



**PPIC**

PUBLIC POLICY  
INSTITUTE OF CALIFORNIA

SEPTEMBER 2020

Hans Johnson and  
Marisol Cuellar Mejia  
with research support from  
Sergio Sanchez

*Supported with funding  
from the College Futures  
Foundation, the Bill and  
Melinda Gates Foundation,  
the Evelyn and Walter  
Haas Jr. Foundation, and  
the Sutton Family Fund.*

# Increasing Community College Transfers

## Progress and Barriers



© 2020 Public Policy Institute of California

PPIC is a public charity. It does not take or support positions on any ballot measures or on any local, state, or federal legislation, nor does it endorse, support, or oppose any political parties or candidates for public office.

Short sections of text, not to exceed three paragraphs, may be quoted without written permission provided that full attribution is given to the source.

Research publications reflect the views of the authors and do not necessarily reflect the views of our funders or of the staff, officers, advisory councils, or board of directors of the Public Policy Institute of California.

## SUMMARY

### CONTENTS

The Current Landscape in Transfers	7
Student Milestones on the Path towards Transfer	18
Recent Reforms May Boost Transfers	23
Looking Ahead	26
References	29
About the Authors	31
Acknowledgments	31

Technical appendices to this report are available on the PPIC website.

California enrolls a much larger share of students in community college than other states; ensuring more of these students transfer to four-year institutions can strengthen the economic security of California workers. This transfer role is especially important for low-income students, first-generation college students, and students from underrepresented groups, all of whom are more likely to start their higher education journey in a community college. As Californians face financial disruptions from the COVID-19 crisis, more students may choose a transfer path through community colleges to defray the costs of higher education. Transfers open the door to bachelor's degrees for a more diverse population of students and ensure higher education still serves as a ladder for economic mobility.

The community college system is directing attention and resources at improving student pathways through community college and into four-year colleges. This study examines trends in transfer, describes current reforms, and sheds light on what can be expected if recent reforms prove successful.

Specifically, we find:

- A large gap exists between the number of students who hope to transfer and those who do: 19 percent of students with a stated transfer goal do so within four years; 28 percent do so within six years.
- Transfer rates are higher among students who successfully complete 12 units and take any English or math course within their first three years: 26 percent transfer within four years and 39 percent within six.
- Many students transfer without completing a full lower-division course load. Slightly over half of students who transfer earn enough transferable units that would grant them junior status.
- Equity gaps are a big concern. While Latino students represent 51 percent of students who declare a degree/transfer goal, they represent 35 percent of those who transfer within four years; African American students represent 7 and 5 percent, respectively.
- Transfer rates are higher for students who successfully complete gateway transfer-level math (51 percent within four years) or accumulate 30 or more transferable units (73 percent) in their first year, and for those who earn an Associate Degree for Transfer (50 percent).
- Recent reforms have made it possible for more students to successfully complete gateway math and English courses in their first year.

Reforms that eliminate pre-requisite remediation courses—along with other reforms—can help more community college students make tangible progress along the transfer path, potentially raising the number of transfer-eligible students by more than 50 percent. To further improve the transfer pathway, the California Community Colleges (CCC) and four-year institutions must build systemwide agreements and help all transfer-eligible students make the transition. The Associate Degree to Transfer (ADT) and Transfer Admission Guarantee (TAG) are steps in the right direction, but they are piecemeal and far from universal.

Governor Newsom and the legislature reached a budget deal in June that avoids immediate cuts to K–12 education and the community college system. However, the University of California (UC) and the California State University (CSU) might face significant revenue losses unless additional federal or state support materializes. This could impact the ability of these institutions to enroll an increasing number of transfer students. To advance the economic well-being of all Californians, the state and higher education institutions must work together to ensure that more students can attain a bachelor’s degree—and all the benefits that it brings—if they choose the transfer path.

# Introduction

For higher education to serve as a ladder for economic mobility in California, community colleges must play a central role. Community colleges enroll more students than all other colleges in California combined, and they are the primary access point for low-income, first-generation, and other historically underrepresented students seeking a college degree, including African American and Latino students.

In theory, it is cost-effective for both the state and the student when students complete lower-division work at a community college and then transfer to a four-year university. Tuition at community colleges is much lower than at the state's four-year colleges and universities, and state subsidies tend to be higher for students at four-year colleges than at community colleges. In practice, this cost advantage drops as students take longer to transfer, and it is lost completely if they do not transfer at all. About 19 percent of students who hope to transfer from community college to a four-year institution successfully do so within four years; 28 percent transfer within six years. Many students transfer without completing a full lower-division course load.

The good news is that most students earn a bachelor's degree after transferring to California public institutions: 89 percent of transfer students graduate within four years at UC and 73 percent at CSU. Improving transfer rates could boost the supply of college graduates, helping to meet economic demand and enhance the well-being of all Californians (Johnson, Bohn, and Cuellar Mejia 2015; Johnson, Cuellar Mejia, and Bohn 2018). Because community colleges reflect the full diversity of the state's population, improving outcomes for community college students will go a long way towards improving economic and social mobility.

In the system's *Vision for Success*, the California Community Colleges set an ambitious goal of increasing the number of transfers to University of California (UC) and California State University (CSU) by 35 percent over five years. Numerous reforms are underway to help meet this goal. In particular, new reforms in developmental education, enacted systemwide in fall 2019, mean that thousands more students will complete gateway transfer-level courses in English and math.<sup>1</sup> Other reforms, such as Guided Pathways and the Associate Degree for Transfer (ADT), are meant to ensure more students persist beyond these courses to reach their educational goals.

The ADT has been a key component of the strategy to boost transfers since 2011. ADT creates clear course pathways in certain majors and guarantees admission into junior standing in those majors at certain institutions. Meanwhile, the Guided Pathways model provides a set of clear course-taking patterns and support services to help students reach their educational goals.

Although the focus of this report is on community colleges, transfers are a two-way street. UC, CSU, and the state's private nonprofit colleges also have a role to play to make the transfer process less onerous for students.

In the last few years, a number of important reports have addressed the complexities of community transfers. In its 2017 study “*The Transfer Maze*,” the Campaign for College Opportunity concluded:

*Despite major reforms in the last several years, transfer to the UC and the CSU remains complicated by factors that are, as students have described, bureaucratic, inconsistent, and confusing. Students are forced to piece together an education plan with inconsistent requirements demanded by the different systems, schools, and departments. Students attending certain campuses may not have access to specifically required courses for their major because their colleges do not offer them or because they cannot fit the limited course offerings into their schedules.*

---

<sup>1</sup> Many students can satisfy the lower-division math requirement by completing a transfer-level course in statistics or quantitative reasoning. Throughout this report, any reference to transfer math includes those courses as well.

In its report, *Through the Gate*, the RP Group identified the tremendous potential to increase transfer. The study found tens of thousands of students who were stuck either “near” or “at” the transfer gate, having completed at least 60 transferable units (RP Group 2017). Building on this initial analysis, the RP Group further explored characteristics and regional factors related to transfer (RP Group 2019a). Recently, they released qualitative research with students who are close to transfer to understand what factors impacted their journey, and how policy and practice might change to propel them through the transfer gate (RP Group 2020).

While the RP Group focuses on the group of students near the transfer gate, in this report we focus on entire cohorts of students who have either identified a transfer goal or shown course-taking associated with transfer intent. We highlight more recent cohorts in hopes of capturing the system’s current efforts to improve completion. For the most part, our results are consistent with previous research—huge numbers of students fail to achieve their academic goals—and our results confirm the importance of achieving key momentum points early in student journeys. Perhaps the main contribution of this report is to shine light on the impact current efforts may have on significantly increasing the number of students eligible to transfer.

We start by discussing the large gap between the number of community college students seeking to earn a degree or transfer and the number of students who actually accomplish this goal, as well as the large racial/ethnic gaps in transfer rates. We then review recent trends in transfers as reported by receiving institutions. Next, we examine key academic milestones that correlate with a higher likelihood of transferring. Then, we examine recent reforms the community college system has implemented and discuss their potential to increase the number of transfer-eligible students. We conclude by summarizing recommendations for colleges to consider as they move forward with efforts to improve student transfers.

## How will the pandemic affect transfer?

For California's community colleges, the COVID-19 pandemic led to almost all courses for the 2020 spring and summer terms being moved online. Student supports, including academic counseling and tutoring, have also moved to online and remote settings. It is too early to know how this disruption will affect student progress.

For some students, limited access to the technology required for online courses is a barrier. For others, the online setting is not conducive to learning. Students need to be highly organized and supported to succeed online. With less faculty interaction and fewer student supports, fewer students may persist through to the end of the term and successfully complete their courses. The number of students moving forward along the pathway to transfer may plummet. A survey by Education Trust West found that 75 percent of California students are worried about staying on track due to the virus.

The disruption will continue into the fall 2020 term and perhaps beyond. Prior to the pandemic, community colleges had made great progress in implementing systemwide reforms, including those associated with developmental (remedial) education. After students stop out, though, returning to college is a challenge. At the same time, demand for community college courses is likely to increase as unemployed workers seek to improve their education or vocational training.

The pandemic-induced recession has also led to a decline in state revenues and hence a likely decline in funding. The current version of the budget includes substantial cuts for UC and CSU, the primary recipients of transfer students from the community colleges. It remains to be seen whether federal emergency funds can backfill some or all of the state reductions. If not, capacity constraints at UC and CSU could reduce transfer admissions.

Looking forward, for students to regain momentum, colleges must reach out to and attempt to re-enroll them. Colleges will need to establish new individualized plans to help students reach academic and career goals and to help students with limited technological resources. Making this concerted effort might be a challenge under pandemic-induced revenue losses, but without it, many students could fall off the path towards transfer.

## The Current Landscape in Transfers

Most students enter community college hoping to transfer to a four-year institution, but most do not do so. Latino and African American students are even less likely to transfer than others. Students who do transfer may take notably different paths: some transfer after earning a few credits while others are able to reach junior standing.

Increasing the number of students who transfer with junior status demands commitment on both ends. That is, community colleges and four-year colleges must work together to eliminate institutional barriers that keep students from becoming transfer eligible or from enrolling in a four-year college. Although the number of transfer enrollees is rising at both UC and CSU, these receiving institutions face capacity constraints that range from physical space to operating funds to staffing.

### A note about our data

Using longitudinal student-level data from the California Community Colleges Chancellor's Office, we identify students who enrolled at a community college as their first higher education institution. Cohorts are determined by the term when students first enrolled in a credit course. We track these students from their initial enrollment through different windows of time to determine a successful transfer outcome and to describe their journey while attending a California community college. We gathered and studied information for cohorts through fall 2019.

The focus of this report is not on the total number of students who transfer in a given academic year. Instead it describes the number of students from a given cohort of first-time community college students who transferred within a given period.

In this report, a student from a given cohort is counted as a transfer if he/she enrolled in a four-year institution at any time within four years of initial enrollment (or other specified time frame) and did not enroll again at a community college in the subsequent year after enrolling at the four-year institution.

To determine transfer rates, we compare the number of transfers relative to the number of students who declared a degree/transfer goal or we compare the number of transfers relative to the number of students who showed early course-taking consistent with transfer by earning at least 12 units (transferable or not) and enrolled in any math or English course (including remedial courses).

[Technical Appendix A](#) provides more detailed information on our data and methods.

## The Sending Side of Community College Transfer

Although students enroll in community colleges for many reasons, transferring to a four-year institution is the leading reason. Among students who start their higher education journey at a California community college, more than three out of four declare a degree/transfer goal. Regrettably, a fraction of these students end up transferring.

Calculating transfer rates can be complex, especially in determining the right denominator to use. Using all first-time students is problematic because community colleges serve many missions. Some students enroll for workforce training or lifelong learning. Using students who declare a degree/transfer goal is a better measure; except about 14 percent of students who transfer do not state a degree/transfer goal. In addition, about 12 percent of students with a transfer goal leave after only one term. A better denominator may be students who show early course-taking consistent with transfer. In this study, a student shows early course-taking consistent with transfer

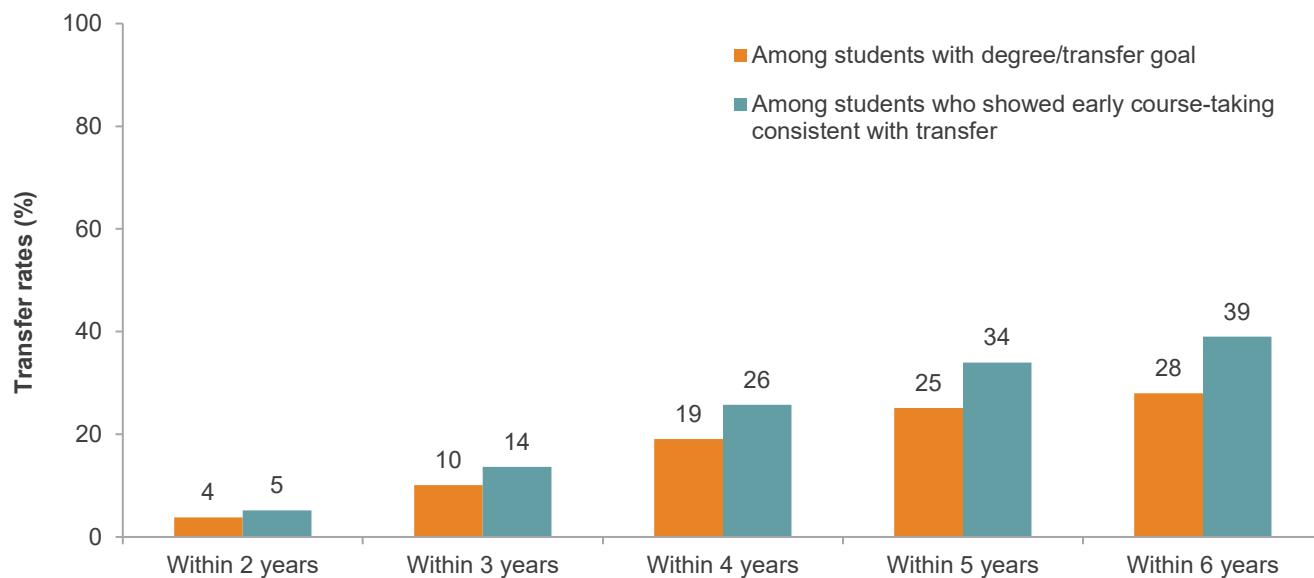
when he or she has earned 12 units and enrolled in at least one English or math course (including remedial courses) during their first three years of enrollment.<sup>2</sup>

Figure 1 shows transfer rates using both denominators—transfer goal and early course-taking—over different windows of time. Four years after initial enrollment, only 19 percent of students who declared a degree/transfer goal transferred to a four-year university. The transfer rate goes up to 26 percent if we restrict the denominator to include only students who showed early course-taking consistent with transfer.

Most students who transfer do so within four years of initial enrollment. But many students take longer. About 28 percent of students who declared a degree/transfer goal transferred within six years; the transfer rate goes up to 39 percent among students who showed early course-taking consistent with transfer.

### FIGURE 1

By either measure, transfer goal or course-taking, transfer rates are low even after 6 years.



SOURCE: Authors' calculations based on MIS data.

NOTE: Transfer rates are calculated by dividing the number of students from the 2014–15 cohort who transferred by one of the two denominators in the figure legend. We have five years of data for this particular cohort, so transfer rates within six years are estimated using the 2013–14 cohort. Information on informed goal is not available prior to 2014–15. More details in [Technical Appendix A](#).

### Not all transfers are the same

The California Master Plan for Higher Education charged community colleges with providing lower-division (freshman and sophomore) courses that would allow students to transfer to the state's four-year colleges and universities as juniors, among other missions. However, not all students who transfer from a community college to a four-year institution follow a transfer path consistent with this intent.

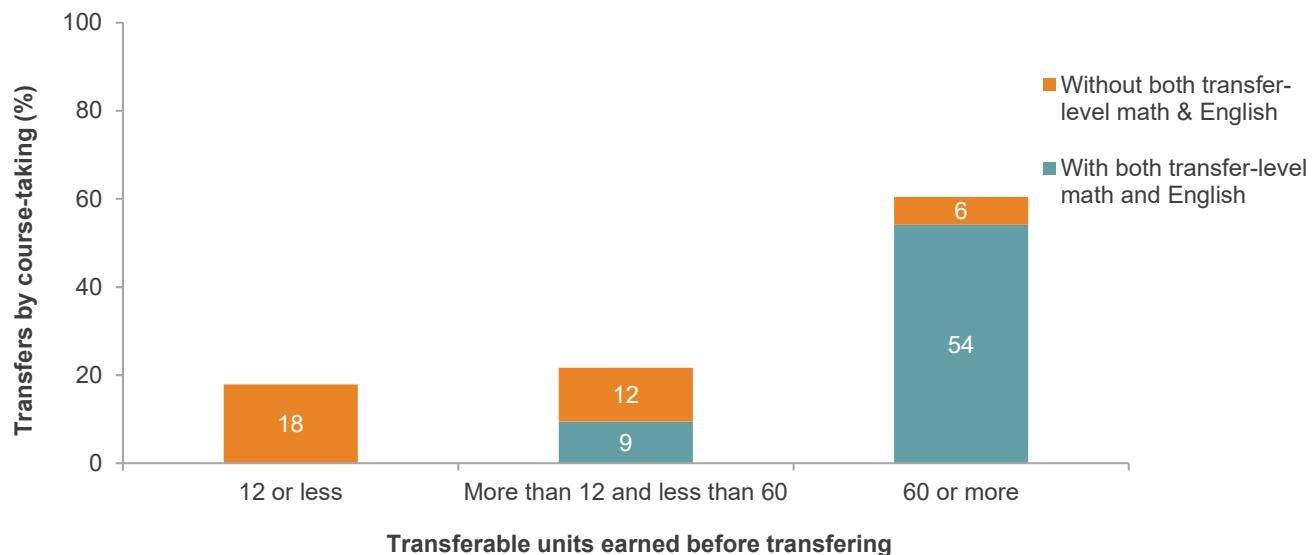
<sup>2</sup> This definition differs from the one used by the Chancellor's Office in their Transfer Velocity tool. According to their methodology, a student is considered to have shown "behavioral intent to transfer" if by six years after initial enrollment, the student has completed 12 credit units and attempted transfer-level math or English. We moved away from this definition because we believe that it excludes all students who were trapped in remedial education and never made it to a transfer-level math or English course.

A total of 41,000 students from the 2014–15 cohort transferred to a four-year institution within four years of initial enrollment. About 82 percent of these students showed early course-taking consistent with transfer, and 86 percent had declared a degree/transfer goal. Slightly over half of students who transferred had earned at least 60 transferable units, including at least one transfer-level math and English course, which in most cases granted them junior standing and the opportunity to attain a bachelor’s degree in two years. At the other end of the spectrum, 18 percent of students transferred after earning no more than 12 transferable units, and 36 percent did so without successfully completing a transfer-level math and English course (Figure 2).

Among the students who earned 60 transferable units with transfer-level math and English, six out of ten went to a CSU campus. Slightly more than a quarter went to UC (Figure 3). It is worth mentioning that students who transfer to the state’s public universities are very likely to graduate.<sup>3</sup> Meanwhile, among students who transferred with 12 units or less, 43 percent went to an out-of-state institution (many of them to private for-profit online colleges).

## FIGURE 2

Over a third of students transfer without first successfully completing math and English gateway courses



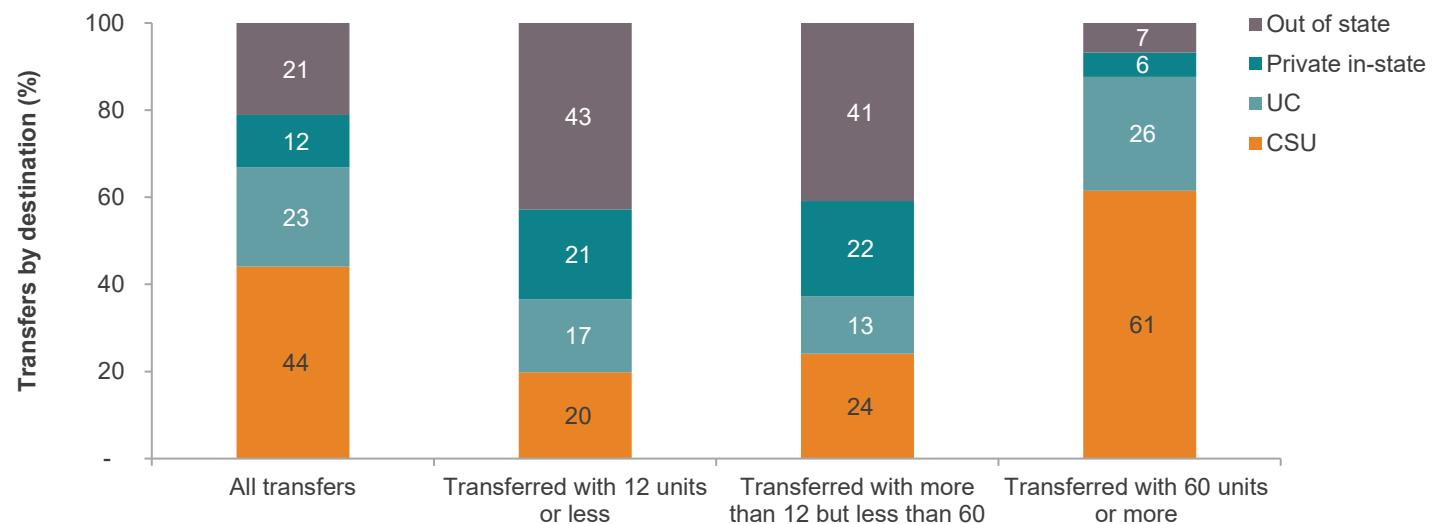
SOURCE: Authors’ calculations based on MIS data.

NOTES: First-time students in the 2014–15 who transferred within four years of initial enrollment. Transfer-level math courses include statistics or quantitative reasoning courses that satisfy general education transfer requirements.

<sup>3</sup> At CSU, the two-year graduation rate for transfer students is 40.4 percent and the four-year graduation rate is 77.5 percent. Meanwhile at UC, the two- and four-year graduation rates are 59.1 percent and 88.7 percent, respectively.

**FIGURE 3**

Students who earned at least 60 transferable units were more likely to go to California public universities



SOURCE: Authors' calculations based on MIS data.

NOTE: First-time students in the 2014–15 who transferred within four years of initial enrollment. For students counted in the last bar, the transferable unit count includes at least one transferable course in English and in math.

In terms of race and ethnicity, we see large equity gaps among transfers: while Latino students represent 51 percent of all students who declared a degree/transfer goal, they represent 35 percent among those who successfully transfer within four years. African American students represent a smaller share of the student body but gaps are also concerning—African American students represent 7 percent of all students who declared a degree/transfer goal but 5 percent of those who successfully transfer. It is worth noting that African American students were more likely to be among the group of students who transferred after taking only a few units and are more likely to transfer to an out-of-state institution.

### Transfer path

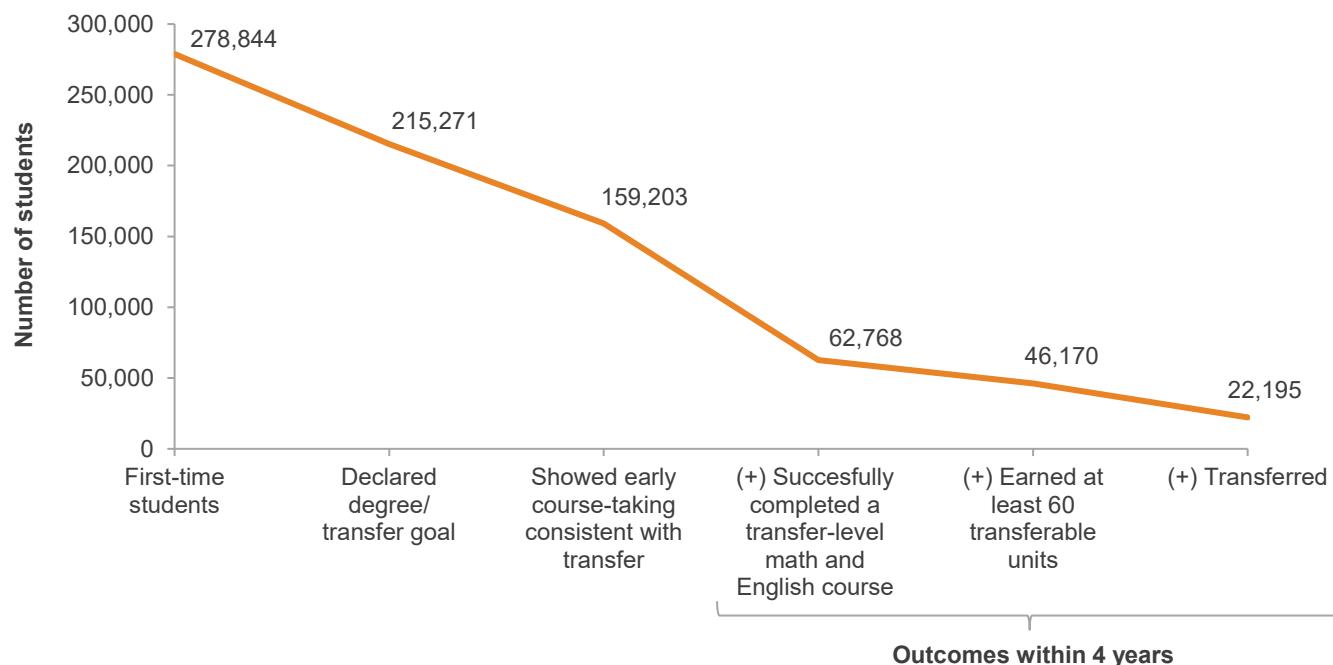
Among students who first enrolled in academic year 2014–15, 215,000 students declared a degree/transfer goal but only 159,200 students showed early course-taking consistent with progress toward that goal. If we evaluate progress in a four-year window from initial enrollment, 39 percent of these 159,200 students successfully completed (with a C or better) at least one gateway transfer-level math and English course.<sup>4</sup> This is an important milestone as these courses are prerequisites for many other transfer-level courses and are required for transfer to UC and CSU. Moreover, 29 percent earned 60 transferable units or more—which is the minimum number of units required to transfer to CSU or UC with junior status.<sup>5</sup> After four years, 14 percent (or 22,200 students) transferred to a four-year institution having earned at least 60 transferable units including transfer-level math and English (Figure 4). Some students in the 2014–15 cohort also eventually achieve these benchmarks in their fifth year or after.

<sup>4</sup> We replicate this analysis using the 2015–16 cohort and results are almost identical.

<sup>5</sup> This is a proxy to identify students who are either transfer-eligible or close to becoming eligible. In practice, students who want to transfer to CSU or UC are also required to (1) have a grade-point average of at least 2.0 (C) or higher in all transferable units attempted, and (2) the 60 transferable semester units must include a certain number of units that meet general education requirements. For private, out-of-state universities/colleges, students can transfer with 12–30 units minimum.

**FIGURE 4**

About 1 in 10 students who hope to transfer do so with enough units to earn a bachelor's degree in 2 years



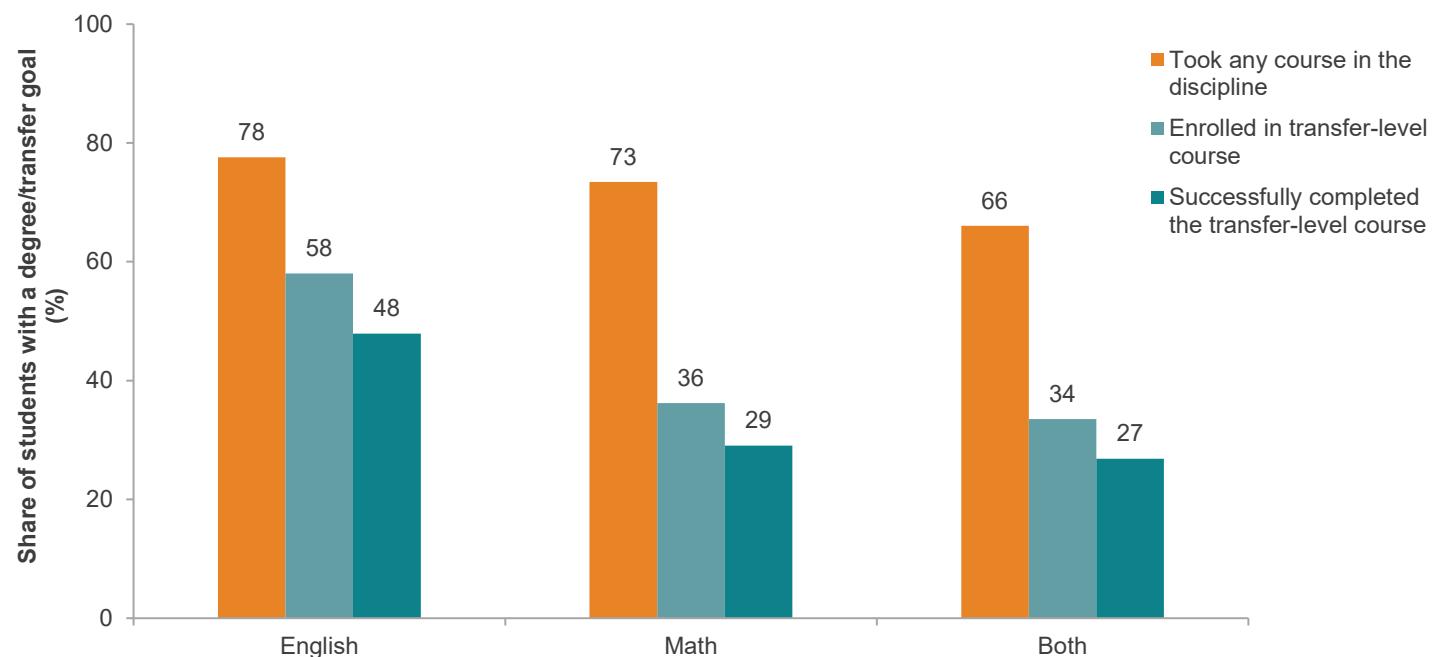
SOURCE: Authors' calculations based on MIS data.

NOTES: Based on first-time students in the 2014–15 cohort tracked for four years. The cohort year corresponds to the year in which the student was first reported at a California community college as a credit student. Only students for whom this was their first enrollment in higher education are included. Early course-taking consistent with transfer is defined as earning at least 12 units and enrolling in any math or English course during their first three years of enrollment. The 12-unit threshold includes both transferable and nontransferable units that the student completed with a D or better. Enrollment in a remedial English and/or math course counts. Successfully completed means the student passed the course with a C or better. Students who did not declare a degree/transfer goal are included if they achieved the milestone. More details in [Technical Appendix A](#).

One salient issue revealed in Figure 4 is that very few students complete gateway math and English courses. Much research has identified gateway completion, particularly math, as one of the biggest academic barriers students face on their path to achieving educational goals. Figure 5 shows that while 48 percent of students successfully completed at least one transfer-level course in English within four years of initial enrollment, only 29 percent completed a transfer-level math course. The good news is that more students today are achieving these milestones compared to students in earlier cohorts. We will expand on this positive development later in the report.

**FIGURE 5**

Students are much more likely to successfully complete transfer-level English than math



SOURCE: Authors' calculations based on MIS data.

NOTES: First-time students in the 2014–15 cohort who declared a degree/transfer goal tracked for four years. Successfully completed means that students passed the course with a C or better. Transfer-level math courses include statistics or quantitative reasoning courses that satisfy general education transfer requirements. More details in [Technical Appendix A](#).

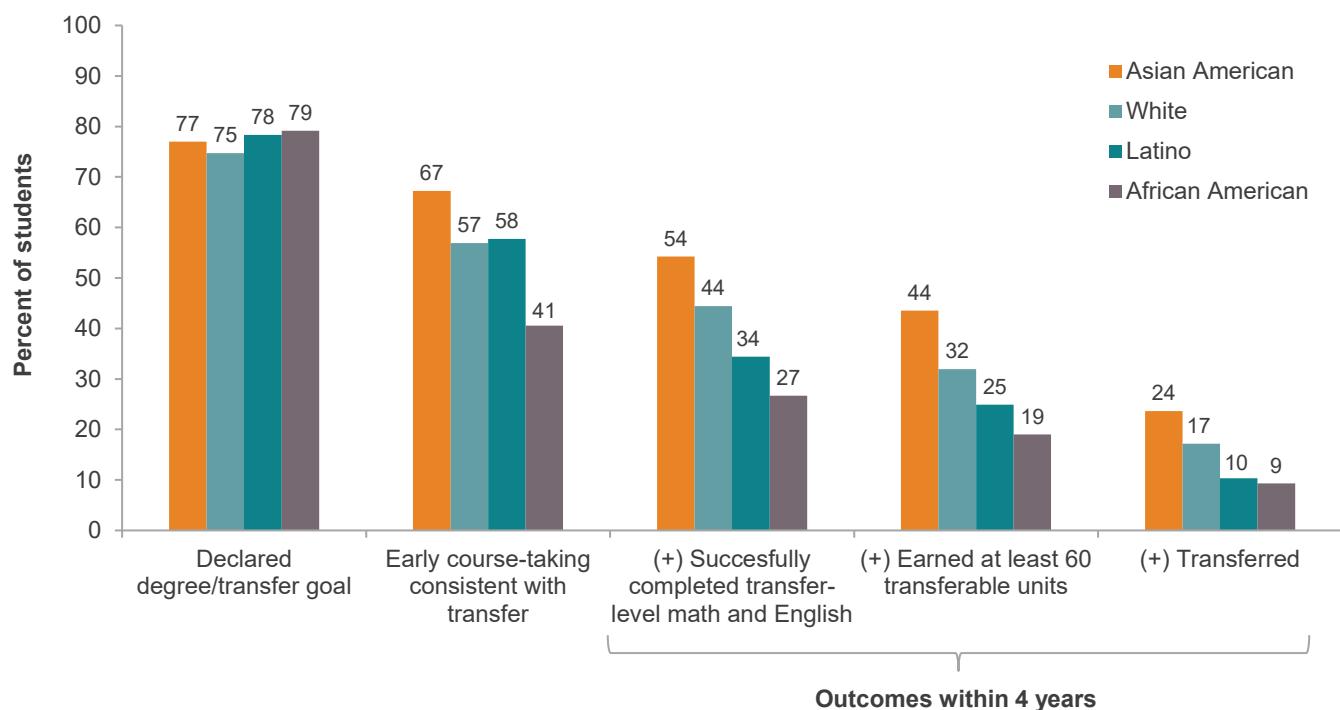
Large racial/ethnic gaps also persist in transfer rates. Although racial/ethnic differences are not noteworthy among the share of first-time students who state a degree/transfer goal, Latino and African American students transfer at much lower rates than their Asian American and white peers (Figure 6). In the case of African American students, these gaps are evident from the very beginning of the transfer path. For example, while 57 percent of white students and 58 percent of Latino students earned 12 units and attempted any math and English course within three years of initial enrollment, 41 percent of African American students did so.

In terms of completing gateway courses, 44 percent of white students successfully completed both math and English within four years, while 34 percent of Latinos and 27 percent of African Americans did so. The racial/ethnic gap did narrow slightly as students progressed, with a 10-percentage point gap between white and Latino students in gateway math and English completion and a 7-percentage point gap in both earning 60 transferable units and transferring. In comparing African Americans to whites, the gap ranged from 18 percentage points in gateway math and English completion to 13 percentage points in accumulating 60 transferable units, and finally to 8 percentage points in transferring.

Previous research has highlighted these gaps extensively (Taylor and Jain 2017). For instance, research specific to California found that community colleges with higher Latino or African American student populations had lower transfer rates, even after controlling for students' academic preparation and socioeconomic status (Wassmer, Moore, and Shulock 2004). Reducing equity gaps in transfer rates through faster improvements among traditionally underrepresented groups is another of the system's vision for success goals.

**FIGURE 6**

Notable racial/ethnic gaps occur along the transfer path



SOURCE: Authors' calculations based on MIS data.

NOTES: For the first two set of bars, the denominator is the total number of first-time students in the 2014–15 cohort; for the next three sets of bars, the denominator is the number of students who showed course-taking consistent with transfer. Early course-taking consistent with transfer is defined as earning at least 12 units and enrolling in any math or English course during their first three years of enrollment. The 12-unit threshold includes both transferable and nontransferable units that the student completed with a D or better. Enrollment in a remedial English and/or math course counts. Successfully completed means that the students passed the course with a C or better. Students who did not declare a degree/transfer goal are included if they achieved the milestone. More details in [Technical Appendix A](#).

## The Receiving Side of Community College Transfer

The number of students who transfer each year is uncertain and depends at least partly on how transfers are counted. Both CSU and UC have dashboards with counts of community college transfer applications, admits, and enrollees. The California Community College system in its Students Success Metrics (SSM) dashboard provides its own count: the dashboard includes the number of students who transferred to postsecondary institutions among students who earned 12 or more units at any time and who exited the community college system in the prior year. Although close, these counts do not match and should not, considering that they use different criteria and data sources in the calculation. Roughly speaking, about 52 percent of community college students who enrolled at a four-year institution in 2017–18 went to CSU, about 18 percent went to an out-of-state institution, 16 percent went to UC, and the remaining 14 percent ended up at a private institution in the state.<sup>6</sup>

<sup>6</sup> The [SSM dashboard](#) presents the total number for UC and CSU transfers combined. We estimated UC and CSU individual shares using the counts reported by UC and CSU.

With recent state funding increases, UC and CSU were able to enroll more transfer students (Figure 7 and Figure 8).<sup>7</sup> Efforts by UC and CSU to reduce obstacles to transfer and ease the transition from community colleges likely played a role as well. At UC, these efforts include creating more guaranteed pathways for community college students. According to UC officials, extra recruiting by UC across the state has helped students and community college counselors understand how to become eligible and competitive for UC admissions.<sup>8</sup> At CSU, the Associate Degree for Transfer program provides clear course requirements for guaranteed admission as juniors in dozens of majors; campuses have also ramped up services tailored to transfer students such as workshops, study centers, peer mentors, and theme housing to ease the transition from a CCC.<sup>9</sup>

In keeping with a goal of enrolling one new California transfer student for every two new California freshmen, UC admitted 26,470 transfers from the California Community Colleges in fall 2019—a 76 percent admit rate.<sup>10</sup> Of these, 19,639 enrolled, an increase of 25 percent from fall 2015.

Meanwhile at CSU, the rate of growth has been slower (7%), but the numeric increase has been about the same as at UC. In the past three academic years, CSU has enrolled about 61,500 new transfer students each year, compared to about 57,500 per year in the previous three-year period.<sup>11</sup>

The number of students from underrepresented groups—Latino, African American, and Native American—has grown steadily during the last decade in both segments. For example, at UC the number of African American and Latino transfer enrollees increased 51 percent and 47 percent respectively between 2015 and 2019. During the same period, the increase in transfer students at CSU was driven entirely by a 26 percent increase in the number of Latino transfer enrollees (Figure 8).

Consequently, the proportion of transfer students from underrepresented groups is on the rise. Ten years ago, underrepresented groups accounted for 20 percent of community college transfers to UC and 32 percent to CSU. Now they account for about a third of transfers to UC and just under half to CSU.

---

<sup>7</sup> For example, the 2019–20 budget provided General Fund increases of 7 percent for UC and 8 percent for CSU, including funding for enrollment increases of 1,000 and 7,000 students, respectively.

<sup>8</sup> More details at [EdSource.org](#).

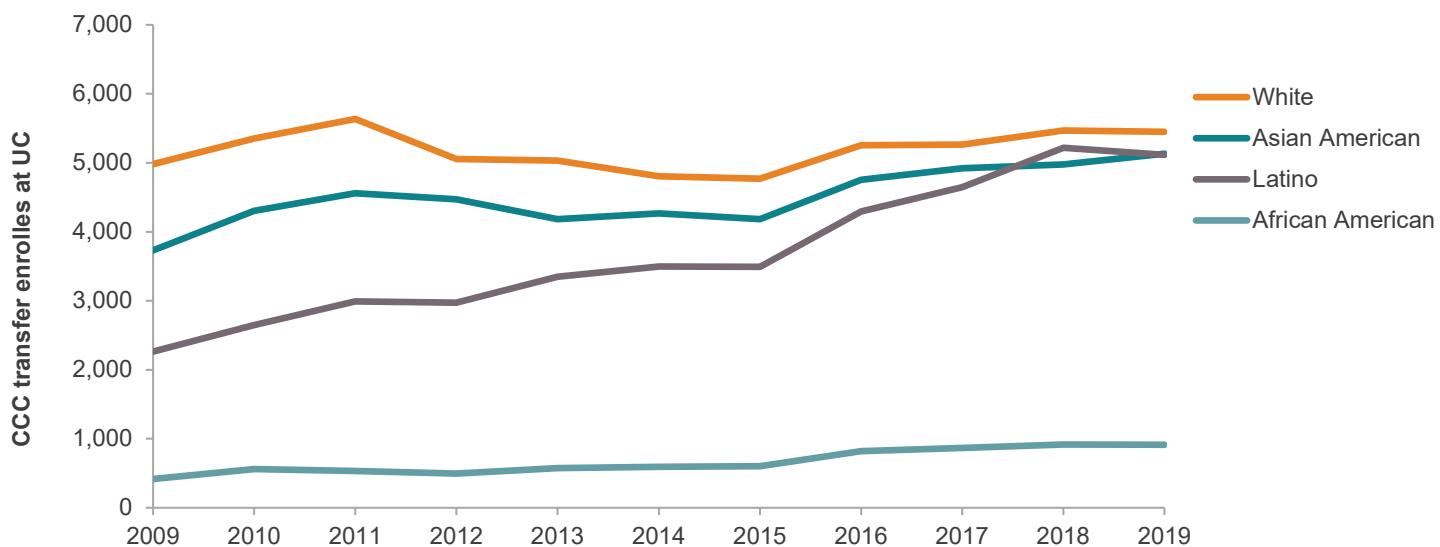
<sup>9</sup> More details at [Calstate.edu](#).

<sup>10</sup> Across the UC system, the number of freshman applications decreased by 2.5 percent and transfer applications rose by 4.7 percent.

<sup>11</sup> At CSU, fall transfers represent about 80 percent of the total academic year transfers while at UC they represent 98 percent.

**FIGURE 7**

Transfer enrollees at UC have increased steadily since 2009; Latinos and African Americans have seen the biggest growth

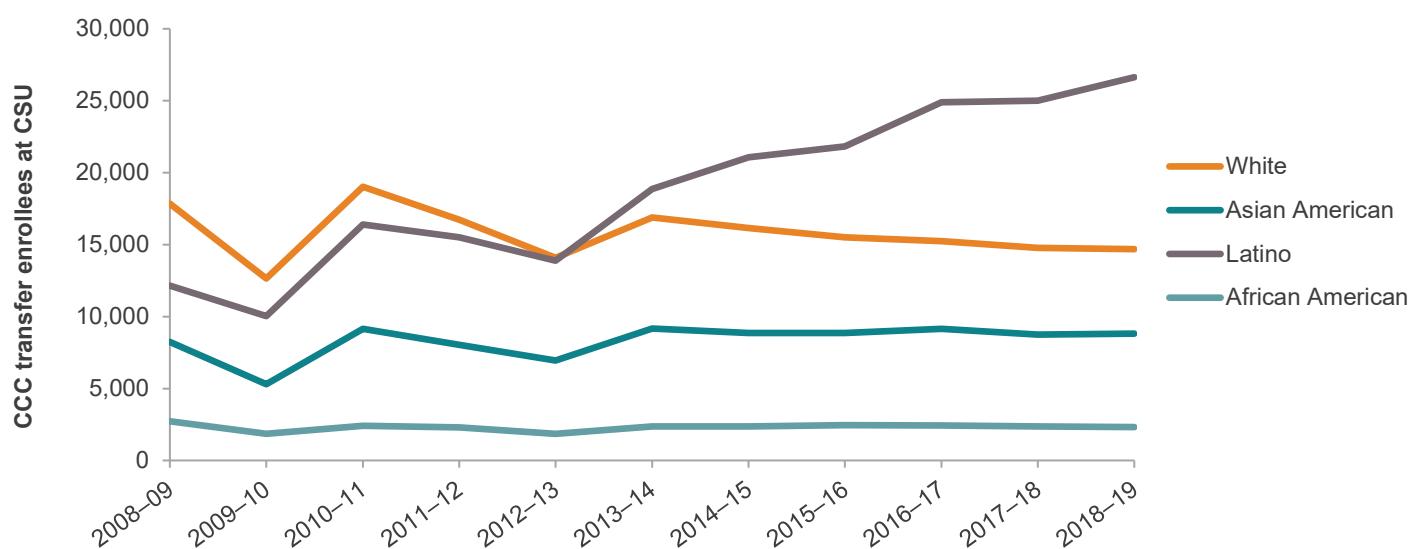


SOURCE: University of California Infocenter. Updated May 8, 2020.

NOTES: Figure shows number of community college transfer enrollees in the fall term of each year (98% of UC transfer enrollment happened in the fall). The Asian American category includes Pacific Islander. During this period there were on average 130 Native American CCC transfer enrollees at UC.

**FIGURE 8**

The growth in transfer enrollees at CSU has been concentrated among Latino students



SOURCE: California State University Data Center.

NOTES: Figure shows number of community college transfer enrollees in each academic year. The Asian American category includes Pacific Islander. During this period there were on average 130 Native American CCC transfer enrollees at CSU.

Despite these increases, there is room for improvement. While 56 percent of freshmen who enrolled at California community colleges were from underrepresented groups in 2016, three years later, they made up 32 percent of new UC transfer students.<sup>12</sup> At 47 percent, the share of underrepresented groups enrolling as transfers to CSU is much higher than at UC.

With the rising number of transfer-eligible students, many qualified applicants have been turned away from receiving colleges because of capacity constraints. At the CSU system, for example, over the past five years more than 63,000 qualified transfer students have been denied admission because their first-choice campus has reached or surpassed existing enrollment capacity in terms of physical size and instructional and student services resources (referred to as “impaction”).<sup>13</sup>

CSU has recently implemented a redirection policy that ensures that applicants eligible for admission who cannot be accommodated at their first-choice campus are redirected to another CSU campus without having to complete another application for admission. However, the low rate of enrollment for redirected applicants suggests that many CSU applicants are place-bound and may not be able to relocate to attend a four-year college (many CSU students commute from home), but other factors could be at play. Overall, the redirection policy should help, but capacity remains an issue at many campuses (Cook and Mehlotra 2020).

In contrast, over the last few years transfers to universities in other states or to private California schools have declined (Figure 9). For the most part, the number has remained constant for transfer students choosing nonprofit institutions that are members of the Association of Independent California Colleges and Universities (AICCU), which represent about 78 percent of the total. Transfers to for-profit colleges—institutions of higher education owned and operated by private, profit-seeking businesses—have dropped sharply. This is not necessarily a negative trend considering that for-profit institutions not only have much lower graduation rates (Jackson, Cook, and Johnson 2019) but also their students are more likely to take out loans (Johnson, Jackson, and Lee 2019).

Despite the overall decline in transfers to out-of-state colleges and universities, transfers to colleges with strong offerings of online degrees have increased (e.g., Thunderbird School of Global Management, Western Governors University, and Grand Canyon University).<sup>14</sup> However, one big exception to this trend is the University of Phoenix: it remains an important destination in this segment, but the number of students choosing it has consistently and strongly declined since 2010.

---

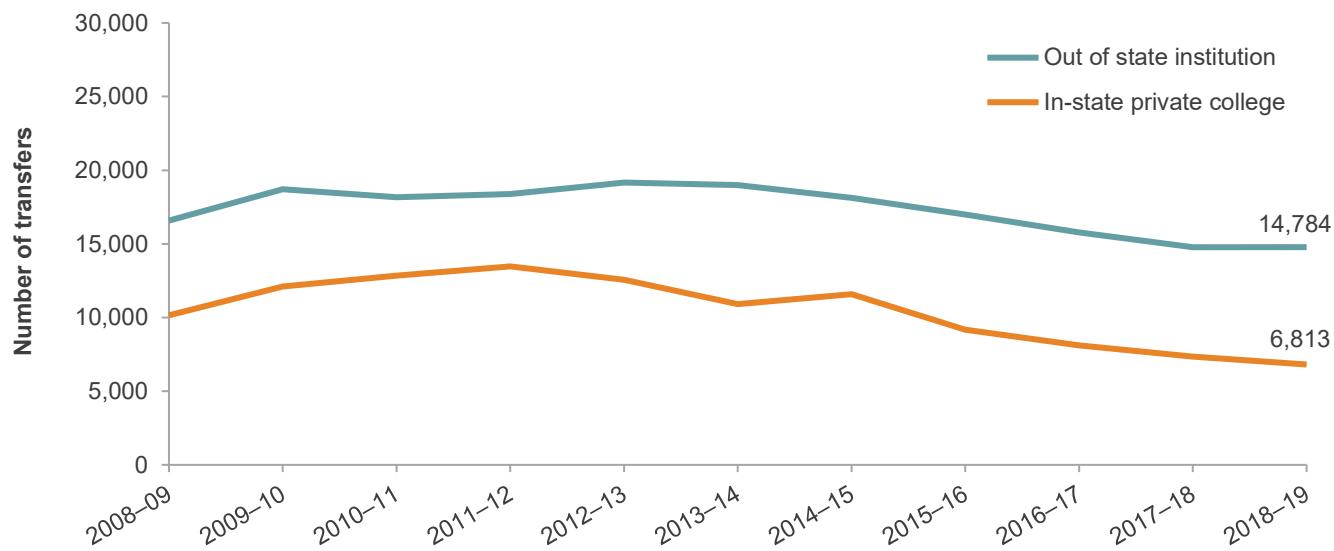
<sup>12</sup> The Latino, African American, and Native American representation gap between community college freshmen and transfer enrollees has remained steady at around 25 percentage points for the past 12 years. At CSU the representation gap is much smaller (9 percentage points).

<sup>13</sup> See the CSU applications and admissions report available from the [CSU Data Center](#).

<sup>14</sup> Thunderbird School of Global Management was acquired by Arizona State University in 2014, Western Governors University is a private, nonprofit online university based in Salt Lake City, Utah, and Grand Canyon University is a for-profit, private Christian university in Phoenix, Arizona.

**FIGURE 9**

Fewer students are transferring to private colleges in the state or to colleges outside California



SOURCE: Data Mart: Student Transfer Volume (accessed April 7, 2020).

NOTE: Transfers were captured from a series of aggregated first-time cohorts that completed at least 12 units while in the community college system at the time of transfer.

## Student Milestones on the Path towards Transfer

Certain milestones and academic accomplishments can determine whether students make progress on the path towards transfer and how likely they are to remain on it (Jenkins and Bailey 2017; Offenstein, Moore, and Shulock 2010; Hayward and Both 2010). For insight into success on the transfer pathway, we look at three key milestones: completing transfer-level math and English, accumulating units, and attaining an AA/ADT degree.

Throughout this section, we examine the share of students who achieve each milestone and the share who end up successfully transferring. We focus on students who showed early course-taking consistent with transfer (i.e., earned 12 units and enrolled in any math or English course within their first three years of enrollment) and who started their higher education journey at a community college in the 2014–15 academic year. We track their outcomes for four years. Note that evidence presented in this section is descriptive instead of a causal examination of the relationship between achieving these milestones and the likelihood of transferring.

### Completing transfer-level math

Math is a much larger obstacle than English for community college students seeking to transfer. We focus on transfer-level math in this section, but analogous results for English are included in [Technical Appendix B](#) (Figure B1 and Figure B2).

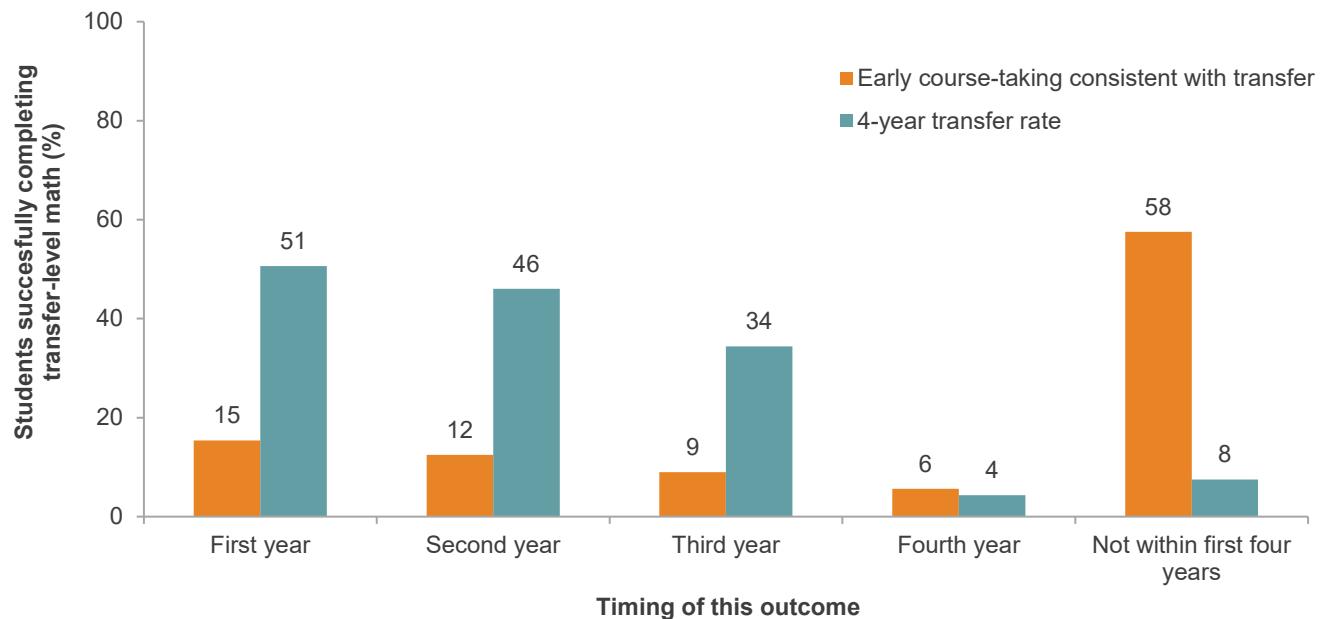
Students who successfully completed transfer-level math transferred at higher rates than those who did not, and the timing seems to matter. Transfer rates were highest for those who passed transfer-level math in their first or second year (Figure 10). However, only 27 percent of students who showed course-taking consistent with transfer successfully completed a transfer-level math course during their first two years of enrollment. Furthermore, 58

percent of students who showed early course-taking consistent with transfer did not pass any transfer-level math course within four years of initial enrollment.

Completing transfer-level English and math early in a student's college career has been associated with more timely college completion and transfer (Jenkins and Bailey 2017).

**FIGURE 10**

Four-year transfer rates are higher among those who successfully complete math in their first couple of years



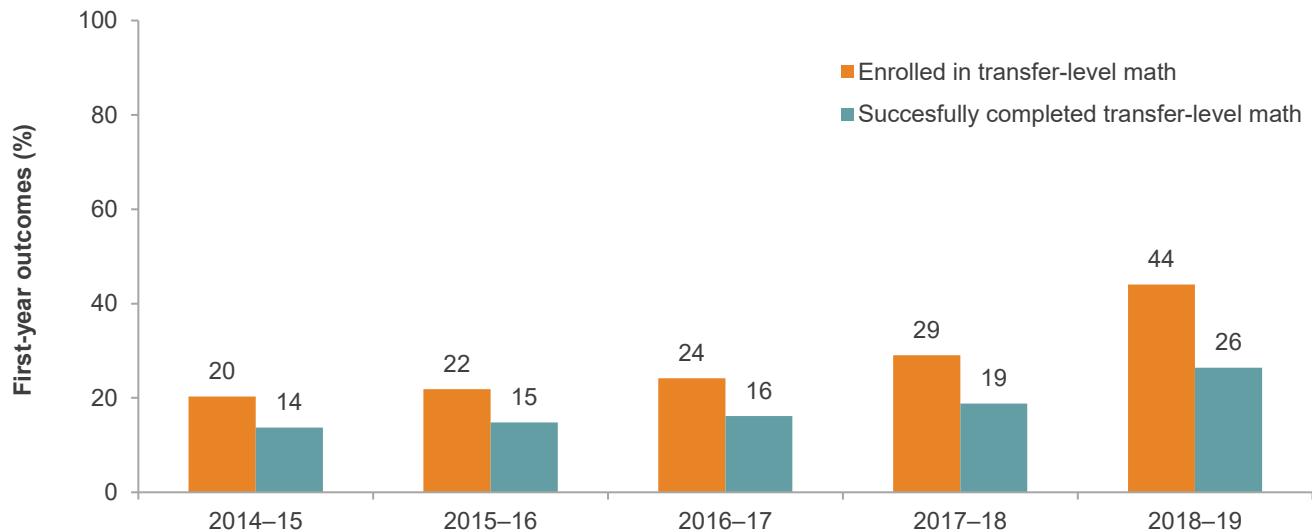
SOURCE: Authors' calculations based on MIS data.

NOTE: Based on students who showed course-taking consistent with transfer from the 2014–15 cohort (159,203 students) tracked over a 4-year period. Among these students 33,724 transferred within four years.

There is some very good news on this front. Looking at more recent student cohorts, we see that more students are both enrolling in and passing transfer-level math courses during their first year of enrollment (Figure 11). This positive trend is the result of important changes over the last several years in how colleges assess and place students into gateway transfer-level math and English courses. As we will discuss in the next section, the passage of Assembly Bill 705 in October 2017 has spurred dramatic changes in this area.

**FIGURE 11**

In more recent cohorts, the number of students able to enroll in and pass transfer-level math in their first year has increased



SOURCE: Authors' calculations based on MIS data.

NOTE: The figure shows the share of students achieving the outcome among all the students who took any math course within four years of initial enrollment. If we use all students with a degree/transfer goal, the share falls. Among those, 31 percent of students in the 2018–19 cohort enrolled and 19 percent successfully completed transfer-level math in their first year. Successfully completed means passing the course with a C or better.

### Accumulating transferable units early on

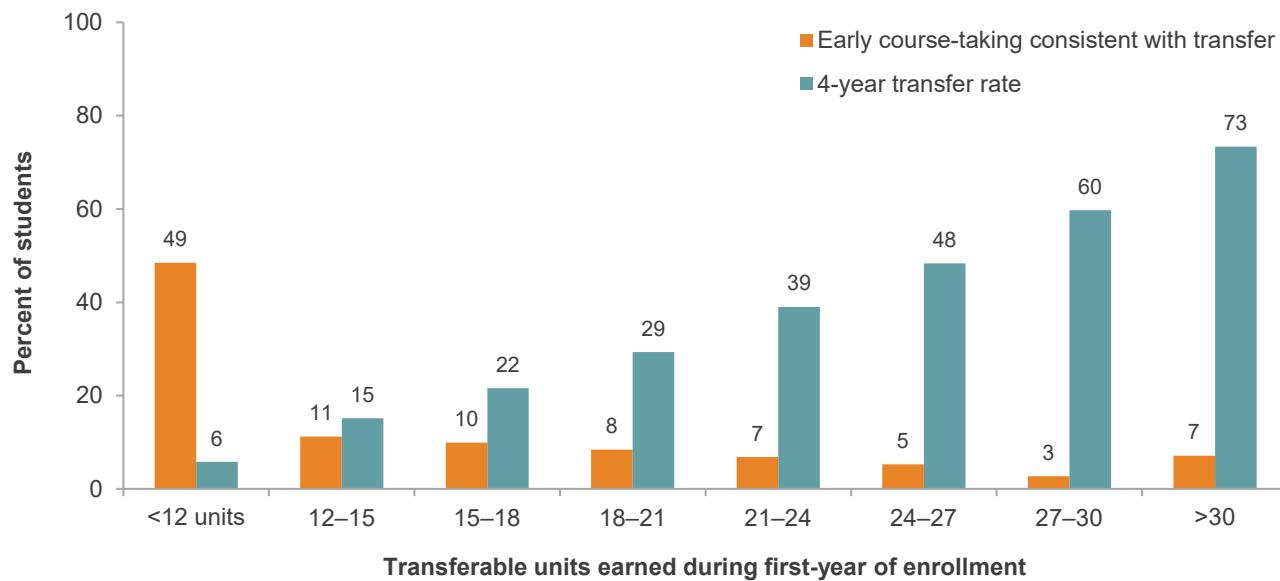
Because of work and other commitments, most community college students attend school part-time and are slow to accumulate the necessary units to become transfer-eligible. According to a recent report by the RP Group, 58 percent of students find balancing school and work responsibilities “very challenging.” Similarly, 41 percent find balancing school and family responsibilities very challenging.

There is a strong positive correlation between unit accumulation during the first year a student enrolls and successful transfer (Figure 12). We find that 73 percent of students who took at least 30 units in their first year transferred. It is not surprising that only 7 percent of students who showed early course-taking achieved this benchmark, considering the economic realities that may prevent many students from attending full-time. Among students who earned 21 to 24 transferable units in their first year—perhaps a more realistic goal—39 percent transferred within four years. In the 2014–15 cohort, students who showed course-taking consistent with transfer and transferred within four years earned on average 23 units in their first year. Still, only 7 percent of all students who showed course-taking consistent with transfer earned units within that range during their first year. In reality, almost half of students who showed course-taking consistent with transfer earned no more than 12 transferable units in their first year.

Recent trends show some progress in first-year unit accumulation. In more recent student cohorts, the share of students earning more than 24 units increased from 11 percent of students with a degree/transfer goal in the 2014–15 cohort to 19 percent among those in the 2018–19 cohort.

**FIGURE 12**

Students who earned more units during their first year transferred at higher rates



SOURCE: Authors' calculations based on MIS data.

NOTE: Based on students who showed course-taking consistent with transfer from the 2014–15 cohort (159,203 students) tracked over a 4-year period. Among these students 33,724 transferred within four years.

Along with being more likely to enroll part-time, community college students earned credits at a slower pace largely because of remedial coursework. Until recently, most students had to enroll in remedial courses that did not count toward a degree or transfer. In a previous PPIC report, we found that students placed into remedial math, for example, took an average of 2.5 terms to complete the remedial sequence before they could enroll in their first transfer-level math course (Cuellar Mejia, Rodriguez, and Johnson 2016).

### Attaining AA/ADT

It seems reasonable to think that students who complete 60 transferable units, including a transfer-level math and English course, with a GPA of 2.0 or higher—*transfer-ready* students—are very likely to transfer. However, many do not. Among the 46,107 students who achieved transfer-ready status in the 2014–15 cohort, less than half (48%) transferred. However, this rate is worth disaggregating because some of these “transfer-ready” students attained an associate degree and others did not. About 63 percent of transfer-ready students attained an associate degree. Of those, 50 percent transferred: 46 percent among those with a regular AA versus 53 percent among those with an ADT.

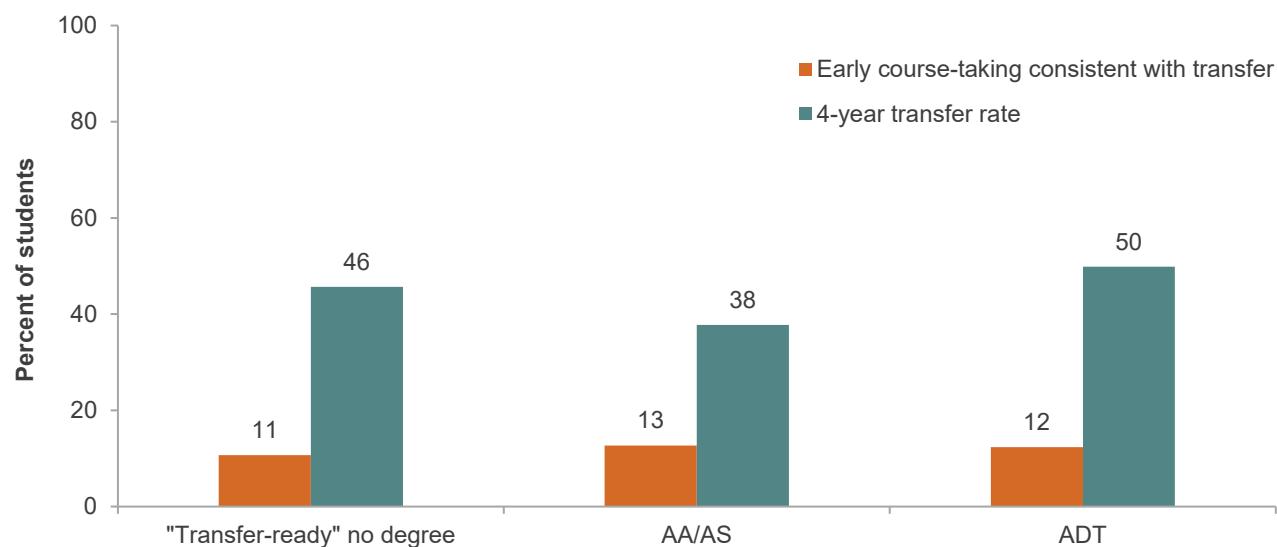
Moreover, another 10,262 students accumulated at least 60 units but lacked either transfer-level math or English or did not have a 2.0 GPA. Among those, 25 percent transferred. Unit accumulation is not sufficient on its own: students need to take the right lower-division units. ADTs are designed to help students be more efficient in choosing the courses they need to take. On paper, completing an associate degree—and more importantly an ADT—should increase the chances of students transferring.

Overall, about 25 percent of students who showed early course-taking consistent with transfer attained an associate degree within their first four years of enrollment. Of those, 44 percent transferred. Transfer rates were higher among students who attained an ADT compared to those with a regular AA—50 percent versus 38 percent (Figure 13). Students who earned an ADT have higher transfer rates but the effect is not as large as we would

have anticipated. The impact may be larger for more recent cohorts and looking at six-year window. Regardless, there is empirical evidence that students with ADTs tend to graduate from CSU with fewer units and enroll for fewer terms (Baker, Friedman, and Kurlaender 2018).

### FIGURE 13

Over half of transfer-intending students who earned an associate degree successfully transfer



SOURCE: Authors' calculations based on MIS data.

NOTES: ADT stands for Associate Degree for Transfer and AA/AS stands for Associate of Arts or Associate of Science degree. A student is considered "transfer-ready" if they earned 60 transferable units with a GPA of 2.0, including at least one transfer-level math and English course. Based on students who showed course-taking consistent with transfer from the 2014–15 cohort (159,203 students) tracked over a 4-year period. Among these students 33,724 transferred within four years.

Among students who transfer with an ADT, 73 percent went to CSU, 9 percent to UC, and 4 percent each to private in-state and out-of-state colleges. We expect to see a less-skewed distribution in future cohorts considering that many private, nonprofit colleges in California have signed on to participate in the ADT.

This section on milestones to transferring offers two main takeaways. First, there are measurable enrollment patterns correlated with successful transfer. Second, too few students follow those patterns. The central picture that emerges is one of tremendous but unrealized potential.

Moreover, important achievement gaps persist even among students who follow those enrollment patterns. White and Asian American students are more likely than Latino and African American students to successfully complete transfer-level math and/or English during their first year of enrollment. Similarly, white and Asian American students are more likely to earn more transferable units during their first year.

# Recent Reforms May Boost Transfers

In its *Vision for Success*, the California Community College Chancellor's Office has established ambitious goals to improve student outcomes and to promote equity and economic mobility. Those goals include increasing the number of transfer students to UC and CSU by 35 percent from 2017–18 to 2021–22.

Several new programs are underway to achieve this increase. If successful, or even only partially successful, reforms could swell the ranks of transfer-eligible students. The most noteworthy policies and programs include changes to assessment and placement policies, implementing Guided Pathway programs, and expanding the Associate Degree for Transfer.

## Changes to Assessment and Placement Policies

Systemwide changes to assessment and placement policies address one of the largest and earliest obstacles along the student pathway toward transfer. Until recently, community colleges relied primarily on high-stakes standardized placement tests to determine which math and English courses students should take, and required students deemed unprepared for college-level coursework to take long sequences of developmental (remedial) courses, often retaking one or more courses they had completed successfully in high school. As a result, the vast majority of community college students started in developmental education, spending time and money on courses that did not count toward a degree or transfer.<sup>15</sup>

Extensive research showed that these tests were not strong predictors of student performance in college-level courses and that they placed many students in developmental education who could have been successful in college-level courses (Belfield and Crosta 2012; Fulton 2012; Hodara and Cox 2016; Scott-Clayton 2012; Scott-Clayton et al. 2014). This research spurred reforms to develop more consistent and accurate placement policies by assessing students on multiple measures. The Multiple Measures Assessment Project and the California Acceleration Project among others were instrumental in convincing colleges of the need to assess based on high school records.<sup>16</sup> Funding from the Basic Skills Student Outcomes Transformation Grant (BSSOT) was another motivating factor.

Landmark legislation for remedial education reform (AB 705, Education Code §78213) took these efforts to the next level and led to dramatic change. The new law, which was fully implemented systemwide in fall 2019 requires community colleges to maximize the probability that students will enter and complete transfer-level coursework in English and mathematics/quantitative reasoning within a one-year time frame.<sup>17</sup> In practice, AB 705 requires colleges to rely primarily on high school records to more accurately assign students to transfer-level courses in English and math. An analysis of fall 2019 data—the first term when AB 705 was fully implemented—shows that the substantial majority of students enrolled in a transfer-level course as their first math/English course.

---

<sup>15</sup> Among first-time students in the 2009–10 cohort, 80 percent of students entering community colleges enrolled in at least one developmental course in math, English, or both during their college journey (Cuellar-Mejia, Rodriguez, and Johnson 2016).

<sup>16</sup> The original Multiple Measures Assessment Project (MMAP) was a collaborative effort led by the RP Group and Educational Results Partnerships' Cal-PASS Plus system to develop, pilot, and assess implementation of a statewide placement tool using multiple measures. The MMAP engaged with more than 90 pilot colleges statewide. The project has now shifted to support AB 705 implementation. The California Acceleration Project (CAP), founded in 2010, is a faculty-led professional development network that supports the state's 114 community colleges in implementing reforms that substantially increase student completion of transferable, college-level English and math requirements, a critical milestone on the path to degrees and transfer. These include using high school grades in placement, replacing traditional remedial courses with co-requisite models, tailoring math remediation to students' program of study, and teaching with high-challenge, high-support pedagogy in English, math, and ESL.

<sup>17</sup> The one-year timeframe starts when the student takes their first credit course on the subject.

In response to AB 705, colleges are not only changing the way they assess and place students in English and math courses but also reforming their delivery of developmental education for those who need extra support. They are doing so primarily by shifting from prerequisite developmental education to concurrent support models. In concurrent models, students receive extra help while they take the transfer-level course.

In addition to placement reform, colleges are also implementing multiple math pathways, which has played a role too in increasing the number of students successfully completing transfer-level math courses. With multiple math pathways available, students can take routes through the math curriculum that align with their programs of study.<sup>18</sup> For example, college-level courses in statistics can now satisfy quantitative course requirements for transfer.

## Implementing Guided Pathways

It would be naïve to expect assessment and placement reform to be enough to affect the entire pathway to transfer. That view disregards the other obstacles students face along the way, such as financial aid, scheduling, and counseling to mention a few. This is where Guided Pathways may play a role.

The California Community Colleges Chancellor’s Office introduced the Guided Pathways framework in the fall of 2017, supported by a one-time \$150 million investment from the state. Today, all 115 California community colleges are actively working on or implementing the framework.<sup>19</sup> Indeed, the Guided Pathways framework has been identified as the primary vehicle for achieving the ambitious goals outlined in their *Vision for Success*.

The four key components of the Guided Pathways framework are: mapping pathways to students’ end goals, helping students to choose and enter a program pathway, ensuring students remain on the right path, and making sure that students are learning. Overall, the Guided Pathways program focuses on ways to give students stronger wraparound support and to improve pedagogy so that students engage in active and work-based learning.

Guided Pathways reforms can take several years to implement at scale because they require a thoroughgoing redesign of a college’s major functions (Jenkins, Lahr, and Ganga 2018). Because implementation is still in the early stages, there is not yet sufficient evidence to quantify its impact on increasing the number of transfer-eligible students.

## Articulation Agreements

Articulation agreements are designed to improve the transition from community colleges to four-year colleges by creating clear and consistent standards for lower-division course work. Currently, California lacks systemwide transfer protocols, such as common course numbering and consistent lower-division requirements, across all majors and all colleges. Some progress has been made to improve articulation, but those efforts are piecemeal and campus specific.

The Associate Degree for Transfer, or ADT, was established in academic year 2011–12 with the aim to cut the amount of time and red tape it takes to transfer to CSU and graduate with a bachelor’s degree. In most cases, students who complete 60 semester units (90 quarter units) of general education and major-specific coursework at a community college and maintain a 2.0 GPA or higher are guaranteed admission into the CSU system (not necessarily to a particular campus) in a similar major. Admission depends on the student’s course of study and

---

<sup>18</sup> See more information on math pathways at [WestEd.org](#).

<sup>19</sup> On average, colleges are in the “planning to scale” stage, which means that they have made plans to design, adopt, or integrate programs and/or policies within the pillars of the Guided Pathways framework ([Guided Pathways Legislative Report 2018-19](#)).

the impaction status of their campus of interest. It is important to highlight that each university guarantee is different in their eligibility requirements.

The number of ADTs awarded has grown rapidly. Between academic years 2015–16 and 2018–19, the number of ADTs increased by about 78 percent, reaching 50,707 or 31 percent of all associate degrees awarded (see [Technical Appendix](#) Figure B3).<sup>20</sup> The degree is offered in 42 majors, with all community colleges and all CSU campuses participating—although not all ADTs are available at every campus (see [Technical Appendix](#) Figure B9). For example, only six colleges have more than 30 ADT majors: Cuesta, College of the Desert, Bakersfield, Butte, College of the Sequoias, and Moorpark. Overall, there is wide variation in ADTs awarded across colleges.<sup>21</sup>

Over the years, the program has been expanded. Historically Black Colleges and Universities, Western Governors University, and several dozen independent, nonprofit universities in California have joined the program.

UC does not participate in the ADT, but six UC campuses offer the Transfer Admission Guarantee (TAG) program for some community college students (UCLA, Berkeley, and San Diego do not participate). Students at certain community colleges are guaranteed admission to specified UC campuses if they meet lower-division course and grade requirements.

In addition, the UC Transfer Pathways program provides a roadmap of course preparation for the university's most sought-after majors. UC is expecting transfer enrollment to rise in the coming years from growing awareness of this program.

## Transfer Projections

As community colleges improve student pathways to and through introductory transfer-level math and English courses and into other transfer-level courses, more students will likely become eligible to transfer to four-year institutions. Given the large number of community college students, even modest gains can lead to large increases in transfer-ready students. A critical concern is whether UC and CSU will have room for many more community college transfers. Our projections on the increase, however, focus only on the impact of changes to assessment and placement policies.

Ongoing PPIC research indicates that over 95 percent of first-time English takers enrolled in a transfer-level English course in fall 2019, the first term AB 705 was fully implemented. Similarly, our preliminary results suggest that more than three of four first-time math takers enrolled in a transfer-level course. This is a dramatic increase considering that four years earlier only 38 percent and 26 percent respectively could start in a transfer-level course (Rodriguez, Cuellar Mejia, and Johnson, forthcoming; [Cuellar Mejia, Rodriguez, and Johnson 2019](#); [RP Group 2019b](#)).

For the purposes of this report, the more important question is how increased access affects successful completion of gateway math and English courses. According to our preliminary results, the share of first-time English students completing college composition in one term grew from 28 percent in fall 2015 to about 61 percent in fall 2019. Similarly, the share of first-time math students completing transfer-level math in a term more than doubled, from 15 percent to 40 percent. Of course, one-year throughput rates will be higher but we do not yet know to what extent. Success has improved among all students, including Latinos and African Americans, although equity gaps largely remained.

---

<sup>20</sup> About 57 percent of ADTs were in business, social sciences, or psychology.

<sup>21</sup> A list of degrees awarded by community college is available at [collegecampaign.org](#).

Our analysis of the 2014–15 cohort indicates that transfer rates among students who started directly in transfer-level math are significantly higher than among students whose first math course was developmental. Among students with a degree/transfer goal who enrolled in at least one math course, 49 percent of those whose first course was transfer-level math (20% of students) transferred after four years compared to 15 percent of those who started in remedial math (80% percent of students).

If we use the fall 2019 English and math one-term throughput rates, and assume students who bypass remediation will transfer at similar rates as in the past, then we might expect to see an increase in transfer-eligible students of over 70 percent. The assumption that students will transfer at similar rates depends in part on the success of co-requisite models of remediation. By implementing these models, colleges have sought to help students prepare for subsequent lower-division courses.

For a less optimistic scenario, we adjust transfer rates slightly downward. We do this to factor in that AB 705 implementation has made the student pool starting in transfer-level math and English more heterogeneous in terms of academic preparedness and therefore potentially less likely to succeed in transfer-level courses relative to the very selective group of students who in the past started in those courses. In that scenario, transfers increase just over 50 percent (see [Technical Appendix Table B2](#)). For our more optimistic scenario to materialize, colleges must focus on addressing the persistent equity gaps that we observe along the transfer path.

The timing of this increase in transfer-eligible students would roll out over the next six years, as it takes students time to accumulate the lower-division transfer units required, with the most notable gains occurring two to five years from now.

## Looking Ahead

Because community colleges serve so many low-income and underrepresented students, improving transfer from community colleges to four-year colleges is a critical component to improving economic mobility in California. By almost any standard, transfer rates are too low, with most community college students who hope to continue at a four-year institution unable to reach this goal.

Recent reforms and newly established system goals are directing more attention and resources to improving transfer. For the most part, these programs and initiatives are too recent to assess the impact on longer-term outcomes like transfer. But there is positive news on achieving some early milestones. Going forward, we recommend the following:

**Develop systemwide agreements between CCC and the state's public university systems (UC and CSU).** California's systems should work together to create a uniform, consistent transfer protocol across all majors and all colleges. That transfer protocol should include clearly identified and commonly numbered lower-division courses. Within majors, consistency in course requirements among community colleges and at UC and CSU—including common course numbering—could eliminate a lot of confusion as well as smooth the transition from community colleges to four-year colleges.

The ADT and TAG are steps in the right direction, but they are piecemeal and do not include some important majors. For example, there are zero ADT programs in engineering, one of the most in-demand majors among employers. Computer science ADTs are offered only in about one-third of the state's community colleges, despite strong student and labor market demand.

**Monitor early momentum metrics.** New reforms in the state’s community colleges hold promise, but it will take several years to see the extent to which these reforms help students transfer at higher rates. To gauge the effectiveness of these reforms much earlier, we must monitor students’ ability to reach key milestones, such as completing gateway courses in English and math and accumulating sufficient transfer-level units early in their college journey. Tracking this information will allow the state and higher education institutions to improve the implementation of these reforms and start preparing to accommodate these additional students.

**Identify and help students who are close to transfer.** Previous studies and our own research have found that thousands of students who made significant progress along the transfer pathway do not transfer. Colleges must identify these students and actively reach out to them, making available resources that can help them achieve their transfer goal. Some might still need to complete required courses for a specific transfer major; in those cases, students receive enrollment priority to finish lower-division major requirements. Others might need academic counseling to help them identify a transfer destination.

For many, tuition and room-and-board costs associated with four-year colleges are an impediment. According to a recent RP report, 75 percent of students describe the cost of the university tuition as “very challenging,” with nearly half listing it as the biggest challenge they face when considering transfer. Moreover, two-thirds of students worry that cost-of-living expenses after transferring will be “very challenging” (RP Group 2020). Students also know little about available assistance and the necessary steps to secure that assistance. So, financial aid counseling—including assistance with applications—can help those students successfully transfer.

**Reach out to and re-enroll students to avert stop-outs from the coronavirus pandemic.** The timeline for students returning to campuses after the COVID-19 crisis remains unclear, and without sufficient supports for online learning, some students may consider stopping out. Schools must make a concerted effort to reach out to these students and attempt to re-enroll others, working with these students to develop updated plans for achieving their academic goals.

**Prioritize efforts to find room for additional transfer students at four-year colleges.** Projections are speculative, but substantial increases in transfer-ready students could occur even if reforms are only partially successful. The state and higher education institutions should begin developing plans now on monitoring progress and accommodating these increases. CSU has initiated a process to redirect eligible transfer students denied admission to their campus of choice. In fall 2019, of about 10,000 eligible transfer students redirected to another campus, only 680 ended up enrolling. UC has proposed a similar referral process. To be clear, however, we would see the largest gains by allowing more students to enroll at campuses that are most in demand.

**Encourage private nonprofit participation.** Forty-one of the 85 private nonprofit AICCU institutions (Association of Independent California Colleges and Universities) have developed ADT commitments.<sup>22</sup> The state has established fiscal incentives via Cal Grant tuition awards for AICCU institutions to increase the number of ADTs enrolled from 2,000 ADT students in 2019–20 to 3,000 students in 2020–21, and 3,500 students in 2021–22 and subsequent years.

**California should set statewide, cross-system goals.** The community college’s *Vision for Success* is a step in the right direction. In lieu of a state higher education agency or authority, the governor’s office should work with the legislature and the different segments of higher education to establish these goals, with transfer being one of the foci. This could be taken up by the governor’s recently formed Council for Post-Secondary Education.

**California needs a longitudinal data system to identify what is working.** Linking community college students with their high school records and their university records would provide answers to fundamental questions about

---

<sup>22</sup> See a full list of AICCU ADT participating institutions and majors accepted at the [AICCU website](#).

how best to improve student progress across and within the state's educational systems. We would also be able to better measure how many students are transferring and determine their outcomes at four-year colleges. In particular, more research is needed to understand why so many transfer-eligible students are not transferring and what actions colleges could take to address those hurdles. Important work by the RP Group has shed light on this issue, but more work needs to be done.

PPIC will continue to assess improvements in student transfer success and help identify where and which reforms seem to be working best. As data become available for this current academic year, we will be able to answer important questions about changes in the share of students reaching early milestones on the path towards transfer, and how the coronavirus pandemic has affected student progress. Over time, we intend to examine how the full potential of transfer can be realized.

## REFERENCES

- American Association of Community Colleges. 2019. *Community College Enrollment Crisis? Historical Trends in Community College Enrollment*.
- Baker, R., E. Friedman, and M. Kurlaender. 2018. “Associate Degrees for Transfer: A Snapshot of Progress across California Community Colleges.” Wheelhouse Research Brief Volume 3 Number 1. The Center for Community College Leadership and Research.
- Belfield, Clive, Peter M. Crosta. 2012. “Predicting Success in College: The Importance of Placement Tests and High School Transcripts” (CCRC Working Paper No. 42). Community College Research Center, Teachers College, Columbia University.
- Bustillos, L. 2017. *The Transfer Maze: The High Cost to Students and the State of California*. The Campaign for College Opportunity.
- California Community Colleges Chancellor’s Office. 2017. *Vision for Success*.
- California Community Colleges Chancellor’s Office. 2019. *Guided Pathways Legislative Report 2018–19*.
- California Community Colleges Chancellor’s Office. 2020. *2020 State of the System Report*.
- Cooper, D., K Fong, K. Karandjeff, A. Kretz, A. Nguyen, R. Purnell-Mack, and E. Schierring. 2017. *Through the Gate: Mapping the Transfer Landscape for California Community College Students*. The RP Group.
- Cooper, D., A. Nguyen, K. Karandjeff, K. Brohawn, R. Purnell, A. Kretz, D. Rodriguez-Kiino, P. Chaplot, and K. Nguyen. 2020. *Students Speak Their Truth about Transfer: What They Need to Get Through the Gate*. The RP Group.
- Cook, K. and R. Mehlotra. 2020. *Assessing Enrollment Capacity at California State University*. Public Policy Institute of California.
- Cuellar Mejia, M., O. Rodriguez, and H. Johnson. 2019. *What Happens When Colleges Broaden Access to Transfer-Level Courses? Evidence from California’s Community Colleges*. Public Policy Institute of California.
- Cuellar Mejia, M., O. Rodriguez, and H. Johnson. 2016. *Preparing Students for Success in California Community Colleges*. Public Policy Institute of California.
- Fulton, M. 2012. Using State Policies to Ensure Effective Assessment and Placement in Remedial Education. Education Commission of the States.
- Hayward, C., and K. Booth. 2010. “Transfer Velocity Project: Key Findings on Student Transfer in California Community Colleges.” The RP Group.
- Hodara, Michelle, and Monica Cox. 2016. Developmental Education and College Readiness at the University of Alaska (REL 2016-123). US Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Northwest.
- Jackson, J., K. Cook and H. Johnson. 2019. *Higher Education in California: Improving College Completion*. Public Policy Institute of California.
- Jenkins, D., and T. Bailey. 2017. “Early Momentum Metrics: Why They Matter for College Improvement.” CCRC Working Paper No. 65, Community College Research Center, Teachers College, Columbia University.
- Jenkins D., H. Lahr, J. Fink, and E. Ganga. 2018. “What We Are Learning About Guided Pathways.” Community College Research Center, Teachers College, Columbia University.
- Johnson, H., J. Jackson, and C. Lee. 2019. *Higher Education in California: Making College Affordable*. Public Policy Institute of California.
- Johnson, H., S. Bohn, and M. Cuellar Mejia. 2015. *Will California Run Out of College Graduates?* Public Policy Institute of California.
- Johnson, H., M. Cuellar Mejia, and S. Bohn. 2018. *Higher Education as a Driver of Economic Mobility*. Public Policy Institute of California.
- National Student Clearinghouse Research Center. 2019. *Tracking Transfer*.
- Offenstein J., C. Moore, and N. Shulock. 2010. *Advancing by Degrees: A Framework to Increasing College Completion*. The Education Trust.
- Rodriguez, O., M. Cuellar Mejia, and H. Johnson. 2018. *Remedial Education Reforms at California’s Community Colleges: Early Evidence on Placement and Curricular Reforms*. Public Policy Institute of California.
- Scott-Clayton, Judith. 2012. “Do High-Stakes Placement Exams Predict College Success?” Working Paper No. 41. y Community College Research Center, Teachers College, Columbia University.

- Scott-Clayton, Judith, Peter Crosta, and Clive Belfield. 2014. "Improving the Targeting of Treatment: Evidence from College Remediation." *Educational Evaluation and Policy Analysis* 36 (3): 371–93.
- The RP Group. 2019a. *Transfer Odds: Technical Report Examining Factors That Impact Whether Students Achieve Transfer or Get Stuck Near or At the Gate*. The RP Group.
- The RP Group. 2019b. Access, Enrollment, and Success in Transfer-Level English and Math in the California Community College System Fall 2015 to Fall 2018 Statewide Analysis.
- Taylor, J. and D. Jain. 2017. **The Multiple Dimensions of Transfer: Examining the Transfer Function in American Higher Education.** *Community College Review* 2017, Vol. 45(4) 273–293.
- Wassmer, R., C. Moore, and N. Shulock. 2004. **The Effect of Racial/Ethnic Composition on Transfer Rates in Community Colleges: Implications for Policy and Practice.** *Research in Higher Education*, 45, 651-672.

## ABOUT THE AUTHORS

**Hans Johnson** is director of the PPIC Higher Education Center and a senior fellow at the Public Policy Institute of California, where he holds the Thomas and Marilyn Sutton Chair in Higher Education Policy. As center director, he works with a team of researchers to identify policies that can make higher education policy more successful and sustainable. His own research focuses on improving college access and completion. He frequently presents his work to policymakers and higher education officials, and he serves as a technical advisor to many organizations seeking to improve college graduation rates, address workforce needs, and engage in long-term capacity planning. His other areas of expertise include international and domestic migration, housing in California, and population projections. Previously, he served as research director at PPIC. Before joining PPIC, he worked as a demographer at the California Research Bureau and at the California Department of Finance. He holds a PhD in demography and a master's degree in biostatistics from the University of California, Berkeley. Back matter text follows.

**Marisol Cuellar Mejia** is a senior research associate at the PPIC Higher Education Center. Her recent projects have focused on developmental education reform, the workforce skills gap, online learning in community colleges, and the economic returns to college. Her research interests include labor markets, housing, and demographic trends. Before joining PPIC, she worked at Colombia's National Association of Financial Institutions as an economic analyst, concentrating on issues related to the manufacturing sector and small business. She has also conducted agricultural and commodity market research for the Colombian National Federation of Coffee Growers and the National Federation of Palm Oil Growers of Colombia. She holds an MS in agricultural and resource economics from the University of California, Davis.

## ACKNOWLEDGMENTS

The authors would like to thank Kathy Booth, Craig Hayward, Garrett Ashley, Meredith Turner, Valerie Lundy-Wagner, John Hetts, Shannon McConville, Lynette Ubois, and Jacob Jackson for their many valuable comments and suggestions on earlier drafts. Stephanie Barton provided excellent editorial assistance. This research would not have been possible without the data provided by the California Community Colleges Chancellor's Office. We are also grateful to the College Futures Foundation, the Bill and Melinda Gates Foundation, the Evelyn and Walter Haas Jr. Foundation, and the Sutton Family Fund for supporting this research. All errors are our own.

PUBLIC POLICY  
INSTITUTE OF  
CALIFORNIA  
**Board of Directors**

**Steven A. Merksamer, Chair**  
*Senior Partner*  
Nielsen Merksamer Parrinello  
Gross & Leoni LLP

**Mark Baldassare**  
*President and CEO*  
Public Policy Institute of California

**María Blanco**  
*Executive Director*  
University of California  
Immigrant Legal Services Center

**Louise Henry Bryson**  
*Chair Emerita, Board of Trustees*  
J. Paul Getty Trust

**A. Marisa Chun**  
*Partner*  
Crowell & Moring LLP

**Chet Hewitt**  
*President and CEO*  
Sierra Health Foundation

**Phil Isenberg**  
*Former Chair*  
Delta Stewardship Council

**Mas Masumoto**  
*Author and Farmer*

**Leon E. Panetta**  
*Chairman*  
The Panetta Institute for Public Policy

**Gerald L. Parsky**  
*Chairman*  
Aurora Capital Group

**Kim Polese**  
*Chairman*  
ClearStreet, Inc.

**Karen Skelton**  
*Founder and President*  
Skelton Strategies

**Helen Iris Torres**  
*CEO*  
Hispanas Organized for Political Equality

**Gaddi H. Vasquez**  
*Retired Senior Vice President,  
Government Affairs*  
Edison International  
Southern California Edison



**PPIC**

PUBLIC POLICY  
INSTITUTE OF CALIFORNIA

The Public Policy Institute of California is dedicated to informing and improving public policy in California through independent, objective, nonpartisan research.

Public Policy Institute of California  
500 Washington Street, Suite 600  
San Francisco, CA 94111  
T: 415.291.4400  
F: 415.291.4401  
**PPIC.ORG**

PPIC Sacramento Center  
Senator Office Building  
1121 L Street, Suite 801  
Sacramento, CA 95814  
T: 916.440.1120  
F: 916.440.1121