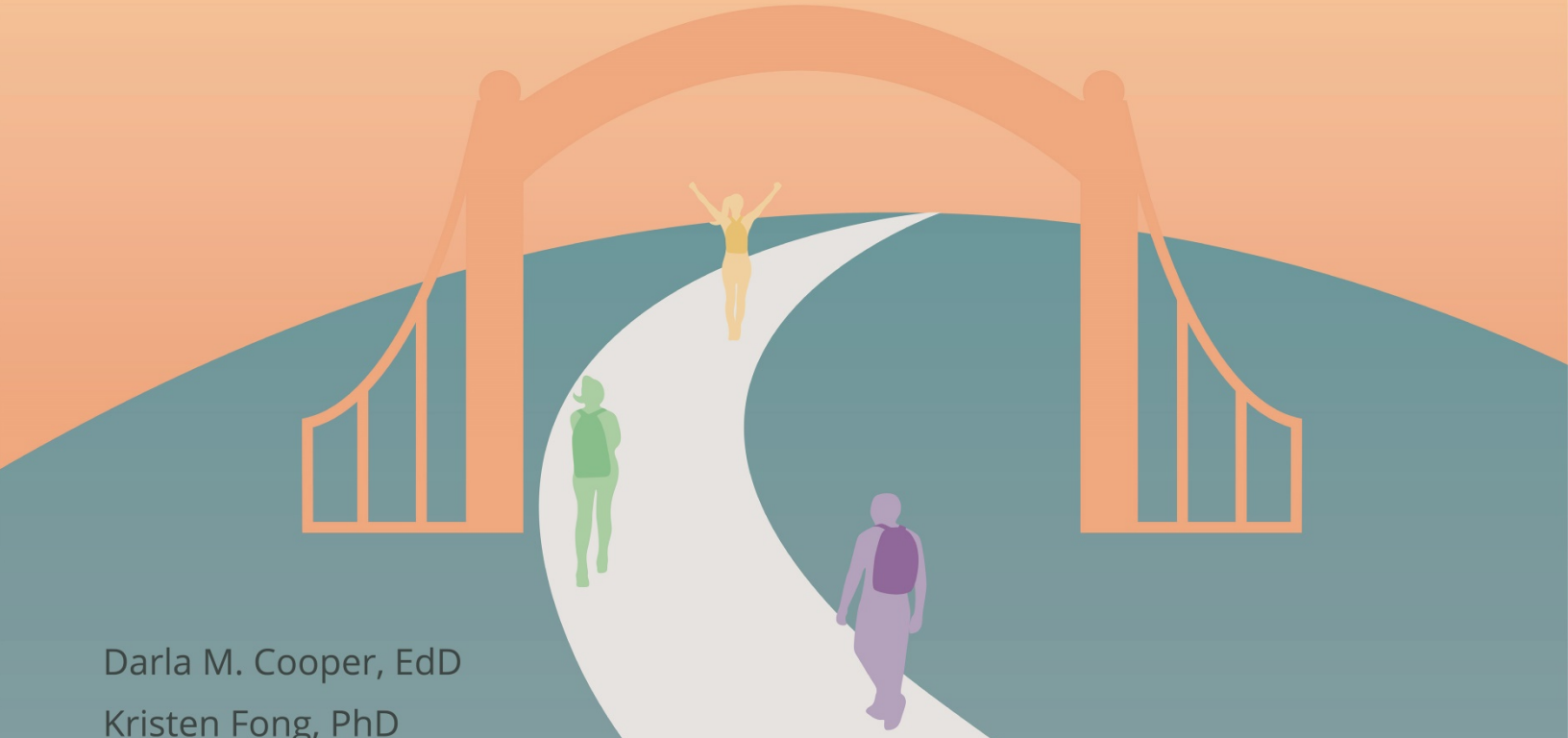
# Through the Gate:

## Mapping the Transfer Landscape for California Community College Students



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# Acknowledgements

We are grateful for the support of the College Futures Foundation for providing us the opportunity to conduct this important work on understanding how to improve transfer success in California Community Colleges. They are dedicated partners, committed to the imperative of increasing college completion for low-income learners and students underrepresented in higher education. We particularly appreciate the ongoing guidance of our program officer, who makes this work feel like a true partnership. In turn, we are motivated to take a fresh and deep look at the complex community college transfer process, with an eye toward transforming the lives of more Calfornia Community College transfer-bound students, and improving the economic wellbeing of the state.

We also share considerable appreciation for our advisory group, which offers invaluable insights and assistance in contextualizing our research within the Central Valley and Inland Empire regions as well as the California Community College system as a whole.

We would additionally like to acknowledge the California Community Colleges Chancellor's Office for providing us with the data that made this work possible, and for their ongoing and essential collaboration with the RP Group.

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# Executive Summary

## Introduction

Educators, policymakers, funders, and advocates across California are working to increase baccalaureate completion for low-income learners and students historically underrepresented in higher education. These efforts aspire to help these students secure a path toward social and financial advancement, address a shortage of baccalaureate holders in the state, diversify our workforce, and strengthen our state's economic wellbeing. The improvement of transfer from our 114 California Community Colleges (CCCs) to our 23 California State Universities (CSUs) and other universities offers one critical, cost-effective lever for advancing these outcomes. Many students enter the system with a transfer goal, and the California Community College Chancellor's Office new *Vision for Success*, the growing guided pathways movement in the state, and the implementation of the Associate Degree for Transfer (AD-T) all aim to make a dent in stubbornly-low transfer rates across our CCCs through more streamlined paths between our postsecondary segments. Yet, what more can we do and what else do we need to learn to increase transfer success in California?

In 2016, the Research and Planning Group for California Community Colleges (RP Group) launched a two-part transfer study called "*Through the Gate*" to take a fresh look at addressing our state's transfer challenges. Doing so requires us to **recognize transfer as a journey that a diverse and varied group of students undertake**. When we take a more nuanced look at this population, **a "transfer continuum" emerges, revealing students at different points along a transfer path**: transfer explorers, momentum students, students near the transfer gate, students at the transfer gate, and transfer achievers who made it through the transfer gate (see Figure 1 on page 6; for more information, see Methodology on page 7).

*Figure 1*. Transfer Continuum


By using this approach, we can better understand students' dynamic experience and identify points of intervention that can help propel them further along the transfer continuum and through to a university. Undoubtedly, students at various junctures encounter particular barriers and require tailored supports. So, what new can we learn from these different groups of students? Who is transferring, who is not, and for what reasons? What can be done to facilitate this transition for more students, at scale?

# Focusing on a High-Leverage Transfer Population

This research aims to **identify strategies for increasing transfer among "high-leverage" CCC learners—individuals who have completed all or most of their transfer requirements, but who do not make it "through the gate" to a university**. Our study specifically focuses on the Inland Empire and Central Valley, as students in these areas of the state have lower college completion and transfer rates, which suggests that they may face unique challenges and barriers along their transfer journey.

**This technical report provides detailed findings from the study's first phase and maps the landscape for a sample of students who have made significant progress along the transfer continuum.** We share findings on high-leverage students who are near or at the gate, and transfer achievers who made it through the gate to university, zeroing in on: (1) how many students in California stop short of the transfer gate; (2) who they are and where they reside; and (3) what we can glean about opportunities to increase their transfer success.

# Methodology

To set the context for this research, we first looked at 1,963,932 students who were enrolled in a CCC between 2010-2011 and 2014-2015 and demonstrated behavioral intent to transfer as defined by completing at least 12 transferable units within a six-year timeframe. We then measured their outcomes through spring 2016. Following, we grouped these nearly 2 million students into five different transfer continuum stages (see Figure 1 on page 6).

## The Broader Context for the *Through the Gate* Transfer Study

Looking at the breakdown of students across the transfer continuum, data indicate that nearly 900,000 CCC students are transfer explorers and in six years have not gained the traction required to complete transfer—certainly an opportunity lost. **Comparing transfer explorers to the high-leverage learners who are near or at the transfer gate and transfer achievers**, the ultimate focus of this research, **underscores some notable differences and offers important context for this research**. It is important to recognize that certain populations of students are underrepresented among those who make significant progress toward transfer; subsequently, these students are underrepresented in our study sample.

- **Transfer explorers**: Students on our continuum who were the furthest away from transfer, having completed between 12 and 44 transferable units after at least six years of enrollment (45.5%, *n*=893,663)
- **Momentum students**: Individuals who demonstrated momentum toward a transfer goal by completing 45 to 59 transferable units and maintaining a 2.0 GPA (9.9%, *n*=194,639)
- **Students near the gate**: Transfer-prepared students who completed 60± transferable units, but who were missing transfer-level English and/or math and had not yet transferred (8.0%, *n*=156,999)
- **Students at the gate**: Transfer-ready students who completed 60± transferable units (including transfer-level English and math) and/or an AD-T, but had not yet transferred (6.9%, *n*=135,557)
- **Transfer achievers**: Students who made it through the gate by transferring to any university, with or without a degree (29.7%, *n*=583,074)

We then **focused on the sample of 875,630 "transfer-bound" students who were well advanced on the transfer continuum between 2010-2011 and 2014-2015: specifically students near the gate, students at the gate, and transfer achievers. We measured their outcomes through spring 2016**, looking at their highest outcomes achieved, and examining the role of gender, race and ethnicity, and region. For transfer achievers and students at the gate, we specifically explored the impact of the AD-T. For students near the gate, we particularly investigated the impact of math and English requirements. This initial analysis revealed important information about the experience of these different groups of transfer-bound students, pointed to key progress barriers, and surfaced some unexpected successes. Learn more below.

# Mapping the Transfer Landscape for CCC Students

## How Many Transfer-Bound Students Achieve Transfer?

Among our key population of students who are far advanced along the transfer continuum, some good news emerges. When looking at the success of this sample of transfer-bound students, we find that the **majority achieves transfer** (66.6%; *n*=583,074). In other words, most students who become transfer ready or prepared or earn an ADT do transfer.

However, despite this positive news, **one-third of our sample did not transfer**, which means that almost 300,000 students attending CCCs over a recent five-year period who demonstrated the determination and academic ability to transfer did not make it through the transfer gate (33.4%; *n*=292,556).

## What Can We Learn from Transfer Achievers?

When looking at the paths transfer achievers take, a **substantial majority of these students transferred without earning a CCC degree or certificate**, indicating a potential opportunity to help these students secure a credential that signals their readiness for higher education and employment prior to transfer.

At the same time, we anticipate this trend will shift, as it coincides with the increasing number of students earning an AD-T. Moreover, the **AD-T seems to be achieving the goal of smoothing students' educational path and**

**increasing their likelihood of transfer**. Since its implementation, 80% of AD-T earners have transferred.

When we look at transfer achievers who earned their AD-T, data reveal that **Latino male and female students were substantially more likely than their respective counterparts to take advantage of the transfer path this degree offers**. Yet, reason for caution remains: transfer barriers still clearly exist for AD-T earners and vary by community college region. When taking major, CSU proximity, and region into account, transfer for AD-T earners can become more challenging if they are in a region without several CSUs from which to choose, if they are near CSUs with limited capacity, or if they are pursuing a highly-impacted major—all considerations for our CCC and CSU systems as they work to foster the positive trajectory of this transfer strategy.

### Learning from Transfer Achievers

Made it through the gate by transferring to any university, with or without a degree (66.6%, *n*=583,074)

**ACTIONABLE FINDINGS:**

- Transfer achievers overwhelmingly transfer without a degree or certificate.
- The number of students completing an AD-T is on the rise, but reason for caution remains: region, CSU proximity, and major can all impact transfer success for AD-T earners.

Learn more on page 34.

## What Can We Learn from Students At the Transfer Gate?

In our cohort, **nearly 136,000 students stopped at the transfer gate, despite accomplishing transfer-ready status or securing an AD-T**—a significant number of students who, in a recent five-year period, could have made the transition to a university to earn their bachelor's degree. The vast majority (80.0%) of students stuck at the transfer gate became **eligible for transfer by achieving transfer-ready status, rather than completing an AD-T**. *What more can we do to help students get on established AD-T paths, as appropriate to their major and a region?*

The story for the 57,148 students who reached the transfer gate but who did not continue their education at the community college and did not earn an AD-T is more discouraging. Not only did these students stop short of their transfer goal, **many left without a college credential**. Specifically, when looking at transfer-ready students who exited the system, over one-half left without a degree or certificate (54.3%, *n*=31,029). *How can we help these students secure a college credential that signals the hard work and preparation they have achieved to*

*this point? What information and supports do these students need to complete the transition to a university?*

Still further, **students who are stuck at the gate are more likely to be Latino, regardless of gender** (36.7%, *n*=49,764) when compared to other subgroups in this category overall. Moreover, though Latino male and female students were more likely to earn their AD-T before transferring, they were also more likely not to have this degree translate into transfer success. *What is uniquely holding back Latino students at the gate from making the transition to a university, despite their evident readiness for transfer, and how can we support these students in taking the next step in their journey to a baccalaureate degree?*

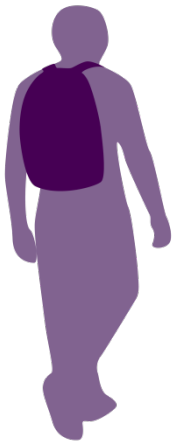
### Learning from Students At the Transfer Gate

Completed 60± transferable units (including transfer-level English and math) and/or an AD-T, but had not yet transferred (15.5%, *n*=135,557)

**ACTIONABLE FINDINGS:**

- 80% became eligible for transfer by achieving transfer-ready status, rather than completing an AD-T.
- Over 50% left without a college credential.
- Students stuck at the transfer gate were more likely to be Latino, regardless of gender.

Learn more on page 45.



## What Can We Learn from Students Near the Transfer Gate?

Approximately 18% of our cohort was near the transfer gate (*n*=156,999). These students show momentum toward transfer, but have not yet met critical academic milestones required to achieve this goal. When looking at how these academic requirements impact students' progress to transfer, **math emerges as the biggest obstacle in the road**. An overwhelming majority (92.1%) of students who were near the transfer gate needed to complete math requirements in order to proceed. *How can we help transfer-bound students complete math early in their community college journey, and facilitate their progress to a bachelor's degree?* Multiple measures assessment and co-requisite and accelerated learning models all offer potential approaches to support students' math completion and advance transfer progress.

When looking at what happens to students who are near the transfer gate over time, we again see that many of these hardworking students leave the system without tangible evidence of their achievements. While about 31% of students exited with a degree or certificate, **nearly half of the students who are near**

**the gate left the system without earning a credential (49%)**, and 20% were still enrolled.

Further, we discovered that **time is an enemy of students stuck near the gate**. Students who did not transfer within a year of arriving near the gate were significantly less likely to make the transition to university. *Other than math, what else might be holding these students back from attaining their goal? What supports are required to quickly propel these students to upper-division coursework?*

### Learning from Students Near the Transfer Gate

Completed 60± transferable units, but missing transfer-level English and/or math and had not yet transferred (15.5%, *n*=135,557)

**ACTIONABLE FINDINGS:**

- Math is a significant barrier. Nearly 92% needed to complete math requirements in order to transfer.
- Nearly half exited the system without a degree or certificate.
- Time is an enemy; students who did not transfer within a year of arriving near the gate were less likely to make the transition to university.

Learn more on page 52.

## What Is the Role of Gender, Race/Ethnicity, and Region in Students' Transfer Journey?

We further examined what role gender, race and ethnicity, and region might play in the experience of students at different points on the transfer continuum. When examining differences by gender across our sample of students who were near, at, or through the gate, we found that females and males achieved transfer at comparable rates. However, females were proportionally overrepresented in our transfer-bound population compared to their representation among all students demonstrating behavioral intent to transfer. While female and male students achieved transfer at comparable rates, females were more likely to stop near the gate (transfer prepared), while male students were more likely to stop at the gate (transfer ready). In other words, **among transfer-bound students, males were more likely to get closer to transfer before stopping than females**.

In terms of race/ethnicity, **nearly 75% of the transfer-bound African Americans in our sample made it through the gate**, which was more than any other race/ethnicity**.** While this population is proportionally underrepresented in our sample of transfer-bound students, once achieving the requirements for transfer, African-American students (both females and males) overwhelmingly stepped through the gate to continue their journey toward

### Exploring the Role of Gender, Race/Ethnicity, and Region

**ACTIONABLE FINDINGS:**

- 75% of African Americans who completed transfer requirements made it through the gate, yet, most African-American students never make it this far on the transfer continuum.
- Latino males and Native American females were least likely to transfer compared to other groups.
- Students in the Inland Empire were least likely to make it through the gate compared to other regions.

Learn more on page 59.

baccalaureate completion. In other words, if African-American students, regardless of gender, become transfer ready or prepared, they are extremely likely to continue on to transfer. *What can we learn from their persistence that might inform supports to other populations? How can our CCCs get more African-American students to this point on the transfer continuum?*

**Latino male students and Native-American female students are less likely to achieve their transfer goal**, when compared to other populations in this study, even after earning an ADT or becoming transfer ready or prepared. Lastly, in terms of region, this research found that transfer-bound **students in the Inland Empire were least likely to make it through the transfer gate** (63.1% vs. 66.6% statewide). *What supports are required to help these student groups overcome some of the unique barriers they face to transfer to a university? How can we help our community college students, who have made significant progress toward a bachelor's degree realize this goal and secure the credentials that will inevitably boost their social and economic wellbeing?*

# Data Limitations and the Impact on Transfer Research in California

In conducting the first phase of our quantitative research, two key limitations that affect not only our *Through the Gate* study but any study of transfer in California emerged. These challenges revolve around (1) determining which students demonstrate behavioral intent to transfer, and (2) identifying whether students have met specific transfer requirements using the data available in our state-level systems. These limitations have a critical impact on how postsecondary systems in the state collect, report, and share data; and point to opportunities to address these challenges through large-scale adoption of guided pathways across our system, where students will be placed into clear pathways that include an articulated goal. Guided pathways may also help address the need in our statewide data for more specific degree and transfer requirements to more accurately determine patterns in what coursework students may be missing as they work toward their educational goal.

# Conclusion

The initial research conducted by our *Through the Gate* transfer study provides a map of outcomes for transfer-bound students, and points to many opportunities for further investigation. Why do so many students who are close to achieving their transfer goal stop short of making this transition? What more can we do to help students who are at or near the transfer gate progress to a baccalaureate institution and secure a postsecondary credential? What is specifically holding back different student groups that have taken such important steps toward achieving their bachelor's degree, and how can we help them continue their journey? What is uniquely impacting students' transfer progress in the Inland Empire and Central Valley, and what strategies can be pursued to increase their success?

*Through the Gate*'s second phase will specifically explore these and other questions by gathering information from students themselves—securing critical insights that can help refine existing strategies to increase transfer and inform new efforts to improve the success of high-leverage learners. In addition, we will further explore the interplay between race and ethnicity and gender in students' transfer experience and analyze the role of other factors such as GPA, receipt of financial aid, and enrollment status in students' pursuit of transfer as the project continues.

### Let's Start a Conversation...

Here are some prompts to support your own community conversation about these initial findings and how they relate to increasing transfer success in California.

1. What does the transfer continuum look like on your campus (or district or region)? Specifically, which student groups are stuck near or at the gate? Which ones are transfer achievers?
2. What factors may be impeding students' progress through the transfer gate? For example, what role does math play?
3. What more do you need to know about these student groups in order to further increase their transfer success?

# Introduction

## What Is the RP Group's *Through the Gate* Transfer Study?

This research aims to identify strategies for increasing transfer among "high-leverage" students in California Community Colleges (CCCs)—individuals who have completed all or most of their transfer requirements, but who do not make it "through the gate" to a university. The RP Group is conducting this study in two phases:

**PHASE I – MAPPING THE TRANSFER LANDSCAPE:**

This stage of research aims to better understand the transfer landscape for high-leverage learners, determining: (1) how many students in California arrived near or at the transfer gate, but did not go through; (2) who they are and where they reside; and (3) what we can glean about opportunities to increase their transfer success.

**PHASE II – GETTING BETTER DIRECTIONS:**

People on the ground are often best positioned to offer insights about the most effective way to get from point A to point B. In this stage, we will ask students who are nearly prepared or ready to transfer what factors are impacting their journey and how policy and practice could change to propel them through the gate.

Our study specifically focuses on the Inland Empire and Central Valley, as students in these areas of the state have lower college completion rates, which suggests that they may face unique challenges and barriers along their transfer journey.

Educators, policymakers, funders, and advocates across California are working to increase baccalaureate completion for low-income learners and students historically underrepresented in higher education—helping students secure a path toward social and financial advancement, diversifying our workforce, and strengthening our state's economic wellbeing. The improvement of transfer from our 114 community colleges to our 23 California State Universities (CSUs) and other universities offers one critical, cost-effective lever for advancing these outcomes.

Many students enter our community college system hoping to transfer to a university, and new policies and practices are taking root in California to make a dent in stubbornly low transfer rates through more streamlined paths between our postsecondary segments. The transfer goals outlined in the California Community College Chancellor's Office (CCCCO) new *Vision for Success*, the guided pathways movement taking place across the state, and the establishment and expansion of the Associate Degree for Transfer (AD-T) are all working to strengthen transfer outcomes. Yet, what more can we do? What else do we need to learn about transfer-bound students in order to meaningfully improve their chances of transfer success and bachelor's degree completion, at scale?

In 2016, the Research and Planning Group for California Community Colleges (RP Group) launched a two-part transfer study called "*Through the Gate*" to take a fresh look at addressing some of these fundamental questions, with support from the College Futures Foundation (see side bar, *What Is the RP Group's Through the Gate Transfer Study?*). This research aims to identify strategies for increasing transfer among "high-leverage" learners in California Community Colleges (CCCs)—individuals who have completed all or most of their transfer requirements, but who do not make it "through

the gate" to a university. Our study specifically focuses on the Inland Empire and Central Valley, as students in these areas of the state have lower college completion and transfer rates, which suggests that they may face unique challenges and barriers along their transfer journey (CCCCO, n.d.; Johnson, Cook, & Cuellar Mejia, 2017). At the same time, we aim for the results to inform strategic efforts to advance transfer outcomes for all low-income, underrepresented students across California's higher education systems.

# Reader's Guide

This technical report provides detailed results from Phase I of our *Through the Gate* transfer study, designed to (1) develop a quantitative profile of students in California who near or at but do not go through the transfer gate, and (2) begin to identify opportunities for increasing their transfer success. We anticipate that educators, executives, and system-level leaders in our state's community college and university systems; intersegmental groups; and advocates, funders, and researchers can all glean insights from this report that can be used to inform equity-focused transfer initiatives and guided pathways effort.

Readers will first find a context-setting section that explores why transfer is important to our students and our state, what we are trying to improve when we talk about "increasing transfer success," and what research is already available to help us understand the current transfer landscape. We then discuss what this study will uniquely contribute to this landscape and share our Phase I research methodology. Following, we provide a review of our findings, beginning with an overview of the state of transfer across CCCs, and taking a look at what the data can specifically tell us about transfer paths for students who are transfer-ready or who have completed the majority of their transfer requirements but still have critical milestones to achieve (i.e., math and/or English coursework). We conclude with a discussion of the implications of these results and preview the student perspectives research we intend to conduct in the next phase of this study, designed to further understand the factors that impact the movement of students who near or at the transfer gate.

# Surveying the Transfer Landscape

## Why Is Transfer Important?

The Public Policy Institute of California (PPIC) recently predicted that California will experience a shortfall of 1.1 million college graduates by 2030 (Johnson, Mejia, & Bohn, 2015). The PPIC explained that the shortage will compromise the competitiveness of industries that drive California's growth. So, how can California increase its production of baccalaureate-prepared workers? The most cost-effective way is for the state to support increases in transfer from CCCs to universities. Theoretically, it costs California less to produce a baccalaureate holder who spends two years in a community college (estimated annual cost of $7,200 per year) and then transfers to complete their degree at a CSU ($13,770 per year) or at University of California (UC) ($22,000 per year) than it costs for the state to produce a baccalaureate holder who enters a CSU or a UC as a freshman and completes their degree there (Legislative Analysis Office (LAO), 2015).

Importantly, transfer also presumably makes earning a baccalaureate degree more affordable for students, parents, and guardians contributing to pay tuition fees. For the 2016-2017 academic year, CCCs charged students $46 per unit ($1,104 per year for full-time enrollment in 12 units) (I Can Afford College website), while the CSU charged students $5,472 per year (CSU Academic Services website). That said, research shows that California students often take well over the theoretical four years to make it through their community college and university experience to bachelor's degree completion, saddling them with tens of thousands of dollars in additional costs and delaying their entry into the workforce to earn higher wages. A recent report by the Campaign for College Opportunity (2017) revealed that only 38% of CCC students transfer after six years, and of the small proportion of students who do transfer, they may spend between $36,000 to $38,000 more to earn their bachelor's degree compared to students who enrolled directly into a California public university. Still others never make it to transfer in the first place—highlighting the opportunity to strengthen support to our state's transfer students in their quest for a baccalaureate.

Additionally, transfer offers a key lever for increasing race and income equality in our state. Almost two-thirds of Latinos and African Americans who attend

college in our state begin their postsecondary journey at a community college (Campaign for College Opportunity, 2015). Accordingly, increased production of CCC transfer students can potentially contribute to increasing the diversity of our workforce. Further, since community colleges serve a disproportionate number of first-generation college students and lower-income students (Handel & Williams, 2012), increased transfer rates also have the potential to provide individuals with historically limited access to high-skill and living-wage jobs with an educational bridge to economic mobility.

Evidence shows that employment opportunities for individuals with at least some postsecondary education are on the rise, while job availability for people with a high school diploma or less is declining (Carnevale, Jayasundera, & Cheah, 2012). Moreover, research underscores the difference educational attainment can make to median lifetime earnings; workers with a high school diploma earn $1.3 million, while associate's degree-holders earn $1.7 million, and bachelor's degree-holders earn $2.3 million (Carnevale, Rose, & Cheah, 2013). These lifetime earnings disparities may continue to increase given that bachelor's degree holders have a higher employment rate compared to those with some college or an associate's degree (Carnevale et al., 2012). This research combines to make a compelling case for ensuring more students get on a transfer path, efficiently complete the transition to university, and attain their bachelor's degree…which begs the question, how?

# What Do We Know about Improving Transfer Success?

What kind of research has been conducted to identify strategies for increasing transfer? Before launching this study, the RP Group conducted a scan of how transfer has been examined over the past five years. The purpose of the scan was to contextualize our own *Through the Gate* transfer study and to identify findings from previous research that can inform the second phase of this project. The review included a high-level scan of national transfer research and a more in-depth examination of recent studies focused on California. The following section presents key takeaways from each of these reviews, focusing on findings that are most relevant to our own *Through the Gate* study.

## National Transfer Research

*Transfer Playbook: Essential Practices for Two- and Four-Year Colleges* (2016), produced through a partnership between the Community College Research Center (CCRC) and the Aspen Institute, offers one of the most important transfer

studies published over the past five years. As the title suggests, the study is based on an analysis of transfer outcomes on both sides of the transfer equation, supplemented by interviews with pairs of community colleges and baccalaureate institutions that demonstrate high transfer rates and high graduation rates for those transfer students (respectively) from across the country. A summary of the research findings underscore that **increased transfer is the responsibility of both two- and four-year institutions**, and the *Transfer Playbook* offers a suite of effective practices for each type of institution. The study, which included site visits to six pairs of high-performing institutions in six states, identified three strategies to increase transfer:

1. Effective communication within community colleges that transfer is a high priority;

2. Development of transparent and effective programmatic pathways that guide and advance students to transfer; and

3. Customized and high-quality transfer advising to guide students to transfer and to support students after they transfer, provided both by community colleges and their four-year college partners (Wyner, Deane, Jenkins, & Fink, 2016).

We explored another national study that provided its own review of relevant transfer-focused research and policies, thus offering quick insight into a broad array of research. This study highlights **several barriers for students**, including the **complexity of the transfer process, lack of transparency about how credits will transfer, and the clash of the different academic cultures** at community colleges and four-year institutions (Williams & Handel, 2012). At a broader level, key findings highlight the **absence of incentives, clear transfer goals, and cross institution financial aid strategies, and limited data on the capacity of the community colleges to prepare and the four-year partners to admit transfer students** (Williams & Handel, 2012). Recognizing that transfer rates had not increased between 2003-2004 and 2008-2009, despite more students desiring to transfer, the authors offer recommendations to community college, four-year, state government, research, nonprofit, and philanthropy leaders to create a transfer culture; to partner, strategically plan for, and support transfer initiatives; and to implement research methodologies that can inform and increase transfer rates (William & Handel, 2012).

# California Transfer Research

## EFFECTIVE PRACTICES RESEARCH

### What Is California Doing to Improve Transfer Success?

***SB 1440. CALIFORNIA COMMUNITY COLLEGES: STUDENT TRANSFER ACHIEVEMENT REFORM ACT***

Enables CCCs and CSUs to collaborate on the creation of associate transfer programs. Requires community colleges to grant an associate degree for transfer to a student once s/he has met specified general education and major requirements for the degree. Upon completion of the associate degree, the student is eligible for priority consideration and guaranteed transfer admission as a junior within the CSU system.

***SB 440. THE STUDENT TRANSFER ACHIEVEMENT REFORM ACT***

Expands SB 1440 by requiring CCCs to create associate transfer degrees in every major, which must be accepted by CSU. Includes provisions to establish marketing and communication strategies directed at students to increase their awareness of the AD-T option, along with the development of a streamlined admissions process for students not admitted to the CSU of their choice.

***AB 1016. PUBLIC POSTSECONDARY EDUCATION: STUDENT TRANSFER ACHIEVEMENT REFORM ACT***

Requires CCCs and CSUs to report on the creation of AD-Ts that lead to CSUs, CSUs' acceptance of TMCs matching AD-Ts to CSU degree programs, and various AD-T student outcomes at CSUs.

Between 2007 and 2010, the RP Group concluded a multi-year study of CCCs with higher than expected transfer rates (Mery & Schiorring, 2008). While the study goes back more than five years, its recommendations were almost entirely aligned with those presented by the *Transfer Playbook*. The study identified the following **college characteristics and commitments as factors contributing to increase transfer: robust transfer culture, student-focused environment, intense commitment to the institution among those who work there, strategic high school partnerships, strong four-year relationships, and effective use of support services**. Further, like the *Transfer Playbook*, the RP Group study derived from these high-performing community colleges a list of effective practices that other community colleges could use to increase transfer, specifically those related to transfer culture, strong four-year college relationships, and effective support services (Hayward, 2010). While the RP Group's research focused on California, the recommendations echoed conclusions reached by dozens of transfer studies over the past decades.

Subsequent to the RP Group's research, the Civil Rights Project at the University of California, Los Angeles examined ways to strengthen transfer paths specifically for students of color (Gándara, Alvarado, Driscoll, & Orfield, 2012). This research looked at what could be gleaned from California Community Colleges that disproportionately transferred African-American and Latino students from low-performing high schools. Examining the practices of five institutions, several lessons emerged, notably that (1) outreach counselors served as a critical bridge for students between low-performing high schools and the college, providing advising and connection to other campus resources;

(2) establishing a sense of "family" was more important to students of color than a generalized transfer culture; and (3) specific, culturally-relevant supports and special programs (e.g., Umoja, Unity, Adelante, Puente) were key drivers of transfer among these populations. That said, the project also underscored the limited counseling capacity on the five study campuses, particularly for transfer support; the boutique nature of the special programs that were so effective at supporting students of color; and the need for developmental education reform given the high percentage of underrepresented students who enter with basic skills needs (and the impediment that serves to their transfer progress).

## ASSOCIATE DEGREE FOR TRANSFER RESEARCH

In a departure from the focus on effective transfer practices, **most recent studies of transfer in California have focused on the Associate Degree for Transfer (AD-T)** (Senate Bill (SB) 1440), passed in 2010. While there are plenty of evidence-based strategies and approaches to guide institutions and pairs of institutions that want to increase transfer, transfer rates still have not increased dramatically nationally or in California. This **lack of upward movement in transfer rates was one of the drivers that resulted in the passage of 1440**. The AD-T was designed to encourage more community college students to transfer by creating "clearer transfer pathways that will help students navigate their way to transfer, taking fewer units and earning an associate degree before transferring" (SB 1440).

In 2012, the Legislature additionally passed SB 440 to expand the number of majors and areas of study to be included as part of the AD-T, to support the CCC and CSU in developing student-centered marketing about this opportunity, and to require the CSU to outline an admission process for students who are not accepted into their CSU of choice. **SB 440 thus aimed to enhance and expand the program's reach and implementation**. Still further, legislators passed Assembly Bill (AB) 1016 to subsequently establish deadlines for the CSUs to identify and report to the Legislature on the Transfer Model Curriculum (TMC) they would accept—curricula that fulfills 18-unit minimum major preparation requirements for each discipline. If successful, these bills would "make the AD-T the preferred transfer pathway among students" (Taylor, 2015; p. 20) (for a summary of these bills, see side bar on page 19, *What is California Doing to Improve Transfer Success*?[1]).

[1] These legislative bills may have varied implementation across the state. In 2015, the California Legislative Analyst's Office (LAO) produced a report assessing CCC and CSU compliance with the key transfer reform legislation, similarly finding that the systems were generally on track with

We reviewed multiple studies that investigated progress achieved in the implementation of the AD-T. In an early study, Moore & Shulock (2014) indicated there was **significant but uneven progress achieved by CCCs in developing AD-Ts and by CSU campuses tasked with increasing the number of TMCs** they accept. The research also revealed **infrastructure limitations, partially resulting from the CSU's limited capacity** to accommodate additional transfers and program impaction, and a **continued absence of advising on transfer and AD-Ts for CCC students**. The study additionally discovered that the degree had **utility for a small subset of learners**: community college students who enter with or quickly identify a major.

Baker (2014) examined **how degree attainment had changed specifically in departments that offer AD-Ts, finding an average increase in degree attainment of 40%**. At the same time, the study showed a **potential equity impact** caused by students seeking an AD-T crowding out disadvantaged students from courses offered in AD-T departments.

A year later, the Campaign for College Opportunity (CCO) (2016) found that six years after SB 1440 was passed, AD-T **implementation remained uneven across colleges in both the CCC and CSU systems**. Four CSUs accounted for two-thirds of the enrollment of AD-Ts in 2014, and **Latino students represented 42% of AD-T earners** (while making up just over one-third of transfer students). Moreover, its research underscored **limitations in the data available to fully assess the effectiveness of the AD-T on transfer**. However, in a subsequent report, CCO (2017) found that the AD-T reduced time to a bachelor's degree, whereby 48% of students who transferred to a CSU with an AD-T were able to graduate with a bachelor's degree within two years, compared to only 27% of students transferring to a CSU without an AD-T.

That said, the Education Insights Center (Lewis, Bracco, Moore, Nodine, & Venezia, 2016) found **CCC students continued to struggle to navigate the transfer process** and were persistently confused about AD-T requirements, options, and benefits. On the CSU side, the research revealed limitations in institutional capacity and impacted programs that may be impeding students' transfer progress—ultimately concluding that the **AD-T promotional message of "A Degree With A Guarantee" is a misnomer**.

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meeting the requirements of the legislation, but that some campuses were lagging behind both in creating the required degrees and accepting students who attained an AD-T.

Finally, four studies (Lewis et al., 2016; Moore & Shulock, 2014; Taylor, 2015) noted that there are still **opportunities to improve communication about the AD-T to several potential audiences**. In response, the CCCCO has allocated substantial funding (up to $11 million) to support a statewide campaign and a website (http://adegreewithaguarantee.com/) to increase awareness (B. Quinn, personal correspondence, January 31, 2017).

# How Does This Study Inform Efforts to Improve Transfer?

Our literature scan asked both what is and is *not* available in terms of transfer research and revealed that the RP Group's *Through the Gate* study offers several opportunities to break new ground. Below we outline what information we did not find and how these research gaps underscore the importance of our *Through the Gate* initiative.

## RESEARCH ON STUDENTS WHO GET TO OR NEAR THE TRANSFER GATE BUT DO NOT ACHIEVE TRANSFER

A recent CCRC study designed to compare employment and baccalaureate completion rates for community college and four-year students found that about half of bachelor's degree-seeking students in the sample earned at least 60 college-level credits at a community college but did not transfer. Moreover, almost a third of the students who earned an associate degree from a community college did not transfer. In conclusion, as Jenkins and Fink point out "many students are leaving cards on the table" (Jenkins & Fink, 2016). Similarly, Dr. Peter Bahr from the University of Michigan (personal communication, March 21, 2017) noted that his ongoing study of community college students entering and exiting the California Community College Science, Technology, Engineering and Math (STEM) pipeline has generated a similarly surprising discovery: on an annual basis, more than one in six students who successfully complete Calculus I do not transfer to a four-year institution and leave community college without a postsecondary credential.

## MISSING STUDENTS' PERSPECTIVES ON WHY MANY TRANSFER-BOUND STUDENTS LEAVE WITHOUT TRANSFERRING

Conversations with CCRC's Dr. Jenkins (personal communication, September 23, 2016) and with Dr. Bahr (personal communication, March 21, 2017) about our *Through the Gate* research underscored the importance of our study, particularly the student perspectives we intend to collect in the second phase. Few studies (Lewis et al, 2016; Mery & Schiorring, 2008) have directly asked successful students why they stopped at or near the gate.

# Phase I Research Methodology

There are many different ways we can define the "problem" of increasing transfer success, which can in turn dictate the questions we ask, the solutions we pursue, and the actions we take. One definition offered by the CCCCO defines transfer success as a cohort's "transfer velocity." The CCCCO specifically characterizes transfer velocity as the number of transfer students as a percentage of the number of students who initially enrolled over the past six years, and who during that timeframe, showed behavioral intent to transfer by completing 12 credit units and attempting transfer-level math or English (CCCCO, n.d.).

Unlike the CCCCO's definition and prior research, **this study takes a different approach to understanding and defining transfer success—recognizing transfer as a journey that a diverse and varied group of students undertake**. When we take a more nuanced look at this population, a "transfer continuum" emerges, revealing students at different points along a transfer path: transfer explorers, momentum students, students near the gate, students at the gate, and transfer achievers who make it through the gate to university (see Figure 2 on page 25). By using this approach, we can better understand students' dynamic experience and identify points of intervention that can help propel them further along the continuum.

*Figure 2.* Transfer Continuum


Undoubtedly, students at various junctures encounter particular barriers and require tailored supports. **This research is driven by the imperative to better understand how to specifically advance transfer outcomes for low-income and underrepresented learners who show a commitment to transfer, having completed all or most of their transfer requirements, but who have not yet achieved their transfer goal**. Identifying strategies for increasing transfer among this population of "high-leverage" CCC learners who are near or at the transfer gate has the potential to provide a swift and significant impact on their individual mobility and the overall economic strength of our state.

To conduct this research, we obtained student-level transcript data from the CCCCO. The initial sample included approximately 3.4 million students who were enrolled in at least one CCC during the five-year period between summer 2010 and spring 2015. In order to concentrate our sample to students who demonstrated the intent to transfer, we filtered along two criteria. First, we included students who demonstrated behavioral intent to transfer by completing at least 12 transferable units within a six-year timeframe to help ensure that these students had the opportunity, measured by having enough time, to be far along their transfer journey. Including these filters left us with a

remaining sample of 1,963,932 students who showed a behavioral intent to transfer and had at least six years to transfer.[2]

We then grouped these approximately 2 million CCC students into five different categories representing the different stages along a transfer continuum:

- **Transfer explorers**: Students who were the furthest away from transfer, having completed between 12 and 44 transferable units after six years of enrollment (45.5%, *n*=893,663)
- **Momentum students**: Individuals who demonstrated momentum toward a transfer goal by completing 45 to 59 transferable units and maintaining a 2.0 GPA (9.9%, *n*=194,639)
- **Students near the gate**: Students who completed 60± transferable units, but who were missing transfer-level English and/or math and had not yet transferred; the CCCCO defines these students as "transfer prepared" (8.0%, *n*=156,999)[3]
- **Students at the gate**: Students who completed 60± transferable units (including transfer-level English and math) and/or an AD-T, but had not yet transferred; the CCCCO defines these students as "transfer-ready" (6.9%, *n*=135,557)
- **Transfer achievers**: Students who made it through the gate by transferring to any university, with or without a degree (29.7%, *n*=583,074)

Clearly, transfer explorers make up the largest proportion (45.5%) of the initial sample of students who demonstrated behavioral intent to transfer and who had time and opportunity to accomplish this goal. Acknowledging their presence and further understanding the barriers they face in advancing along their transfer journey are critical components to the broader discussion of how to improve transfer in our state's system. These data indicate that nearly 900,000 CCC students had not gained the traction required to complete transfer—

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[2] We did not include data for students who enrolled for the first time in 2015-2016 because of the incompleteness of the transfer data, since students would not be allotted enough time to transfer. However, this exclusion means that a small number of students (*n*=1,247) who did transfer were not captured in the sample. Students who had transferred prior to fall 2010, but remained enrolled within the study timeframe were also removed; again, this group represented a relatively small number of students (*n*=2,381).

[3] Find CCCCO's definition of "transfer prepared" and "transfer ready" here: http://datamart.cccco.edu/App_Doc/Data_Definition_Glossary.doc.

certainly an opportunity lost. *Are these students lost in our colleges' lengthy basic skills sequences? Do they have access to financial aid? Are they properly oriented, assessed, and counseled?* Again, this study focuses on student populations where immediate action and intervention can take place; yet it is important to remember that all students along this transfer continuum face barriers that if we can address, we must address.

Additionally, **comparing transfer explorers to the high-leverage learners who are near or at the transfer gate and transfer achievers** who are the ultimate focus of this research **underscores some notable differences and offers important context for this research** (see *How Do the Through the Gate Study Populations Differ by Gender, Race/Ethnicity, and Region?* on page 28 as well as Appendix A for a complete demographic description).

It is important to recognize that **certain populations of students are underrepresented among those who do make significant progress toward transfer**; subsequently, these students are underrepresented in our study sample. These students tend to be male and from underrepresented racial minority backgrounds—African-American, Latino, and Native American students. Further, students enrolled in colleges in the Central Valley/Mother Lode and Inland Empire regions are least likely to be transfer achievers compared to students from colleges in other regions of the state, also making them underrepresented in our research. For these reasons, these students' voices will be a source of concentration within Phase II of this study.

# Which Students Are the Focus of the *Through the Gate* Study?

*Through the Gate's* first phase produced a comprehensive quantitative analysis, designed to establish a foundational profile of high-leverage learners who have not yet achieved transfer. This initial research serves to inform our study's second phase focused on gathering student perspectives, and to begin identifying opportunities for improving outcomes for these learners. In turn, we specifically focused on the sample of 875,630 transfer-bound students who were well advanced on the transfer continuum between 2010-2011 and 2014-2015, specifically students near the gate, students at the gate, and transfer achievers (see Figure 3 on page 28).

*Figure 3.* Through the Gate Study Populations


We measured their outcomes through spring 2016, looking at their highest outcomes achieved, and examining the role of gender, race and ethnicity, and region. For transfer achievers and students at the gate, we specifically explored the impact of the AD-T. For students near the gate, we particularly investigated the impact of math and English requirements. This initial analysis revealed important information about the experience of these different groups of transfer-bound students, pointed to key progress barriers, and surfaced some unexpected successes. We explore these findings in the following section.

## How Do the Through the Gate Study Populations Differ by Gender, Race/Ethnicity, and Region?

GENDER DIFFERENCES

Of all students demonstrating behavioral intent to transfer, data reveal that **females tend to be further along their transfer path or achieve their transfer goal at higher rates than males**. In other words, females are more likely to be transfer ready or prepared, or have transferred than their male counterparts. As a result, females are overrepresented in our study sample when compared to their proportion among the CCC students who demonstrate behavioral intent to transfer. These data raise questions about how to help more males move from transfer explorers into the near the gate, at the gate, and transfer achiever groups.

RACE/ETHNICITY DIFFERENCES

Compared to other race/ethnicities, students from Asian backgrounds are the most likely to be close to meeting or have met their transfer goal. On the other hand, **African-American, Latino, and Native-American students are more likely to be furthest from their transfer goal** as they are overrepresented in the transfer explorers group and underrepresented in the transfer achievers group. Moreover, African-American students are the least likely to be in the high-leverage learners group who have met or are close to meeting their requirements for transfer, but have not achieved their transfer goal.

REGIONAL DIFFERENCES

Compared to students enrolled in colleges in other regions, those in the San Diego/Imperial, South Central Coastal, and San Francisco Bay Area regions are more likely to be advanced on their transfer path and are overrepresented in the Transfer Achievers groups. Conversely, **students enrolled in colleges in both the Central Valley/Mother Lode and Inland Empire regions are the least likely to be transfer achievers**. Consequentially, Central Valley/Mother Lode students are the most likely to be furthest away from their transfer goal as demonstrated by their overrepresentation in the transfer explorers group.

See Appendix A for further context on the study sample based on the initial student population.

# Phase I Results: Mapping the Transfer Landscape for California Community College Students

The following section maps the opportunity for improving transfer for high-leverage learners who are well on the transfer path, based on analyses of the data on the three groups of CCC students outlined above—students near the gate, students at the gate, and transfer achievers. We begin with a discussion of the general state of transfer for students on this end of the transfer continuum. We then look at what we can specifically learn about each unique group. For transfer achievers, we specifically look at the impact of the AD-T on their transfer success. For high-leverage learners stuck at the gate, we particularly examine which college credentials these students achieve in their journey up to this point. When looking at high-leverage learners who are near the gate, we specifically examine the impact of transfer-level English and math requirements on their progress. We conclude by comparing these different groups of transfer-bound students, specifically looking at the role of gender, race/ ethnicity, and region.

## How Many Transfer-Bound Students Achieve Transfer?

First, let us specifically look at our sample of **875,630 transfer-bound students who were enrolled within a five-year timeframe, between 2010-2011 and 2014-2015**. How many of these students achieved transfer, and how many got stuck at or near the transfer gate? Of these students, we found…

- **66.6% (*n*=583,074) were transfer achievers;**
- **15.5% (*n*=135,557) were at the gate (transfer ready); and**
- **17.9% (*n*=156,999) were near the gate, but did not reach key milestones (transfer prepared).**

**292,556 students attending California Community Colleges over a recent five-year period who have demonstrated the determination and academic ability to transfer *have not made it through the transfer gate*.**

Good news emerges in that the majority (67%) of students who became transfer ready or prepared or who earned an AD-T did in fact transfer. Still, one-third of these students did not make the transition to a university. Stated simply…

- **Almost 300,000 CCC students over a recent five-year period who have demonstrated the determination and academic ability to transfer did not make it through the gate** (*n*=292,556).

To transform this loss into an opportunity to significantly increase California's transfer rates and make a meaningful impact on the lives of thousands of students, it is essential to examine who these students are and what barriers kept them from transferring.

## How Does Time Impact Transfer Progress?

While our research looked at the most advanced milestone students achieved during the study period—whether it was getting near, at, or through the transfer gate—we also observed how different cohorts of students progressed through the latter stages of our transfer continuum. Across all five cohorts, the data were striking…

**Time is an enemy; if students do not tranfer within the first year of arriving near the gate, the likelihood of making this transition reduces considerably.**

- **Once students got near the transfer gate (transfer prepared), the majority stopped advancing along their transfer path**, never reaching the gate (transfer ready) or going through the gate (transferred) (60.7%, *n*=123,745).

When we tracked the students who became transfer prepared (near the gate) in 2010-2011, over 60% never progressed through the transfer gate, even after four years. This percentage increased for more recent cohorts who had even less time to achieve the required milestones; for example, almost 83% of the students who arrived near the gate in 2014-2015 never progressed to or through the transfer gate (see Table 1).

*Table 1.* Near the Gate Student Progression Through the Last Stages of the Transfer Continuum, By Cohort Year

| First Arrived Near the Gate | Stopped Near the Gate | | Stopped At the Gate | | Went Through the Gate | | Total Who Arrived Near the Gate |
|---|---|---|---|---|---|---|---|
| | % | # | % | # | % | # | # |
| 2010-11 | 60.7 | 46,379 | 0.0 | 1 | 39.3 | 30,046 | 76,426 |
| 2011-12 | 50.2 | 25,095 | 0.8 | 387 | 49.0 | 24,512 | 49,994 |
| 2012-13 | 51.8 | 17,978 | 5.1 | 1,783 | 43.1 | 14,962 | 34,723 |
| 2013-14 | 76.7 | 14,442 | 3.4 | 637 | 20.0 | 3,759 | 18,838 |
| 2014-15 | 82.8 | 19,862 | 4.8 | 1,153 | 12.4 | 2,979 | 23,994 |
| Total | 60.7 | 123,756 | 1.9 | 3,961 | 37.4 | 76,258 | 203,975 |

That said, a higher proportion of students who first arrived near the gate in earlier years (i.e., 2010-2011, 2011-2012, 2012-2013) eventually transferred. While this finding might suggest that students simply need more time to transfer, additional analysis indicates otherwise. When examining how much time it takes students who are near the gate to make it to transfer, data show (see Table 2)…

- **Nearly 90% of students who made it through the gate, transferred within a short period of time**: less than one year (6.5%, *n*=4,934), in one year (59.9%, *n*=45,670), and in two years (22.7%, *n*=17,339).
- **Time is the enemy; if students do not transfer within the first year of arriving near the gate, the likelihood they will make this transition reduces considerably**.

*Table 2.* Time for Near the Gate Students to Become Transfer Achievers By Cohort Year

| First Arrived Near the Gate | Less than One Year | | One Year | | Two Years | | Three Years | | Four Years | | Five Years | | Total Who Transferred |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | % | # | % | # | % | # | % | # | % | # | % | # | # |
| 2010-11 | 1.4 | 434 | 49.6 | 14,890 | 28.9 | 8,690 | 12.9 | 3,863 | 5.2 | 1,575 | 2.0 | 594 | 30,046 |
| 2011-12 | 9.6 | 2,363 | 57.9 | 14,193 | 25.3 | 6,204 | 5.4 | 1,326 | 1.7 | 426 | -- | -- | 24,512 |
| 2012-13 | 7.4 | 1,102 | 77.8 | 11,642 | 11.3 | 1,687 | 3.5 | 531 | -- | -- | -- | -- | 14,962 |
| 2013-14 | 12.0 | 451 | 67.8 | 2,550 | 20.2 | 758 | -- | -- | -- | -- | -- | -- | 3,759 |
| 2014-15 | 19.6 | 584 | 80.4 | 2,395 | -- | -- | -- | -- | -- | -- | -- | -- | 2,979 |
| Total | 6.5 | 4,934 | 59.9 | 45,670 | 22.7 | 17,339 | 7.5 | 5,720 | 2.6 | 2,001 | 0.8 | 594 | 76,258 |

Further, it is important to recognize that once students arrive near the gate, they have already earned at least 60 transferable units and have maintained at least a 2.0 GPA. The only academic requirements these students are missing are completion of transfer-level math and/or English, and therefore, each cohort was technically afforded plenty of time to complete this final transfer requirement.

# What Can We Learn from Transfer Achievers?

To further our understanding of why high-leverage learners *are not* transferring, we first examined how students *are* transferring.

Who are these transfer achievers, and what routes do they take to transfer? In this section, we examine four different pathways to transfer from a CCC—earning an Associate Degree for Transfer (AD-T), Associate of Arts or Associate of Sciences degree (AA/AS), or certificate, or completing transfer requirements without earning a degree or certificate—and explore which student groups are most likely to travel these paths.

## What Transfer Pathways Did Students Take Through the Gate?

### Learning from Transfer Achievers

Made it through the gate by transferring to any university, with or without a degree (66.6%, *n*=583,074)

**ACTIONABLE FINDINGS:**

- Transfer achievers overwhelmingly transfer without a degree or certificate.
- The number of students completing an AD-T is on the rise, but reason for caution remains: region, CSU proximity, and major can all impact transfer success for AD-T earners.

Of the students who made it through the transfer gate to any university—CSU, UC, private, or out of state—we found that…

- **A majority of transfer achievers (68.5%, *n*=399,635) transferred to a university without a CCC degree or certificate.**

Transfer achievers earning an associate's degree represented a distant second at 21.4%, while only 4.3% of these students achieved an AD-T prior to transferring.[4]

### GENDER DIFFERENCES

These findings are mirrored when disaggregating the data by gender (see Table 3). At the same time…

- **Male students were more likely to transfer without a credential, while female students were more like to have earned an AA/AS degree prior to transferring**.

[4] The lower usage of the AD-T is not surprising at this point given that it is a relatively new transfer mechanism.

*Table 3.* Distribution of Transfer Achievers, by Credential Earned at CCC and Gender, 2010-2015

| Gender | AD-T | | AA/AS | | Certificate | | No Degree or Certificate | | Total |
|---|---|---|---|---|---|---|---|---|---|
| | % | # | % | # | % | # | % | # | # |
| Female | 4.5 | 14,395 | 23.1 | 74,619 | 5.8 | 18,822 | 66.6 | 215,336 | 323,172 |
| Male | 4.1 | 10,432 | 19.4 | 49,486 | 5.6 | 14,393 | 70.9 | 180,661 | 254,972 |
| Unknown | 4.3 | 212 | 17.8 | 878 | 4.1 | 202 | 73.8 | 3,638 | 4,930 |
| Total | 4.3 | 25,039 | 21.4 | 124,983 | 5.7 | 33,417 | 68.5 | 399,635 | 583,074 |

## RACE/ETHNICITY DIFFERENCES

When examining the data by race/ethnicity (see Table 4), we find that compared to other racial/ethnic groups…

- **Asian, African-American, and multi-ethnic students were more likely to transfer without a degree or certificate.**
- **Latino students were the most likely group to earn an AD-T prior to transferring.**

Consistent with the findings from the Campaign for College Opportunity (2016), these data suggest that Latino students have benefitted from the implementation of the AD-T.

*Table 4.* Distribution of Transfer Achievers by Credential Earned at CCC and Race/Ethnicity, 2010-2015

| Race/Ethnicity | AD-T | | AA/AS | | Certificate | | No Degree or Certificate | | Total |
|---|---|---|---|---|---|---|---|---|---|
| | % | # | % | # | % | # | % | # | # |
| Asian | 3.2 | 3,398 | 17.7 | 18,664 | 5.4 | 5,677 | 73.7 | 77,534 | 105,273 |
| African American/ Black | 2.1 | 749 | 21.2 | 7,468 | 3.4 | 1,208 | 73.2 | 25,749 | 35,174 |
| Latino | 6.4 | 10,696 | 25.8 | 43,380 | 6.1 | 10,277 | 61.8 | 104,086 | 168,439 |
| Native American | 3.3 | 82 | 25.6 | 643 | 5.1 | 129 | 66.0 | 1,659 | 2,513 |
| Pacific Islander | 3.1 | 93 | 25.3 | 748 | 3.8 | 113 | 67.8 | 2,006 | 2,960 |
| Two or More Races | 4.2 | 916 | 17.4 | 3,808 | 4.9 | 1,075 | 73.5 | 16,114 | 21,913 |
| White | 3.7 | 8,132 | 19.7 | 42,753 | 6.1 | 13,171 | 70.5 | 152,801 | 216,857 |
| Unknown | 3.2 | 973 | 25.1 | 7,519 | 5.9 | 1,767 | 65.7 | 19,686 | 29,945 |
| Total | 4.3 | 25,039 | 21.4 | 124,983 | 5.7 | 33,417 | 68.5 | 399,635 | 583,074 |

## DIFFERENCES BY GENDER AND RACE/ETHNICITY

When examining students who made it through the transfer gate by gender and race/ethnicity, some notable differences emerge (see Table 5).

Of students who transferred without a degree or certificate (the largest group of transfer achievers)…

- **Asian and multi-ethnic male students were more likely to transfer without a credential** compared to male students from other ethnic backgrounds (75.8% and 75.0%, respectively).
- **African-American and multi-ethnic female students were more likely to transfer without a credential** compared to female students from other ethnic bacgrounds (72.9% and 72.5%, respectively).

When looking at transfer achievers who completed an associate's degree…

- **Latino, Native American, and Pacific Islander male students were more likely to earn an AA/AS** (23.3%, 23.0%, and 24.1%, respectively).

- Similarly, **Latino, Native-American, and Pacific Islander female students were more likely to complete this milestone before transfer** (27.4%, 28.3%, and 26.3%, respectively).

Lastly, consistent with the data on AD-T earners above…

- **Latino male and female students were the only groups who were more likely than students from other racial/ethnic backgrounds to earn their AD-T** prior to transferring (6.1% and 6.5%, respectively).

*Table 5.* Distribution of Transfer Achievers across Credential Earned at CCC by Gender and Race/Ethnicity, 2010-2015

| Gender | AD-T | | AA/AS | | Certificate | | No Degree or Certificate | | Total |
|---|---|---|---|---|---|---|---|---|---|
| | % | # | % | # | % | # | % | # | # |
| Male | | | | | | | | | |
| Asian | 3.2 | 1,587 | 15.7 | 7,704 | 5.3 | 2,602 | 75.8 | 37,302 | 49,195 |
| African American | 2.0 | 291 | 21.6 | 3,181 | 3.0 | 444 | 73.4 | 10,791 | 14,707 |
| Latino | 6.1 | 4,171 | 23.4 | 15,987 | 6.0 | 4,131 | 64.5 | 44,170 | 68,459 |
| Native American | 3.8 | 40 | 22.4 | 235 | 5.4 | 57 | 68.3 | 716 | 1,048 |
| Pacific Islander | 3.1 | 44 | 24.3 | 339 | 3.9 | 54 | 68.7 | 960 | 1,397 |
| Two or more races | 3.9 | 373 | 16.5 | 1,564 | 4.6 | 436 | 74.9 | 7,081 | 9,454 |
| White | 3.6 | 3,511 | 17.9 | 17,489 | 6.1 | 5,920 | 72.5 | 70,818 | 97,738 |
| Unknown | 3.2 | 415 | 23.0 | 2,987 | 5.8 | 749 | 68.0 | 8,823 | 12,974 |
| Total Male | 4.1 | 10,432 | 19.4 | 49,486 | 5.6 | 14,393 | 70.9 | 180,661 | 254,972 |
| Female | | | | | | | | | |
| Asian | 3.2 | 1,772 | 19.7 | 10,851 | 5.5 | 3,035 | 71.6 | 39,555 | 55,213 |
| African American | 2.3 | 455 | 21.0 | 4,243 | 3.7 | 756 | 73.0 | 14,742 | 20,196 |
| Latino | 6.5 | 6,453 | 27.4 | 27,200 | 6.2 | 6,106 | 59.9 | 59,339 | 99,098 |
| Native American | 2.9 | 42 | 28.0 | 403 | 4.8 | 69 | 64.3 | 927 | 1,441 |
| Pacific Islander | 3.2 | 49 | 26.3 | 404 | 3.8 | 58 | 66.8 | 1,027 | 1,538 |
| Two or more races | 4.4 | 537 | 18.0 | 2,212 | 5.2 | 637 | 72.4 | 8,881 | 12,267 |
| White | 3.9 | 4,561 | 21.3 | 25,045 | 6.1 | 7,187 | 68.7 | 80,827 | 117,620 |
| Unknown | 3.3 | 526 | 27.0 | 4,261 | 6.2 | 974 | 63.5 | 10,038 | 15,799 |
| Total Female | 4.5 | 14,395 | 23.1 | 74,619 | 5.8 | 18,822 | 66.6 | 215,336 | 323,172 |

*Note: The total number of students in this table does not match the total number of students in other tables describing students who are Transfer Achievers (n=583,074) because of 4,930 students designated with an unknown gender.*

## REGIONAL DIFFERENCES

By region,[5] data revealed (see Table 6) …

- **Larger proportions of students from the Central Valley/Mother Lode and Inland Empire earned their associate's degree** (AA/AS) prior to transferring (26.9% and 31.6%, respectively).
- Colleges in the **South Central Coastal region exhibited the largest proportion of students transferring with an AD-T** (5.7%).

*Table 6.* Distribution of Transfer Achievers by Credential and Region, 2010-2015

| Region | AD-T | | AA/AS | | Certificate | | No Degree or Certificate | | Total |
|---|---|---|---|---|---|---|---|---|---|
| | % | # | % | # | % | # | % | # | # |
| Central Valley/ Mother Lode | 4.0 | 1,921 | 26.9 | 12,945 | 2.3 | 1,110 | 66.8 | 32,123 | 48,099 |
| Inland Empire | 4.3 | 1,585 | 31.6 | 11,682 | 3.3 | 1,204 | 60.9 | 22,524 | 36,995 |
| San Diego/ Imperial | 3.7 | 2,289 | 15.6 | 9,676 | 7.5 | 4,643 | 73.2 | 45,338 | 61,946 |
| Los Angeles/ Orange County | 4.8 | 8,919 | 21.1 | 39,298 | 7.9 | 14,779 | 66.2 | 123,232 | 186,228 |
| South Central Coastal | 5.7 | 2,922 | 20.9 | 10,757 | 9.4 | 4,849 | 64.0 | 32,893 | 51,421 |
| Santa Cruz & Monterey Bay/Mid-Peninsula/ Silicon Valley/ East Bay/ North Bay | 3.5 | 4,755 | 18.6 | 25,155 | 3.7 | 5,053 | 74.1 | 100,108 | 135,071 |
| Northern Coastal/ Northern Inland/ Greater Sacramento | 4.2 | 2,648 | 24.4 | 15,470 | 2.8 | 1,779 | 68.6 | 43,417 | 63,314 |
| Statewide Total | 4.3 | 25,039 | 21.4 | 124,983 | 5.7 | 33,417 | 68.5 | 399,635 | 583,074 |

[5] Regions are defined based on the Doing What Matters regional designations (http://doingwhatmatters.cccco.edu/); see Appendix B for a list of colleges by region.

## How Has the AD-T Increased Transfer?

We further explored what we could learn about the impact of the AD-T on transfer by looking at the outcomes for students who earned this degree. As noted above, the CCC system began implementing the AD-T in the 2011-2012 academic year. The data show that…

- Within four years of being implemented, **80% of AD-T earners had transferred to a baccalaureate institution**.
- During that same time period, **only half of students earning an AA/AS degree transferred** (49.8%, *n*=120,222).

These data suggest that the **AD-T is advancing its purpose of not only improving the transfer path for community college students, but also getting them through the gate** (see Appendix C). While these data reveal that a larger proportion of AD-T earners are successfully transferring, it is important to note that students earning their AD-T are more likely to have an educational goal of transferring compared to students pursuing their AA/AS degree, given that some associate's degrees are more likely to lead directly into immediate employment (e.g., nursing, automotive technology).

Over the short period in which CCCs have offered this new transfer option…

- **The number of students earning these degrees has exhibited an over 3,000% change**, with 698 students earning these degrees in 2011-2012 and 22,319 students completing an AD-T in 2015-2016.

It is extremely promising that CCCs are offering their students more opportunities to earn an AD-T, and more importantly, that more and more students are taking advantage of this option. At the same time, reason for caution remains. While our research showed that the volume of AD-T earners is increasing, when examining the data over time…

- **The transfer rate for students earning an AD-T is trending down.**

In 2011-2012, 88.5% of AD-T earners transferred, while in 2014-2015, 75.1% of students earning this degree transferred.[6] There are a number of possible explanations for these developments. As noted above, part of the decline in

[6] We excluded data for students earning their AD-T in 2015-2016 given the limited timeframe in which they were able to transfer and the absence of complete transfer data for this group of students.

transfer rates for AD-T earners may be due to the CSU system being impacted by the exponentially increasing number of students securing these degrees.

## IMPACT OF DEGREE MAJOR

We further explored if major played a role in the likelihood of transfer among AD-T earners, and found variable transfer rates by degree major (see Table 7)…

- Nearly half (48.9%) of all AD-T earners majored in either Business and Management (*n*=7,483) or Psychology (*n*=7,100) and transferred at roughly the same rates as AD-T earners overall (78.3% and 81.3%, respectively).
- The AD-T majors with the two lowest transfer rates were Family and Consumer Sciences (67.5%) and Foreign Language (52.4%), though only a small number of students earned their AD-T in Foreign Language (*n*=42).

*Table 7.* AD-T Earners by Major and Transfer Status, Distributed by Total Number of Degrees Awarded, 2010-2015

| Degree Major | Transferred | | Did Not Transfer | | Total |
|---|---|---|---|---|---|
| | % | # | % | # | # |
| Business and Management | 78.3 | 5,856 | 21.7 | 1,627 | 7,483 |
| Psychology | 81.4 | 5,780 | 18.6 | 1,320 | 7,100 |
| Social Sciences | 81.9 | 3,845 | 18.1 | 847 | 4,692 |
| Humanities (Letters) | 81.5 | 3,382 | 18.5 | 768 | 4,150 |
| Public and Protective Services | 74.9 | 1,912 | 25.1 | 641 | 2,553 |
| Mathematics | 81.9 | 1,175 | 18.1 | 260 | 1,435 |
| Fine and Applied Arts | 76.1 | 518 | 23.9 | 163 | 681 |
| Family and Consumer Sciences | 67.5 | 427 | 32.5 | 206 | 633 |
| Health | 83.1 | 482 | 16.9 | 98 | 580 |
| Physical Sciences | 88.6 | 241 | 11.4 | 31 | 272 |
| Media and Communications | 80.2 | 89 | 19.8 | 22 | 111 |
| Interdisciplinary Studies | 100.0 | 35 | 0.0 | 0 | 35 |
| Foreign Language | 52.4 | 22 | 47.6 | 20 | 42 |
| Information Technology | 84.0 | 21 | 16.0 | 4 | 25 |
| Education | 100.0 | 1 | 0.0 | 0 | 1 |
| Missing | 85.7 | 6 | 14.3 | 1 | 7 |
| Total | 79.8 | 23,792 | 20.2 | 6,008 | 29,800 |

Data from a CSU Analytic Studies report indicate that among the CCC transfer students who entered the CSU system in fall 2016, 16% transferred into their guaranteed AD-T pathway, while 14% transferred into a different path (CSU Analytic Studies, n.d.). It appears that one critical barrier emerging in the transfer path for AD-T earners is the availability of their guaranteed degree major pathway to a CSU, or simply major impaction at students' desired transfer university.

## REGIONAL IMPACT

Notably, this research revealed **variable transfer rates among AD-T earners across different regions** (see Table 8). While students earning their AD-T at colleges in the Los Angeles/Orange County and South Central Coastal regions were able to transfer at higher rates compared to other regions (81.9% and 81.7%, respectively), AD-T earners in the Inland Empire were less likely to transfer (75.4%).

*Table 8.* Distribution of AD-T Earners by Region and Transfer Status, 2010-2015

| Region | Transferred | | Did Not Transfer | | Total |
|---|---|---|---|---|---|
| | % | # | % | # | # |
| Central Valley/ Mother Lode | 78.6 | 1,761 | 21.4 | 479 | 2,240 |
| Inland Empire | 75.4 | 1,531 | 24.6 | 500 | 2031 |
| San Diego/ Imperial | 77.1 | 2,179 | 22.9 | 646 | 2825 |
| Los Angeles/ Orange County | 81.9 | 8,529 | 18.1 | 1,888 | 10417 |
| South Central Coastal | 81.7 | 2,772 | 18.3 | 619 | 3391 |
| Santa Cruz & Monterey Bay/Mid-Peninsula/ Silicon Valley/ East Bay/ North Bay | 78.8 | 4,494 | 21.2 | 1,211 | 5705 |
| Northern Coastal/ Northern Inland/ Greater Sacramento | 79.2 | 2,526 | 20.8 | 665 | 3191 |
| Statewide Total | 79.8 | 23,792 | 20.2 | 6,008 | 29,800 |

As we further unpacked potential barriers for AD-T earners along their transfer path, we also explored emerging regional differences among transfer achievers with an AD-T who enrolled in a CSU. We specifically zeroed in on CSU transfers because a larger proportion of AD-T earners transfer to a CSU rather than a UC, and more importantly, SB 1440 pointedly "guarantees" a transfer path for CCC students to the CSU system.[7] Compared to other regions, students from the San Diego/Imperial and Northern Coastal/Northern Inland/Greater Sacramento regions are more likely to transfer to a CSU that is near their community college (78.0% and 76.8%, respectively), while students in the South Central Coastal and

[7] We acknowledge that improving the transfer path is also core to the UC system, and recommendations from the UC Office of the President's (UCOP) Transfer Action Team includes strategies to strengthen and streamline the transfer pathway between the CCC and UC systems through creating new or aligning, where possible, AD-Ts and Transfer Model Curriculums (TMC) (UCOP Transfer Action Team, 2014).

Inland Empire regions were more likely to transfer to a CSU that is relatively far from their community college (39.4% and 34.3%, respectively) (see Table 9).[8] Taken together, it is clear that students enrolling at colleges in different regions of the state may face unique opportunities and challenges along their transfer journey.

*Table 9.* Distribution of AD-T Transfer Achievers by Region and Proximity to Transfer CSU, 2010-2015

| Region | Transfer to Closest CSU | | Transfer to Other CSU | | Total |
|---|---|---|---|---|---|
| | % | # | % | # | # |
| Central Valley/Mother Lode | 74.8 | 1,116 | 25.3 | 377 | 1,493 |
| Inland Empire | 65.7 | 829 | 34.3 | 433 | 1,262 |
| San Diego/Imperial | 78.0 | 1,446 | 22.0 | 408 | 1,854 |
| Los Angeles/Orange County | 70.8 | 5,052 | 29.2 | 2,080 | 7,132 |
| South Central Coastal | 60.6 | 1,248 | 39.4 | 811 | 2,059 |
| Santa Cruz & Monterey Bay/ Mid-Peninsula/ Silicon Valley/ East Bay/ North Bay | 67.7 | 2,334 | 32.3 | 1,112 | 3,446 |
| Northern Coastal/ Northern Inland/ Greater Sacramento | 76.8 | 1,656 | 23.2 | 499 | 2,155 |
| Statewide Total | 70.5 | 13,681 | 29.5 | 5,720 | 19,401 |

[8] CSU proximity is defined by miles; the CCCCO identified the two closest CSUs to each CCC; if a student transferred to one of their two closest CSUs, they "transferred to a nearby CSU" (CCCCO), see Appendix B for list of community college by region and closest CSUs.

# What Can We Learn from Students At the Transfer Gate?

Again, students who are at the transfer gate have met the academic requirements for transfer, but have not yet transferred. They have reached this status in one of two ways: (1) earning their AD-T, or (2) being "transfer ready" by way of achieving 60 or more transferable units, completing transfer-level math and English courses, and maintaining a GPA of at least 2.0. Nearly 16% of our study sample (*n*=135,557) met this status. Who are these students and what happens to them over time?

## Which Students Are At the Transfer Gate and How Did They Get There?

### Learning from Students At the Transfer Gate

Completed 60± transferable units (including transfer-level English and math) and/or an AD-T, but had not yet transferred (15.5%, *n*=135,557)

**ACTIONABLE FINDINGS:**

- 80% became eligible for transfer by achieving transfer-ready status, rather than completing an AD-T.
- Over 50% left without a college credential.
- Students stuck at the transfer gate were more likely to be Latino, regardless of gender.

When we look at the data on individuals who halted their educational journey at the transfer gate…

- **Only a small proportion of students stuck at the gate earned their AD-T** (20.0%, *n*=27,080).
- **The vast majority were transfer ready** (80.0%, *n*=108,477) (without an AD-T).

However, the lower usage of the AD-T is not surprising at this point, given its recent implementation, the fact that not all majors provide an AD-T pathway, and the wide variation in the availability of AD-Ts by college and by major.

### GENDER DIFFERENCES

When we disaggregated the data for these two different subgroups of students at the gate by gender (see Table 10), we see that…

- **A larger proportion of female students earn their AD-T but do not transfer**; as a reminder, female students are overrepresented in the population of students who demonstrated behavioral intent to transfer, so this finding is not surprising.

*Table 10.* Distribution of Students At the Transfer Gate by Subgroup and Gender, 2010-2015 Cohort

| Gender | Transfer Ready | | AD-T | | Total |
|---|---|---|---|---|---|
| | % | # | % | # | # |
| Female | 78.5 | 56,362 | 21.5 | 15,444 | 71,806 |
| Male | 81.7 | 51,335 | 18.3 | 11,461 | 62,796 |
| Unknown | 81.7 | 780 | 18.3 | 175 | 955 |
| Total | 80.0 | 108,477 | 20.0 | 27,080 | 135,557 |

## RACE/ETHNICITY DIFFERENCES

When we disaggregated the data by race/ethnicity (see Table 11), it shows that compared to other groups...

- **Asian students were most likely to be transfer ready** (87.1%).
- **Latino students were more likely than other groups to have earned an AD-T** (25.3%).

*Table 11.* Distribution of Students At the Transfer Gate by Subgroup and Race/Ethnicity, 2010-2015

| Race/Ethnicity | Transfer Ready | | AD-T | | Total |
|---|---|---|---|---|---|
| | % | # | % | # | # |
| Asian | 87.1 | 25,356 | 12.9 | 3,741 | 29,097 |
| Black | 79.0 | 3,005 | 21.0 | 800 | 3,805 |
| Latino | 74.7 | 37,156 | 25.3 | 12,608 | 49,764 |
| Native American | 82.4 | 411 | 17.6 | 88 | 499 |
| Pacific Islander | 81.8 | 404 | 18.2 | 90 | 494 |
| Two or More Races | 76.9 | 3,360 | 23.1 | 1,010 | 4,370 |
| White | 80.4 | 32,055 | 19.6 | 7,791 | 39,846 |
| Unknown | 87.6 | 6,730 | 12.4 | 952 | 7,682 |
| Total | 80.0 | 108,477 | 20.0 | 27,080 | 135,557 |

## DIFFERENCES BY GENDER AND RACE/ETHNICITY

When examining students at the transfer gate by race and gender (see Table 12), data reveal that…

- **Latino male students (23.4%), and female students from Latino (26.8%) and multi-ethnic backgrounds (26.9%) were more likely to earn their AD-T but not transfer.**
- **Asians, male and female, were most likely to become transfer-ready and not make the transition** to a baccalaureate institution (88.2% and 86.1% respectively).

*Table 12.* Distribution of Students At the Transfer Gate by Gender and Race/Ethnicity, 2010-2015

| Gender | Transfer Ready | | AD-T | | Total |
|---|---|---|---|---|---|
| | % | # | % | # | # |
| Male | | | | | |
| Asian | 88.2 | 12,871 | 11.8 | 1,726 | 14,597 |
| African American | 81.4 | 1,287 | 18.6 | 294 | 1,581 |
| Latino | 76.6 | 16,400 | 23.4 | 5,003 | 21,403 |
| Native American | 82.2 | 171 | 17.8 | 37 | 208 |
| Pacific Islander | 82.7 | 182 | 17.3 | 38 | 220 |
| Two or more races | 81.2 | 1,672 | 18.8 | 388 | 2,060 |
| White | 81.2 | 15,362 | 18.8 | 3,564 | 18,926 |
| Unknown | 89.2 | 3,390 | 10.8 | 411 | 3,801 |
| Total Male | 81.7 | 51,335 | 18.3 | 11,461 | 62,796 |
| Female | | | | | |
| Asian | 86.1 | 12,330 | 13.9 | 1,985 | 14,315 |
| African American | 77.2 | 1,703 | 22.8 | 502 | 2,205 |
| Latino | 73.2 | 20,543 | 26.8 | 7,539 | 28,082 |
| Native American | 82.9 | 238 | 17.1 | 49 | 287 |
| Pacific Islander | 81.2 | 220 | 18.8 | 51 | 271 |
| Two or more races | 73.1 | 1,672 | 26.9 | 614 | 2,286 |
| White | 79.8 | 16,479 | 20.2 | 4,181 | 20,660 |
| Unknown | 85.9 | 3,177 | 14.1 | 523 | 3,700 |
| Total Female | 78.5 | 56,362 | 21.5 | 15,444 | 71,806 |

*Note: The total number of students in this table does not match the total number of students in other tables, which describe students who are at the transfer gate (n=135,557) because of 955 students designated with an unknown gender.*

## REGIONAL DIFFERENCES

Lastly, data show that compared to other regions (see Table 13)...

- Students attending colleges in the **Central Valley/Mother Lode and San Diego/Imperial regions were more likely to earn their AD-T but not transfer** (26.1% and 25.7%, respectively).

*Table 13.* Distribution of Students At the Transfer Gate by Subgroup and Region, 2010-2015

| Region | Transfer Ready | | AD-T | | Total |
|---|---|---|---|---|---|
| | % | # | % | # | # |
| Central Valley/Mother Lode | 73.9 | 7,149 | 26.1 | 2,521 | 9,670 |
| Inland Empire | 80.6 | 8,212 | 19.4 | 1,981 | 10,193 |
| San Diego/Imperial | 74.3 | 7,245 | 25.7 | 2,506 | 9,751 |
| Los Angeles/Orange County | 81.1 | 38,495 | 18.9 | 8,965 | 47,460 |
| South Central Coastal | 77.5 | 10,361 | 22.5 | 3,016 | 13,377 |
| Santa Cruz & Monterey Bay/ Mid-Peninsula/Silicon Valley/ East Bay/North Bay | 83.2 | 26,195 | 16.8 | 5,295 | 31,490 |
| Northern Coastal/ Northern Inland/Greater Sacramento | 79.5 | 10,820 | 20.5 | 2,796 | 13,616 |
| Statewide Total | 80.0 | 108,477 | 20.0 | 27,080 | 135,557 |

# What Happened to Students Who Stopped At the Transfer Gate?

What happens to these students who get to but do not go through the transfer gate? Do they remain enrolled at a CCC? Do transfer-ready students ultimately earn a degree or a certificate? How many of these students simply exit from the system without continuing their education?

To better understand what happens next to students who reached the transfer gate, we tracked these students to see where they were along their academic pathway as of spring 2016.[9,10]

**For students who earned an AD-T but had not transferred…**

- **2,011 exited the CCC system (33.5%)** with no further enrollment at a CCC or university.
- **3,822 students were still enrolled (63.6%)** in the CCC system in spring 2016.

Though these students earned a degree that theoretically assures transfer into the CSU system, one group ended their educational journey with their associate's degree, while another group enrolled in CCC credits after they have appeared to have already met transfer requirements—**neither group leveraging their hard work toward a baccalaureate degree**. It is important to note that while students may have earned 60 transferable units, they may still have additional coursework to complete to fulfill specific major or general education requirements at their chosen transfer institution, which could be the reason for their continued enrollment.

The story for students who reached the transfer gate but who left the community college system and did not earn an AD-T is more discouraging. Not only did these students stop short of achieving transfer, many left without a college credential. Specifically, **when looking at the 57,148 transfer-ready students who exited the system** (see Table 14)…

- **Over one-half left without a credential** (54.3%, *n*=31,029).
- **Over one-third left with a degree** (35.8%, *n*=20,480).
- **A small proportion exited with a certificate** (9.9%, *n*=5,639).

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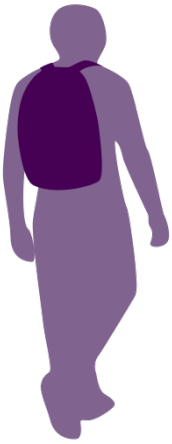
[9] To accurately depict this population, we first had to remove those students who reached transfer-ready status or earned an AD-T in the 2015-2016 academic year because these students likely have not yet had sufficient time to transfer, and perhaps more importantly, fall 2016 transfer data were not available (the term in which they would most likely first transfer) at the time of this study. Further, these students would superficially appear as "continuing" in spring 2016 because they technically earned credits toward their degree in this term.

[10] Of the 135,557 students at the transfer gate, 45,837 of them reached transfer-ready status or earned an AD-T during the 2015-2016 academic year. For the purposes of this analysis only, these students were removed. Therefore, this analysis considers the enrollment status of the 89,720 students who became transfer ready or earned an AD-T between 2010-2011 and 2014-2015.

*Table 14.* Distribution of Students At the Transfer Gate by Credential Earned at CCC and Enrollment Status as of Spring 2016, 2010-2015

| **Enrollment Status** | Transfer Ready | | AD-T | | Total | |
|---|---|---|---|---|---|---|
| | % | # | % | # | % | # |
| Continuing | | | | | | |
| Without degree or certificate | 61.1 | 16,218 | -- | -- | 53.2 | 16,218 |
| With degree | 30.2 | 8,035 | 97.6 | 3,822 | 38.9 | 11,857 |
| With certificate | 8.7 | 2,311 | 2.4 | 92 | 7.9 | 2,403 |
| Total Continuing | 31.7 | 26,564 | 65.1 | 3,914 | 34.0 | 30,478 |
| Exited | | | | | | |
| Without degree or certificate | 54.3 | 31,029 | -- | -- | 52.4 | 31,029 |
| With degree | 35.8 | 20,480 | 96.0 | 2,011 | 38.0 | 22,491 |
| With certificate | 9.9 | 5,639 | 4.0 | 83 | 9.6 | 5,722 |
| Total Exited | 68.3 | 57,148 | 34.9 | 2,094 | 66.0 | 59,242 |
| Total | 100 | 83,712 | 100 | 6,008 | 100 | 89,720 |

To understand this non-transfer story, this phenomenon will be explored in Phase II of our study where we will talk to these students. There are many reasons why students may decide not to pursue their baccalaureate, stop instead with their AD-T or another credential, or leave without securing a degree or certificate. However, it is critically important to understand these decisions, remove any potential barriers blocking their path to transfer, and help students parlay their educational achievements to this point into transfer success if this goal is still desired.



# What Can We Learn from Students Near the Transfer Gate?

Students who are near the transfer gate show significant progress toward transfer, but have not yet met critical milestones required to achieve this goal. These students are considered "transfer prepared" and have earned 60 or more transferable units with a 2.0 GPA, but still need to complete transfer-level math and/or English. Nearly 18% of our study sample (*n*=156,999) met this definition. What can the data tell us about how completing the math and/or English coursework required for transfer may factor into their progress, and what happens to them over time?

## What Math and English Barriers Do Students Near the Transfer Gate Face?

### Learning from Students Near the Gate

Completed 60± transferable units, but missing transfer-level English and/or math and had not yet transferred (15.5%, *n*=135,557)

**ACTIONABLE FINDINGS:**

- Math is a significant barrier. Nearly 92% needed to complete math requirements in order to transfer.
- Nearly half exited the system without a degree or certificate.

When looking at the literature, math and English requirements have at times served as barriers to completion of a degree (e.g., Bahr, 2010; Bailey, Jeong, & Cho, 2010; Fong, Melguizo, & Prather, 2015), and thus potentially for transfer. In examining the course-taking of students who were near the gate…

- **Half (50.6%) of students who were near the transfer gate were missing both transfer-level math and English .**
- **A small percentage (7.9%) were only missing transfer-level English.**
- **A much larger proportion of students (41.5%) were only missing transfer-level math.**

To underscore…

- **92% of students who were near the transfer gate needed to complete math** requirements in order to proceed to a baccalaureate institution.

Taken together, these data show that…

- **Completion of these courses, especially math, may be preventing a significant majority of students who are near the gate from transferring.**

Moreover, given that these students already earned 60 units, they are likely to continue amassing excess units as they work toward completing these math and/or English requirements, thereby elongating time to transfer, possibly racking up additional debt, potentially compromising their financial aid eligibility, and further delaying their entry into the workforce.

## GENDER DIFFERENCES

When looking at these data by gender (see Table 15)…

- **Female students were more likely to only be missing transfer-level math.**
- **Male students were more likely to be missing both transfer-level math and English.**

*Table 15.* Distribution of Students Near the Transfer Gate by Academic Transfer Requirement, by Gender, 2010-2015

| Gender | Missing Both Math and English | | Missing Only English | | Missing Only Math | | Total |
|---|---|---|---|---|---|---|---|
| | % | # | % | # | % | # | # |
| Female | 43.4 | 46,219 | 6.3 | 5,888 | 50.3 | 40,300 | 92,407 |
| Male | 48.5 | 32,706 | 6.6 | 6,433 | 44.9 | 24,409 | 63,548 |
| Unknown | 48.8 | 568 | 8.6 | 92 | 42.6 | 384 | 1,044 |
| Total | 50.6 | 79,493 | 7.9 | 12,413 | 41.5 | 65,093 | 156,999 |

## RACE/ETHNICITY DIFFERENCES

A similar story emerges when examining these students who were missing academic transfer requirements across racial/ethnic backgrounds (see Table 16). The majority of students, regardless of race/ethnicity, were missing both their math and English requirements, with two exceptions…

- **The majority of Latino and multiracial students were only missing transfer-level math.**

On the other hand, when compared to other groups…

- **Asian students were most likely to have completed transfer-level math**, but **least likely to have completed transfer-level English**; similarly, they were **less likely to have completed both transfer-level English and math**.

*Table 16.* Distribution of Students Near the Transfer Gate by Academic Transfer Requirement, across Race/Ethnicity, 2010-2015

| Race/ethnicity | Missing Both English and Math | | Missing Only English | | Missing Only Math | | Total |
|---|---|---|---|---|---|---|---|
| | % | # | % | # | % | # | # |
| Asian | 57.7 | 15,921 | 16.5 | 4,544 | 25.8 | 7,115 | 27,580 |
| African American | 50.3 | 4,108 | 4.0 | 327 | 45.7 | 3,726 | 8,161 |
| Latino | 42.8 | 22,291 | 5.5 | 2,869 | 51.7 | 26,931 | 52,091 |
| Native American | 51.6 | 510 | 5.4 | 53 | 43.0 | 425 | 988 |
| Pacific Islander | 53.7 | 379 | 6.1 | 43 | 40.2 | 284 | 706 |
| Two or more races | 41.0 | 1,654 | 7.5 | 302 | 51.5 | 2,074 | 4,030 |
| White | 54.0 | 29,423 | 6.3 | 3,424 | 39.7 | 21,649 | 54,496 |
| Unknown | 58.2 | 5,207 | 9.5 | 851 | 32.3 | 2,889 | 8,947 |
| Total | 50.6 | 79,493 | 7.9 | 12,413 | 41.5 | 65,093 | 156,999 |

## DIFFERENCES BY GENDER AND RACE/ETHNICITY

The data do not reveal any significant gender difference across race/ethnicity (see Table 17). Mirroring the findings by students' racial/ethnic backgrounds, both male and female Asian students were more likely, compared to other racial/ethnic groups, to have completed their math requirement but missing their English requirement. Further, across race/ethnicity and regardless of gender, the majority of students were missing both their math and English requirements. The only two exceptions were the same noted above with Latino and multiracial students, who were more likely to be missing transfer-level math regardless of gender.

*Table 17.* Distribution of Students Near the Transfer Gate by Academic Transfer Requirement, by Gender and Race/Ethnicity, 2010-2015

| Gender | Missing Both English and Math | | Missing Only English | | Missing Only Math | | Total |
|---|---|---|---|---|---|---|---|
| | % | # | % | # | % | # | # |
| Male | | | | | | | |
| Asian | 56.8 | 7,122 | 18.6 | 2,326 | 24.6 | 3,081 | 12,529 |
| African American | 51.2 | 1,582 | 5.0 | 153 | 43.8 | 1,353 | 3,088 |
| Latino | 44.1 | 8,863 | 7.5 | 1,499 | 48.4 | 9,734 | 20,096 |
| Native American | 55.3 | 202 | 6.6 | 24 | 38.1 | 139 | 365 |
| Pacific Islander | 55.6 | 175 | 6.7 | 21 | 37.8 | 119 | 315 |
| Two or more races | 40.2 | 684 | 9.8 | 167 | 50.0 | 851 | 1,702 |
| White | 54.4 | 11,785 | 8.3 | 1,801 | 37.3 | 8,076 | 21,662 |
| Unknown | 60.5 | 2,293 | 11.7 | 442 | 27.9 | 1,056 | 3,791 |
| Total Male | 51.5 | 32,706 | 10.1 | 6,433 | 38.4 | 24,409 | 63,548 |
| Female | | | | | | | |
| Asian | 58.5 | 8,701 | 14.7 | 2,195 | 26.8 | 3,986 | 14,882 |
| African American | 49.8 | 2,503 | 3.4 | 171 | 46.8 | 2,352 | 5,026 |
| Latino | 42.0 | 13,334 | 4.3 | 1,356 | 53.7 | 17,061 | 31,751 |
| Native American | 49.4 | 306 | 4.5 | 28 | 46.1 | 286 | 620 |
| Pacific Islander | 52.2 | 202 | 5.7 | 22 | 42.1 | 163 | 387 |
| Two or more races | 41.7 | 959 | 5.8 | 134 | 52.5 | 1,209 | 2,302 |
| White | 53.7 | 17,478 | 4.9 | 1,601 | 41.4 | 13,477 | 32,556 |
| Unknown | 56.0 | 2,736 | 7.8 | 381 | 36.2 | 1,766 | 4,883 |
| Total Female | 50.0 | 46,219 | 6.4 | 5,888 | 43.6 | 40,300 | 92,407 |

*Note: The total number of students in this table does not match the total number of students in other tables describing students who are near the transfer gate (n=156,999) because of 1,044 students designated with an unknown gender.*

## REGIONAL DIFFERENCES

These findings are also relatively consistent across regions (see Table 18). That said…

- **Students in the Central Valley were more likely to be missing transfer-level math** than students in other regions.
- **Students in Northern Coastal/ Northern Inland/Greater Sacramento were more likely to be missing both transfer-level math and English**.
- **Students in the Santa Cruz & Monterey Bay/Mid-Peninsula/Silicon Valley/East Bay/North Bay region were more likely to be missing both transfer-level math and English, or English only, but less likely to be missing math only**.

*Table 18.* Distribution of Students Who Are Near the Transfer Gate by Academic Transfer Requirement, across Region, 2010-2015

| Region | Missing Both English and Math | | Missing Only English | | Missing Only Math | | Total |
|---|---|---|---|---|---|---|---|
| | % | # | % | # | % | # | # |
| Central Valley/Mother Lode | 43.4 | 5,220 | 6.3 | 754 | 50.3 | 6,049 | 12,023 |
| Inland Empire | 48.5 | 5,557 | 6.6 | 754 | 44.9 | 5,151 | 11,462 |
| San Diego/Imperial | 48.8 | 5,764 | 8.6 | 1,016 | 42.6 | 5,041 | 11,821 |
| Los Angeles/Orange County | 48.0 | 25,814 | 6.4 | 3,454 | 45.6 | 24,516 | 53,784 |
| South Central Coastal | 49.1 | 6,218 | 8.4 | 1,066 | 42.5 | 5,381 | 12,665 |
| Santa Cruz & Monterey Bay/ Mid-Peninsula/Silicon Valley/ East Bay/North Bay | 56.6 | 22,026 | 11.5 | 4,482 | 31.9 | 12,436 | 38,944 |
| Northern Coastal/ Northern Inland/Greater Sacramento | 54.6 | 8,892 | 5.5 | 897 | 40.0 | 6,519 | 16,300 |
| Statewide Total | 50.6 | 79,493 | 7.9 | 12,413 | 41.5 | 65,093 | 156,999 |

# What Happened to Students Who Were Near the Transfer Gate?

So what happened to students who made significant progress toward the transfer gate, but who still needed to complete key math and/or English milestones? Did they remain enrolled at a CCC? Did they earn a degree or certificate along their transfer journey, or have they diverted from the transfer path, exiting with a degree or certificate to perhaps enter the workforce instead? How many of these students stopped out of the system without a degree or certificate?

Of all students who got near the transfer gate between summer 2010 and spring 2016…

- **Nearly half exited the system without a degree or certificate** as of spring 2016 (48.8%, *n*=76,653);
- **31.3% exited with a degree or certificate (*n*=33,283)**; and
- **19.8% were still enrolled (*n*=31,154)** and potentially continuing along their transfer path.

Though we cannot know what specific discipline or GE courses students near the gate were missing, we were able to determine whether or not they completed the transfer-level math and English courses required for transfer to a CSU or UC. When looking at the different missing math and English requirements of students who were near the transfer gate (see Table 19)…

- **Students who were missing both transfer-level math and English were most likely to have stopped out without a degree or certificate** (57.4%); only 21.7% of these students exited the system with a degree, 11.2% of these students exited with a certificate, and 9.7% were still enrolled.
- **Of students who only need to complete transfer-level English, 46.2% stopped out without a degree or certificate**, 15.2% left with a degree, 6.5% left with a certificate, and 32.1% were still enrolled.
- **Of students who only need to complete transfer-level math, 38.8% stopped out without a degree or certificate**, 21.7% exited with a degree, 9.6% exited with a certificate, and 29.9% were still enrolled in spring 2016.

While many students who seemingly diverted from their transfer path still obtained a degree or certificate…

- **The largest proportion of students who were near the transfer gate exited the system without earning a degree or certificate.**

Taken together, the data suggest that…

- **Completion of transfer-level math and English requirements restricts transfer-prepared students from fully realizing their transfer goal, with math being the most significant barrier across the board.**

*Table 19.* Distribution of Students Near the Transfer Gate by Academic Transfer Requirement and Enrollment Status as of Spring 2016, 2010-2015

| Enrollment Status | Missing Both English and Math | | Missing Only English | | Missing Only Math | | Total | |
|---|---|---|---|---|---|---|---|---|
| | % | # | % | # | % | # | % | # |
| Continuing | | | | | | | | |
| Without degree or certificate | 7.0 | 5,554 | 26.4 | 3,281 | 21.0 | 13,673 | 14.3 | 22,508 |
| With degree | 1.3 | 1,013 | 4.0 | 495 | 6.3 | 4,109 | 3.6 | 5,617 |
| With certificate | 1.4 | 1,124 | 1.7 | 212 | 2.6 | 1,693 | 1.9 | 3,029 |
| Total Continuing | 9.7 | 7,691 | 32.1 | 3,988 | 29.9 | 19,475 | 19.8 | 31,154 |
| Exited | | | | | | | | |
| Without degree or certificate | 57.4 | 45,650 | 46.2 | 5,732 | 38.8 | 25,271 | 48.8 | 76,653 |
| With degree | 21.7 | 17,282 | 15.2 | 1,881 | 21.7 | 14,120 | 21.2 | 33,283 |
| With certificate | 11.2 | 8,870 | 6.5 | 812 | 9.6 | 6,227 | 10.1 | 15,909 |
| Total Exited | 90.3 | 71,802 | 67.9 | 8,425 | 70.1 | 45,618 | 80.2 | 125,845 |
| Total | 100 | 79,493 | 100 | 12,413 | 100 | 65,093 | 100 | 156,999 |

# What Can We Learn from Comparing Transfer-Bound Students at Different Points on the Transfer Continuum?

Comparing transfer achievers with students who are at or near the gate offers additional insight into potential levers for strengthening CCC transfer. Looking at the data by different characteristics allows us to see which groups or regions may be more or less likely to have students who are stuck at different points along the transfer continuum compared to those who did transfer. We highlight key findings from these comparisons below.

## Exploring the Role of Gender, Race/Ethnicity, and Region

**ACTIONABLE FINDINGS:**

- 75% of African Americans who completed transfer requirements made it through the gate, yet, most African-American students never make it this far on the transfer continuum.
- Latino males and Native American females were least likely to transfer compared to other groups.
- Students in the Inland Empire were least likely to make it through the gate compared to other regions.

## GENDER DIFFERENCES

When looking at the data by gender (see Table 20)...

- **Female and male students achieved transfer at comparable rates** (66.3% and 66.6%, respectively).
- **However, males were more likely to stop at the gate** (16.5%) compared to females (14.7%).
- **Conversely, females were more likely to stop near the gate (19.0%)** than males (16.7%).

*Table 20.* Distribution of Transfer Status by Gender, 2010-2015

| Gender | Near the Gate | | At the Gate | | Transfer Achievers | | Total |
|---|---|---|---|---|---|---|---|
| | % | # | % | # | % | # | # |
| Female | 19.0 | 92,407 | 14.7 | 71,806 | 66.3 | 323,172 | 487,385 |
| Male | 16.7 | 63,548 | 16.5 | 62,796 | 66.9 | 254,972 | 381,316 |
| Unknown | 15.1 | 1,044 | 13.8 | 955 | 71.2 | 4,930 | 6,929 |
| Total | 17.9 | 156,999 | 15.5 | 135,557 | 66.6 | 583,074 | 875,630 |

## RACE/ETHNICITY DIFFERENCES

When examining the different transfer groups by race/ethnicity, the data notably showed that…

- **African Americans represented the largest proportion of students who achieved transfer (74.6%)** and the lowest percentage of students who got stuck at the gate (8.1%). Interestingly, African Americans were not more or less likely to be stuck near the gate.

These findings suggest that once African-American students meet all the requirements to transfer, they do transfer. That said, not enough African-American students get to this point. As a reminder, African-American students were least likely to have achieved the milestone of completing 60 transferable units with a 2.0 GPA, the requirement to be considered a high-leverage, transfer-bound student.

Conversely, Latino students were least likely to make it through the transfer gate[11] (see Table 21)…

- **Latino students had the lowest proportion of transfer achievers** (62.3%), and higher proportions of students stuck at

[11] The president's rescission on September 5, 2017 of the Deferred Action for Childhood Arrivals (DACA) program—which allowed individuals who entered the United States as minors and had remained in the country the ability to receive a renewable two-year period of deferred action from deportation and that ultimately led to students referred to as Dreamers under the Development, Relief, and Education for Alien Minors (DREAM) Act bill (U.S. Citizenship and Immigration Services, n.d.)—may further impact Latino student transfer statewide since, according to a report from the Brookings Metropolitan Policy Program, 86% of DACA applicants in California are from Mexico (Singer & Svajlenka, 2013).

(18.4%) and near (19.3%) the gate when compared to other race/ethnic groups.

For Latino students who were near the gate, the majority had not met the math requirement for transfer (51.7%).

Similarly, Native-American students were less likely to transfer when compared to other student groups…

- **62.8% of Native Americans achieved transfer, while nearly one-quarter was stuck near the transfer gate** (24.7%).

*Table 21.* Distribution of Transfer Status by Race/Ethnicity, 2010-2015

| Race/Ethnicity | Near the Gate | | At the Gate | | Transfer Achievers | | Total |
|---|---|---|---|---|---|---|---|
| | % | # | % | # | % | # | # |
| Asian | 17.0 | 27,580 | 18.0 | 29,097 | 65.0 | 105,273 | 161,950 |
| African American | 17.3 | 8,161 | 8.1 | 3,805 | 74.6 | 35,174 | 47,140 |
| Latino | 19.3 | 52,091 | 18.4 | 49,764 | 62.3 | 168,439 | 270,294 |
| Native American | 24.7 | 988 | 12.5 | 499 | 62.8 | 2,513 | 4,000 |
| Pacific Islander | 17.0 | 706 | 11.9 | 494 | 71.2 | 2,960 | 4,160 |
| Two or more races | 13.3 | 4,030 | 14.4 | 4,370 | 72.3 | 21,913 | 30,313 |
| White | 17.5 | 54,496 | 12.8 | 39,846 | 69.7 | 216,857 | 311,199 |
| Unknown | 19.2 | 8,947 | 16.5 | 7,682 | 64.3 | 29,945 | 46,574 |
| Total | 17.9 | 156,999 | 15.5 | 135,557 | 66.6 | 583,074 | 875,630 |

## DIFFERENCES BY GENDER AND RACE/ETHNICITY

Lastly, this report looks at the distribution across the three transfer statuses by students' gender and race/ethnicity. Overall, the data do not reveal any gender differences across race/ethnicity. Mirroring the findings from above (see Table 22)…

- **African-American males represented the largest proportion of students who made it through the gate** (75.9%) and the lowest percentage of students who were stuck at the gate (8.2%), **followed by African-American females** with 73.6% transferring and only 8.0% meeting transfer requirements, but not transferring.

On the other hand…

- **Latino male students and Native American female students exhibited lower proportions of students who make it through the gate (62.3% and 61.4%, respectively).**

Latino male students exhibit a larger proportion of students who are stuck at the gate (19.5%), while Native American females represent higher proportion of students stuck near the gate (26.4%) compared to the proportions statewide.

When examining the academic barriers **for Latino students who still needed to complete academic requirements for transfer**, the data reveal that while a large percentage of these students had not completed transfer-level math or English (42.8%), **over half of these students had not completed transfer-level math (51.7%)**.

*Table 22.* Distribution of Transfer Status by Gender and Race/Ethnicity, 2010-2015

| | Near the Gate | | At the Gate | | Transfer Achievers | | Total |
|---|---|---|---|---|---|---|---|
| | % | # | % | # | % | # | # |
| Male | | | | | | | |
| Asian | 16.4 | 12,529 | 19.1 | 14,597 | 64.5 | 49,195 | 76,321 |
| African American | 15.9 | 3,088 | 8.2 | 1,581 | 75.9 | 14,707 | 19,376 |
| Latino | 18.3 | 20,096 | 19.5 | 21,403 | 62.3 | 68,459 | 109,958 |
| Native American | 22.5 | 365 | 12.8 | 208 | 64.7 | 1,048 | 1,621 |
| Pacific Islander | 16.3 | 315 | 11.4 | 220 | 72.3 | 1,397 | 1,932 |
| Two or more races | 12.9 | 1,702 | 15.6 | 2,060 | 71.5 | 9,454 | 13,216 |
| White | 15.7 | 21,662 | 13.7 | 18,926 | 70.7 | 97,738 | 138,326 |
| Unknown | 18.4 | 3,791 | 18.5 | 3,801 | 63.1 | 12,974 | 20,566 |
| Total Male | 16.7 | 63,548 | 16.5 | 62,796 | 66.9 | 254,972 | 381,316 |
| Female | | | | | | | |
| Asian | 17.6 | 14,882 | 17.0 | 14,315 | 65.4 | 55,213 | 84,410 |
| African American | 18.3 | 5,026 | 8.0 | 2,205 | 73.6 | 20,196 | 27,427 |
| Latino | 20.0 | 31,751 | 17.7 | 28,082 | 62.4 | 99,098 | 158,931 |
| Native American | 26.4 | 620 | 12.2 | 287 | 61.4 | 1,441 | 2,348 |
| Pacific Islander | 17.6 | 387 | 12.3 | 271 | 70.0 | 1,538 | 2,196 |
| Two or more races | 13.7 | 2,302 | 13.6 | 2,286 | 72.8 | 12,267 | 16,855 |
| White | 19.1 | 32,556 | 12.1 | 20,660 | 68.8 | 117,620 | 170,836 |
| Unknown | 20.0 | 4,883 | 15.2 | 3,700 | 64.8 | 15,799 | 24,382 |
| Total Female | 19.0 | 92,407 | 14.7 | 71,806 | 66.3 | 323,172 | 487,385 |

*Note: The total number of students in each transfer status and overall in this table do not match the total number of students in other tables describing these respective groups because of 6,929 students designated with an unknown gender.*

## REGIONAL DIFFERENCES

By region…

- **The Inland Empire represented the lowest proportion of students who transferred**; 63.1% of these students transferred compared to the 66.6% statewide transfer rate.

Consequently, this region exhibited the largest proportions of students who were at (17.4%) or near (19.5%) the gate (see Table 23). Therefore, Inland Empire colleges may want to consider the barriers students who are near the transfer gate face that are preventing them from transfer (48.5% have not completed transfer math or English, and an additional 44.9% have not completed transfer math). Alternatively, the San Diego/Imperial region showed the highest rates of students who made it through the gate (74.2%). These data may indicate an opportunity to learn more about the conditions and factors that promote higher rates of transfer in this region.

*Table 23.* Distribution of Transfer Status by Region, 2010-2015

| Region | Near the Gate | | At the Gate | | Transfer Achievers | | Total |
|---|---|---|---|---|---|---|---|
| | % | # | % | # | % | # | # |
| Central Valley/Mother Lode | 17.2 | 12,023 | 13.9 | 9,670 | 68.9 | 48,099 | 69,792 |
| Inland Empire | 19.5 | 11,462 | 17.4 | 10,193 | 63.1 | 36,995 | 58,650 |
| San Diego/Imperial | 14.2 | 11,821 | 11.7 | 9,751 | 74.2 | 61,946 | 83,518 |
| Los Angeles/Orange County | 18.7 | 53,784 | 16.5 | 47,523 | 64.8 | 186,228 | 287,535 |
| South Central Coastal | 16.3 | 12,665 | 17.3 | 13,377 | 66.4 | 51,421 | 77,463 |
| Santa Cruz & Monterey Bay/ Mid-Peninsula/ Silicon Valley/ East Bay/North Bay | 18.9 | 38,944 | 15.4 | 31,585 | 65.7 | 135,071 | 205,600 |
| Northern Coastal/Northern Inland/Greater Sacramento | 17.5 | 16,300 | 14.5 | 13,458 | 68.0 | 63,314 | 93,072 |
| Statewide Total | 17.9 | 156,999 | 15.5 | 135,557 | 66.6 | 583,074 | 875,630 |

# Limitations to Phase I Research

As the RP Group brings the first phase of our quantitative research to a close, we must pause and recognize two key limitations to our *Through the Gate* study in general and to the findings specifically identified above, particularly challenges we encountered in (1) determining whom to include in the study sample based on behavioral intent to transfer, and (2) working with the data available in our state-level systems. We briefly review these limitations below and discuss the impact of these limitations on transfer-related research in California overall.

## Study Sample

In terms of establishing the study sample, transfer studies face unique challenges in identifying which community colleges students have a transfer goal and exhibit behavioral intent to transfer. Radwin and Horn (2016) concluded that, "it is probably impossible for community colleges to accurately discern which entering students truly intend to transfer to a four-year institution, and even if they could, students' educational goals are often uncertain and may change over time" (p. 2). Our study naturally faced these same difficulties, and we were ultimately **forced to make decisions based on prior methodology, such as adapting and adopting definitions from the CCCCO's transfer velocity metrics, as well as making a conscious effort to not place assumptions on our sample of students**. For example, we included individuals who achieved a community college degree or certificate but continued enrolling at a CCC, because if those students still accumulated 60 or more transferable units, they may very well be intending to transfer.

We also recognize that this research **focuses on the requirements for public universities when defining our study sample, and acknowledge that students can leave for a private university that has lower unit and/or no English or math requirements**. That said, our research is particularly concerned with informing and increasing transfer across our state's public higher education segments, given the aforementioned legislation that intends to bolster transfer pathways in alignment with the master plan promise to ensure student movement between these systems to degree attainment. Further, according to statistics from CSU Analytic Studies, UC Information Center, and CCCCO Datamart, 74% of CCC transfer students enrolled in a public university in the most recent year available (2015-2016). Additionally, we acknowledge that the **thresholds for the groups along the transfer continuum may call for revision as numerous reform efforts aimed at improving student completion in our state's higher education systems take root**, including the implementation of guided pathways across CCCs, the reform to transfer

requirements and the pursuit of a new remediation plan in the CSU, and the potential creation of transfer degree pathways to the UC.

## Data Availability

This study is also limited by the existing data available at the statewide level. As with statewide data disaggregation tools (e.g., LaunchBoard, Basic Skills cohort tracker), there is currently **no way to determine whether or not students have met all their course requirements to transfer**. Even though they have met the 60 transferable unit requirement, MIS data cannot identify which courses meet specific transfer requirements. In other words, a **students may have accumulated 60 or more transferable units, but remain ineligible for transfer because they have not met all the individual transfer course requirements**. For example, many majors at the university require specific prerequisite courses in order to apply for that major; however, we would have no way of knowing if students have met such requirements. To complicate matters further, prerequisite course requirements in the same major can vary from campus to campus within the CSU or UC system.

These limitations in the available data are also a **challenge when examining whether or not students have met the transfer-level math requirement**. Some students may opt to take a non-math course that counts toward their transfer-level math requirement (e.g., statistics offered by a psychology or business department). As a result, there is a **group of students of unknown size who have met the transfer-level math requirement via courses in areas other than math**; yet again, we are unable to identify them. Until the state is able to capture these points of data, any research that relies on statewide data to study the completion of transfer-level math will have this limitation because this level of information and analysis is only available at the local college level.[12]

Finally, we **could not establish whether or not students who were near or at the gate had attempted transfer and failed, or attempted transfer and succeeded but decided not to transition to a university**. We have no way of identifying these student behaviors in our existing quantitative data systems because universities currently do not share information on transfer applicants. However, we will aim to unpack this issue during the study's second phase of qualitative research).

[12] See Appendix D for a review of the steps we took in preparing the data file, which can be utilized for replication purposes using local college data.

# Impact of Limitations on Transfer Research in California

The limitations outlined above have a critical impact on how postsecondary systems in the state collect, report, and share data. To start, **not knowing students' intent to transfer presents a key obstacle to any related research**. However, hope may be on the horizon with the potential large-scale adoption of guided pathways across our system, where students will be placed into clear pathways that include an articulated goal. It is also clear that there is a **need for more specific data on transfer requirements in order to (1) more accurately determine patterns in what coursework students may be missing, and (2) develop more precise data on students' completion of the transfer-level math requirement** as they work toward their transfer goal.

Finally, **students who apply for transfer, but either do not get accepted or are choosing not to attend for unknown reasons represent another potentially "high-leverage" group of students to both study and support**. Perhaps if this group could be identified, universities and community colleges could work together to reach out to these students to ensure they understand what transfer options they may still have. It is our hope that by once again drawing attention to how these limitations in the data impact the ability to accurately identify students who intend to transfer and whether students have met their transfer requirements, we can help move the needle forward to make change.

# Conclusion

## Discussion of Phase I Key Findings

Diving into the data on students whose behavior demonstrates a commitment to transfer offers a fresh take on the state of transfer across our California Community Colleges and what opportunities we have to take a more nuanced approach to increasing transfer success. Let us review what these findings signal about areas of success and opportunities for improvement.

Overall, we found that the **majority of students who achieved transfer do so without a CCC credential** (68.5%, *n*=399,635). It is important the CCCs strategically work to address this issue as research has found that students who earn a degree, specifically a transfer-oriented associate degree, are more likely to earn a bachelor's degree within four, five, and six years (Crosta & Kopko, 2014). We anticipate that this trend may begin to shift as it coincides with an increasing number of students earning an AD-T. Our analysis suggests that the **advent of the AD-T and its uptake across the CCC and CSU systems may factor into increasing transfer success**, with an **exponentially larger number of students achieving these degrees over time**. Further, the AD-T demonstrates potential in decreasing some transfer equity gaps as Latino students, both male and female, are more likely to take advantage of this degree prior to transfer.

At the same time, caution remains. Data also showed that the **transfer rate for students earning this degree is trending down**. When taking major, CSU proximity, and region into account, transfer for AD-T earners can become more challenging if they are in a region without several CSUs from which to choose, if they are near CSUs with limited capacity, or if they are pursuing a highly-impacted major—all considerations for our CCC and CSU systems as they work to foster the positive trajectory of this transfer strategy.

### STUDENTS STUCK AT THE TRANSFER GATE

Students who are at the transfer gate have clearly put in the time and effort required to make it this far on the transfer path. Yet, they do not necessarily reap the reward of this persistence. In our sample of transfer-bound students, **nearly 136,000 students stopped at the transfer gate, despite achieving an AD-T or transfer-ready status**—a significant number of students who, in a recent five-year period, could have made the transition to a university and achieved their bachelor's degree. The vast majority (80.0%) of students stuck at

the transfer gate became **eligible for transfer by achieving transfer-ready status, rather than completing an AD-T**. *What more can we do to help students get on established AD-T paths, as appropriate to their major and a region?*

Further, not only did these students stop short of their transfer goal, **many left without a college credential**. When looking at transfer-ready students who exited the system (*n*=57,148), over one-third left without a degree or certificate. *How can we help these students secure a college credential that signals the hard work and preparation they have achieved to this point? What information and supports do these students need to complete the transition to a university?*

Still further, **students who were stuck at the gate are more likely to be Latino** (36.7%, *n*=49,764) when compared to other subgroups in this category overall. *What is uniquely holding back Latino students at the gate from making the transition to a university, despite their evident readiness for transfer, and how can we support these students in taking the next step in their journey to a baccalaureate degree?*

## STUDENTS APPROACHING THE TRANSFER GATE

Students who are near the transfer gate also show a dedication to their transfer goal as shown through their completion of 60 or more transferable units and their maintenance of a 2.0 GPA. At the same time, completion of the math and English coursework required for transfer appears to impede the movement of these students to a baccalaureate institution. When looking at how these academic requirements impacted students' progress to transfer, **math emerged as the biggest obstacle in the road**. An overwhelming majority of students who were near the transfer gate needed to complete math requirements in order to proceed (92%). This obstacle remained consistent across gender, race/ethnicity, and region. *How can we help transfer-bound students complete math early in their community colleges journey, and facilitate their progress to a bachelor's degree?* Multiple measures assessment and co-requisite and accelerated learning models all offer potential approaches to support students' math completion and advance transfer progress.

When looking at what happens to students who are near the transfer gate over time, we again see that many of these hardworking students leave the system without tangible evidence of their achievements. While about 31% of students exit with a degree or certificate, **nearly half of the students who were near the gate left the system without earning a credential (49%)**, and 20% remained enrolled.

Further, we discovered that **time is an enemy of students stuck near the gate**. Students who did not transfer within a year of arriving near the gate were less likely to make the transition to university. *What supports are required to quickly propel these students to upper-division coursework?*

Much like with students who are at the gate, these data raise questions about what more can be done to keep these learners on track toward their goal and ensure they obtain the credentials that match their achievements. *Other than math, what else might be holding these students back from attaining their goal?*

## THE ROLE OF GENDER, RACE/ETHNICITY, AND REGION

### Let's Start a Conversation...

Here are some prompts to support your own community conversation about these initial findings and how they relate to increasing transfer success in California.

1. What does the transfer continuum look like on your campus (or district or region)? Specifically, which student groups are stuck near or at the gate? Which ones are transfer achievers?
2. What factors may be impeding students' progress through the transfer gate? For example, what role does math play?
3. What more do you need to know about these student groups in order to further increase their transfer success?

Disaggregation of the data on students who were near and at the gate along with transfer achievers revealed that male and female transfer-bound students achieved transfer at comparable rates. However, female students were overrepresented in the transfer-bound population compared to male students demonstrating behavioral intent to transfer.

Differences in success by race/ethnicity and region emerged when comparing students near and at the transfer gate and transfer achievers. An observation of students' transfer status by race/ethnicity showed overwhelming success for African-American students, regardless of gender. While African Americans were proportionally underrepresented in our sample of transfer-bound students, they represented the largest proportion of students who made it through the gate (74.6%), and the lowest proportion of students stuck at the gate (8.1%). **Once achieving the requirements for transfer, African-American students overwhelmingly stepped through the gate to continue their journey toward baccalaureate completion**. *What can we learn from their persistence that might inform supports to other populations? How can our CCCs get more African American students to this point on the transfer continuum?*

On the other hand, **Latino male students and Native American female students were less likely to make it through the transfer gate**. Also important to this study, the data show that the **Inland Empire represents the lowest proportion of students who made it through the transfer gate** (63.1% vs. 66.6% statewide). *What supports are required to help these student groups overcome some of the unique barriers they face to transfer to a university?*

*How can we help our community college students, who have made significant progress toward a bachelor's degree realize this goal and secure the credentials that will inevitably boost their social and economic wellbeing?*

# Implications for Future *Through the Gate* Research

This report provides a comprehensive descriptive look at students near the gate, students at the gate, and transfer achievers, and identifies which students and regions are most impacted. This project's quantitative map of outcomes for transfer-bound students begins to surface potential barriers to transfer within the CCC system alone and points to many opportunities for further investigation, particularly *why* students who are well advanced along the transfer continuum do not make it through the gate.

Why do so many students who are close to achieving their transfer goal stop short of making this transition? What more can be done to help students who are at or near the transfer gate progress to a baccalaureate institution and secure a postsecondary credential? What is specifically holding back different student groups that have taken such important steps toward achieving their bachelor's degree, and how can we help them continue their journey? What is uniquely impacting students' transfer progress in the Inland Empire and Central Valley, and what strategies can be pursued to increase their success?

*Through the Gate's* next phase will specifically explore these and other questions by getting on the ground and gathering the perspectives of students themselves. We will explore a range of factors, including policies and practices in *both* the CCC and CSU systems that may be impeding the progress of high-leverage learners, as well as the social, cultural, financial, academic, and personal obstacles students might face. We will explore the impact of regional employment opportunities that students view as a more desirable route than to continue on their transfer paths. We will also be examining the role of increasing impaction in the CSU system in students' transfer journey (Freedberg, 2017). We anticipate that in talking directly with students who are near or at the transfer gate, we will gather critical insights that can help refine existing strategies to increase transfer and inform new efforts to improve the success of this high-leverage group of transfer-bound students. In addition, we will continue our quantitative analysis by further exploring the interplay between race and ethnicity and gender in students' transfer experience and examining the role of other factors such as GPA, receipt of financial aid, and enrollment status in students' pursuit of transfer.

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# Appendix A: Study Sample Student Characteristics and Region

## A1. Distribution of Students Who Demonstrated Behavioral Intent to Transfer by Gender, 2010-2015

| Gender | Transfer Explorers | | Momentum Students | | Near the Gate Students | | At the Gate Students | | Transfer Achievers | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | % | # | % | # | % | # | % | # | % | # | # |
| Female | 44.7 | 481,643 | 10.1 | 108,560 | 8.6 | 92,407 | 6.7 | 71,806 | 30.0 | 323,172 | 1,077,588 |
| Male | 46.4 | 403,999 | 9.7 | 84,671 | 7.3 | 63,548 | 7.2 | 62,796 | 29.3 | 254,972 | 869,986 |
| Unknown | 49.0 | 8,021 | 8.6 | 1,408 | 6.4 | 1,044 | 5.8 | 955 | 30.1 | 4,930 | 16,358 |
| Total | 45.5 | 893,663 | 9.9 | 194,639 | 8.0 | 156,999 | 6.9 | 135,557 | 29.7 | 583,074 | 1,963,932 |

## A2. Distribution of Students Who Demonstrated Behavioral Intent to Transfer by Race/Ethnicity, 2010-2015

| Race/Ethnicity | Transfer Explorers | | Momentum Students | | Near the Gate Students | | At the Gate Students | | Transfer Achievers | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | % | # | % | # | % | # | % | # | % | # | # |
| Asian | 36.9 | 110,958 | 9.2 | 27,606 | 9.2 | 27,580 | 9.7 | 29,097 | 35.0 | 105,273 | 300,514 |
| African American | 51.0 | 60,769 | 9.4 | 11,182 | 6.9 | 8,161 | 3.2 | 3,805 | 29.5 | 35,174 | 119,091 |
| Latino | 50.0 | 343,214 | 10.7 | 73,173 | 7.6 | 52,091 | 7.2 | 49,764 | 24.5 | 168,439 | 686,681 |
| Native American | 51.8 | 5,395 | 9.8 | 1,019 | 9.5 | 988 | 4.8 | 499 | 24.1 | 2,513 | 10,414 |
| Pacific Islander | 48.0 | 4,681 | 9.4 | 914 | 7.2 | 706 | 5.1 | 494 | 30.3 | 2,960 | 9,755 |
| Two or more races | 44.0 | 28,813 | 9.7 | 6,387 | 6.2 | 4,030 | 6.7 | 4,370 | 33.4 | 21,913 | 65,513 |
| White | 44.2 | 298,439 | 9.6 | 64,928 | 8.1 | 54,496 | 5.9 | 39,846 | 32.1 | 216,857 | 674,566 |
| Unknown | 42.5 | 41,394 | 9.7 | 9,430 | 9.2 | 8,947 | 7.9 | 7,682 | 30.7 | 29,945 | 97,398 |
| Total | 45.5 | 893,663 | 9.9 | 194,639 | 8.0 | 156,999 | 6.9 | 135,557 | 29.7 | 583,074 | 1,963,932 |

## A3. Distribution of Students Who Demonstrated Behavioral Intent to Transfer by Gender and Race/Ethnicity, 2010-2015

| | Transfer Explorers | | Momentum Students | | Near the Gate Students | | At the Gate Students | | Transfer Achievers | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | % | # | % | # | % | # | % | # | % | # | # |
| Male | | | | | | | | | | | |
| Asian | 36.9 | 52,303 | 9.3 | 13,153 | 8.8 | 12,529 | 10.3 | 14,597 | 34.7 | 49,195 | 141,777 |
| African American | 52.9 | 26,958 | 9.2 | 4,671 | 6.1 | 3,088 | 3.1 | 1,581 | 28.8 | 14,707 | 51,005 |
| Latino | 51.7 | 150,081 | 10.4 | 30,250 | 6.9 | 20,096 | 7.4 | 21,403 | 23.6 | 68,459 | 290,289 |
| Native American | 53.4 | 2,352 | 9.7 | 428 | 8.3 | 365 | 4.7 | 208 | 23.8 | 1,048 | 4,401 |
| Pacific Islander | 49.8 | 2,351 | 9.2 | 434 | 6.7 | 315 | 4.7 | 220 | 29.6 | 1,397 | 4,717 |
| Two or more races | 45.1 | 13,137 | 9.6 | 2,803 | 5.8 | 1,702 | 7.1 | 2,060 | 32.4 | 9,454 | 29,156 |
| White | 45.2 | 137,534 | 9.4 | 28,686 | 7.1 | 21,662 | 6.2 | 18,926 | 32.1 | 97,738 | 304,546 |
| Unknown | 43.7 | 19,283 | 9.6 | 4,246 | 8.6 | 3,791 | 8.6 | 3,801 | 29.4 | 12,974 | 44,095 |
| Total Male | 46.4 | 403,999 | 9.7 | 84,671 | 7.3 | 63,548 | 7.2 | 62,796 | 29.3 | 254,972 | 869,986 |
| Female | | | | | | | | | | | |
| Asian | 36.9 | 57,631 | 9.1 | 14,252 | 9.5 | 14,882 | 9.2 | 14,315 | 35.3 | 55,213 | 156,293 |
| African American | 49.6 | 33,248 | 9.6 | 6,420 | 7.5 | 5,026 | 3.3 | 2,205 | 30.1 | 20,196 | 67,095 |
| Latino | 48.7 | 191,245 | 10.8 | 42,574 | 8.1 | 31,751 | 7.2 | 28,082 | 25.2 | 99,098 | 392,750 |
| Native American | 50.7 | 3,008 | 9.8 | 582 | 10.4 | 620 | 4.8 | 287 | 24.3 | 1,441 | 5,938 |
| Pacific Islander | 46.2 | 2,288 | 9.4 | 467 | 7.8 | 387 | 5.5 | 271 | 31.1 | 1,538 | 4,951 |
| Two or more races | 43.0 | 15,411 | 9.9 | 3,543 | 6.4 | 2,302 | 6.4 | 2,286 | 34.3 | 12,267 | 35,809 |
| White | 43.4 | 158,517 | 9.8 | 35,850 | 8.9 | 32,556 | 5.7 | 20,660 | 32.2 | 117,620 | 365,203 |
| Unknown | 41.0 | 20,295 | 9.8 | 4,872 | 9.9 | 4,883 | 7.5 | 3,700 | 31.9 | 15,799 | 49,549 |
| Total Female | 44.7 | 481,643 | 10.1 | 108,560 | 8.6 | 92,407 | 6.7 | 71,806 | 30.0 | 323,172 | 1,077,588 |

*Note: The total number of students in each designated group and overall in this table do not match the total number of students in other tables describing these respective groups because of 24,116 students who were defined with an unknown gender.*

## A4. Distribution of Students Who Demonstrated Behavioral Intent to Transfer by Region, 2010-2015

| Region | Transfer Explorers | | Momentum Students | | Near the Gate Students | | At the Gate Students | | Transfer Achievers | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | % | # | % | # | % | # | % | # | % | # | # |
| Central Valley/ Mother Lode | 52.0 | 92,585 | 8.9 | 15,820 | 6.7 | 12,023 | 5.4 | 9,670 | 27.0 | 48,099 | 178,197 |
| Inland Empire | 47.2 | 67,715 | 11.9 | 17,057 | 8.0 | 11,462 | 7.1 | 10,193 | 25.8 | 36,995 | 143,422 |
| San Diego/Imperial | 46.0 | 84,920 | 8.7 | 15,986 | 6.4 | 11,821 | 5.3 | 9,751 | 33.6 | 61,946 | 184,424 |
| Los Angeles/ Orange County | 44.2 | 283,420 | 10.9 | 69,963 | 8.4 | 53,784 | 7.4 | 47,460 | 29.1 | 186,228 | 640,855 |
| South Central Coastal | 43.3 | 71,978 | 10.1 | 16,765 | 7.6 | 12,665 | 8.0 | 13,377 | 30.9 | 51,421 | 166,206 |
| Santa Cruz & Monterey Bay/ Mid-Peninsula/ Silicon Valley/ East Bay/North Bay | 43.2 | 183,628 | 8.4 | 35,723 | 9.2 | 38,944 | 7.4 | 31,490 | 31.8 | 135,071 | 424,856 |
| Northern Coastal/ Northern Inland/ Greater Sacramento | 48.4 | 109,417 | 10.3 | 23,325 | 7.2 | 16,300 | 6.0 | 13,616 | 28.0 | 63,314 | 225,972 |
| Statewide Total | 45.5 | 893,663 | 9.9 | 194,639 | 8.0 | 156,999 | 6.9 | 135,557 | 29.7 | 583,074 | 1,963,932 |

# Appendix B: California Community Colleges (CCC) by Region and Proximity to California State University (CSU)

## CCCs by Region

Central Valley/Mother Lode
Bakersfield College
Cerro Coso Community College
Columbia College
Fresno City College
Merced College
Modesto Junior College
Porterville College
Reedley College
San Joaquin Delta College
Sequoias, College of the
Taft College
West Hills College, Coalinga
West Hills College, Lemoore

Inland Empire
Barstow Community College
Chaffey College
College of the Desert
Copper Mountain College
Crafton Hills College
Moreno Valley College
Mt. San Jacinto College
Norco College
Palo Verde College
Riverside City College
San Bernardino Valley College
Victor Valley College

Los Angeles/Orange County
Cerritos College
Citrus College
Coastline Community College
Cypress College
East Los Angeles College
El Camino College
Fullerton College
Glendale Community College
Golden West College
Irvine Valley College
Los Angeles City College
Los Angeles Harbor College
Los Angeles Mission College
Los Angeles Pierce College
Los Angeles Southwest College
Los Angeles Trade-Tech College
Los Angeles Valley College
Long Beach City College
Mt. San Antonio College
Orange Coast College

Pasadena City College
Rio Honda College
Saddleback College
Santa Ana College
Santa Monica College
Santiago Canyon College
West Los Angeles College

Northern Coastal/Northern Inland/Greater Sacramento
American River College
Butte College
Consumnes River College
Feather River College
Folsom Lake College
Lake Tahoe Community College
Lassen College
Mendocino College
Redwoods, College of
Sacramento City College
Shasta College
Sierra College
Siskiyous, College of the
Woodland Community College
Yuba College

San Diego/Imperial
Cuyamaca College
Grossmont College
Imperial Valley College
Mira Costa College
Palomar College
San Diego City College
San Diego Mesa College
San Diego Miramar College
Southwestern College

Santa Cruz and Monterey Bay/Mid-Peninsula/ Silicon Valley/East Bay/North Bay
Alameda, College of
Berkeley City College
Cabrillo College
Canada College
Chabot College
College of Marin
Contra Costa College
DeAnza College
Diablo Valley College
Evergreen College
Foothill College
Gavilan College
Hartnell College
Laney College
Las Positas College
Los Medanos College
Merritt College
Mission College
Monterey Peninsula College
Napa Valley College
Ohlone College
San Francisco, City College of
San Jose City College
San Mateo, College of
Santa Rosa Junior College
Skyline College
Solano Community College
West Valley College

South Central Coastal
Allan Hancock College
Antelope Valley College
Canyons, College of the
Cuesta College
Moorpark College
Oxnard College
Santa Barbara City College
Ventura College

# CCCs with their Region, Sub-Region, and Two Closest CSUs, in Alphabetical Order

| CCC | Region | Sub-Region | Closest CSU | Second Closest CSU |
|---|---|---|---|---|
| Alameda, College of | Santa Cruz & Monterey Bay/ Mid-Peninsula/ Silicon Valley/ East Bay/ North Bay | East Bay | East Bay | San Francisco |
| Allan Hancock College | South Central Coastal | South Central Coastal | San Luis Obispo | Bakersfield |
| American River College | Northern Coastal/ Northern Inland/ Greater Sacramento | Greater Sacramento | Sacramento | Sonoma |
| Antelope Valley College | South Central Coastal | South Central Coastal | Northridge | Los Angeles |
| Bakersfield College | Central Valley/ Mother Lode | Central Valley | Bakersfield | Northridge |
| Barstow Community College | Inland Empire | Inland Empire/ Desert | San Bernardino | Pomona |
| Berkeley City College | Santa Cruz & Monterey Bay/ Mid-Peninsula/ Silicon Valley/ East Bay/ North Bay | East Bay | San Francisco | East Bay |
| Butte College | Northern Coastal/ Northern Inland/ Greater Sacramento | Northern Inland | Chico | Sacramento |
| Cabrillo College | Santa Cruz & Monterey Bay/ Mid-Peninsula/ Silicon Valley/ East Bay/ North Bay | Santa Cruz/ Monterey | Monterey Bay | San Jose |
| Canada College | Santa Cruz & Monterey Bay/ Mid-Peninsula/ Silicon Valley/ East Bay/ North Bay | Mid-Peninsula | San Francisco | San Jose |
| Canyons, College of the | South Central Coastal | South Central Coastal | Northridge | Los Angeles |
| Cerritos College | Los Angeles/ Orange County | Los Angeles | Dominguez Hills | Long Beach |
| Cerro Coso Community College | Central Valley/ Mother Lode | Central Valley | San Bernardino | Bakersfield |
| Chabot College | Santa Cruz & Monterey Bay/ Mid-Peninsula/ Silicon Valley/ East Bay/ North Bay | East Bay | East Bay | San Jose |
| Chaffey College | Inland Empire | Inland Empire/ Desert | San Bernardino | Pomona |

| CCC | Region | Sub-Region | Closest CSU | Second Closest CSU |
|---|---|---|---|---|
| Citrus College | Los Angeles/ Orange County | Los Angeles | Pomona | Los Angeles |
| Coastline Community College | Los Angeles/ Orange County | Orange County | Long Beach | Fullerton |
| College of Marin | Santa Cruz & Monterey Bay/ Mid-Peninsula/ Silicon Valley/ East Bay/ North Bay | North Bay | San Francisco | Sonoma |
| College of the Desert | Inland Empire | Inland Empire/ Desert | San Bernardino | San Marcos |
| Columbia College | Central Valley/ Mother Lode | Mother Lode | Stanislaus | East Bay |
| Consumnes River College | Northern Coastal/ Northern Inland/ Greater Sacramento | Greater Sacramento | Sacramento | Sonoma |
| Contra Costa College | Santa Cruz & Monterey Bay/ Mid-Peninsula/ Silicon Valley/ East Bay/ North Bay | East Bay | San Francisco | East Bay |
| Copper Mountain College | Inland Empire | Inland Empire/ Desert | San Bernardino | Pomona |
| Crafton Hills College | Inland Empire | Inland Empire/ Desert | San Bernardino | Pomona |
| Cuesta College | South Central Coastal | South Central Coastal | San Luis Obispo | Monterey Bay |
| Cuyamaca College | San Diego/ Imperial | San Diego/ Imperial | San Diego | San Marcos |
| Cypress College | Los Angeles/ Orange County | Orange County | Long Beach | Fullerton |
| DeAnza College | Santa Cruz & Monterey Bay/ Mid-Peninsula/ Silicon Valley/ East Bay/ North Bay | Santa Cruz/ Monterey | San Jose | East Bay |
| Diablo Valley College | Santa Cruz & Monterey Bay/ Mid-Peninsula/ Silicon Valley/ East Bay/ North Bay | East Bay | East Bay | San Francisco |
| East Los Angeles College | Los Angeles/ Orange County | Los Angeles | Los Angeles | Dominguez Hills |
| El Camino College | Los Angeles/ Orange County | Los Angeles | Dominguez Hills | Long Beach |
| Evergreen College | Santa Cruz & Monterey Bay/ Mid-Peninsula/ Silicon Valley/ East Bay/ North Bay | Santa Cruz/ Monterey | San Jose | East Bay |
| Feather River College | Northern Coastal/ Northern Inland/ Greater Sacramento | Northern Inland | Chico | Sacramento |

| CCC | Region | Sub-Region | Closest CSU | Second Closest CSU |
|---|---|---|---|---|
| Folsom Lake College | Northern Coastal/ Northern Inland/ Greater Sacramento | Greater Sacramento | Sacramento | Chico |
| Foothill College | Santa Cruz & Monterey Bay/ Mid-Peninsula/ Silicon Valley/ East Bay/ North Bay | Santa Cruz/ Monterey | San Jose | East Bay |
| Fresno City College | Central Valley/ Mother Lode | Central Valley | Fresno | Stanislaus |
| Fullerton College | Los Angeles/ Orange County | Orange County | Fullerton | Long Beach |
| Gavilan College | Santa Cruz & Monterey Bay/ Mid-Peninsula/ Silicon Valley/ East Bay/ North Bay | Santa Cruz/ Monterey | San Jose | Monterey Bay |
| Glendale Community College | Los Angeles/ Orange County | Los Angeles | Los Angeles | Northridge |
| Golden West College | Los Angeles/ Orange County | Orange County | Long Beach | Fullerton |
| Grossmont College | San Diego/ Imperial | San Diego/ Imperial | San Diego | San Marcos |
| Hartnell College | Santa Cruz & Monterey Bay/ Mid-Peninsula/ Silicon Valley/ East Bay/ North Bay | Santa Cruz/ Monterey | Monterey Bay | San Jose |
| Imperial Valley College | San Diego/ Imperial | San Diego/ Imperial | San Diego | San Marcos |
| Irvine Valley College | Los Angeles/ Orange County | Orange County | Fullerton | Long Beach |
| LA City College | Los Angeles/ Orange County | Los Angeles | Los Angeles | Dominguez Hills |
| LA Harbor College | Los Angeles/ Orange County | Los Angeles | Dominguez Hills | Long Beach |
| LA Mission College | Los Angeles/ Orange County | Los Angeles | Northridge | Los Angeles |
| LA Pierce College | Los Angeles/ Orange County | Los Angeles | Northridge | Channel Islands |
| LA Southwest College | Los Angeles/ Orange County | Los Angeles | Dominguez Hills | Los Angeles |
| LA Trade-Tech College | Los Angeles/ Orange County | Los Angeles | Los Angeles | Dominguez Hills |
| LA Valley College | Los Angeles/ Orange County | Los Angeles | Northridge | Los Angeles |
| Lake Tahoe Community College | Northern Coastal/ Northern Inland/ Greater Sacramento | Greater Sacramento | Sacramento | Stanislaus |

| CCC | Region | Sub-Region | Closest CSU | Second Closest CSU |
|---|---|---|---|---|
| Laney College | Santa Cruz & Monterey Bay/ Mid-Peninsula/ Silicon Valley/ East Bay/ North Bay | East Bay | East Bay | San Francisco |
| Las Positas College | Santa Cruz & Monterey Bay/ Mid-Peninsula/ Silicon Valley/ East Bay/ North Bay | East Bay | East Bay | San Jose |
| Lassen College | Northern Coastal/ Northern Inland/ Greater Sacramento | Northern Inland | Chico | Sacramento |
| Long Beach City College | Los Angeles/ Orange County | Los Angeles | Long Beach | Dominguez Hills |
| Los Medanos College | Santa Cruz & Monterey Bay/ Mid-Peninsula/ Silicon Valley/ East Bay/ North Bay | East Bay | East Bay | San Francisco |
| Mendocino College | Northern Coastal/ Northern Inland/ Greater Sacramento | Northern Coastal | Sonoma | Chico |
| Merced College | Central Valley/ Mother Lode | Central Valley | Stanislaus | Fresno |
| Merritt College | Santa Cruz & Monterey Bay/ Mid-Peninsula/ Silicon Valley/ East Bay/ North Bay | East Bay | East Bay | San Francisco |
| Mira Costa College | San Diego/ Imperial | San Diego/ Imperial | San Marcos | San Diego |
| Mission College | Santa Cruz & Monterey Bay/ Mid-Peninsula/ Silicon Valley/ East Bay/ North Bay | Santa Cruz/ Monterey | San Jose | East Bay |
| Modesto Junior College | Central Valley/ Mother Lode | Central Valley | Stanislaus | East Bay |
| Monterey Peninsula College | Santa Cruz & Monterey Bay/ Mid-Peninsula/ Silicon Valley/ East Bay/ North Bay | Santa Cruz/ Monterey | Monterey Bay | San Jose |
| Moorpark College | South Central Coastal | South Central Coastal | Channel Islands | Northridge |
| Moreno Valley College | Inland Empire | Inland Empire/ Desert | San Bernardino | Pomona |
| Mt. San Antonio College | Los Angeles/ Orange County | Los Angeles | Pomona | Fullerton |
| Mt. San Jacinto College | Inland Empire | Inland Empire/ Desert | San Bernardino | San Marcos |
| Napa Valley College | Santa Cruz & Monterey Bay/ Mid-Peninsula/ Silicon Valley/ East Bay/ North Bay | North Bay | Sonoma | San Francisco |
| Norco College | Inland Empire | Inland Empire/ Desert | Pomona | Fullerton |

| CCC | Region | Sub-Region | Closest CSU | Second Closest CSU |
|---|---|---|---|---|
| Ohlone College | Santa Cruz & Monterey Bay/ Mid-Peninsula/ Silicon Valley/ East Bay/ North Bay | East Bay | East Bay | San Jose |
| Orange Coast College | Los Angeles/ Orange County | Orange County | Long Beach | Fullerton |
| Oxnard College | South Central Coastal | South Central Coastal | Channel Islands | Northridge |
| Palo Verde College | Inland Empire | Inland Empire/Desert | San Marcos | San Diego |
| Palomar College | San Diego/ Imperial | San Diego/Imperial | San Marcos | Fullerton |
| Pasadena City College | Los Angeles/ Orange County | Los Angeles | Los Angeles | Dominguez Hills |
| Porterville College | Central Valley/ Mother Lode | Central Valley | Bakersfield | Fresno |
| Redwoods, College of | Northern Coastal/ Northern Inland/ Greater Sacramento | Northern Coastal | Humboldt | Chico |
| Reedley College | Central Valley/ Mother Lode | Central Valley | Fresno | Bakersfield |
| Rio Honda College | Los Angeles/ Orange County | Los Angeles | Los Angeles | Fullerton |
| Riverside City College | Inland Empire | Inland Empire/ Desert | San Bernardino | Pomona |
| Sacramento City College | Northern Coastal/ Northern Inland/ Greater Sacramento | Greater Sacramento | Sacramento | Sonoma |
| Saddleback College | Los Angeles/ Orange County | Orange County | Fullerton | Long Beach |
| San Bernardino Valley College | Inland Empire | Inland Empire/ Desert | San Bernardino | Pomona |
| San Diego City College | San Diego/ Imperial | San Diego/ Imperial | San Diego | San Marcos |
| San Diego Mesa College | San Diego/ Imperial | San Diego/ Imperial | San Diego | San Marcos |
| San Diego Miramar College | San Diego/ Imperial | San Diego/ Imperial | San Diego | San Marcos |
| San Francisco, City College of | Santa Cruz & Monterey Bay/ Mid-Peninsula/ Silicon Valley/ East Bay/ North Bay | Mid-Peninsula | San Francisco | East Bay |
| San Joaquin Delta College | Central Valley/ Mother Lode | Central Valley | Stanislaus | Sacramento |
| San Jose City College | Santa Cruz & Monterey Bay/ Mid-Peninsula/ Silicon Valley/ East Bay/ North Bay | Santa Cruz/ Monterey | San Jose | East Bay |

| CCC | Region | Sub-Region | Closest CSU | Second Closest CSU |
|---|---|---|---|---|
| San Mateo, College of | Santa Cruz & Monterey Bay/ Mid-Peninsula/ Silicon Valley/ East Bay/ North Bay | Mid-Peninsula | San Francisco | East Bay |
| Santa Ana College | Los Angeles/ Orange County | Orange County | Fullerton | Long Beach |
| Santa Barbara City College | South Central Coastal | South Central Coastal | Channel Islands | Northridge |
| Santa Monica College | Los Angeles/ Orange County | Los Angeles | Los Angeles | Northridge |
| Santa Rosa Junior College | Santa Cruz & Monterey Bay/ Mid-Peninsula/ Silicon Valley/ East Bay/ North Bay | North Bay | Sonoma | San Francisco |
| Santiago Canyon College | Los Angeles/ Orange County | Orange County | Fullerton | Long Beach |
| Sequoias, College of the | Central Valley/ Mother Lode | Central Valley | Fresno | Bakersfield |
| Shasta College | Northern Coastal/ Northern Inland/ Greater Sacramento | Northern Inland | Chico | Humboldt |
| Sierra College | Northern Coastal/ Northern Inland/ Greater Sacramento | Greater Sacramento | Sacramento | Chico |
| Siskiyous, College of the | Northern Coastal/ Northern Inland/ Greater Sacramento | Northern Inland | Humboldt | Chico |
| Skyline College | Santa Cruz & Monterey Bay/ Mid-Peninsula/ Silicon Valley/ East Bay/ North Bay | Mid-Peninsula | San Francisco | East Bay |
| Solano Community College | Santa Cruz & Monterey Bay/ Mid-Peninsula/ Silicon Valley/ East Bay/ North Bay | North Bay | Sonoma | Sacramento |
| Southwestern College | San Diego/ Imperial | San Diego/ Imperial | San Diego | San Marcos |
| Taft College | Central Valley/ Mother Lode | Central Valley | Bakersfield | San Luis Obispo |
| Ventura College | South Central Coastal | South Central Coastal | Channel Islands | Northridge |
| Victor Valley College | Inland Empire | Inland Empire/ Desert | San Bernardino | Pomona |
| West Hills College, Coalinga | Central Valley/ Mother Lode | Central Valley | Fresno | San Luis Obispo |
| West Hills College, Lemoore | Central Valley/ Mother Lode | Central Valley | Fresno | Bakersfield |
| West Los Angeles College | Los Angeles/ Orange County | Los Angeles | Dominguez Hills | Los Angeles |

| CCC | Region | Sub-Region | Closest CSU | Second Closest CSU |
|---|---|---|---|---|
| West Valley College | Santa Cruz & Monterey Bay/ Mid-Peninsula/ Silicon Valley/ East Bay/ North Bay | Santa Cruz/ Monterey | San Jose | East Bay |
| Woodland Community College | Northern Coastal/ Northern Inland/ Greater Sacramento | Greater Sacramento | Sacramento | Sonoma |
| Yuba College | Northern Coastal/ Northern Inland/ Greater Sacramento | Greater Sacramento | Sacramento | Chico |

# Appendix C: Transfer Rates for AD-T and Associate's Degree Earners

## C1. Transfer Rate of Students Who Earned AD-Ts between 2010-2011 and 2014-15

| AD-T Completion Year | Transferred | | Did Not Transfer | | Total |
|---|---|---|---|---|---|
| | % | # | % | # | # |
| 2010-2011 | 100 | 3 | 0 | 0 | 3 |
| 2011-2012 | 88.5 | 618 | 11.5 | 80 | 698 |
| 2012-2013 | 86.8 | 3,735 | 13.2 | 568 | 4,303 |
| 2013-2014 | 84.1 | 7,650 | 15.9 | 1,446 | 9,096 |
| 2014-2015 | 75.1 | 11,786 | 24.9 | 3,914 | 15,700 |
| Total | 79.8 | 23,792 | 20.1 | 6,008 | 29,800 |

## C2. Transfer Rate of Students Who Earned AA/AS Degrees between 2010-2011 and 2014-15

| AA/AS Completion Year | Transferred | | Did Not Transfer | | Total |
|---|---|---|---|---|---|
| | % | # | % | # | # |
| 2010-2011 | 50.3 | 22,445 | 49.7 | 22,173 | 44,618 |
| 2011-2012 | 54.3 | 27,741 | 45.7 | 23,392 | 51,133 |
| 2012-2013 | 53.3 | 26,798 | 46.7 | 23,521 | 50,319 |
| 2013-2014 | 49.6 | 24,511 | 50.4 | 24,868 | 49,379 |
| 2014-2015 | 40.6 | 18,727 | 59.4 | 27,390 | 46,117 |
| Total | 49.8 | 120,222 | 50.2 | 121,344 | 241,566 |

# Appendix D: Study Sample Data File Preparation

This appendix provides a review of steps taken in preparing the data file utilized to examine students across the transfer continuum: transfer explorers, momentum students, students near the gate, students at the gate, and transfer achievers.

The first section of this appendix provides a table of variable names, description, and associated California Community College Chancellor's Office (CCCCO) Management Information System (MIS) data element from which the data file was prepared. The second section of this appendix provides a table displaying indicator variables that were used to create from the variables amassed during the data file preparation. Each of the indicator variables assigned students into one of the groups along the transfer continuum.

## File Preparation

We prepared our data file including six years of student records with the following variables:

| Variable Name | Description | CCCCO MIS Data Element(s) |
|---|---|---|
| Student ID | This element uniquely identifies a student for all terms and at all colleges. | SB00 |
| Gender | This element indicates whether the student is female or male. | SB04 |
| Race/Ethnicity | This element indicates a student's primary race/ethnicity | STD10 |
| Age | This element indicates the student's age for the term recorded in Term-Identifier (GI03). | STD01 |
| GPA | This element indicates the cumulative number of total grade points earned from degree applicable units by the student at the reporting college as reflected on the student's transcript. This is the student's cumulative total over as many terms as the student has been in attendance at the reporting college, including the current term being reported. | SB20 |

| Variable Name | Description | CCCCO MIS Data Element(s) |
|---|---|---|
| Transferable Units Earned | This element indicates the cumulative total of earned degree applicable units at the reporting college. This is the student's cumulative total over as many terms as the student has been in attendance at the reporting college | SB16 (IF)<br><br>CB05 = 'A' or 'B' (AND)<br><br>SX04 = 'A' (OR) 'A+' (OR)<br>'A-' (OR) 'B' (OR) 'B+' (OR)<br>'B-' (OR) 'C ' (OR) 'C+' (OR)<br>'P ' |
| Term ID | This data element identifies a term within an academic year as well as the academic year itself. | GI03 |
| Award | This element indicates the type of degree or certificate the student has earned. | SP02 |
| Course ID | This data element is the identifier of the course as reflected in the college's current catalog of courses. | CB01 |
| Course TOP Code | The Taxonomy of Programs (TOP) code should be assigned which best indicates the subject matter of the course. | CB03 |
| Course Transfer Status | This element indicates whether or not the course is transferable to the University of California (UC) and/or to the California State University (CSU) systems on the basis of articulation agreements. | CB05 |
| Grade | This element indicates the grade or other outcome a student earned for a particular section. | SX04 |
| Course Transfer Level | This element indicates course level status for English, writing, ESL, reading and mathematics courses. | CB21 |

| Variable Name | Description | CCCCO MIS Data Element(s) |
|---|---|---|
| Successful Completion of Transfer-level English | This element indicates whether or not a student completed a transfer-level English course | Generate English = 1 (IF)<br><br>CB05 = 'A' or 'B' (AND)<br><br>CB21 = 'Y' (AND)<br><br>CB03 = '150100' (AND)<br>'152000' (AND)<br><br>SX04 = 'A' (OR) 'A+' (OR)<br>'A-' (OR) 'B' (OR) 'B+' (OR)<br>'B-' (OR) 'C ' (OR) 'C+' (OR)<br>'P ' |
| Successful Completion of Transfer-level Math | This element indicates whether or not a student completed a transfer-level math course | Generate Math = 1 (IF)<br><br>CB05 = 'A' or 'B' (AND)<br><br>CB21 = 'Y' (AND)<br><br>CB03 = ''170100' (AND)<br><br>SX04 = 'A' (OR) 'A+' (OR)<br>'A-' (OR) 'B' (OR) 'B+' (OR)<br>'B-' (OR) 'C ' (OR) 'C+' (OR)<br>'P ' |

| Variable Name | Description | CCCCO MIS Data Element(s) |
|---|---|---|
| AD-T Completion | This element indicates whether or not a student completed an Associate of Arts for Transfer or an Associate of Science for Transfer | Generate ADT = 1<br><br>*This data element was provided by the CCCCO, though any other data source indicating whether or not a student earned an AD-T could be used. |
| Transfer Status | This element identifies the date on which a student transferred to/from a college. | Generate Transfer = 1<br><br>*This data element was provided by the CCCCO, though the National Student Clearinghouse or any other data source indicating when a student transferred could be used. |

# Generating Student Groups

Once the data file was compiled, we generated the indicator variables for whether or not a student fit into one of the high-leverage transfer groups we identified in this study. Looking at the table below, we assigned a value of 1 for each grouping variable if the condition in the last column (on the same row) was met. We identified students based on their highest level of achievement. The indicators of each student's transfer status are therefore hierarchical, with transfer achievers at the top of the hierarchy and transfer explorers at the bottom. If a student placed into more than one group by the generated indicator variables, we assigned such students into the group highest in the group hierarchy.

| Group | Group Description | Generate ... | If... |
|---|---|---|---|
| Transfer Achievers | Transfer Achievers are students who have transferred to a university | Transfer Achievers = 1 | Transfer = 1 |
| At the Gate Students | At the Gate Students are students who have earned an AD-T or have earned at least 60 transferable units, a GPA greater than or equal to 2.0, and who have successfully completed transfer-level English, and successfully completed transfer-level math. | At the Gate Students = 1 | ADT = 1<br><br>(OR)<br><br>Transferable units earned >= 60<br><br>(AND)<br><br>SB20 >= 2.0<br><br>(AND)<br><br>Successful completion of transfer-level English = 1<br><br>(AND)<br><br>Successful completion of transfer-level math = 1 |

| Group | Group Description | Generate … | If… |
|---|---|---|---|
| Near the Gate Students | Near the Gate Students are students who have earned at least 60 transferable units and a GPA greater than or equal to 2.0 | Near the Gate Students = 1 | Transferable units earned >= 60<br><br>(AND)<br><br>SB20 >= 2.0 |
| Momentum Students | Momentum Students are students who have earned at least 45 transferable, but fewer than 60 transferable units, and a GPA greater than or equal to 2.0 | Momentum Students = 1 | Transferable units earned >= 45<br><br>(AND)<br><br>Transferable units earned < 60<br><br>(AND)<br><br>SB20 >= 2.0 |
| Transfer Explorers | Transfer Explorers are students who have earned at least 12 transferable units, but fewer than 45 transferable units | Transfer Explorers = 1 | Transferable units earned >= 12<br><br>(AND)<br><br>Transferable units earned < 45 |

# The Research and Planning Group for California Community Colleges

The RP Group strengthens the ability of California Community Colleges to discover and undertake high-quality research, planning, and assessments that improve evidence-based decision-making, institutional effectiveness, and success for all students.

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