and practice not working well
- Barriers to success for transfer students
- Institutional efforts to address barriers

Community college student focus groups focused on the following topics:

- Why they want to transfer
- Where they go for information and support about transfer
- When they plan to transfer and why (e.g., before/after completion of general education or associate's degree)
- What is confusing about transfer
- What they are excited and/or nervous about regarding transfer and attending a university
- How they would change the transfer process and advice for transfer students

All university students completed a brief survey prior to the focus group that asked them the name of their origin college(s); class standing (freshman, sophomore, junior, senior) when they transferred; if they earned an associate's degree; how many credits they brought with them to the university; and how many credits were accepted for elective credit, general education, or their major/degree program. University student focus groups focused on the following topics:

- Why they decided to transfer
- Who helped them transfer and the role of technology
- When they transferred and why (e.g., before/after completion of general education or associate's degree)
- What they liked about the transfer process
- What they found challenging about transfer
- Why some of their coursework did not transfer
- How they would change the transfer process and advice for transfer students

Appendix B

Disciplines with systemwide pre-major courses

Table B1 Number of majors with common pre-major courses by discipline as of April 2016

Discipline	CSU Transfer Model Curricula	UC Transfer Pathways	FL Common Pre-requisites	USG Area F Recommen dations	NYCUNY Pathways	NY SUNY Transfer Paths	OH Transfer Assurance Guides	TN Transfer Pathways	TX Fields of Study	WA Major- Related Programs
Agriculture, Agriculture Operations, and Related Sciences	3	0	12	1	0	0	0	3	0	0
Architecture and Related Services	0	0	4	3	0	0	0	0	0	2
Area, Ethnic, Cultural, and Gender studies	1	0	9	0	0	0	0	0	1	0
Biological and Biomedical Sciences	1	3	13	1	1	1	1	1	0	1
Business, Management, Marketing, and Related Support Services	1	1	30	2	1	2	1	6	1	1
Communication, Journalism, and Related Studies	2	1	9	0	0	3	4	2	1	0
Computer and Information Sciences and Related Support Services	1	0	16	3	0	1	0	2	1	0
Education	2	0	39	5	1	6	6	2	0	0
Engineering	0	2	26	1	0	9	5	3	1	1
Engineering Technologies/ Technicians	0	0	9	1	0	0	4	1	1	1
English Language and Literature	1	1	3	1	1	1	1	1	0	0
Family and Consumer Sciences/Human Sciences	0	0	5	5	0	0	0	1	0	0
Foreign Languages, Literatures, and Linguistics	1	0	14	1	0	1	8	1	0	0

Discipline	CSU Transfer Model Curricula	UC Transfer Pathways	FL Common Pre-requisites	USG Area F Recommendations	NYCUNY Pathways	NY SUNY Transfer Paths	OH Transfer Assurance Guides	TN Transfer Pathways	TX Fields of Study	WA Major- Related Programs
Health Professions and Related Clinical Sciences	2	0	32	9	1	4	4	8	1	2
History	1	1	1	1	0	1	1	1	0	0
Legal Professions and Studies	0	0	2	0	0	0	0	0	0	0
Liberal Arts and Sciences, General Studies, and Humanities	0	0	6	1	0	0	0	0	0	0
Mathematics and Statistics	1	1	5	1	0	1	2	1	0	1
Multi/Interdisciplinary Studies	1	0	22	0	0	1	0	1	0	1
Natural Resources and Conservation	0	0	9	0	0	2	2	0	0	0
Parks, Recreation, Leisure and Fitness Studies	1	0	13	1	0	1	0	3	0	0
Philosophy and Religious Studies	1	1	4	1	0	0	1	1	0	0
Physical Sciences	3	3	14	4	0	3	3	3	0	0
Psychology	2	1	3	1	1	1	1	1	0	0
Public Administration and Social Services Professions	0	0	4	1	0	1	1	1	0	0
Security and Protective Services	1	0	7	1	1	1	2	1	1	0
Social Sciences	5	4	11	5	3	5	5	5	0	0
Visual and Performing Arts	5	1	25	4	0	4	4	3	1	0
Total	36	21	347	54	10	49	56	52	9	10

Source: Authors' policy review.

Appendix C

Examples of credit loss from students

Table C1 Focus group participants' stories of credit loss, by reason for credit loss

Reason	Example Quote
<i>Student uncertainty</i>	
Switched majors	I was following pathways but then changed my major twice while I was in community college because I still wasn't sure what I wanted to do. So once I decided upon economics, it was either I could hang around an extra semester and I would have, I guess, completed all the courses that would have allowed me to complete like the Pathway program to transfer in to the business college. But instead I wanted to go ahead and graduate, you know, on time, so to speak, and so my degree is in – I think it's called like University Studies. It's just a general Associates degree. And so when I transferred in, I had completed 69 hours of community college, but I had 58 when I came here, so I was still classified as a sophomore even though I had my Associate. (TN)
Student completed core curriculum or degree, but courses not specific to major	Like I have to take a literature, but philosophy counted as a literature at the community college. So they kind of nitpicked the courses. I thought I was going to be core complete because I had the certificate from community college with a Liberal Arts Degree. But then I came here, and then they say, like, they're not for your major; and that's how they take away your credits. (TX)
<i>Issues with advising</i>	
Advisor told them wrong courses for major/institution	The person who advised me, advised me wrong. So like the paper I had wasn't even for the current degree plan for nutrition. And then they didn't take my chemistry class. And then the histories I had taken, they were two different histories, but they counted it as one. So then I had to write a paper to whoever is head of the history courses. And then she re-audited, and I got back credit, but they didn't take my chemistry. And they had me as a sophomore even though I completed the degree. (TX)
Self-advised, used online resources, and took wrong courses for major	I tried doing it on my own, just like him, but I tried using the audit tool, and it's just a pool of classes, and you have all these classes, and then there's asterisks and double asterisks and, "This may apply to this. This may apply to that. Only half credits may be applied to..." whatever, so it was like doing math, except it's not fun. (WA)
<i>Other</i>	
Took too many electives at community college	I lost two credits, but it was a guitar class. It wasn't anything. (TN)
Lateral transfer (four-year to four-year)	One of the biggest issues so far is that there isn't a standardized, one-on-one type class. English 101 varies from college to college to college; so, for example, I'm dealing with right now that not all of my GERs, which I had completed in full at [University A], may not transfer over to [University B]. I might have to sit through classes like English 101 again, you know, "C is for cat and D is for dog." I don't want to sit through those classes as a junior. (WA)
University did not accept courses as equivalent (unknown reason)	Mine wasn't so smooth sailing. They didn't like my credits from [Community College]. So they have them as elective credits. So even though I've done electives, they are requiring that I do more electives, which is really unfortunate because it's more money. (TX)

Source: Authors' data analysis



Appendix D

State studies and reports on transfer student outcomes

California

California Legislative Analyst Office-Reforming Transfer from CCC to CSU (2015). Reports on progress made since 2010 enactment of Student Transfer Achievement Reform Act and indicates that the 33 Transfer Model Curricula (TMC) cover approximately 80 percent of community college to CSU transfer students. Not all community colleges are offering the required Associate Degrees for Transfer. Most CSUs are accepting the associate degrees for transfer and honoring the 60-unit guarantee in at least one concentration within each related major, but some campuses and majors are lagging behind. With the exception of the Chico, Long Beach, and East Bay campuses, there was one or more major that did not offer a 60-unit guarantee for one or more of the TMCs. Data on student outcomes are too preliminary for drawing conclusions about the impact of the policy. The report notes that current CSU data management practices do not permit the university to accurately measure credit accrual. <http://www.lao.ca.gov/reports/2015/edu/reforming-transfer/reforming-transfer-020215.pdf>

Campaign for College Opportunity, Meeting Compliance, Missing the Mark (2012). Report examines implementation of Senate Bill 1440, the Student Transfer Achievement Reform Act. Report is intended to complement the Legislative Analyst's Office (LAO) reports. Data indicate 24 Transfer Model Curricula had been finalized, but only initial 18 were included in report. Across the community college system, 501-TMC-aligned Associate Degrees for Transfer had been developed and 108 were in progress, with an average of five per campus. Eighteen of the 112 community colleges had developed 9 to 18 TMC-aligned Associate Degrees for Transfer. Some had only two, the minimum required for compliance. Among the CSUs, analysis showed only 4 of the 23 campuses had approved 100 percent of the TMC majors offered as similar. Rigid TMC requirements, budget cuts, low motivation, and lack of awareness were cited as implementation challenges. http://icas-ca.org/Websites/icasca/images/5_Meeting_Compliance_Missing_the_Mark_Full_Report_FINALfinal.pdf

Public Policy Institute of California, From Community College to University: Expectations for California's New Transfer Degrees (2014). Report examines community college and CSU system progress in meeting the goals of the legislation since 2012 reviews. It remains unclear to what extent the reform will reduce the number of college credits. Report finds awareness of the new degrees is low, and the CSU has limited capacity to accommodate additional students if transfer increases as intended by the policy. Moderate positive correlation ($r = .36$) found between the number of transfer degrees adopted by community colleges and the magnitude of its transfer mission. http://www.ppic.org/content/pubs/report/R_314CMR.pdf

University of California, Accountability Report (2015). Chapter 3, "Undergraduate Student Success" reports transfer graduation rates and transfer retention rates. The two-year graduation rate for transfers is currently at 55 percent. The four-year rate is 87 percent, compared to 84 percent for the six-year freshman graduation rate. For transfers, there is a slight improvement in first-year retention. The retention rates across UC campuses appear to range from 90 to 96 percent. <http://accountability.universityofcalifornia.edu/2015/chapters/chapter-3.html>

Florida

Florida Board of Governors System Accountability Report, 2013-14 (revised March 2015). Provides graduation rates for transfer students with AA degrees (68 percent systemwide within four years). Reports

the percentage of 2013/14 bachelor's degrees awarded without excess hours, and disaggregated by first time in college students (61 percent), transfers with AA degrees (76 percent), and other transfer students (71 percent). The report notes that the Florida legislature established a surcharge for excess credit hours in 2009 to discourage the accrual of excess credits, and that excess hours are one of the metrics in the performance-based funding model. The report also provides detailed data on the distribution of baccalaureate graduates by how many credit hours they earned during their programs of study (i.e., less than 120, 120, 120–132, 132–140, 140–150, more than 150). http://www.flbog.edu/about/doc/budget/ar_2013-14/2013_14_System_Accountability_Report_Summary_REVISED_FINAL.pdf

Georgia

Georgia Transfer Reports. Provides annual reports on the flows of transfer students, including the number of credit hours reported by the sending and receiving institutions. Among students transferring from two-year state colleges sending institutions reported students had an average GPA of 2.81 and 46 credits, while receiving institutions reported an average of 56 credit hours (p. 40). http://www.usg.edu/research/documents/transfer_reports/SRPT_200_fy2014_PDF_version.pdf

Kentucky

Kentucky Transfer Student Feedback Reports (2012–2013). Listed as “coming soon” on the Kentucky Council on Postsecondary Education website: <http://cpe.ky.gov/info/transfer/default.htm>

Kentucky Council on Postsecondary Education “The Transfer Pipeline” report (2008). Primarily reports the number of transfer students to and from colleges and universities within the state between 2003 and 2007. Data from the 2005/06 academic year show that 60.3 percent of transfer students with an associate's degree graduated within four years of transferring, compared to 53.2 percent of transfer students with more than 60 hours (no degree) and 32.5 percent of transfer students with fewer than 60 hours (p. 4). The report provides some data on credit mobility; among the 547 transfer students in 2005/06, 90 to 93 percent of their credits were accepted on average, with slight variation between those who did and did not have associate's degrees. Among students who earned a bachelor's degree in 2006/07, transfer students accrued a total of 143.7 to 146.7 credits, compared to the 137.7 credit average among students who began at the university. <http://cpe.ky.gov/NR/rdonlyres/E4B94D2C-6181-4F1B-A3C0-C953D71C0613/0/TransferPolicyBriefFINAL93008.pdf>

Kentucky Council on Postsecondary Education, “Kentucky Community and Technical College Student Survey (2010). Provides data from a survey of 5,395 currently enrolled students' transfer intentions and perceptions of barriers to transfer. Survey yielded 4,552 responses, 84 percent response rate. Credential sought includes AA/AS (36 percent), AAS/AAT (26 percent), diploma (10 percent), certificate (8 percent), undecided (18 percent), none (7 percent), and bachelor's degree or higher (7 percent). Fifty-one percent of students planned to transfer. A third of students had not received any transfer information. The survey asked how many credit hours did not transfer as credits toward the student's degree. No students said “none,” but only 37 percent said “all transferred.” For the remaining students, the responses were “more than 12 credits” (21 percent), “7–12 credits” (9 percent), “1–6 credits” (16 percent), and “not sure” (17 percent). The reasons for credits not transferring were sometimes “legitimate” (i.e., developmental or applied technical, or not required by new major). Forty-four percent of students indicated they received erroneous information from an advisor. http://cpe.ky.gov/NR/rdonlyres/2C72E009-28DF-49BF-A122-580F214F67EB/0/2010KentuckyCommunityandTechnicalCollegeStudentSurvey_SUMMARY.pdf

North Carolina

The University of North Carolina Transfer Student Report (2014). Reports on the number of entering transfer students, transfer student demographics, and graduation rates. The transfer student graduation



rate was 70 percent, compared to 84 percent among non-transfer students. Among entering juniors who declared a major, the graduation rate was 72 percent, compared to 64 percent among those entering undeclared. https://www.northcarolina.edu/sites/default/files/item_7_-_unc_transfer_student_report-6.pdf

Ohio

Ohio Board of Regents, “Transfers in the University System of Ohio: State Initiatives and Outcomes, 2002–2009.” Reports on trends in the volume, direction, and outcome of transfer movements in the University System of Ohio, finding transfer volume has been increasing (almost 40,000 students per year), along with the accumulation of credit prior to transferring. Between 2007 and 2009, the average number of hours earned in TAG approved courses increased from 4.9 to 7.0 (out of 19.5 and 19.6 total credit hours respectively). Out of students with a declared major, 73.3 percent (339,071) had selected a TAG-approved major or nursing, which was covered by bilateral 2+2 agreements. The six-year graduation rate among full-time transfer students was 63.8 percent for the 2006 cohort. <http://regents.ohio.gov/transfer/research/transfer-students-in-uso.pdf>

Tennessee

Tennessee Higher Education Commission. (2015). Commission produces an annual report detailing statewide transfer activity, including trends, demographics, and enrollment status information. Among public sector transfers, the majority (73.3 percent) are vertical. Transfer from community colleges to public universities accounted for 47 percent of new transfer activity. Over half (55 percent) of transfer students majored in Liberal Arts and Sciences, Health Professions and Related Services, and Business, Management, and Administrative Services. Among the other 25 fields of study, “undeclared” was the most prevalent major. More than 31 percent of students transferred with more than 60 credit hours. Only 7.5 percent of students transferred with an associate’s degree, and 23.7 percent of students transferred with 60 credits or more and no degree. Among 2013/14 baccalaureate completers, 29.4 percent had attended a Tennessee community college. https://www.tn.gov/assets/entities/thec/attachments/Articulation_Transfer_Report_2015.pdf

Tennessee Boosting Transfer Student Success (2012). Commission examined the effects of completing the general education core prior to transfer on transfer student outcomes, 2006 to 2011, comparing data from five Tennessee Board of Regents universities on 18,500 students from three transfer cohorts. The study found a large and statistically significant effect on probability of graduation, time to degree, and college GPA. The greatest impacts were found for students who completed the math and communications clusters. http://www.tn.gov/assets/entities/thec/attachments/LM2012_Boosting_Transfer_Student_Success.pdf

Texas

Policy Brief: Texas Would Benefit by Improving Its Community College to Bachelor’s Transfer System (2013). Community College Research Center policy brief presents findings from national research on baccalaureate transfer by community college students and data from five Texas community colleges or systems participating in the Completion by Design Initiative.

Report finds that 81 percent of Texas community college students in the study enrolled in transfer programs, and only 20 percent transferred. Among transfer students, most transferred without having earned an associate degree (95 percent of liberal arts and 87 percent of business students). Fewer than 1 in 10 community college transfer students completed the general education core. Among transfer students, 20 percent of liberal arts students and 14 percent of business students earned a bachelor’s degree within five years. http://www.edtx.org/uploads/general/EDTX_CCRTPolicyBrief.pdf

Texas Higher Education Coordinating Board-Texas General Academic Institutions: Increasing Successful Community College Transfer (2014). Report to legislature tracked public university students who became juniors in fall 2009 through spring 2013, across 38 public universities. Provides comparisons of native students and transfer students from a community college or other university, finding 66 percent of transfer students (from anywhere) who achieved junior-year status graduated within four years (compared to 84 percent of native students).

Washington

Washington Student Achievement Council 2015 Transfer Report. Provides annual update on several transfer indicators: 1) intent to transfer, 2) completion of transfer degrees and Major-Related Programs (MRPs), successful vertical transfer, and completion data for the public four-year institutions. The report does not indicate what proportion of students who intended to transfer completed a transfer degree, MRP, or successfully transferred. The report notes that the number of successful vertical transfer students (20,105) exceeds the number of transfer degrees (2,293). Among degree completers, transfer students had about four more total credits than native students. The three-year graduation rate among transfer students classified as a Direct Transfer Agreement or Associate in Science Transfer (DTA/AST) was 71 percent, and 63.5 percent among those without the DTA/AST. <http://www.wsac.wa.gov/sites/default/files/2015.TransferReport.pdf>



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